Annex 5: Working Group Member List

Working Groups

Wo	rking Group (WG)	Sub-WG	Member
		Risk Assessment Guideline	D.Serjmyadag Law Enforcement University of Mongolia P.Amarzaya Disaster Research Institute, NEMA D.Bazarragchaa Disaster Risk Management Department, NEMA B.Batbayar Disaster Risk Management Department, NEMA
WG1	Disaster Management Plan WG1 Coordinator: D.Bazarragchaa Disaster Risk	Disaster Management Planning Guideline, Preparedness Planning Guideline and Risk Management Guideline	B.Bayanmunkh Policy Coordination and Cooperation Department, NEMA B.Myagmardorj Disaster Operation Department, NEMA Ch.Otgontugs Fire Department, NEMA E.Batbayar EMDC A.Dashnyam (new member) EMDC
	Management Department, NEMA	Database Guideline	B.Purevnyam Public Announcement and Emergency Administration Center, NEMA D.Badamsuren Disaster Research Institute, NEMA D.Sodnomragchaa Disaster Research Institute, NEMA B.Boldkhuu Public Announcement and Emergency Administration Center, NEMA
		Agreements & White papers	E.Altankhishig Policy Coordination And Cooperation Department, NEMA B.Duvshin Disaster Risk Management Department, NEMA
WG2	Seismic Resistance WG2 Coordinators: D.Zanabazar MCUD Z.Battulga Disaster Operation Department, NEMA	Seismic Diagnosis of Buildings	D.Zanabazar MCUD Z.Battulga Disaster Operation Department, NEMA Sh.Uranchimeg General Agency for Specialized Inspection N.Ganchimeg (new member) General Agency for Specialized Inspection B.Tsend-Ayush Master Planning Agency of Capital City, Construction Quality and Safety Department G.Saruultuya Construction Development Center G.Erkhembayar MCUD B.Gantulga Land Management, Geodesy and Cartography Agency, MCUD Ts.Khulan (new member) Master Planning Agency of Capital City, Construction
	Min	Seismic Diagnosis of Infrastructures and Lifelines	D.Zanabazar MCUD Z.Battulga Disaster Operation Department, NEMA Sh.Uranchimeg General Agency for Specialized Inspection

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Wo	rking Group (WG)	Sub-WG	Member
			N.Ganchimeg (new member) General Agency for Specialized Inspection B.Munkhsaikhan General Agency for Specialized Inspection T.Galbadrakh Finance and Logistics Department, NEMA B.Gantulga Land Management, Geodesy and Cartography Agency, MCUD
		Design for Seismic Strengthening	D.Zanabazar MCUD Z.Battulga Disaster Operation Department, NEMA B.Tsend-Ayush Master Planning Agency of Capital City, Construction Quality and Safety Department G.Saruultuya Construction Development Center G.Erkhembayar MCUD Ts.Khulan (new member) Master Planning Agency of Capital City, Construction
WG3	DRR Education WG3 Coordinator: D.Munkhbat Disaster Prevention Department, NEMA	School DRR Education	J.Myagmar MECSS Ch.Gantsetseg MECSS P.Baljinnyam MECSS G.Mongolkhatan Education Research Institute, MECSS B.Erdenechimeg Education Research Institute, MECSS A.Enkhtogtokh Education Research Institute, MECSS G.Khaliun (new member) Education Research Institute, MECSS Munkhbayar (new member) ITPD D.Munkhbat Disaster Prevention Department, NEMA O.Tsend-Ayush Disaster Prevention Department, NEMA
	Department, NEMA	Community DRR Education	D.Munkhbat Disaster Prevention Department, NEMA D.Bat-Erdene Disaster Prevention Department, NEMA B.Uuriingegee EMDC B.Chinbat (new member) EMDC D.Dulamsuren Public Information Center, Disaster Prevention Department, NEMA S.Amgalan Administrative Management Department, NEMA M.Amartungalag MECSS

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Annex 6: O&M Plans

Operation and maintenance plan of procuring earthquake experience equipment for disaster prevention awareness of "DRR Training Center"

2017.06.29 NEMA

1. Introduction

This plan includes an introduction, operation and maintenance guide of procuring earthquake experience equipment within "The Project for Strengthening the National Capacity of Earthquake Disaster Protection and Prevention" in Mongolia" in "DRR Training Center"(temporary name) (hereinafter referred to as "Center").

2. The Roles and Importance of the Training Program and Equipment

1. Training program

Background

The current training program was approved through decree A/67 of the NEMA on October 2016 in connection with the opening of the DRR training center and during the implementation of the training, the need emerged to further refine the training program. The project to refine the training program was developed as a result of the discussion between Working Group 3.2 and training center instructors.

Contents of the training program

The training center's comprehensive DRR knowledge and practice program, as well as the training hall activities are included in the training program.

The comprehensive DRR knowledge and practice program aims to provide a sensory experience of potential disasters and instill the mindset for taking appropriate protection and prevention measures, and is composed of the following sections:

- · Background,
- · Objectives,
- Goals of the activities held in the training halls such as the movie theater, earthquake experience room, and the smoky environment experience room.
- The training program includes the training agendas for each classification of trainees that details the activities and exercises along with the time allotted to each of them.

Since there are not many occurrences in Mongolia of earthquakes that can be noticably felt, the earthquake experience equipment included in the comprehensive DRR knowledge and practice training program is significant in that it provides the opportunity to feel the tremors of a large earthquake in order to gain an understanding of earthquakes, learn to protect oneself and others in the event of an earthquake, learn about mitigating damages, as well as other appropriate measures to take.

Please refer to the section titled "Project on Refining the Comprehensive DRR Knowledge and Practice Training Program" in Appendix 1 for the detailed contents of the comprehensive training program, and to Appendix 2 for the DRR training agenda. The comprehensive training program (hereinafter referred to as "proposal to refine the program") is planned to be approved through a decree issued by the head of the NEMA.

2. Operating conditions

The conditions for operating the training equipment were calculated according to a daily capacity of 300 people for 200 days per year (4 days per year).

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Installation place

We assumed to use one room in basement in the training center as an earthquake experience room (internal space 6.16 m × 5.93 m, ceiling height 3400 mm, with beam exit) (see floor plan). Also, it is supposed to be a replacement room slightly wider than the current earthquake experience room (current rescue equipment storage room).



Basement Floor Plan







Front view of Center

Installation room

Current condition of installation room

(Temporarily installed shaking table)

4. Organizing conditions related to equipment procuring

1) Carrying in route

As for carrying equipment, it can be carried in from the garage of DRR training center. In addition, the walls of the earthquake experience room are a brick structure (non-earthquake resistant walls), and it is necessary to temporarily remove it at the time of carrying the equipment.

2) Matters regarding installation

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After installed, the equipment will be fastened into the floor by using a post-installed anchor, and the Mongolian side will install it as needed. Also, since it is necessary to set up a foundation with a certain weight under the equipment to manage vibration, it is necessary to remove the existing concrete slab and to provide a foundation with sufficient strength and weight according to the situation of the procuring equipment.

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Consideration related to procurement of equipment

1) Propriety of earthquake experience room

Based on the general specifications of earthquake experience equipment, confirm the validity of the existing earthquake experience room. Specific confirmation items are as follows.

Indoor dimension

Width (from wall to wall) 5400 + 350 * 2 = 6100

Depth (from wall to wall) 5900

Ceiling height (from the lower end of the upper floor to the upper end of the relevant floor slab) 3450

Ceiling height 3400

Based on this, a layout diagram of the experience device is created.

Floor slab strength

The current floor is dirt floor concrete. Since details of the floor are unknown, it is desirable to re-do the floor. In that case, chipping the existing floor, compacting of soil's, and placing dirt floor concrete (t = 300, the upper end muscle lower end muscle D16 - @ 200, cutting the edges so that vibration is not transmitted to the surroundings).

2) Consideration of earthquake experience equipment

Consider the assumed equipment composition.

(1) Vibration exciter

In order to do vibrations, the main device that generates the vibration basically split (divides) the vibration into several parts in a three-dimensional flow and gives the movement in two directions in the direction of the piston in each direction. The shaking table maker company expresses the number of divisions of the vibration motion by the cylinder axis of this piston and displays it as two axes (two directions) and six axes (division in six directions). Since it is said that six axes can sufficiently represent any earthquake, we intend to introduce a 6-axis shaking table. The cylinder is driven by a servo motor that is easy to maintain.

(2) Experience stage

From the viewpoint of safety fix the floorboards and handrails of experiencing person free space as a robust steel framework which is installed on the vibration exciter. The handrail can withstand the acceleration at the time of reproducing the earthquake motion with a margin. The furniture is a chair, table, and receives earthquake motions frequently, so it shall have appropriate strength.

(3) Operating equipment

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Considering the operation environment, the operation device is an operation console type, a touch panel type PC is embedded, and a key switch and an emergency stop switch are also embedded.

(4) Visual system

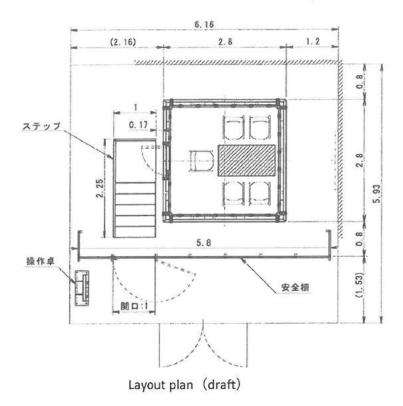
We set up display and narration on experience program reflecting the situation at the time of earthquake to feet more real things.

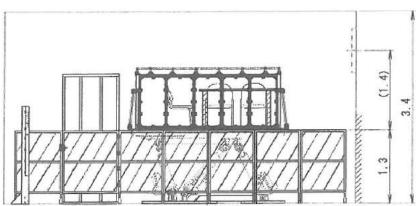
(5) Other

Establish installation of safety fence, steps, etc around the shaking table.

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Layout elevation view · Outside side of safety fence (draft)

6. Summary of equipment procurement

1) Division of work related to equipment introduction

	Mongolian side	Japanese side	Remarks
Procurement preparation			
Survey / /	Discussion of introduction	Introduction survey	This survey
Request // //	Create O & M letter		
Procurement decision		Content of procurement, decision of whether or not	
rocurement			
1. Agvance preparation	(1)Renovation of installed		

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	slabs ② Installation of anchors ② Installation of switchboard		
2. Transportation of equipment	①Receiving, transportation (including customs)		
3. Installation	implementation of the carry-in Installation and adjustment assistance	① Installation and adjustment	It is assumed that according to installation date Japanese manufacturer will come in Mongolia
4. Control · Maintenance	① O & M ②implementation of regular maintenance	Field training for staff in charge	Conducting training for the training center staff by the manufacturer company specialist after installation

2) Equipment introduction assumption procedure

10/	de Harre						2	2017							2018	3
VVOI	rk item	1	2	3	4	5	6	7	8	9 10 11	12	1	2			
	Assume	d so	chec	lule	of J	apa	nes	e si	de							
Revie	ew by the project team															
1	Consideration of equipment and installation method															
	nese side procurement edure					4										
2	Review of equipment content															
3	Procurement															Г
4	Equipment production, adjustment (Maker)															
5	Unloading / sending															Г
	Assume	d sc	hed	ule	of N	long	olia	n si	de		223	i Pays				
Mong	polian side acceptance procedure															
6	Create O & M letter															
7	Advance preparation					\neg							пвв			Г
8	Carry in / installation															
9	Operation training															
	Operation								- 11							

3) Check items of Mongolian side regarding to introduce equipment

(1) Advance preparation

- Improvement of installed slab

Make the foundation of the building of the earthquake experience equipment as the reinforced foundation concrete structure that can withstand the vibration of the equipment.

- Installation of anchors/

Establish an engrecorresponding to the specifications of earthquake experience equipment.

- Installation of distribution board

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Establish a distribution board corresponding to the specifications of earthquake experience equipment.

(2) Equipment transport

- Tax exemption procedure

If JICA side will submit the necessary documents for the customs duty free procedure Mongolian side will take responsibility of tax exemption procedure.

- Receiving and transporting at customs

We will carry it from the check post of Mongolian Customs to the training center.

(3) Installation

- Input, installation

Assemble and install in cooperation with the person in charge of earthquake experience equipment maker.

(4) Control Maintenance

- Control and maintenance system

The person in charge of earthquake experience equipment in training center will control and manage it follow by center program.

- Measure relating on budget

NEMA will take responsibility of maintenance cost for earthquake experience equipment.

