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

PROJECT COMPLETION REPORT **ANNEX** I

JANUARY 2020

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) ORIENTAL CONSULTANTS GLOBAL CO., LTD. KOKUSAI KOGYO CO., LTD. OYO INTERNATIONAL CORPORATION URBAN DISASTER RESEARCH INSTITUTE

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PROJECT COMPLETION REPORT

ANNEX

ANNEXI	
ANNEX 1: Results of the Project	
1-1 List of Dispatched Experts	1-1-1
1-2 List of Counterparts	1-2-′
1-3 List of Trainings	1-3-′
ANNEX 2: List of Products	2-^
ANNEX 3: Monitoring Sheet	3-^
ANNEX II	
ANNEX 4: PDM	4-′
ANNEX 5: R/D, M/M, Minutes of JCC	
5-1 R/D, M/M	5-1-
5.2 Minutes of ICC	5.2

ANNEX I

ANNEX 1 Results of the Project

ANNEX 1-1 List of Dispatched Experts

mestic																					1																	\Box
Site	11.83	12.67	7.00	7.33	8.00	8.00	3,50	3.50	2.00	2.00	2.00	2.00	1,50	1.50	0.50	0.50	10.83	9.67	3.00	3.00	3.67	4.00	1.20	1.20	4.00	5.50	5.50	2.30	00.00	1.93	6.17	6.00	00.00	0.17	3.00	3.00	00.00	0.57
Total days	355	380	210	220	240	240	105	105	09	09	09	09	45	45	15	15	325	290	06	06	110	120	98	36	120	165	165	69	0	28	185	180	0	2	06	06	0	17
b Mar																												. Kodama										
Jan Fel					***************************************					,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			***************************************					***************************************				***************************************						**Transfer 36 days To Ms. Kodama			•			1/16				
Dec	(g	10/30-11/15(17)		10/38-11/#(10)		98											(8)	1/10(20)								17(0,57)	1/12 (19)	sfer 36 c			5(0.17)			1/15(5),				
Fiscal Year 2019 Aug Sep Oct Nov	16(0.	- 	***************************************	-8/01		11/3-11/8(6)	***************************************		*************	***************************************	***************************************		***************************************		***************************************	*************	30(1.00)) 10/22-1				************				17(0.	10/25-1				5(0.		*************	11/11				***********
Scal Yes					3	0.020												11-9/30(30							12(0.73)	67.00	-8/21 (15)											
Fi ful Aug	(0)	8/6-8/11		6	S	■ /8											30(1.0								12(0.7)													*********
Jun	18(0)	6/30-7/4	12(10)			2 /200																				14(0.47)	10-6/23 (1				18 (0. 60)	6/31(18)						
pr May	- 1	-3/30(14) 4/14- 5/	9	/30		5/20-6/70											30 (1.00)	21-5/20(30							20(0.67)		/9 (2.1			21)		5/26-						
Mar A	14 (0, 46)	3/17-3/30	40.0	1/14-1/21 (8), 1/22-1/30																					3	17(0.57)	3/3-3/19(21 (0. 70)	3/3-3/23(25)						
an Feb		1/28	52/2-	/14-1/21 (83	1/9-2/2(25)				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			***************************************				27 (0.90)	20-2/15(27								14(0.47)	1/26(14)				25(0, 83)	1/23-2/16(25)						***********
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: 2018		11/11 0		-		2(31)	ì											11/4-11/1							18(0.60)	11 (0.37)			17(0, 57) 10(0, 33)	3-10/12(10	15 (0. 50)							
cal Year	30 (1. 00)	8/29-9/27 (30)		(0. 5t)		1 0/3/2		9/7(29)							(21	8-9/1(5)	29 (0. 97)	8/29-9/26(10,57	9/22(17)		17 (0. 57)	(7) IO/3-1	20 (0, 67)	9/18(20)						
Fis 11 Aug	·						29(0.97)	8/10-9/7(2							5 (0.17)	2(5) 8/28	.,					(2)			22 (0. 73)	27	-9/6			9/6-9/22(8/30-						
Jun	20(0, 7;	6/19-7/8(20)					20(0.67)	5/31-6/19(20)							5 (0.17)	6/18-6/22(5)	11 (0.37)	5/15(30) 5/30-6/9(11)	■ @	5/24-6/12(20)	22 (0. 73)	6/3-6/24(22)			22	(3)				(E	18(0.60)	6/15(18)				-5/27(21)	5(0.17) 5(0.17)	(3)
r May	(0.93)	4/10-5/7(28)		98(19)	100	5/2-6/1(31)		LO			6	/13(20)		10)			30(1.00) 11(0.37)	15 (30)	20 (0. 67)			6				8 (0, 27) 9 (0, 3) 10 (0, 33) 28-4/5 (9) 4/29-5/8 (10)	-4/22(8)		10 (0, 33)	4/29-5/8		5/29-6/			21(0.70	1(24) 5/7	3(0, 10)	4/18-4/20
Mar Ap	_	_			000	-3/25(28)					20(0,6	3/25-4/13	10(0, 33)	3/5-3/14(10)			36	4/16-5/			20 (0. 67)	3/18-4/				8 (0, 27 9 (0, 3) 3/28-4/5 (9) 4	(1)	713							24(0.80)	3/8-3/3	5(0.17)	V23-3/27 (5)
1 Feb	30(1.00	1/18-2/16(30)		2.4	26	2/26-3/												25)								7(0.23)	1/28-2/3(), 12/8-12								3(13),	2(0.07)	- C C C C C C C C C C C C C C C C C C C
Dec Jar	20)	/6(15)		95 (97)		11103											(0.83)	29-12/23(1(20)				8(10)			0	7-12/7 (11)			11 (0. 37)	22-12/2(11)			13(0.43)	12/11-12/		2/1-
2017 Nov	15(0)	11/22-12/6(15)		10/30-11	13(0) 43			/10(31)									25 (0.	11/29	20(0.67)	10/23-11/11(20)			10(0.33)	10/30-11/		14 (0.47)	16-11/29(14	11 (0.37)			11 (0.		***********					
l Year Sep Oct	(1.00)	/4-10/3(30)		7			0.03	9/10-10/1			00.67	8/31-9/19(20)									20 (0. 67)	-9/12(20)			(0)	14(0.47)	3040									8(12)		
Fiscal Yes	- 8	- 0,				a	3			9	8	8/3									20(0	8/24-9			18(0.60)	0,130	9/10-6	13.0				500			12(0,40)	8/7-8/1		
fun Jul	26(0.87)	6/14-7/9 (26)		MO)	2000	6/12-7/10			16(0, 53)	E/8-6/23(1			10 (0, 33)	/4-6/14			19 (0. 63)	6/13-7/1 (19)	22 (0. 73)	6/1-6/22(22)				14)		53)	24(16)	13 (0. 43)			20(0.67)	6/13-7/2				(20)	2(0.07)	13-6/14(2)
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ır Apr	33(1.			32(II.07)	100				21(0.	-6/4		(50)	14(0.	4/5-4/18(14)			30 (1.00)	4/6-5	13 (0. 43)	3/27-	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	8						22 (0. 73				58)						
. 2016 Feb Me	26 (0.87)	2/1-2/26(26)			96.00 87)	30-2/24(26)					20 (0, 67)	1/30-2/18				7(5)				1/30-2/13(15)	28(0.93)	1/30-2/26(2					9	1/30-2/15(1			8(0.93)	/30-2/26(2						
Fiscal Year 2016 v Dec Jan Feb	8		í	19/19/90			83	23-12/17(25)		-12/17(23			(0.37)	25-12/5(11)	(0.17)	12/13-12/17(5)	83)	-12/17(25)				9		11/23-12/4(12)	(29	23)	1)8/3	9			83)	17(25)						
Nov De	25(0.83)	11/23-12/17(25)	, in the second	20(0.6			25(0.83)	11/23-	23 (0.77)	11/25							25 (0.83)	11/23-			20(0.	11/23-12/12 ©	12(0.40)	11/23	20(0.67)	16 (0, 53)	11/23-12	6(0.2			25(0.83)	11/23-12/	***************************************					**********
Trips	13	15	œ	=	6	10	4	4	8	m	es	00	8	4	_	I	12	12	ro	5	LC C	ıçı	es	es	9 9	9 15	∞	rc.	0	4	10	6	1	0	LO.	20		I
1	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	record	Plan Actual record	Plan Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	lan	Actual	Plan	Actual
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Z												!	E	Isons	Aki	E					Macahida					Miki		Yujir		Oet								