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Appendix 1

TRAINING PROGRAM ORGANIZED BY THE ULAANBAATAR CITIZENS' DISASTER RISK REDUCTION (DRR) TRAINING CENTER TO PROVIDE KNOWLEDGE AND PRACTICE RELATED TO DISASTER RISK REDUCTION FOR PRESCHOOLERS, SECONDARY SCHOOL STUDENTS AND CITIZENS.

Legal basis:

According to primary objective 1 (Understanding disaster risk) of the Sendai Framework for Disaster Risk Reduction to be implemented worldwide between 2015-2030, there is a need to develop a national strategy to improve public knowledge, education and understanding of DRR through the following means: (I) incorporating disaster risk knowledge that includes activities related to disaster prevention, risk reduction, ensuring preparedness, mitigating damages, disaster restoration and recovery into official and unofficial disaster education programs, the disaster education of citizens at all levels, and professional training programs; (m) organizing a campaign that addresses the needs and specificities of the public, and raising awareness through media outlets.

In line with this global framework, Article 13 of the Mongolian Disaster Law (amended version) passed in 2017 states that citizens shall be provided with disaster protection education through training programs and public awareness activities that shall be conducted in a systematic manner according to a specially planned program, and that these disaster protection training programs and public awareness activities shall be directed at improving the knowledge and expertise of state and regional administrative institutions, employees and officials of legal entities, and private citizens.

In this regard, the Ulaanbaatar Citizens' DRR Training Center was established in October 2016 with the purpose of providing disaster protection education and awareness to preschoolers, secondary school students, and private citizens.

Needs and requirements: Nowadays, technological advance has introduced faster, autonomous, more comprehensive and more responsive disaster management tools; and therefore officials are required to have a higher level of knowledge and expertise in order to be able to effectively provide citizens with elementary training and education for protecting themselves, and others in the event of a disaster.

As such, in order to conduct DRR training directed at citizens, the successful acquisition of technical knowledge and expertise of newly developed technologies is required.

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Objective:

The objective of the training program is to develop an effective sense-oriented approach to disaster protection education aimed at pre-schoolers, secondary school students and citizens based on their classification. The training program will provide them with knowledge on the disaster risks facing Mongolia and their potentially devastating impact through "seeing", "hearing", "touching" and "feeling" sensory inputs; teach them correct habits for safe living; and train them in elementary procedures for rescuing themselves and others in the event of a disaster.

Types of Disaster Protection Training Halls, and their Arrangement:

1. 3D Movie Theater

Trainees will, according to their age, be shown specially prepared documentary films that aim to provide visual disaster protection education using legally defined terms such as disaster, emergency, accident, disaster risk, hazards, vulnerability, disaster protection activities, disaster risk reduction activities, disaster announcement, search and rescue activities, disaster point of origin, victims, disaster relief efforts, disaster aftermath, damage reduction, immediate restoration activities, disaster response force, volunteer team etc.

2. Smoky Environment Training Hall

A specially designed hall in which to conduct training on formulating escape plans in smoky environments caused by fire, crouching or crawling through smoky exits, covering respiratory organs such as the mouth and nose with a wet cloth, and safely navigating through areas with the guidance of escape signs. Trainees will also improve their knowledge on the dangers that arise from smoke and reduced visibility, as well as learn to make decisions calmly.

3. Fire Hazard Prevention Training Hall

Trainees will learn about the different causes of fires (natural and man-made causes), factors that cause fires, the fire triangle, and fire fighting equipment. Trainees will then participate in a virtual training program to learn how to correctly select and use fire extinguishers, and will then practice extinguishing an on-screen fire. Trainees will also learn to: contact the emergency numbers 101 and 105 without delay in the event of a fire, extinguish fires with the material at hand, and request assistance from neighbors.

4. Infant Safety Training Hall

Trainees will obtain knowledge on hazards and accidents and learn to execute methods on preventing risks and protecting themselves from danger.

5. First Aid Medical Training Hall

Trainees will, with the help of educational equipment, learn how to administer first-aid medical assistance to people affected by water-related accidents or who are unconscious through cardiopulmonary resuscitation (CPR), haemostasis, splinting broken limbs, and taking rescue measures in the event of gagging and seizures. Trainees will also learn to call an ambulative through the number 103, provide elementary medical assistance, and request help from people nearby.

6. Earthquake Experience Hall

Trainees will sit on the earthquake platform and experience the tremors of a strong earthquake in order to better understand that during an earthquake people are overtaken

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by panic, lose control of their movements, and face the risk of falling objects and buildings. Trainees will learn methods to protect themselves and others in the event of an earthquake. Furthermore, trainees will learn how to prevent secondary risks, mitigate damages, learn about what to focus on in order to not further increase damages, and learn to take risk prevention measures in normal situations such as fastening the necessary objects and furniture, and freeing up emergency exits.

7. Rescue from Height Training Hall

Trainees will learn about the risks related to falling from heights and rescue strategies through indoor climbing exercises, rope tying methods, and elementary safety precautions.

Principles to Follow in Implementing the Training:

- The training shall be based on the vision, mission and stategic goals of the National Emergency Management Agency;
- Trainees shall be informed of disaster management legislation, its changes, and the requirements placed on society;
 - 3. The training shall be based on student-teacher cooperation, active participation, initiative, and productivity;
 - 4. Maintaining trainees' faith in the program and their desire to learn;

Participants to the Training: Officials from institutions in charge of emergency situations, preschoolers, secondary school students, and citizens.

Results to be Reached: Improving the disaster protection knowledge of citizens, who will obtain the elementary skills to protect themselves and others in the event of a disaster.

Duration: Regular intervals of 4 weekdays.

Implementation Method: Hands-on training using technical equipment shall be carried out in two-hour sessions.

Goals:

- 1. Preschoolers
- Begin to learn self-protection practices and gain an understanding of hazards and accidents with the help of caretakers;
 - 2. Secondary School Students
- Understanding potential hazards and their prevention, developing preparedness and responsiveness to emergencies, acquisition of skills to protect themselves and others, learning to provide first-aid assistance, volunteering, learning to be adaptable, adopting habits that promote safe living, becoming an active citizen;

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3. Citizens

 Understanding potential hazards and their prevention, acquisition of skills to protect themselves and others, developing the preparedness of themselves and their households for emergencies, taking responsive action to reduce risk, learning to provide first-aid assistance, volunteering in regional disaster protection activities, providing support;

The training program has been planned in the following manner for the three classifications mentioned above.

One. Training Program to Provide Preschoolers with DRR Knowledge and Practice

Nº	Exercise Topic	Total Time (minutes)	
1	3D Movie Theater (providing elementary information and conceptualization of disasters)	15	
2	Forming an idea of smoke emergencies and learning to escape from smoky environments	20	
3 Forming an idea of fire emergencies and beginning to learn self- protection methods			
Forming an idea of hazards and accidents, beginning to learn self- protection methods, and learning how to safely evacuate their school buildings and homes.			
5	Learning about the dangers of earthquakes, self-protection methods, and getting to safety with the guidance of adults.	20	
	Total (time)	1 h 35 m	

Expected Results of the Training Program to Provide Preschoolers with DRR Knowledge and Practice

Topic	Contents	Expectations from Trainees
3D Movie Theater (providing basic information and conceptualization on disasters)	"Mazaalai" animated film (earthquakes, floods, thunder and lightning, building fires, wildfires, epidemics, strong winds, droughts).	Forming a concept of disasters and accidents, and telling their friends and family about it.
Experienceing and Escaping from Smoky Evironments	Conceptualizing smoke emergencies, quickly escaping from smoky environments, providing assistance, covering their mouths and noses with wet cloth, lying on the ground or crawling due to low visibility, learning how to crouch and calmly search for an exit.	Safely evacuating homes and school buildings in the event of a smoke. Gathering at the spot designated by the teacher.

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	Gaining an understanding about	Not playing with matches and
Fire Hazards, Electrical Appliances and Household Accidents	the causes of fire and taking precautions. Electrical appliances that cause fires or can potentially cause fires. (matches, candles, lighters, irons, water boilers, fire pans, stoves, ovens, electric cables, power sockets etc.) Quickly getting to safety and requesting assistance in the event of a fire.	lighters, and advising their friends about the dangers of fire. Staying away from electrical appliances and not touching or handling them. Playing away from hot stoves and ovens.
Maintaining Infant Safety (Exit)	Forming a concept of hazards and accidents, learning methods to protect themselves from accidents, and safely evacuating their homes, schools, and surroundings in the event of an accident.	Safely evacuating their homes and schools when necessary. Gathering at the spot designated by the teacher.
Earthquake Hazards, and Self-Protection	Learning about earthquake hazards (destruction of buildings, falling objects, understanding that earthquakes can happen anywhere at anytime). Experiencing earthquake tremors, learning about the actions to take in the event of earthquakes in order to protect themselves (SIT, HIDE, WAIT) Evacuating the building as soon as the first tremor stops. (NO RUNNING, NO PUSHING, NO TALKING, NO TURNING BACK) Moving to a safe location.	Protecting themselves from falling objects by hiding under strong tables when earthquake tremors occur. Keeping calm and evacuating the building in an orderly manned while refraining from pushing each other, turning back, shouting and clamoring. Protecting their heads with a hard object (bag, book, pillow etc.) from falling objects when evacuating the building. They will have determined a safe location to meet their parents and teachers in an open space outside their homes and schools.

Two. Training Program to Provide Secondary School Students with DRR Knowledge and Practice

Nº	Topic	Junior Grades	Middle Grades	Senior Grades
1	3D Movie Theater (providing elementary knowledge on disasters).	20	20	20
2	Gaining an idea of smoke emergencies, and escaping smoky environments.	20	20	20
3	Galning an idea of fire emergencies, and beginning to learn self-protection methods.	20	20	20

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4	Forming a concept of hazards and accidents, beginning to learn methods of self-protection, and learning how to safely evacuate their homes and schools in the event of an accident.	20	-	-
5	Providing first-aid medical assistance.	-	20	20
6	Learning about the dangers of earthquakes, self-protection methods, and getting to safety with the guidance of adults.	20	20	20
7	Learning to protect themselves from fall from heights with ropes, indoor climbing activities.	-	-	20
4(6)	Total (hours, minutes)	1.40	1.40	2

One. Training Plan by Topic to Provide Secondary School Students with DRR Knowledge and Practice

Junior Grades 1 hour 20 minutes

Topic	Contents	Allotted Time (minutes)	Total Time (minutes)
3D Movie Theater (providing elementary knowledge on disasters)	"Mazaalai" animated film (earthquakes, floods, thunder and lightning, building fires, wildfires, epidemics, strong winds, droughts). As well as risk prevention practices against floods such as chest compression and artificial respiration, methods to prevent the spread of infectious diseases to humans and animals, and video demonstrations of these methods.	20	
Fire Hazards, Escaping Smoky Environments	- What is the fire triangle? - Learning to contact the emergency numbers 101 and 105 without delay in the event of a fire, and requesting assistance from neighbors; - Warnings against leaving small children unattended and locking their exits from outside; - Information on the risks posed by candles, matches, damaged electrical appliances, mobile phones, chargers and earphones, and advice against their prolonged usage in case of an emergency; - Advice against incorrect, arbitrary treatment of purns (soap, sugar), and examples of the risks such treatments pose; - About Smoke: Discussion on the gradual spreading of smoke at the beginning of a fire;	20	80

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	 Information and exercises on how to bring oneself and others to safety from a smoky environment; Information on covering the mouth and nose in a smoky environment, lying on the ground and crawling due to low visibility, and calmly locating the exit to crouch out into safety; Strengthening the new knowledge gained, and dividing the trainees into groups of two in the training hall for an on-screen virtual fire extinguishing practice session, 		
Household Electrical Appliances, and Reducing the Risk of Fire	 Providing advice on not using damaged electronic appliances, and encouraging the habit of disconnecting phone chargers and other electronic appliances from their sockets; Providing knowledge and practice on not touching stoves, electrical sockets, water boilers and refrigerators with wet hands, and not using water on burning electronic devices. 	20	
Earthquake Hazards, Self- Protection	 Understanding earthquake hazards (destruction of buildings, falling objects, closing of roads, understanding that earthquakes can happen anywhere at anytime, thinking about precautionary measures); Experiencing earthquake tremors, learning about the actions to take in the event of earthquakes in order to protect oneself, and requesting assistance (SIT, HIDE, WAIT); Evacuating the building as soon as the first tremor stops. (NO RUNNING, NO PUSHING, NO TALKING, NO TURNING BACK); Moving to a safe location; Determining a safe location to meet their parents and teachers in an open space outside their homes and schools; Knowing about the items that could potentially pose a threat at home and at school, and knowing the locations of safe spots. 	20	
	Total (hours, minutes)		1.40

Middle Grades 1 hour 40 minutes

Topic	Contents	Allotted Time (minutes)	Total Time (minutes)
3D Movie Theater (providing elementary knowledge on disasters)	Documentary on earthquake disasters and their devastating effects — conditions of earthquake disasters, their duration, and damage evaluation. Video lesson on risk prevention practices against floods such as chest compression and artificial respiration. Video lesson on forest fire prevention and the measures to take in the event of burns.	20	

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	Table 1		
	Video lesson on preventing the spread of infectious diseases to humans and animals, and		400
and the second	the measures to take.		100
Fire Hazards, Escaping Smoky Environments	 What causes fires? What is the fire triangle? Learning to contact the emergency numbers 101 and 105 without delay in the event of a fire, and requesting assistance from neighbors; Advice on not starting open fires on school trips unless it is necessary and in case fires are started, extinguishing them properly; Learning about the factors that cause intentional and unintentional fires; Advice on not smoking in forbidden areas and thoroughly extinguishing cigarettes; About smoke: discussion on the different types of smoke and their harmful effects; Information and exercises on how to bring oneself and others to safety from a smoky environment; Information on covering the mouth and nose in a smoky environment, lying on the ground and crawling due to low visibility, and calmly locating the exit to crouch out into safety; Information on escape exit signs, and providing examples; Strengthening the new knowledge gained, and dividing the trainees into groups of two in the training hall for an on-screen virtual fire extinguishing practice session. 	20	minutes
Household Electrical Appliances, and Reducing the Risk of Fire	 Advice on not using damaged electrical appliances, ensuring their proper functioning, promoting the habit of disconnecting phone chargers and other electrical appliances from their sockets, and discussing examples with trainees; Providing knowledge and practice on not touching stoves, electrical sockets, water boilers and refrigerators with wet hands, and not using water on burning electronic devices, Warning against the use of gas for household purposes, and in the case of its use, providing advice on ensuring full safety, Placing fire extinguishers at home, the office and the car, and exercises to practice using fire extinguishers. 	20	
Earthquake Hazards, Self- Protection and the Protection of Others	Caining an understanding of earthquake hazards; Information on earthquakes that have occurred in Mongolia; - Learning about the methods to ensure preparedness for earthquake disasters, and methods to rescue and protect oneself and	20	

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	others; - Experiencing earthquake tremors, learning about the actions to take in the event of earthquakes in order to protect oneself, and requesting assistance (SIT, HIDE, WAIT); - Evacuating the building as soon as the first tremor stops. (NO RUNNING, NO PUSHING, NO TALKING, NO TURNING BACK); - Moving to a safe location; - The purpose and importance of earthquake escape drills; - Understanding the importance of household disaster planning; - Knowing about the items that could potentially cause pose a threat at home and at school, knowing the locations of safe spots, using the materials at hand to provide first-aid medical assistance, and learning to make paper cups.		
Providing First-Aid Medical Assistance	- Learning how to administer first-aid medical assistance to people affected by water-related accidents or who are unconscious through cardiopulmonary resuscitation (CPR), haemostasis, splinting broken limbs, and taking rescue measures in the event of gagging and seizures, with the help of training equipment; - Calling an ambulance through 103; - Providing first-aid medical assistance, requesting help from people nearby.	20	
	Total (hours, minutes)		1.40

Senior Grades 2 hours

Topic	Contents	Allotted Time (minutes)	Total Time
3D Movie Theater (providing elementary knowledge on disasters)	Theater (providing elementary nowledge on the compression on risk prevention practices against floods such as chest compression and artificial respiration. Video lesson on risk prevention practices against floods such as chest compression and artificial respiration. Video lesson on risk prevention practices against floods such as chest compression and artificial respiration.		(minutes) 120 minutes
Fire Hazards, Escaping Smoky Environments	- What causes fires? - What is the fire triangle? - Escaping		

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unless it is necessary and in case fires are started, extinguishing them properly; - Learning about the factors that cause intentional and unintentional fires (not igniting dry, year-old grass and disposing of them safely) - Advice on not smoking in forbidden areas and thoroughly extinguishing cigarettes; - Warnings related to burns, smoke inhalation, and death from fires, and providing advice for ensuring fire safety; - Advice on using materials at hand (fire extinguisher, thick wet cloth, dust and sand etc.) to extinguish fires, and practicing using a fire extinguisher to quickly put out fires as they start; Discussion on different types extinguishers and their composition; - About Smoke: Discussion on the gradual spreading of smoke at the beginning of a fire: - Discussion on the different types of smoke and their harmful effects: - Information and exercises on how to bring oneself and others to safety from a smoky environment: - Information on covering the mouth and nose in a smoky environment, lying on the ground and crawling due to low visibility, and calmly locating the exit to crouch out into safety: - Information on the risk of death due to damage to the nervous system caused by smoke inhalation; - Warnings against leaving small children unattended and locking their exits from outside, followed by discussion with examples: Strengthening the new knowledge gained, and dividing the trainees into groups of two in the training hall for an on-screen virtual fire extinguishing practice session. - Advice on not using damaged electrical 20 appliances, ensuring their proper functioning, and promoting the habit of disconnecting phone chargers and other electrical appliances from their sockets, as well as providing information on Household the risks posed by mobile phones and earphones Electrical and advice against their prolonged usage; - Providing knowledge and practice on not Appliances, and Reducing touching stoves, electrical sockets, water boilers the Risk of and refrigerators with wet hands, and not using Fire water on burning electronic devices; /-/Warning against the use of gas for household purposes, and in the case of its use, providing advice on ensuring full safety: - Developing the habit of disconnecting unused electrical appliances from their sockets;

V.	- Placing fire extinguishers at home, the office		
	and the car, and exercises to practice using fire		
	extinguishers.		
	- Gaining an understanding of earthquake		
	hazards;		
	- Information on earthquakes that have occurred		
	in Mongolia;		į.
	- Learning about the methods to ensure	1	
	preparedness for earthquake disasters, decision-		
	making methods, and methods to rescue and	20	
	protect oneself and others;		
	- Experiencing earthquake tremors, becoming		
Determining	adept in the actions to take in the event of		
and	earthquakes in order to protect oneself and others (SIT, HIDE, WAIT);		
Preventing	- Evacuating the building as soon as the first		
Earthquake	tremor stops and ensuring the safety of the		
Hazards,	people neraby (NO RUNNING, NO PUSHING,		
Self-	NO TALKING, NO TURNING BACK);		
Protection	- Actively participating in the organized effort to		
and the	move to a safe location (escape shelter etc.);		
Protection of	- Understanding the purpose and importance of		
Others	emergency drills and actively participating in		
	them;		
	- Gaining the competence to develop household		
	disaster plans;		
	- Knowing about the location of items that could		
	potentially pose a threat at home and at school,		
	and advising others of them;		
	- Using the materials at hand to provide first-aid		
	medical assistance, and teaching others to make		
D	paper cups.		
Providing	- Learning how to administer first-aid medical	20	
First-Aid	assistance to people affected by water-related	İ	
Medical Assistance	accidents or who are unconscious through		
Assistance	cardiopulmonary resuscitation (CPR),		
	haemostasis, splinting broken limbs, and taking rescue measures in the event of gagging and		
	seizures, with the help of training equipment;		
	- Calling an ambulance through 103;		
	- Providing first-aid medical assistance.		
	requesting help from people nearby.		
Rope Tying	- Learning about fall hazards and rescue methods	20	
Methods and	through indoor climbing and rope tying practices,		
Indoor	as well as acquiring basic knowledge on ensuring		
Climbing for	safety.		
Protection	()		
Against Fall	1//		
from Heights///	//		
	Total (hours, minutes)		2
	14		

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Three. Training Program to Provide Citizens with DRR Knowledge and Practice

Training Subject	Citizens
3D Movie Theater (providing elementary knowledge on disasters)	20
Fire Hazards, Escaping Smoky Environments	20
Household Electrical Appliances, and Reducing the Risk of Fire	20
Providing First-Aid Medical Assistance	20
Rope Tying Methods and Indoor Climbing for Protection Against Fall from Heights	20
Measures to Take During Earthquakes	20
Total (hours, minutes)	2

Training Plan by Topic to Provide Citizens with DRR Knowledge and Practice

Citizens 2 hours

Topic	Contents	Allotted Time (minutes)	Total Time (minutes)
3D Movie Theater (providing elementary knowledge on disasters)	Video lessons on different types of disasters and hazardous situations (earthquakes, droughts, floods, human and animal epidemics, strong snow and dust storms, wildfires etc.)	20	
Fire Hazards, Escaping Smoky Environments	- Providing an understanding of fires, the factors that play a role in starting fires, and the fire triangle; the measures to take as fires start; using, recharging and keeping fire extinguishers; using studies and examples to show and discuss the reason why fire emergency calls have been increasing recently by using methods that draw the trainees' attention and focus; briefly discussing the statistical data on the number of children and adults that have lost their lives due to fires; - Warning adults of the high probability of small children being affected by fire hazards, and of the dangers of leaving small children unattended for a prolonged period of time; - Warnings related to burns, smoke inhalation, and death from fires, providing advice for ensuring fire safety, and advice to seek professional help to treat burns instead of performing arbitrary, non-professional treatment; - Advising against starting open fires on outdoor trips unless necessary, and in case a fire is started, providing advice on thoroughly	20	120 minutes

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extinguishing it along with any cigarettes that were smoked: - Providing an understanding of natural and human factors that play a role in causing fires (practices such as not burning dry, year-old grass and disposing of it safely); - Using the materials at hand (fire extinguisher, thick wet cloth, sand and dust etc.) to extinguish fires, and practicing using a fire extinguisher to quickly put out fires as they start; - Preventing the spread of fires; - Discussing with and providing information for governmental and non-governmental institutions on fire safety standards and equipment such as keeping an information board on fire safety, fire hydrants, and extinguishers; - Expressing the importance of cooperating with fire inspectors of the emergency departments of districts, and collecting data; - Providing information on the ban on retail sales of flammable liquids, and the risks related to the improper use of flammable fluids; - About smoke: Providing information on the types of smoke and their harmful effects, as well as the risk of death from smoke inhalation: - Information on the risk of death due to damage to the nervous system caused by smoke inhalation; - Information and exercises on how to bring oneself and others to safety from a smoky environment; - Information on covering the mouth and nose in a smoky environment, lying on the ground and crawling due to low visibility, and calmly locating the exit to crouch out into safety; Warnings against leaving small children unattended and locking their exits from outside. followed by discussion with examples; - Ensuring the proper functioning of the fire alarms of institutions (Nationally Significant Structures, the History Museum, archives, places with a significant concentration of people etc.) and discussing the importance of fire alarms. - Advice on not using damaged electrical 20 appliances, ensuring their proper functioning, Household promoting the habit of disconnecting phone Electrical chargers and other electrical appliances from Appliances. their sockets, and discussing examples with trainees; and Reducing the Risk of Providing knowledge and practice on not touching stoves, electrical sockets, water boilers Fire/ and refrigerators with wet hands, and not using water on burning electronic devices;

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- Warning against the use of gas for household purposes, and in the case of its use, providing advice on ensuring full safety; - Placing, and using, fire extinguishers at home and in the car; - Strengthening the new knowledge gained, and dividing the trainees into groups of two in the training hall for an on-screen virtual fire extinguishing practice session Evaluating the risk of earthquake disasters and taking certain measures; - Obtaining information on the earthquake risks present in Mongolia; - Learning about the methods to ensure preparedness for earthquake disasters, decision-making methods, and methods to rescue and protect oneself and others; - Experiencing earthquake tremors, and performing the correct actions in the event of earthquakes and instruct others (SIT, HIDE, WAIT) in order to ensure safety for for oneself and for others; - Evacuating the building as soon as the first tremor stops, ensuring the safety of the people neraby, and providing them with support (NO RUNNING, NO PUSHING, NO TALKING, NO TURNING BACK); - Actively participating in the organized effort to move to a safe location (escape shelter etc.); - Understanding the purpose and importance of	
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Determining and Preventing Earthquake Hazards, Self- Protection and the Protection of	
Determining and Preventing Earthquake Hazards, Self-Protection and the Protection of	
Preventing Earthquake Hazards, Self- Protection and the Protection of	
and Preventing Earthquake Hazards, Self- Protection and the Protection of	
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Earthquake Hazards, Self- Protection and the Protection of	
Hazards, Self- Protection and the Protection of	
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Protection of Lindonstanding the number of the state of t	
Others public emergency drills and actively participating	
in them;	
- Actively participating in regional DRR activities;	
- Developing and implementing a household	
disaster plan;	
- Knowing about the location of items that could	
potentially pose a threat at home, at commercial	
institutions, and at public spaces, and advising	
others of them;	
- Using the materials at hand to provide first-aid	
medical assistance, and teaching others to make	
paper cups.	
Providing - Learning how to administer first-aid medical 20	
First-Aid assistance to people affected by water-related	
Medical accidents or who are unconscious through	
and anothology through	
haemostasis, splinting broken limbs, and taking	
rescue measures in the event of gagging and	
seizures, with the help of training equipment;	
Calling an ambulance through 103;	
Providing first-aid medical assistance,	
// requesting help from people nearby.	
Rope Tying - Learning about fall hazards and rescue methods 20	

Methods and Indoor Climbing for Protection Against Fall from Heights	through indoor climbing and rope tying practices, as well as acquiring basic knowledge on ensuring safety.	
	Total (hours, minutes)	2

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Seismic Diagnosis Equipment

Operation and Maintenance plan

2017.6.29 NEMA

1. Introduction

Seismic diagnosis equipment manuals which we are using In Mongolia include only degradation and depreciation of building. Therefore, within "The Project for Strengthening the National Capacity of Earthquake Disaster Protection and Prevention in Mongolia", we will make instruction method to diagnosis the building seismic. For diagnosis building seismic we needed this equipment urgently. This plan is about procuring seismic diagnosis equipment in Mongolia and how to operate it.