title	+0000	leam Leader/Integrated disaster management I	am	leader/integrated disaster management II		ent plan I		ent plan II	ent system		svst		gement	I uc	gement	II II	istance		Seismic diagnosis of infrastructures and	se	Seismic diagnosis of	I (RC, PC)	Seismic diagnosis of buildings /seismic strengthening II (Masonry	ion)	istance	on I		on II	= = = = = = = = = = = = = = = = = = = =	11 110	saster	management / project coordination I	saster	coordination I	Development of disaster	s I	Development of disaster management teaching	project
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Assignment title	Name	Affili Trips	Fiscal Y Nov Dec J	ear 2016 Fiscal Year 2017 Per Per May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar	Apr May Jun Jul Ang Sep Oet Now Dec Jan Feb Mar Apr May Jun Jul Ang Sep Oet Now Dec	an Feb Mar days	M/M Site Domestic
Team Leader/integrated	Kiyotaka	Plan	2(0.10)	40.20)	4(0,20)	18	0.90
disaster management I	OWADA	Actual record	11/22(1) 12/22(1)		8/2-2-(0) 11/24/27(1.8)	18	0.89
Director monocomment alon I	Ocom, MEUIT	Plan	2 (0.10)	11 (0.55)	4(0.20)	21	1. 05
Disaster management plan i		OlC Actual record	11/22(1) 12/22(00	(0.15(0)) (0.15(0)) (0.15(0)) (0.15(0)) (0.15(0)) (0.15(0))	21	1.05
Disaster management	Akihiro	Plan		20,10		2	0.10
information II	FURUTA	Actual record		10.23-10.24(2)		5	0.10
Earthquake resistance	Seiichiro	Plan 000	2 (0.10)	60.30)	36.15	88	1. 40
design	FUKUSHIMA	(RKK) Actual record	11/22(1) 12/22(1)		[1/11, 02) [18:8] [1] [1] [1] [1] [1] [1] [1] [1] [1] [1	28	1. 40
n Earthquake resistance	Hideto OMINE	OCG Plan (privat		200.10		2	0.10
		operati Actual		3/21, 3/24(2)		2	0.10
0 S + 4		Plan	3(0.15)	3(0, 15)	60.30	30	1. 50
c DRR education I	Miki KODAMA	ADRC Actual record	12/22(1)	1.28-27(2) 3.722-24(3) 9.58-98, 10.730(1) 1.75-119, 10.28(1) 9.28-98. 10.71(1), 11.76-119, 10.28(1) 9.28(6) 11.113-11.11(9)	10/16-17(2)	30	1.50
Community disaster	Toshikazu	Plan		00.00		9	0.30
management / project coordination I	HIWAKI	OCG Actual record		9/22, 9/25-9/29(6)		9	0.30
Development of disaster	Veles OffA	Plan				8	0.40
management teathing materials I	1080 010	Actual record		3.2. 3.4-3.9 (5) 9/35-9/28 (3)		8	0.40
Derrol comment of discretors		Plan	222(1.10) 15 (0.75) 13(0.65) 5(0.25) 4(0.2	0 7(0.35) 3(0.15) 1(0.05) 4	150	7. 50
protypent; and an analysement teaching materials II / project coordination II	Amar jargal NAYANBAATAR	OCG (CTII) Actual record	11/24-25(2), 11/28-12/2(6), 12/5-9(6), 12/12-16(6), 12/19-12/25(6)	278-25(4), 4/31-34(4) 6/36(2), 276-16(6), 5/9-24(4), 6/36/26(2), 2/3-17(6), 5/32-6/26(4), 6/32-6/26(4)		139	6.93
w o Training management	Yoko OTA	Plan 0006		15(0, 75)		15	0.75
		Actual		3.70, 3/13-3/17, 3/21-34, 3/26-3/30 (15)		15	0.75
	Toshikazu	Plan		(3.00) (1		10	0.50
Domestic training work 1	HIWAKI	006 Actual record		10,000-10,31 (2)		10	0.50
Domastic training work 2	Yoko OTA	Plan 000		(3.00)		10	0.50
DOMOSTIC CLULLING WOLN L	200	Actual		■ 11/13-11/18, 11/29-11/28	0)32(0)	10	0.50
Domontio transition world 2	Koori AOMO	Plan		1000.5)		10	0.50
Office of a second of the seco		Actual		12/5-9, 12/11-15(10		10	0.50
DRR Eeducation 2	Sei ii SUWA	Plan				0.00	0.00
	,	Actual			, E (1.33)	1.33	0.07
					Demestic work Demestic work subtotal (work subtotal (plan) otal (Actual record)	15, 50
Report etc.	Submission		△ △ Project Plan△ Work plan Monitoring Sheet			Final Report	
					IS .	e work (Plan)	79.20 15.50
					Site work (Actual	al record)	79. 71 14. 99