2. About procuring seismic diagnosis equipment

The main aim of this project is to make earthquake resistant building evaluation standard (norm). For this we need building depreciation level defining equipment. We will define current building strength, depreciation and give earthquake degree of the building. For this diagnosis equipment purchase will be made from JICA side.

After the start of this project define the equipment's operation, performance and maintenance cost, NEMA will cooperate with other organizations to support the project activity.

Within the project activity during training period the diagnosis equipment will be used. Project unit will use it after the purchasing this equipment even in the training period.

We will conduct necessary training about how to use the diagnosis equipment for purpose to distribute the knowledge in common.

All equipment used on training shall be transferred to the Mongolian side at the completion of the project.

Table.1 Procuring seismic diagnosis equipment

Equipment name	Purpose		
Concrete strength measuring instrument	Force from the rebound from the hit the concrete surface compression is considered strength		
Ultrasonic measuring instrument	Concrete cracks depths and amount is determined through ultrasonic waves measuring the compressive strength and elasticity factors are calculated.		
Rust & Corrosion measuring instrument	In the concrete rebar & metal potential is calculated from the amount of corrosion		
Concrete covering thickness measuring instruments	Measure the thickness of the concrete structural reinforcement.		
Brick Surface strength measuring instruments	Brick masonry structure building and struck the surface from the estimated power of the compressive strength of rebound.		

As a decision at the WG, five earthquake-proof equipment will be required as it is necessary for five agencies in sejsmic diagnosis (NEMA, Urban Development Ministry, Ulaanbaatar City, National Auditing Agency and CDC).

The diagnosis equipment is managed by the project office during training, and the following departments will use and maintenance the equipment after the training.

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Table.2 End	user	authorities	of	diagnosis equipment	
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	13	able.2 End	user auth	norities of diag	gnosis equi	pment
	Surface strength measuring instruments	Ultrasonic- based measuring instruments	Corrosion measurina instruments	Concrete coverina thickness measurina instruments	Brick Surface strenath measurina instruments	Description
During Training						
Project Team	5	5	5	5	5	
After Training						
NEMA	1	1	1	1	1	It will be used for the rescue department staffs for training. To improve the tool's usage it'll be shared with Metropolitan City Planning and Basic Planning Bureau
Ministry of Construction and Urban Development / Land Management, Geodesy and Cartography Agency	1	1	1	1	1	Sub agency of Ministry of Construction and City Development Land Management Surveying and Mapping Agency will use the equipment in local regions.
General Agency for Specialized Inspection	1	1	1	1	1	When the building owner have argument regarding MPA the result will be reconsider
Master Planning Agency of Capital City	1	1	1	1	1	It'll be used for UB city existing building earthquake resistance evaluation passport work.
Construction Development Center	1	1	1	1	1	After the earthquake resistance evaluation guide is made from project team Construction Development Center training department will assess the engineer & staff for develop the program practical experience use. To increase instrument usage CDC will share it with the GZBZZG.

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3. Survey related to the procuring of the evaluation tools

Examines whether the purchase tool meets the specification and needs.

Table3. Purchase list of assessment tool.

	5	Seismic Diagnosis Ed	quipment		Description
	Tools Names	Usage	Price in Mongolia (USD)	
	Surface strength measuring instruments	Force from the rebound from the hit the concrete surface	Original Schmidt Test Hammer N	1010	Result direct read
PC		compression is considered strength	[310-01- 001]1,010		
RC and	Ultrasonic-based measuring instruments	Concrete cracks depths and amount is determined through ultrasonic waves measuring the compressive strength and elasticity factors are calculated.	Pundit Lab+ [326-20- 001]	5600	
	Corrosion measuring instruments	In the concrete rebar & metal potential is calculated from the amount of corrosion	Profometer Corrosion- Rod electrode [392-50- 010] Profometer Corrosion- 1 wheel electrode [330-01- 001]	4740	
Masonry	Concrete covering thickness measuring instruments	Measure the thickness of the concrete structural reinforcement.	Profometer PM-630 [392-20- 001]	7900	
	Brick Surface strength measuring instruments	Brick masonry structure building and struck the surface from the estimated power of the compressive strength of rebound.	Original Schmidt Test Hammer L [310-01-002]	1915	

Surface strength measuring instruments
 Force from the rebound from the hit the concrete surface compression is considered strength. Can be used in the countryside.

Ultrasonic-based measuring instruments
 Concrete cracks depths and amount is determined through ultrasonic waves measuring
 the compressive strength and elasticity

Corfosion measuring instruments

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- In the concrete rebar & metal potential is calculated from the amount of corrosion
- Concrete covering thickness measuring instruments
 Measure the thickness of the concrete structural reinforcement.
- Brick Surface strength measuring instruments
 Brick masonry structure building and struck the surface from the estimated power of the compressive strength of rebound. Can be used in the country side.

4. Operation plan for use diagnosis tools

(1) Role sharing for instruction of diagnosis equipment

When measurement tools are procured, both sides will take responsibility as shown below.

In introducing diagnosis equipment, as shown in Table 4

- Until completion of training
- 1)In the first period it will be used during training and NEMA will receive the equipment's, all end user authorities staff will listen user manual guidance.
- 2) During the training session the project team is responsible for the usage & storage.
- -after completion of training
- 1) It'll be transferred to the end user authorities.
- 2) End user authorities are responsible for parts, configuration and usage. Above item will be mentioned in the maintenance and operation letter and it will be handed over to the Japanese side from Mongolian side.

Table 4. Organize of conditions for procuring diagnosis equipment

	Mongolian side	Japanese side	Description
Procurement preparation			1
Survey	Make negotiations with the delivery	Survey of the equipment	-
Request	Prepare the official letter for responsibility & maintenance		-
Procurement decision	-	Review of procurement contents and propriety	_
Procurement			
Preparation	-	-	-
2. Usage , maintenance 1	1) Deliver it to NEMA	2)During the project, The project team is responsible	Training
3. Usage, maintenance 2	1) Delivery it to FINAL Organization 2) supplies, usage, repair, configuration operating organization is	<i>-</i>	After training

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	responsible	
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(2) Operation and Maintenance Plan

1). When equipment's supplied to NEMA:

All end user authorities shall hear the explanation of the usage.

2) During the implementation of the project:

Project team will take responsibility for storage of equipment.

3). Delivery to the end user authorities

During the operation and use of supplies, configuration and maintenance services outlined in charge of the contract. On that bases NEMA will hand it over to the end user authorities.

4). Parts, usage, repair service.

End user authorities are responsible for the operation and maintenance, services, configuration, spare parts of the equipment's.

(3) Procure and use plan of diagnosis equipment's

Procure and use plan of diagnosis equipment's shown in Table 5:

Table 5. Procure and use plan of diagnosis equipment's

W	ork item	2017				201	2018			2019			
		1	2	3	4	1	2	3	4	1	2	3	4
				1000	de as	sume			100				1 .
Pr	oject team survey	-	00.00										
1	Survey of the equipment												
	20		Japai	nese s	ide pr	ocure	ment	olan	(X)—————	911	V - 15	10-	- 1/2
2	Clarifying the equipment	IIIII											
3	Procurement		17/2012)11111								
		1	Mongo	olian si	ide as	sume	sche	dule					
M	ongolian side proce	edure.											
4	Operation, Maintenance letter												
5	Bringing into Mongolia, Instruction of use guideline												
Us	se in during project										100		
6	During the training of earthquake diagnosis.												
Af	ter completion of pr	roiect											
7	Start/use of end user authorities												

Notice://
2//dentity of equipment and 3. Procurement schedule plan is preliminary so it's not finalized.
5. Instruction of the equipment is not the subject part of the project training.

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Appendix

1. Usage of the seismic diagnosis equipment to be supplied within the framework of the project

Once the seismic resistance evaluation norms are approved, thay shall be applied to the training on evaluating the seismic resistance of buildings.

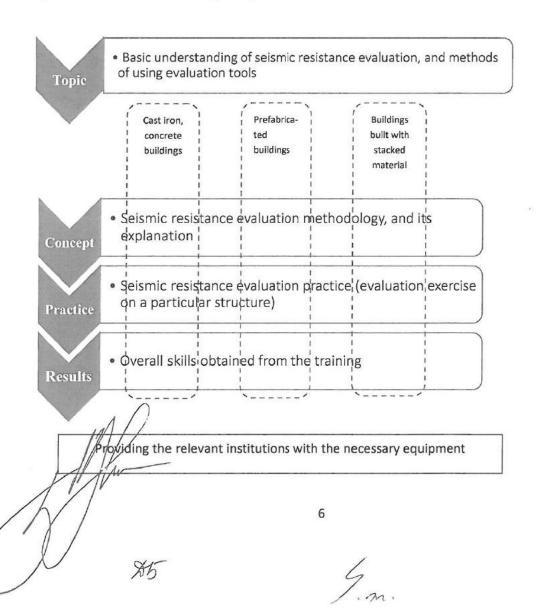
1 Purpose of the Training

Improving trainees' knowledge and expertise on seismic resistance evaluation.

② Participating Institutions

NEMA, MCUD, GASI, and the Building Safety and Quality division of the Capital Urban Development Agency. Employees and specialists from the institutions will be participating.

③ Contents of the Training Program:



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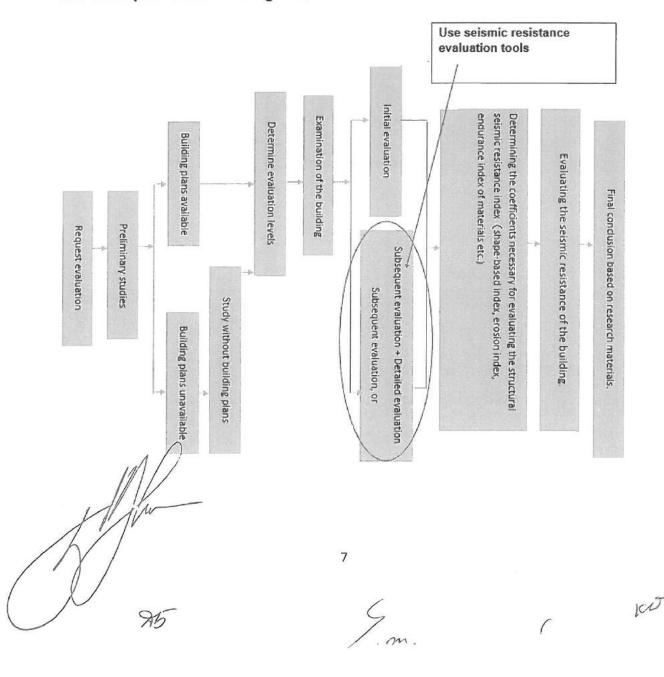
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2. Procedure for the use of seismic resistance equipment by the relevant institutions

The following coefficients are necessary for determining the structural seismic resistance index for seismic resistance evaluation.

- Schmidt Hammer: determines the endurance of materials.
- Ultrasonic Probe: measures the depth of fissures in concrete.
- Corrosion Measurement Tool: Measures the level of corrosion of concrete armature.
- Tool to Measure the Protective Layer of Concrete: measures the diameter of the armature and the thickness of the protective layer of concrete.

Chart. Seismic Resistance Evaluation Activity Process, and the Order to Use Evaluation Equipments (This is the process implemented in Japan, and shall also be implemented in Mongolia.)



Appendix 2

Approve:			
Head of Disaster prevention training and methodological center	for citizen	s of Ulaar	baata
	Day	Month	2017

Training plan and program of earthquake hall in Disaster prevention training and methodological center for citizens of Ulaanbaatar

Main objective of class

Provide knowledge about earthquake disasters risk and prevention to pre-scholar, student of elementary school, junior, senior students of high school and civilians based on training program. The program has reach contents about disaster prevention and earthquake self-feeling. Installation of deep understanding of disaster prevention to all people based on self-feeling methods such as "to watching" "to listening" "to touch" and "to feel" etc. Deep knowledge on actions of disaster risk prevention for connecting actions of nation based on training of earthquake self-feeling.

Targets of class:

Common targets

At first stage, Improvement of understanding of video based (cinema) earthquake disaster knowledge. Self-feeling stage, set on earthquake simulator and understanding of how tables and furniture are dangerous during earthquake disaster. Moreover learning how to self-protecting as well as protect others during disaster. Learning damage reduction methodology during the disaster happens as well as everyday readiness methods such as tight home furniture and other actions in home.

Pre-scholar

At first, learning about self-defense methods during earthquake happens. Following and learning about instructions of adults (Father, mother, Teacher).

Student of elementary school

Learn about self-defense and protecting head and chest of body firstly. Following and learning about instructions of adults (Father, mother, Teacher). Deeply concern on meaning of practical training in school.

Junior and senior students of high school

Learning about basic knowledge of earthquake (mechanism and magnitude of earthquake). Learn about self-defense and protecting head and chest of body firstly. Following and learning about instructions of adults (Father, mother, Teacher). Deeply concern on meaning of practical training in school. Stay/far away from home, discuss and confirm with your parents about methods (readiness) gathered place, communication) during earthquake disaster.

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Adults (normal people)

Learning about basic knowledge of earthquake (mechanism and magnitude of earthquake). Learn about self-defense and protecting head and chest of body firstly. Learning readiness of everyday (Keeping tight the every home furniture, preparing bag that has foods and other materials).

Program for each age category 1) for pre-scholar

Class type: Lecture

Duration: 10 min

	Subject name	Time period	Learning type
0	Watching video (Cinema)	3 min	Learining about earthquake risk
1	Lecture (room for children)	5 min	Learning self-defense methods during earthquake disaster
2	Guessing game (room for children)	2 min	repeat contents of lecture

Supply of technical tools and materials:

Video, computers, amplifier, LCD monitor, tables, information board etc.

Program for each age category2 for elementary school student (primary class)

Type of class: Lecture, practice

Duration: 15 min

BAR	Subject name	Duration	Learning content
0	Watch the video (Movie theater)	3 min	Learn more about earthquake hazards
1	Lecture / Practice (for children)	7 min	 Learn about safe ways to protect yourself during the disaster Purpose and importance of evacuation training How to make paper cup and plates when you are stay in shelter

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2	Puzzles (Hall room for children)	2 min	Repeat the lessons learned by lectures
3	Q & A (Hall room for children)	3 min	

Audio, computer, amplifier, LCD display, desk, chair, newspaper, food wrap, information boards, etc.

Program for each age category 3 Elementary school student (senior grade)

Course form: lecture, simulation and practice

Duration: 20 min

	Subject name	Duration	Learning content
0	Watch the video (Movie theater)	3 min	Learn more about earthquake hazards
1	Lecture / Practice (for children)	5 min	 Learn about safe ways to protect yourself during the disaster Purpose and importance of evacuation training How to make paper plates when you are stay in shelter
2	Remarks of earthquake experience equipment	2 min	 Describe about earthquake experience equipment Stay under table and keep the chair legs, be careful and cover your head to protect from falling objects
3	Simulation of earthquake experience equipment	3 min	Learn about what to do in case of earthquake
4	Practice (Conference room)	5 min	Describe about paper cup and dishes when you are stay in shelter
5	Q & A/puzzle game (Conference room)	2 min	Repeat the lessons learned by lectures

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Audio, computer, amplifier, LCD display, desk, chair, newspaper, food wrap, information boards, etc.

Program for each age category (4) Middle, high school student

Course form: lecture, simulation and practice

Duration: 20 min

	Subject name	Duration	Learning content
0	Watch the video (Movie theater)	3 min	Learn about past historical earthquakes and get knowledge about damage of it Learn basic earthquake knowledge such as earthquake mechanisms and magnitude
1	Lecture	5 min	Learn about safe ways to protect yourself during the disaster Purpose and importance of evacuation training How to make paper cup and plates when you are stay in shelter Measurement which should be taken in phase of pre-disaster, in case of disaster, post-disaster stage and some issues should be need to talk with family members
2	Remarks of earthquake experience equipment	2 min	 Describe about earthquake seismology Stay under table and keep the chair legs, be careful and cover your head to protect from falling objects
3	Simulation of earthquake experience equipment	3 min	Learn about earthquake response measurement
4	Practice (meeting room)	5 min	Provide first aid service using simple material Bag which will be use in case of disaster and description about some disaster prevention items

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5	Q & A/puzzle game	2 min	Repeat the lessons learned by lectures
	(Conference room)		

Audio, computer, amplifier, LCD display, desk, chair, newspaper, food wrap, information boards, etc.

Program for each age category 4 Adults (for ordinary people)

Course form: lecture, simulation and practice

Duration: 20 min

	Subject name	Duration	Learning content
0	Watch the video (Movie theater)	3 min	 Learn about past historical earthquakes and get knowledge about damage of it Learn basic earthquake knowledge such as earthquake mechanisms and magnitude
1	Lecture	5 min	 Learn about safe ways to protect yourself during the disaster Measurement which should be taken in phase of pre-disaster, in case of disaster, post-disaster stage and some contents should be need to talk with family members Fix furniture to the walls, disaster preparedness in family level such as storage of drinking water, food and prepare bag
2	Remarks of earthquake experience equipment	2 min	 Describe about earthquake seismology Stay under table and keep the chair legs, be careful and cover your head to protect from falling objects
3	Sinulation of earthquake	3 min	Learn about earthquake response action

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	experience equipment		
4	Practice (meeting room)	5 min	Provide first aid service using simple material Bag which will be use in case of disaster and description about some disaster prevention items
5	Q & A/puzzle game (Conference room)	2 min	Repeat the lessons learned by lectures

Audio, computer, amplifier, LCD display, desk, chair, newspaper, food wrap, information boards, etc.

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Annex7: Question and Answer in the JCC meeting

Documentary of public awareness, Procuring Equipment, Amendment of WG member Comment: Mr. B. Uuganbayar, Director of Disaster Prevention Department, NEMA:

I would like to mention a few things on the following subjects.

Firstly, as you may know the Deputy Prime Minister is planning to create a documentary to promote earthquake disaster awareness among the public and will include historical data on the earthquakes that have occurred in Mongolia. We would like to request the support of JICA in this documentary project.

Secondly, regarding equipment, we have been planning to get all the equipment transported to Mongolia within the year. Mr. Khurelbaatar, who is the Director of Disaster Protection Training and Methodology Center in EMDC (hereinafter referred to as "Training Center"), has talked to customs officials on this matter. With the authorization of the Deputy Prime Minister given to the customs officials, this process will continue more quickly. I suggest we make an effort to gather all the necessary customs documents as soon as possible in the scheduled date. In terms of the expenses related to transporting the equipment to the training centers, General Badral has given orders to the city administrators in this matter. Mr. Khurelbaatar shall be tasked with the detailed transportation planning such as border passing procedures, the weight of the equipment, what documents are necessary; and he shall deliver the detailed process including carrying-in way, using crane to install to Mr. Owada in two months.

Also, there have been changes in the composition of WG members. Mr. Dashnyam has joined WG1, Ms. Ganchimeg has joined in WG2, WG3 has a new member from the Education Research Institution named Ms. Khaliun and Mr. Chinbat from the NEMA,. In accordance with this change of WG members, the member of the training in Japan is to be decided.

Comment:Mr. Hosokawa, JICA:

With regards to the documentary, JICA will not be able to help in terms of financing, but we may be able to help on technical and methodological aspects.

Also, in relation to the equipment for training center, we would like to request the Mongolian side to take care of improvement of the slab and installation of anchors, installation of the switchboard on the appropriate place, and also conducting customs duties and transportation, any preparation to be required for installation of equipment as well as ensuring installation fees and maintenance system.

Comment:Mr. Owada JICA Expert Team:

With regards to WG members, we also acknowledge the change in WG members. The second training in Japan is coming up and I understand that this change of members is fixed.

2. Next//raining in Japan

Comment/Mr. B. Uuganbayar, Director of Disaster Prevention Department, NEMA:

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We had discussed the contents of the second training in Japan with Mr. Owada. I have heard Mr. Owada would take place an interview to every candidate of second training member.

Comment: Mr. Kiyotaka Owada, JICA Expert Team:

The second training in Japan will take place within 2017 and hopefully will not overlap with English the learning program to be planned by NEMA in India.

Comment: Mr. B. Uuganbayar, Director of Disaster Prevention Department, NEMA:

With regards to the English training in India, Mr.Ulziibayar has been responsible to it. I would like to request to check with Mr. Ulziibayar on this matter. I would like to coordinate so as not to overlap as much as possible.

Comment and Quation: Mr. B. Uuganbayar, Director of Disaster Prevention Department, NEMA:

We have not yet discussed whether or not to organize training in a third country. Also, translations from English to Mongolian were inadequate and I urge translators to be more responsible.

Answer and Question: Mr. Kiyotaka Owada, JICA Expert Team:

It's my understanding I understand that there is no discrepancy, because concerning understanding that we confirmed that we will consult later on whether to go to implement the training in a third country training or the second Japanese training in japan when at the time we formulated the of Work plan of the Project before the first JCC. And then, I understand that we decided to select the second training in japan after that. Can we understand that NEMA is requesting the training in a third country as an additional?

Answer: Mr. B. Uuganbayar, Director of Disaster Prevention Department, NEMA:

Yes, it is an additional proposal.

Comment: Mr. Yukinari Hosokawa, JICA:

Although we understand your proposal, since it is described as the training in a third country or additional training in Japan in the Work plan of the Project, we will carry out second training in Japan as additional so we cannot carry out the training in a third country.

3. Pilot Area

Comment: Mr. B. Uuganbayar, Director of Disaster Prevention Department, NEMA:

Next, we would like to inform you that the regional pilot area is still under consideration.

Question: Mr. Yukinari Hosokawa, JICA:

In the presentation for the progress of WG3 activity, there were explanation of pilot places proposed by WG3 for implementing Disaster Risk Reduction (hereinafter referred to as "DRR") awareness raising workshops. Don't you consider this proposal?

Answer: Mr//\$./Unganbayar, Director of Disaster Prevention Department, NEMA:

We will have further discussions on increasing the scope of regional pilot area.

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Question: Mr. Yukinari Hosokawa, JICA:

We request a specific schedule by when the aimags will be chosen. Should we understand that the two districts in Ulaanbaatar City and one aimag are to be chosen in the future?

Answer: Mr. B. Uuganbayar, Director of Disaster Prevention Department, NEMA:

In terms of the capital districts, they may be the two districts which were proposed by WG3. However, we plan to increase the number of pilot aimags.

Comment: Mr. Yukinari Hosokawa, JICA:

It is better to decide the pilot places as soon as possible because the pilot activities for the DRR awareness raising are to be implemented from November, 2017, according to Monitoring Sheet 2,. I would like to point out that increasing the number of pilot aimags will affect increase in expenses., since it is the pilot activity, I would like you to understand that NEMA will propagate to other aimags based on the experience of the pilot activity after project implementation.

4. International conferences

Comment: Mr. Yukinari Hosokawa, JICA:

Now I would like to mention two international events that are planned for near future. As for the Bosai World Forum in November 2017, it will be organized in Sendai by Sendai City and Tohoku University in collaboration with the International Disaster and Risk Conference in Davos. The conference will be organized for four days where JICA has a 90-minute session with the theme of investment for disaster prevention on November 27th, 2017. JICA will invite representatives from three countries where JICA is implementing technical cooperation project for DRR including Mongolia. General Badral and Ms. Sayanaa who is Advisor of Deputy Prime Minister will attend. This is a good opportunity for NEMA to meet officials from around the world and to share good practices with them.

As for Asian Ministerial Conference for Disaster Risk Reduction (AMCDRR), I will talk with General Badral tomorrow.