Explanatory note: Work engagement plan
Work engagement record

Work engagement record

Work engagement record (Domestic work)

ANNEX 1-2 List of Counterparts

- 1. The administration of authorities of the Project is as following,
 - (a) Project Director:

D.Batsaikhan, Director of Disaster Prevention Department, the National Emergency Management Agency (hereinafter referred to as "NEMA")

(b) Project Manager:

Luvsansharav Ulziibayar, Director of Policy Coordination and Cooperation Department, NEMA

- (c) Project Coordinator
 - B. Vanchindorj, Policy Coordination and Cooperation Department, NEMA

2. The member list of the C/P for each WG

(a) Member of Sub-Group of WG1

Sub-WG	Name	Job Title
Coordinator for WG1	D.Bazarragchaa	Disaster Risk Management Dep., NEMA
Disaster	D.Serjmyadag	Disaster Research Institute, NEMA
Risk Assessment	D.Bazarragchaa	Disaster Risk Management Dep., NEMA
(WG1-1)	B.Khishigbaatar	Disaster Operation Dep., NEMA
Disaster	B.Bayanmunkh	Policy Coordination and Cooperation Dep., NEMA
Protection Planning	Ch.Otgontugs	Fire Dep., NEMA
(WG1-2)	B.Khishigbaatar	Disaster Operation Department, NEMA
Disaster Reduction	B.Duvshin	Disaster Risk Management Dep., NEMA
Agreement (WG1-3)	T.Bilguun	Policy Coordination and Cooperation Department, NEMA
White Paper (WG1-4)	O.Tsend-Ayush	Disaster Prevention Dep., NEMA
	B.Purevnyam	Public Announcement and Emergency Administration Centre, NEMA
Disaster	D. Sodnomragchaa	Spatial Information and Technology Division, NEMA
Database (WG1-5)	B. Boldkhuu	Public Announcement and Emergency Administration Centre, NEMA
	D. Bayarbaatar	Public Announcement and Emergency Administration Centre, NEMA

(b) Member of Sub-Group of WG2

Sub-WG	Name	Job Title
Coordinator for WG2	B.Gantulga	Ministry of Construction and Urban Development (MCUD)
	B.Gantulga	MCUD
	O.Bayarbaatar	MCUD
	B.Bayardulam	Land Management, Geodesy and Cartography Agency, MCUD
Seismic	N.Ganchimeg	General Agency for. Specialized Inspection (GASI)
Diagnosis of	N.Tamir	Master Planning Agency of Capital City
Buildings (WG2-1)	Ts.Khulan	Master Planning Agency of Capital City
(1132 1)	G.Saruultuya	Construction Development Center
	S.Munkhdul	Construction Development Center
	T.Galbadrakh	Finance and Logistics Dep., NEMA
Seismic Diagnosis of	B.Gantulga	Land Management, Geodesy and Cartography Agency, MCUD
Infrastructures	O.Bayarbaatar	MCUD
and Lifelines	N.Ganchimeg	GASI
(WG2-2)	B.Munkhsaikhan	GASI
	B.Gantulga	Land Management, Geodesy and Cartography Agency, MCUD
Design for	O.Bayarbaatar	MCUD
Seismic	N.Ganchimeg	GASI
Strengthening (WG2-3)	N.Tamir	Master Planning Agency of Capital City
(52 0)	Ts.Khulan	Master Planning Agency of Capital City
	S.Munkhdul	Construction Development Center

(c) Member of Sub-Group of WG3 (As of May, 2019)

Sub-WG	Name	Job Title					
Coordinator for WG3	D.Bat-Erdene	Disaster Prevention Dep., NEMA					
	J.Myagmar	Ministry of Education, Culture, Science and Sports (MECSS)					
	Ch.Gantsetseg	MECSS					
	P.Baljinnyam	MECSS					
School	A.Enkhtogtokh	Education Research Institute (ERI), MECSS					
DRR	B.Erdenechimeg	ERI, MECSS					
Education	G.Mongolkhatan	ERI, MECSS					
(WG3-1)	G.Khaliun	ERI, MECSS					
	N.Munkhbayar	Institute of Teacher Professional Development					
	D.Bat-Erdene	Disaster Prevention Dep., NEMA					
	G.Enkhtsolmon	Disaster Prevention Dep., NEMA					
	D.Bat-Erdene	Disaster Prevention Dep., NEMA					
Community	D.Khadbaatar	Disaster Prevention Department, NEMA					
DRR Education	D.Dulamsuren	Public Information Center, Disaster Prevention Dep., NEMA					
(WG3-2)	S.Doljinsuren	EMDC					
	B.Chinbat	EMDC					

Sub-WG	Name	Job Title					
	D.Munkhbat	EMDC					
	B.Uuriingegee	EMDC					
	B.Ariunchimeg	National Center for Long life Education					

ANNEX 1-3 List of Trainings

1. 1st Training Mar. 20-29, 2017

1) Participants

No	Name		Job Title
1.	Mr.	Badral Tuvshin	Director at National emergency management agency
2.	Ms.	Sayanaa Lkhagvasuren	Adviser to Deputy Prime Minister
3.	Mr.	Ganzorig Barkhas	Cabinet Secretariat
4.	Mr.	Zanabazar Dondovtseren	MCUD
5.	Ms.	Myagmar Jadambaa	MECSS
6.	Mr.	Uuganbayar Batmunkh	Disaster Prevention Dep., NEMA
7.	Mr.	Batsaikhan Dorj	NEMA, Monitoring / Evaluation / Internal Audit Section Manager
8.	Mr.	Khurelbaatar Gurbadam	EMDC
9.	Mr.	Bat-Erdene Genen	Policy Coordination and Cooperation Dep., NEMA
10.	Mr.	Altankhishig Erdene-Ochir	Policy Coordination and Cooperation Dep., NEMA
11.	Ms.	Uranchimeg Shuushingaa	GASI
12.	Ms.	Tsend-Ayush Badmaev	Master Planning Agency of Capital City

2) Program of training

Date	Time			Activity
03/20(Mon)				Arriving Narita
	9:00	-	10:30	Briefing
	10:30	-	11:30	Disaster prevention and economic growth
	13:30	-	13:45	Courtesy call and exchange of opinions(Cabinet Office, Vice Minister Matsumoto)
03/21(Tue)	14:00	-	14:50	Disaster prevention lectures and exchange of opinions
	16:20	-	17:20	Securing sustainable disaster prevention administration and investment for disaster prevention
	17:30	-	18:00	Introduction of Japan Bosai Platform (JBP) activities
	9:30	-	9:40	Courtesy call(Nanajyou Technical counselor)
	9:40	-	10:40	Building Standard Act in Japan
	10:40	-	11:20	Prioritizing earthquake resistance of government buildings (public facilities)
03/22(Wed)	11:20	-	12:00	Guidelines for seismic diagnosis of infrastructure and lifeline, guidelines for seismic reinforcement (draft)
	13:30	-	15:00	Comprehensive disaster prevention in Tokyo, disaster prevention city planning, building earthquake resistance
	15:00	-	16:10	Seismic building in Tokyo
03/23(Thu)	9:30	-	11:50	Ministry of Education, Culture, Sports, Science and Technology (Disaster prevention measures at school facilities and disaster prevention education at schools)
	13:30	-	14:25	Visit to Honjo Life safety Learning Center(Management / Management Lecture)
	14:30	-	16:20	Visit to Honjo Life safety Learning Center(Program experience)
03/24(Fri)	9:30	-	10:30	UR Takashimadaira housing complex(Seismic retrofit and case study)
	11:00	-	11:40	Itabashi school, public facilities earthquake-resistant repair
	12:00	-	12:30	Courtesy call (Mayor Itabashi)
	13:30	-	16:00	Itabashi Ward (earthquake resistance measures, regional disaster prevention plan, community disaster prevention)