5. Closing Remarks

Comment: Mr. B. Uuganbayar, Director of Disaster Prevention Department, NEMA:

Thank you very much for participation on JCC. I would like to say that the three working groups are showing good progress and that Mr. Owada is doing a very good job. Now the general will say a few words.

Mr. Badral Tuvshin, Chief, Brigadier General, NEMA:

I would like to thank Mr. Sato and all the other participants for coming to the third joint meeting. It has been half a year since the project started and we have seen a good amount of progress. There is a good flow of information in both the Mongolian and Japanese sides.

The information is also sent to the Deputy Prime Minister, who sends his gratitude to project members. One thing of like to mention is that the initial plan for the Sendai Framework has been drafted and will be sent in to the next government meeting for authorization. This could

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provide valuable support for our project. Most of the documents from the Mongolian side have already been compiled and now what's left is execution.

I also urge you to cooperate in the Asian Ministerial Conference on Disaster Risk Reduction, to be held next year, since the preparation activity was commenced.

I would like to comment as follows.

- 1. I will consider that documents such as the relevant legislation have been thoroughly researched already. Research takes a lot of time and I hope it is near completion because it needs to be done as soon as possible. I would like to request to make a presentation of the target documents in next JCC or other opportunities.
- 2. There is a state policy to develop risk evaluation guidelines and I am aware that WG1 is in charge of developing such guidelines. They are also tasked with developing more generalized guidelines. I would like to request that the Japanese side provide our specialists with information from their own experiences, as well as those of other countries.
- 3. Also, I propose that district officials in Ulaanbaatar city attend the October-November training in Japan along with the working members. I would like to request the consultation to provide training in Japan for the head of district on UB city that I requested in previous JCC.
- 4. The training in a third country must be discussed in next JCC.
- 5. Also, pay attention to how the equipment should be compiled and installed. I have appointed Mr. Khurelbaatar as a person in charge of preparation of procuring equipment. The expenses related to transporting and installation must also be calculated in cooperation with EMDC up to July.
- 6. There are numerous records of seismic activity occurring in Omnogovi aimag and perhaps it should be regarded as a high seismic-risk aimag. I would like to ask for consultation to include as a pilot area.
- 7. In terms of the database, I urge you to pay attention to share risk data, and to make a connection with related existing database, and arrange these systems so as to be used by residents. I heard that the database management system which is under construction will be available to share databases with related organizations later. Please notice that these databases should be worked towards cooperation with related organizations.
- 8. I understand that JICA have a plan to conduct session in the AMCDRR. Since the preparation WG has been established by the diet resolution, I would like to request to participate.

Overall, the project is proceeding according to schedule.

I invite you all to make efforts to fit in your work within the schedule. Perhaps there may be delays since some officials may need to travel abroad.

Thank you all once again for participating. The next meeting will be held after the study tour in Japan.

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Question: Mr. Kiyotaka Owada, JICA Expert Team:

The schedule of next JCC is to be informed.

Answer: Mr. B. Uuganbayar, Director of Disaster Prevention Department, NEMA:

The next JCC will be held in the timing soon after finishing 2nd training in Japan.

Closing.

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MINUTES OF MEETING

ON

THE FOURTH 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 fourth meeting on December 1, 2017 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 and Colonel, NEMA on behalf of 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.

Mr. Mutsumi Sato

Chief Representative

Mongolia Office

Japan International Cooperation Agency

Japan

Mr. Batsengee Dorjsembed

Director General

Development Financing Department

Ministry of Finance, Mongolia

Ulaanbaatar, December 1, 2017

Mr. Badral Tuvshin

Chief, Major General

National Emergency Management Agency

大和田清隆

Mongolia

Mr. Kiyotaka Owada

Team Leader

JICA Expert Team

Japan

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 and how to incorporate the knowledge learned from the second training in Japan into the further 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 future plan at this moment.

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 third JCC on June 29, 2017 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. Areas targeted for revision of the regional disaster management plan Regarding places targeted for revision of regional disaster prevention plans, it was

proposed by NEMA in the fifth SC held on November 24th, 2017, that pilot activities shall be implemented in two districts, namely Chingeltei and Bayangol in UB city, and two Aimags, including Darkhan-Uul Aimag and Umnugobi Aimag.

4. Next JCC meeting

The Mongolian side will consider the next JCC schedule taking into consideration the progress of the project and notify related organization.

5. Question and Answer on the JCC

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

5.

Annex 1: List of participants

Annex 2: Agenda of the JCC meeting

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

Annex 4: Working Group Member List

Annex 5: Record of 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:2017/12/1

Place: NEMA Conference Room

Title of Meeting: Agenda for 4th Joint Coordination Committee

Name	Department, Organization	E-mail/ Tel	Signature
T.Badral	Chief of NEMA		
L.Sayana	Advisor in charge of Emergency Management of Deputy Prime Minister	cobinet gas ma.	Umy 1
S.Magnaisuren	State Secretary of Ministry of Construction and Urban Development		
D.Batsaikhan	Director of Disaster Prevention Department,NEMA	Just .	0400
Yo.Jargalsaikhan	Referent of National Security Council	jargalsaikhani	
L.Ulziibayar	Director of Policy Coordination and Cooperation Depapartment NEMA	Ulzii 0609 Dyehoo.	
D.Jargal	Director of Infrastructure and State Inspection Department,General State Inspection Agency	d. yangal (a) yanga cam 99176069	Hun
Z.Munkh-Orgil	Officer of Aid Policy Division, Development Financing and Debt Management Department, Ministry of Finance		
J.Myagmar	Director, Division of Preprimary and Primary Education of Ministry of Education, Culture Science and Sports		
P.Bayarkhuu	Vice Mayor of the Capital City in charge of Urban Development	f	
N.Ulambayar	Director of Emergency Management Department of the Capital Ciry (EMDC)		
G.Enkhtuya	Director of Construction Quality and Safe Division, Master Planning Agency of Capit City	99016177	aho fra
Mitsumi Sato	Chief Representative of JICA Mongolian office	Sato. Mutsumi Q Sica. go. jp	57.182
Satomi Yoshino	Project Formulation Advisor of JICA Mongolian Office	Yoshino. Satomia	多多野縣
G. Erchembayor		way gor wa	COR.
B. Tsend - Ayush		b-ayurh ayanco.a	7.70
Ts. Khulan	Urban and Master Planning Agency. Capital city		1 com Mayrow

Name	Department, Organization	E-mail/ Tel	Signature
H. Organtus	NEMA	00 400_ 8228@ yaha	o. com
8. Bayanmunkh	NEMA	bayanaane ma(a) gmail 99.084597. com	first
B. Boldkhau	NEMB, Disasur Warning Command	boldkhum@nema.gov.m	7
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Annex 2: Agenda of the JCC Meeting





"THE PROJECT FOR STRENGTHENING THE NATIONAL CAPACITY OF EARTHQUAKE DISASTER PROTECTION AND PREVENTION IN MONGOLIA" Agenda for 4th Joint Coordination Committee (4th JCC)

Date: December, 1st 2017 **Time:** 10:00~12:00

Venue: NEMA Conference Room

No.	Time	Agenda	Presenter
	9:50-10:00	Registration	
1	10:00-10:10 (10 min)	Opening remarks from NEMA	Mr. Badral Tuvshin Chief, Brigadier general, NEMA
2	10:10-10:20 (10 min)	Opening remarks from JICA	Mr. Mutsumi Sato Chief Representative, Monglia Office, JICA
3	10:20-10:25 (5 min)	Overview of project activity and schedule	Kiyotaka Owada Team Leader, JICA Expert Team
4	10:25-10:45 (20 min)	Progress of WG1 Activity	Representative for WG1
5	10:45-11:05 (20 min)	Progress of WG2 Activity	Representative for WG2
6	11:05-11:25 (20 min)	Progress of WG3 Activity	Representative for WG3
7	11:25-11:50 (35 min) *Consecutive Translation	Discussion and confirmation on: - Amendment of Working Group Member - Procuring Equipment - Target Aimags for revision of the regional disaster management plan Others	Project Coordinator, NEMA Discussion with All Participants
8	11:50-12:00 (10 min)	- Closing remarks	Mr. D.Batsaikhan Director of Disaster Prevention Department, NEMA

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

Working Group 1 **Progress Activity**

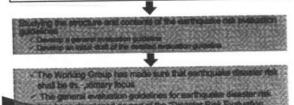
THE PROJECT FOR STRENGTHENING THE NATIONAL CAPACITY OF EARTHQUAKE DISASTER PROTECTION AND PREVENTION IN MONGOLIA



Working Group 1-1: Earthquake Risk Evaluation Guidelines

Progress of Activities

- Translations for Earthquake Risk Evaluation Technical Guidelines, and the DIG Manual has been obtained.
- Opinions were exchanged with Working Group 2 and information was gathered in relation to methodologies related to evaluating infrastructure and engineering networks.



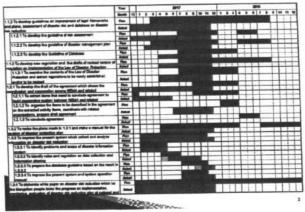
Working Group 1-2: Earthquake DRR Plan Guidelines

The Working Group is studied the options and selected pilot regions (capital and 2 aimags) to conduct tests for improving the DRR Plan.

	Proposed Area	Bissout for Selection
1 W Day	0	Large recent of ever, still high-oles and ton-spe buildings: high members income; this recents are disable.
2 US City	Bayungol District	Contains a large amount of ready-but Sat-markeout 5-sizery residential helidings.
		As the second largest sily in Bengol Darbhan has large industrial facilities and in a large bulk for infrastruction, energy and inmapor.
Aires	Consequent Adming	Selectic activity is increasing in this



Progress Overview



Working Group 1-2: Earthquake DRR Plan Guidelines

Progress of Activities

- Parts 1 and 2 of the Japanese National DRR Plan have been fully translated. They have been contrasted with the Capital DRR Plan.
- Contents of the Earthquake DRR Plan Guidelines
- Chapter 1. General Provisions
 Chapter 2. Earthquake Disaster Risk Prevention Plan
 Chapter 3. Earthquake Disaster Operation Plan
- Chapter 4. Urgent Recovery Plan during Earthquake Disasters
- Draft DRR Plan guidelines for earthquakes at the national, capital, aimag, district and soum levels have been developed.
- Intensive work meetings were held in order to develop the draft guidelines, in which the opinions of the JET were taken into account.
- The draft guidelines for the National Disaster Management Plan (earthquake section) are being developed.

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Working Group 1-3: Memorandum of Cooperation

Sector	Party Responsible for Establishing the Memorandum	Status of the Memorandum
Communications	Telephone Service Providers	Completed
Fuel	Mineral Resources and Petroleum Authority	Completed
Medicine	Ministry of Health	Draft developed and revised
Food	Ministry of Food, Agriculture and Light Industry	Draft developed and revised
Temporary Residence	Ministry of Construction and Urban Development	Draft developed and revised
Potable Water	USUG	Draft developed and revised



Working Group 1-3: Memorandum of Cooperation **Further Plans**

Studying the management and organization of the National DRR Service of the Ministry of Health according to the Institutional Management Evaluation Methodology. For this, an agreement was made with the Ministry of Health to test the methodology developed by World Vision.

Studying the National DRR Service plan of the Ministry of Health, and improving DRR operations through Memorandums of Cooperation with the relevant institutions.

Strengthening the DRR activities specified in the Memorandum of Cooperation through training and practice.

Establishing the Memorandum, presenting the work results related to the Memorandum of Cooperation established with the National DRR dce of the Ministry of Health to the relevant ministries and oh the training organized within the framework of the VERNEN

Working Group 1-4: White Paper

- Work Progress of Developing the White Paper

 The first chapter of the "White Paper" was completed in July, August.

 The working plan for developing the "White Paper" was presented to the officials responsible for preparing the materials to be included in the "White Paper".
- In October, a meeting was organized to provide instructions on the information and materials to be prepared by the officials responsible for preparing the materials to be included in the "White Paper.

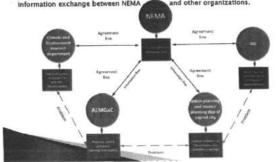
To be Completed

- 3.2. Increasing the participation of the local administration in DRR
- 3.4. The participations of citizens, NGOs, groups and cooperatives in
- DRR activities.
 5.6. DRR tools and equipment
- 5.7. The White Paper shall be fully developed upon completion of the chapters on Post-Disaster Recovery Activities.