Date	Time			Activity
03/25(Sat)	9:30	-	11:00	Visit to the Fire Museum (visit to disaster prevention awareness facility)
	11:30	-	13:00	Tour in Tokyo Rinkai Disaster Prevention Park (Sona Area Tokyo) (visiting
				disaster prevention awareness facilities)
03/26(Sun)	9:00	-	12:00	Transfer from Shinagawa to Shin-Kobe
	14:00	-	16:00	Plus Arts (Tools and programs for effective disaster prevention awareness and
				education)
03/27(Mon)	9:30	-	11:45	Hyogo Prefectural Board of Education (disaster prevention education in Hyogo
				Prefecture)
	13:30	-	15:30	Hyogo Prefectural Emergency Management and Training Center (Function of
				Wide Area Disaster Prevention Base)
	15:40	-	17:00	Visit to Hyogo Earthquake Research Center (E-defense) (E defense facility
				introduction)
03/28(Tue)	9:30	-	10:10	Visit to Disaster Reduction and Human Renovation Institute(Facility overview)
	10:10	-	11:15	Visit to Disaster Reduction and Human Renovation Institute (Earthquake disaster
				prevention education / enlightenment facility tour)
	11:15	-	12:45	Visit to Disaster Reduction and Human Renovation Institute(Q & A regarding
				facility management)
	13:30	-	15:00	Shiga University (Device to incorporate disaster prevention into school
				education)
	15:00	-	17:15	Wrap-up Meeting with JICA Project team members
	17:15	-	17:50	Closing Ceremony
03/29(Wed)	6:15	-	7:30	Depart from Japan

2. 2nd Training for Output 3 C/P

1) Participants

No	Name		Job Title
1.	Mr.	Dovchin Munkhbat	Disaster Prevention Dep., NEMA
2.	Ms.	Chodin Gantsetseg	MECSS
3.	Ms.	Amgalan Enkhtogtokh	Education Research Institute (ERI), MECSS
4.	Ms.	Begzsuren Erdenechimeg	ERI, MECSS
5.	Ms.	Gunsen Mongolkhatan	ERI, MECSS
6.	Ms.	Ganbaatar Khaliun	ERI, MECSS
7.	Ms.	Navaan Munkhbayar	Institute of Teacher Professional Development
8.	Mr.	Dulmaa Bat-Erdene	Disaster Prevention Dep., NEMA
9.	Mr.	Batmunkh Chinbat	EMDC
10.	Mr.	Bat-Erdene Uuriingegee	DRR Training Center, EMDC

2) Program of Training

Date	Time			Activity
10/29(Sun)				Arrive at Japan
	9:00	-	10:15	Briefing, Disaster prevention and economic growth
	10:15	-	10:45	Orientation
10/30(Mon)	11:00	-	12:30	Promotion of disaster prevention measures in Japan and disaster prevention awareness and education
	14:30	-	17:45	Disaster prevention training facility for citizens: Honjo Life safety Learning Center (Development of training programs)
	9:30	-	11:30	Efforts to improve disaster prevention capabilities of local residents and local governments
10/31(Tue)	13:30	-	15:00	Disaster prevention education at junior high school (visiting classes, discussion with teachers)
	17:00	-	18:00	Program orientation