Sub-WG5 Database GL

1. Development of Spatial Database for DRR (SDDRR)

Make a cooperation with other state organizations for collection of spatial data is just started. Contract based actions will be required for gathering spatial data and information exchange between NEMA and other organizations.



2. Preparation of human resource for SDDRR

Step 1:

New organizational structure of early warning center is prepared as a proposal. 4 new position proposed in new organizational structure for Ecomi map system and management of SDDRR.





Establishment of new working group is under preparing and divided by management units from NEMA and operation unit from EMA in almags and Ulaanbaatar city. The new WG is close and cooperative work with early warning center.

ration of guideline & operation manuals

Expected Results from the Training:

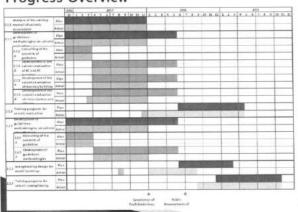
- Disaster management planning, organization, contents, and structural and non-structural measures at national, regional, city and village levels, emergency management, organization and preparedness.
- Damage projection methodology, and methods to include it in the disaster prevention plan.
- Temporary shelters, their management and financing, and the coordination of goods provided as aid.
- The structure, organization, activities and financing of volunteer organizations and firefighters.
- Establishing agreements at the regional, city and village levels, and methods to include memorandums in the disaster prevention plan.
- Disaster prevention strategy and activities of large cities.
- Detailed disaster risk evaluation methodology.
- Disaster statistical data, building and utilizing database, how to use the omi Map" in the event of a disaster.

Progress of WG2 Activity

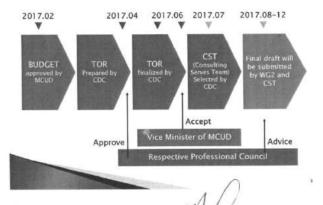
"THE PROJECT FOR STRENGTHENING THE NATIONAL CAPACITY OF EARTHQUAKE DISASTER PROTECTION AND PREVENTION IN MONGOLIA"



Progress Overview



Procedure to prepare BDs



Progress of Sub WG2-2 Seismic Evaluation of Infrast victures and Lifelines

The process of developing BD draft
The final draft was submitted to the CDC and the relevant agencies, and editorial and review engineers have been cast.

Seminar on presentation about the content of GL

In cooperation with members of the WG2, the NEMA's disaster and fire inspectors, GASI's and EMDC's Infrastructure Inspectors and CDC's trainers attended "Seismic evaluation of infrastructure and lifelines" seminar on presentation about contents of GL.





CDC's trainers

Progress of Sub WG2-1 Seismic Evaluation of Buildings

- o Mongolian Association of Civil Engineering (MACE) was selected as Consulting Service Team (CST) for the GL - seismic evaluation and retrofitting of buildings by Construction Development Center (CDC).
- · MACE and WG2 members held joint meetings and decided contents of the GLs and completed the final drafts.



Progress of WG2

- Check Shoet

 Wi-2 submitted the checklists that can be used for assussing the seasoic risk of the infrastructure and pipeline to the director of the GASTs influentmenter department.
- GASEs Infrastructure Department considered it possible to reflect the check short on its risk criteria used by infrastructure ingrectors.





Result of inputs of lessons learned from the second training in Japan /Working group-2/ 2017/11/12 - 11/22

- Lessons of past earthquakes occurred in Japan.
 Research and development of a system combining Earthquake Early Warning (EEW) and Structural Health
 Monitoring (SHM) /Tuboku university/
 - Site visiting of buildings that were actually earthquake-resistant reinforced and building structural experimental laboratory/Toboku university/









Visited a building that has been reinforced by the seismic isolation system. /Sendai High Court/





How to make use of the knowledge obtained in the training in Japan and future activities

Respond the Mongolian needs

- Take a look at operations of the Building center of Japan and the Japanese building permission & inspection system to apply that the construction and design of the new buildings are being built in Mongolia.
- Confirm the points to be noted for each type of structure for the GL being established.

Technology transfer

- In consideration of cost and structural type, technically possible reinforcement methods are incorporated into GL.
- Introduce the contents of the evaluation method of earthquake damage risk of infrastructure and pipeline to engineers and auditors, and use it for risk assessment in the future.

- Training program for evaluating the risk of earthquake damage of infrastructure pipeline. 2018.06
 Training program for seismic diagnosis of buildings: 2018.06
- Strengthening design for model building: 2018.04-09
- Training program for seismic strengthening: 2018.09





"The Project for Strengthening the National Capacity of Earthquake Disaster Protection and Prevention in Mongolia" 4th JCC (Joint Coordination Committee) Meeting

Output 3-1: DRR Education Progress of activities

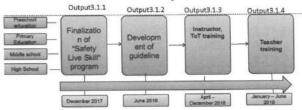


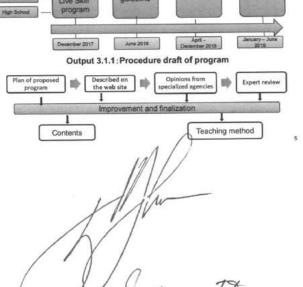
2nd training in Japan of C/P

What can be used in Mongolia

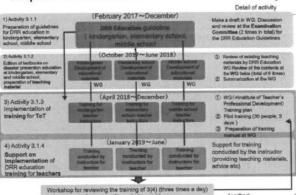
- Precedent, experience, lesson Official source, examples Experience, lessons learned
- Educational program, advice, teaching materials Characteristics of the region, opinions → content, teaching method, reading materials Information, training, drill
- · Cooperation, collaboration
 - DRR Education teacher, staff
 - Affiliated school, kindergarten
 - Expert Team for professional advice
 - Individuals, companies, local governments, national level, international level

WG 3.1 Activity Schedule

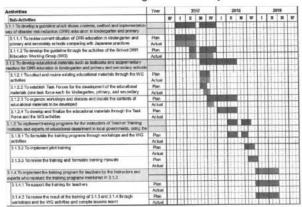




Output3-1: Flowchart of DRR Education activity



WG 3.1 Progress of activity



Output3.1.2: Preparation of guidebook (preparation of teaching materials

- Scheduled time for completion: until June 2018
- Implementation of 3-day workshop

Date : January 10th 2018 (Wednesday) ~12th(Friday)

- Participants: WG 3 1 members, WG 3 - 2 person in charge of teaching material making, person in charge of Safety Live Skill
- Implementation of regular meeting (every 2 weeks)

Structure of Guidebook Understanding safety education
1.Background, Demand
2. What is safety education
Preschool, "Safety Education
y Education

To Consistency between subjects (at and programs of "safety education" 2. Consistency between extra-currior time and "safety education" progra ncy between activity for sent of live skill and "safety

as Case)

1. Education of schools that implement "sate education" program, preparation of actio plan

2. Curriculum of each subject

a. Pre-school education

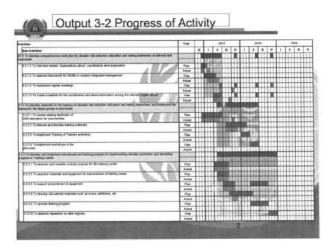
b. Primary education

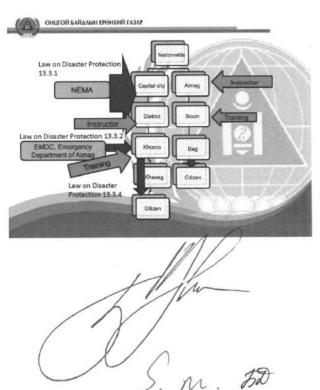
d. Basic education

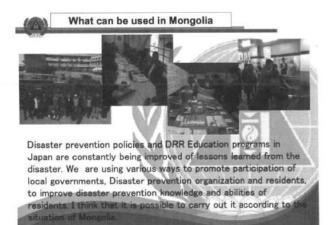
d. High school education

Output 3-2: Community DRR Education Progress of activities

"The Project for Strengthening the National Capacity of Earthquake Disaster
Protection and Prevention in Mongolia"
4th JCC (Joint Coordination Committee) Meeting







Output 3-2 Community DRR Education Contents of activity

- Activity 3.2.1 Development of DRR Education /schedule of raising awareness
 - "Disaster Prevention Education and Raising Awareness Team" of collaborative activity comprehensive schedule was held a meeting for International Day for Disaster Reduction.
 - About the server, we are scheduling a meeting with stakeholders.
- Activity 3.2.2: Development of educational materials for DRR Education and awareness raising, Implementation of training in the pilot area
 - •The Mongolian Red Cross and NEMA collaborate to train disaster prevention volunteer teams (15 people in each prefecture and district) . It is under consideration whether it can be targeted for instructor training in the future.
 - \cdot Teaching materials: o can be used in the classroom
 - can be used in outside

 Activity 3.2.3: DRR Education in the training center Consider about
- contents of awareness raising 'Development and Implementation of training

 'We conducted a training session for output of training in Japan for the instructors
 - We conducted a training session for output of training in Japan for the instructo at the training center. Especially, we introduced activity of disaster prevention training center in Japan, teaching materials which used there, educational program etc.

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ОНЦГОЙ БАЙДЛЫН ЕРӨНХИЙ ГАЗАР

Activity 3-2 Community DRR Education

- Issue
- The website is not yet installed on the server.
- · Next
- Joint meeting of WG 3.1 and 3.2 (topic is about development of educational materials)
- Joint meeting of WG 3.2

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Annex 4: Working Group Member List

Working Groups

Working Group (WG) Sub		Sub-WG	b-WG Member	
		Risk Assessment Guideline	D.Serjmyadag Disaster Research Institute, NEMA P.Amarzaya Disaster Research Institute, NEMA D.Bazarragchaa Disaster Risk Management Department, NEMA B.Batbayar Disaster Risk Management Department, NEMA B.Khishigbaatar Disaster Operation Department, NEMA S.Bazarragchaa Disaster Research Institute, NEMA	
WG1	Disaster Management Plan WG1 Coordinator: D.Bazarragchaa Disaster Risk Management	Disaster Management Planning Guideline, Preparedness Planning Guideline and Risk Management Guideline	B.Bayanmunkh Policy Coordination and Cooperation Department, NEMA B.Myagmardorj Disaster Operation Department, NEMA Ch.Otgontugs Fire Department, NEMA E.Batbayar EMDC A.Dashnyam EMDC Ts.Turbileg Disaster Operation Department, NEMA	
	Department, NEMA	Agreements	B.Duvshin Disaster Risk Management Department, NEMA	
		White paper	O.Tsend-Ayush Disaster Prevention Department, NEMA	
		Database Guideline	B.Purevnyam Disaster Operation and Early Warning Command Center, NEMA D.Badamsuren Disaster Research Institute, NEMA D.Bayarbaatar Disaster Operation and Early Warning Command Center, NEMA D.Sodnomragchaa Disaster Research Institute, NEMA B.Boldkhuu Disaster Operation and Early Warning Command Center, NEMA	
WG2	Seismic Resistance WG2 Coordinators: B.Soyomboo MCUD Z.Battulga Disaster Operation Department, NEWA	Seismic Diagnosis of Buildings	B.Soyomboo MCUD Z.Battulga Disaster Operation Department, NEMA N.Ganchimeg General Agency for Specialized Inspection B.Tsend-Ayush Master Planning Agency of Capital City, Construction Quality and Safety Department G.Saruultuya Construction Development Center T.Galbadrakh Finance and Logistics Department, NEMA G.Erkhembayar MCUD B.Gantulga Land Management, Geodesy and Cartography Agency, MCUD	
	/N/	Seismic Diagnosis of Infrastructures and Lifeline	B.Soyomboo MCUD Z.Battulga	

Working Group (WG)		Sub-WG	Member	
			Disaster Operation Department, NEMA N.Ganchimeg General Agency for Specialized Inspection B.Munkhsaikhan General Agency for Specialized Inspection G.Erkhembayar MCUD B.Gantulga Land Management, Geodesy and Cartography Agency, MCUD	
		Design for Seismic Strengthening	B.Soyomboo MCUD Z.Battulga Disaster Operation Department, NEMA N.Ganchimeg General Agency for Specialized Inspection B.Tsend-Ayush Master Planning Agency of Capital City, Construction Quality and Safety Department G.Saruultuya Construction Development Center G.Erkhembayar MCUD B.Gantulga Land Management, Geodesy and Cartography Agency, MCUD Ts.Khulan Master Planning Agency of Capital City, Construction Quality and Safety Department	
WG3	DRR Education WG3 Coordinator: D.Munkhbat	School DRR Education	J.Myagmar MECSS Ch.Gantsetseg MECSS P.Baljinnyam MECSS G.Mongolkhatan Education Research Institute, MECSS B.Erdenechimeg Education Research Institute, MECSS A.Enkhtogtokh Education Research Institute, MECSS G.Khaliun Education Research Institute, MECSS N.Munkhbayar ITPD D.Munkhbat Disaster Prevention Department, NEMA L.Munkhchimeg Disaster Prevention Department, NEMA	
	Disaster Prevention Department, NEMA	Community DRR Education	D.Munkhbat Disaster Prevention Department, NEMA D.Bat-Erdene Disaster Prevention Department, NEMA B.Uuriingegee EMDC B.Chinbat EMDC	

Annex 5: Record of Question and Answer in the JCC Meeting

1. Changes in WG Members, the Inclusion of Roads and Bridges in Structural Guidelines

Comment: Lieutenant Colonel Munkhbat, Head of the Division on DRR Awareness-Raising, NEMA:

In terms of WG1, Captain Khishigbaatar of the Disaster Emergency Management Department and Colonel Bazarragchaa of the Disaster Research Institute were added as members in charge of developing the risk evaluation guidelines.

Also in WG1, Captain Turbileg was added as a member in charge of improving the DRR plan guidelines, and Lieutenant Colonel Bayarbaatar is a now new member in charge of database development.

The Department Head at MCUD, Mr. Soyomboo was appointed as team leader of WG2, and is also responsible for activities related to infrastructures and lifelines.

As for WG3, Lieutenant Munkhchimeg from the Disaster Prevention Department has joined WG3-1; and Lieutenant Doljinsuren, Disaster Prevention Specialist at the Bayanzurkh District Branch of NEMA, will join WG3-2.

Are there any comments on the changes?

Question: Ms. Jargal, Director of Infrastructure Department, the General Agency for Specialized Investigation (GASI):

I would like to clarify something. Besides developing guidelines for buildings and infrastructures and lifelines, will the Project be included experts of GASI to WGs? I heard that the WGs who have gone on the training in Japan have talked about the importance of including roads and bridges.

Answer: Mr. Owada, JICA Expert Team:

Roads and bridges are included in the guidelines for infrastructures and lifelines, and are now pending approval. We then plan to present these guidelines to specialists on roads and bridges in a training session to be held in February or April of next year and have discussions on how to effectively use, and improve them.

Question: Ms. Jargal, Director of Infrastructure Department, GASI:

As of now, roads and bridges are not included in the guidelines to be printed.

Answer: Mr. Dorjhand, JICA Consultant in charge of Seismic Diagnosis:

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The content related to roads and bridges are currently being developed with the help of Japanese experts.

Question: Ms. Jargal, Director of Infrastructure Department, GASI:

Can roads and bridges be included in the activities of the WGs?

Comment: Mr. Gantulga, JICA Consultant in Charge of Roads, Bridges, and Infrastructures and Lifelines:

I would like to clarify a few things: First, in the newly amended Construction Law, roads and bridges were not included under the term "structure". Secondly, The State Secretary of the MCUD required us to include roads and bridges in the infrastructure in the guidelines. As the project are going to request the opinion of the guideline from the Ministry of Roads, Transport and Development (MRTD), Road and Transport Development Center, etc., GASI will be able to deal with it in this opportunity. The training of next year is also good occasion as Mr. Owada mentioned.

Comment and Question: Ms. Jargal, Director of Infrastructure Department, GASI:

Since currently the legal environment for the inspection of roads and bridges is not fully developed, I would like to ask, if possible, to include specific activities related to roads and bridges in the WGs.

Comment: Mr. Gantulga, JICA Consultant in Charge of Roads, Bridges, and Infrastructures and Lifelines:

I would like to also quickly mention that guidelines for maintenance of road and bridges were developed in 2015 by the MRTD in cooperation with JICA.

Question: Lieutenant Colonel Munkhbat, Head of the Division on DRR Awareness-Raising, NEMA:

Any opinions on changes in WG members?

If not, let's move on to the next topic, which concerns the necessary equipment for the Project. The term 'equipment' shall include the equipment at NEMA training center, as well as seismic diagnosis tools.

2. The Supply of DRR Equipment

Comment: Mr. Owada, JICA Expert Team:

I would like to mention a few things regarding the equipment. The required seismic diagnosis tools were identified and the preparations are currently underway. Preparations to the shaking table were made. A few days ago, CR Sato talked with

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General Badral about the equipment and has mentioned that there would be a slight delay.

Since there is also some construction work to be done for the installation of earthquake simulation, the equipment should be delivered in a timely manner.

Comment and Question: Ms. Jargal, Director of Infrastructure Department, GASI:

I understand that the equipment of seismic diagnosis will be used for the training of seismic diagnosis. Will the delivery of the equipment be coordinated with our plans to organize this training? I just want to clarify as you said there will be a delay.

Answer: Mr. Owada, JICA Expert Team:

The training is planned for June of next year. No equipment doesn't mean that training is impossible to start, but we will try to deliver the equipment before the training starts. For now, the equipment is scheduled to be delivered in May, and should therefore arrive in time for the training in June 2018.

Question, Lieutenant Colonel Munkhbat:

Are there any comments regarding Mr. Owada's explanation on equipment?

If not, let's move on to the next topic, which is selecting the pilot areas for the program to improve regional DRR plans of WG1.

3. Pilot Areas for the Program to Improve Regional DRR Plans, Case Study in Govi-Altai Aimag.

Question: Lieutenant Colonel Munkhbat, Head of the Division on DRR Awareness-Raising, NEMA:

As mentioned before, two capital districts: Chingeltei and Bayangol, as well as two aimags: Darkhan-Uul and Umunugovi were selected. Are there any comments on this?

Comment and Question: Ms. Sayanaa, Advisor to the Deputy Minister:

Just recently there was an earthquake of Magnitude 4.7 in Govi-Altai aimag. It was the first earthquake in recent years that caused significant cracks in the buildings of some schools and kindergartens. Is it possible to conduct research there as part of our Project? The goal of the Project is to strengthen DRR capacity and now a real disaster occurred just a month ago with regions already taking measures. We are talking about improving seismic resistance but can we visit a real disaster site and take necessary measures there?

However, I am not saying that we should change the pilot areas. I am merely suggesting to conducting an evaluation on the outcome of the earthquake in Chandmani soum of Govi-Altai aimag. If the Project members agree and want to take measures

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there, the Office of the Deputy Minister can support the Project by providing a reporting team from the National Radio and Television. We want to conduct an on-site evaluation of the earthquake, collect lessons, and inform the public on what to do in similar situations in other aimags.

Currently, the Mongolian Government is saying that the economy is in a bad state and it is difficult to improve the durability of buildings. But how about we take the lessons from this recent event and inform other aimags and educate the public? This can be done by preparing a short television program based on the on-site evaluation. This way, citizens in other aimags will act more effectively in taking preventive measures in similar situations. Let's do something with real results.

Comment: Mr. Owada, JICA Expert Team:

Thank you for your comment. WG2 are working in relation to this incident. They are able to conduct a case study on the recent earthquake in Govi-Altai. We would like to consult with the WG2 activity after investigation the damage situation.

Comment and Question: Ms. Sayanaa, Advisor to the Deputy Minister:

I just wish to take measures that yield real results. Please focus on this.

Comment, Lieutenant Colonel Munkhbat, Head of the Division on DRR Awareness-Raising, NEMA:

Are there any more comments on pilot areas? If not, the matter is settled.

4. Frequency of the Steering Committee Meeting and the JCC Meeting

Question: Colonel Batsaikhan, Project Director, Director of Disaster Prevention Department, NEMA:

Currently, the Project Steering Committee Meeting is held quarterly, while the JCC Meeting is held quarterly. There is also a proposal to organize the JCC Meeting semi-annually. Are there any comments?

Question: Mr. Sato, Chief Representative of JICA in Mongolia:

Since the beginning of the Project, the Steering Committee Meetings were held quarterly. Are there any issues with the current frequency of meetings?

Comment: Ms. Sayanaa, Advisor to the Deputy Minister:

In response to Sato-san's question, I believe that Steering Committee and JCC Meeting must be conducted according to the project guidelines since it is agreed upon by both parties. JCC are an excellent opportunity to identify issues, obtain information and discuss what the Mongolian Government can do to support the Project.

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Also, I'd like to mention that during the meeting between the Deputy Prime Minister and the Ambassador of Japan to Mongolia, our Project was emphasized. The two sides have agreed that the results of this project will have a material effect on DRR policies in Mongolia and from our side, we should support the Project in any way we can.

It is especially important for the Project to be flexible. For example, I just mentioned the Govi-Altai earthquake in this meeting and already a decision was made to take measures there. For example, the Deputy Prime Minister has approved of Government measures to take in response to public health crises in the disaster. The WHO has expressed to support practical tests for these measures and to dill exercises need to be conducted in order to check implementation. Now I would like to request the JICA Mongolia Team, Mr. Sato and Mr. Owada to focus on similar practical measures.

Also, I'd like to take this opportunity to express my gratitude to the Project members for taking the initiative to improve coordination with other projects from different organizations. NEMA cooperates with other organizations and I am glad that the JICA Project is well-aligned with the project conducted by World Vision. Last week, I had a meeting with the Head of the East Asia Department of the Asian Development Bank (ADB) and I mentioned the JICA project, and talked about improving coordination between our two projects since they are both on the subject of earthquake DRR. Yesterday, I had a meeting with Mercy Corps. Their new project is the introduction of DRR IT systems into Mongolia and I believe this project can be well-coordinated with the JICA project. Today, we talked about the need for support and servers. If JICA is talking about this, we should ask what can be done in terms of cooperation with other projects? Such as splitting server costs. I propose we jointly discuss this matter with other organizations.

Also, regarding the Memorandums of Cooperation with related organizations, I understand that two are established while four or five are still awaiting approval. What is taking so long? If there is any issue, tell us and Deputy Prime Minister will provide support.

Lastly, I would like to raise the issue of participation. I believe members should pay even more attention to attendance and punctuality. Prime Minister Khurelsukh gave organizations a direct order to be on time for meetings and I believe we should implement this advice in our Project. If our JCC members are unable to attend, then official representatives should be nominated. I wish for these tables to be filled in meetings and I urge Colonel Batsaikhan to please focus on this. The Mongolian side should pay more attention to this issue. I'd like to repeat the Prime Minister Khurelsukh's words to late officials: earthquakes happen in a matter of seconds and this is a project dedicated to reducing the risk of earthquake disasters, but if the DRR decision makers themselves are late, how can we keep the project running successfully?

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Finally, I'd like to express gratitude to JICA and the Project participants, if you need support please contact me and the Deputy Prime Minister will support however necessary.

Question: Mr. Sato, Chief Representative of JICA in Mongolia:

Thanks you for your comment. If the Mongolian side has discussed the issue and have found reasonable reasons to organize the JCC Meeting semi-annually, then there are no objections from our side.

Also, as Ms. Sayanaa mentioned, I notice that some members are absent in this meeting. I understand that officials are busy, but I'd like to suggest that if you are personally unable to attend a meeting, please nominate a representative.

Answer: Ms. Sayanaa, Advisor to the Deputy Minister:

Yes, please discuss this with Major General Badral.

Comment: Lieutenant Colonel Munkhbat, Head of the Division on DRR Awareness-Raising, NEMA:

We have finished discussing the topics for today. If there are no further questions, I now invite the Head of the DRR Department of NEMA, Mr. Batsaikhan for his closing speech.

END OF QUESTION AND ANSWER SESSION

Colonel Batsaikhan, Project Director, Director of Disaster Prevention Department, NEMA:

I would like to thank everyone for participating in the fourth JCC Meeting of the Project. As for the Project activities planned in 2017, the focus will be on supplying the DRR training equipment and seismic diagnosis tools.

I also request the MCUD to focus on developing seismic diagnosis guidelines for old buildings, and the MECSS to focus on improving the DRR awareness of citizens, and providing primary and secondary school children with DRR education.

I would also like to wish WG1 success on their upcoming training in Japan, and I request the Japanese side to please provide them with the necessary information. As for the WGs that have come back from the training, I trust that you have brought valuable knowledge concerning disaster prevention and risk reduction, disaster preparedness, improving the seismic resistance of structures and protecting citizens from disaster. We have a lot to learn from Japan but we also have to focus on how to apply them in Mongolia.

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In terms of project activities in 2018, the two sides need to cooperate in finishing the uncompleted work from 2017 within the first quarter. I would like to request the Chief Representative of JICA in Mongolia, Mr. Sato to support the Project in completing the tasks of the 2017 – 2019 working plan approved by JCC successfully in a timely manner. I hereby announce the closing of the fourth JCC Meeting. Thank you for your attention.

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We to