Date	Time			Activity
				Transfer from Tokyo to Sendai
11/1/37-4)	13:45	-	14:30	Disaster prevention education at elementary school (class tour)
11/1(Wed)	14:30		16.00	Efforts for disaster prevention education in the Department of
	14:30	-	16:00	Disaster Prevention and Safety (elementary school)
	10:30		12:00	Systematization and practice of disaster prevention education in
	10:30		12:00	teacher training courses
	12:00	_	12:30	Facilities that pass on disasters and local memories: Visit to Sendai
	12.00		12.30	3.11 the Memorial Community Center
	14:00	_		The role of schools in the event of a disaster: relics of the
11/2(Thu)	14.00			earthquake (Arahama Elementary School, Sendai City)
	14:00	_	15:00	Remains of the earthquake disaster Sendai City Arahama
	11.00		13.00	Elementary School
	15:20			Hiwayama-Nakano 5-chome Tsunami Evacuation Tower (car
				window)
11/2/5	16:30	-	18:00	First half program review workshop
11/3(Fri)				Transfer from Sendai to Kobe
	0.20		12.00	Disaster prevention training facility for citizens: Kyoto City
	9:30	-	12:00	Disaster Prevention Center (strong wind experience, emergency
11/4(Sat)				training, etc.)
, ,	13:30		17:00	Cultural heritage and disaster prevention: Historical buildings and earthquake resistance: Sanjusangendo, historical buildings and
	13:30		17:00	disaster prevention measures: Kinkakuji
				Disaster prevention activities by local residents (Fureai Disaster
	9:00	-	12:00	Prevention Sports Tournament)
11/5(Sun)				Visit to Disaster Reduction and Human Renovation
11/3(5411)	14:30		16:30	Institute(Disaster prevention education facility that conveys the
	14.50		10.50	experience of catastrophes)
				Promotion of school disaster prevention education in Hyogo
	10:00	-	12:00	Prefecture and training for school staff on disaster prevention
11/6(Mon)	14:00		16.00	Preparation and practice examples of disaster prevention education
		-	16:00	at kindergartens, elementary schools and junior high schools
11/7/T	10:00	-	12:00	Promotion of school disaster prevention education
11/7(Tue)	14:00	-	16:00	School disaster prevention education simulation class (workshop)
				Transfer from Kobe to Nagoya
	11,00		12:30	Development of disaster prevention education / enlightenment
11/9/W/ad)	11:00	-	12:30	tools (Bururu-kun,etc) and facilities Maintenance
11/8(Wed)	12:30	_	16:00	Disaster prevention education facilities in collaboration with
	12.30		10.00	universities and research institutions: Disaster Reduction Hall
				Transfer from Nagoya to Kobe
	10:00	_	12:00	Preschool children (at nursery school) disaster prevention
11/9(Thu)	10.00		12.00	education
11/7(111u)	13:30	_	15:30	Development and practice of disaster prevention education
	13.30		15.50	program in line with the region
	10:00	_	11:30	Disaster prevention awareness to residents through exhibition of
11/10(Fri)				disaster prevention goods and awareness tools
11/10(111)	13:00	-	15:00	Review workshop
	15:00	-	16:30	Evaluation meeting, closing ceremony
11/11(Sat)				Depart from Japan

3. 3rd Training for Output 2 C/P

1) Participants

	Name	Job Title
1.	Mr. Battulga Zayaabaatar	Disaster Operation Dep., NEMA
2.	Mr. Gantulga Baatar	Land Management, Geodesy and Cartography Agency,
		MCUD
3.	Mr. Erkhembayar Gansukh	MCUD
4.	Mr. Galbadrakh Tuvshinbayar	Finance and Logistics Dep., NEMA
5.	Ms. Saruultuya Gantumur	Construction Development Center
6.	Mr. Munkhsaikhan Batdorj	GASI
7.	Ms. Ganchimeg Namsrai	GASI
8.	Ms. Tsend-Ayush Badmaev	Master Planning Agency of Capital City
9.	Ms. Khulan Tsogtbayar	Master Planning Agency of Capital City

2) Program of Training

Date	Time			Activity
11/12(Sun)				Arrive at Tokyo,Japan
	10:00	-	11:30	Briefing, Disaster prevention and economic growth
11/12/04	11:30	-	12:00	Orientation
11/13(Mon)	13:30	-	15:00	Building confirmation and building examination
	15:15	-	17:15	Seismic resistance of apartment buildings with floor wall PC
	9:30	-	11:30	About earthquake hazard
11/14(Tue)	13:00	-	14:30	Seismic evaluation of infrastructure pipeline
	15:00	-	16:30	Learn infrastructure diagnostics
11/15(Wed)	10:00	-	12:00	Practice of building seismic diagnosis method
	13:30	-	14:30	Learn about earthquake-resistant diagnosis and reinforcement of
				buildings
	15:00		15:45	Overview of seismic diagnosis in Itabashi Ward
	15:15		16:30	Examples and explanations of seismic diagnosis of buildings
11/16(Thu)	10:00		12:00	Learn about masonry seismic reinforcement
11/17(Fri)	10:00	-	12:00	Learn about earthquake damage and seismic retrofit
	13:00	-	15:40	Visit to seismic observation equipment, building laboratory and
				base-isolated building
	15:50		16:50	Seismic and tremor observation of buildings and ground and the benefit of observation data
	16:50		17:20	Overview of earthquake-resistant buildings in Kazakhstan and Armenia
11/18(Sat)	9:00	-	16:00	Touching Japanese culture (Buikan-Furukawa)
11/19(Sun)		-		Information collection
11/20(Mon)	10:00	-	11:00	The actual situation and lessons learned from the Great East Japan Earthquake
	11:15	-	11:55	Disaster response in the Great East Japan Earthquake and post-earthquake
	14:00		14:30	Overview of the inspection building
	14:30		16:30	Examples of seismic diagnosis and retrofitting of buildings on the Aobayama campus
	17:30		19:00	Social gathering (Organized by Tohoku University)
11/21(Tue)	10:00	-	11:30	Seismic reinforcement example, construction tour
	13:00	-	15:00	Review meeting and presentation
	15:00	-	16:00	Evaluation
			16:30	Closing Ceremony
11/22(Wed)				Departing from Japan

4. 4th Training for Output 1 C/P

1) Participants

	Name	Job Title
1.	Ms. Serjmyadag Dalai	Disaster Research Institute, NEMA
2.	Ms. Amarzaya Purev	Disaster Research Institute, NEMA
3.	Mr. Batbayar Batjargal	Disaster Risk Management Dep., NEMA
4.	Mr. Bayanmunkh Buyantogtokh	Policy Coordination and Cooperation Dep., NEMA
5.	Mr. Myagmardorj Batsuuri	Disaster Operation Dep., NEMA
6.	Mr. Otgontugs Chimed	Fire Dep., NEMA
7.	Mr. Dashnyam Altantuya	EMDC
8.	Mr. Turbileg Tsogtbaatar	Disaster Operation Dep., NEMA
9.	Ms. Duvshin Byambasuren	Disaster Risk Management Dep., NEMA
10.	Mr. Purevnyam Baljinnyam	Public Announcement and Emergency Administration Centre,
		NEMA
11.	Mr. D.Bayarbaatar	Public Announcement and Emergency Administration Centre,
		NEMA
12.	Mr. Sodnomragchaa Dagva	Disaster Research Institute, NEMA
13.	Mr. Boldkhuu Batkhuyag	Public Announcement and Emergency Administration Centre,
		NEMA

2) Program of Training

Date	Time			Activity
12/6(Wed)				Arrive at Tokyo,Japan
	9:00	-	9:30	Sendai Framework for Disaster Risk Reduction and Global Target
	9:30	-	10:00	Orientation
12/7(Thu)	10:00	-	11:40	Briefing
12/7(Thu)	13:30	-	15:00	Crisis management in Tokyo
	15:15	-	16:10	About the initial bulletin board of the Tokyo Metropolitan Government Disaster Prevention Section
	9:20	-	11:00	Itabashi ward disaster prevention organization and fire brigade
10/0/E :>	11:10	-	12:00	Itabashi District Disaster Prevention Plan System
12/8(Fri)	13:30	-	16:30	Specific contents of the Itabashi-ku regional disaster prevention plan and evacuation center management about
12/0(Sat)	10:00	-	11:30	Tour in Tokyo Rinkai Disaster Prevention Park (Sona Area Tokyo) (visiting disaster prevention awareness facilities)
12/9(Sat)	14:30	-	16:00	Visit to the Fire Museum (visit to disaster prevention awareness facility)
12/10(Sun)				Transfer from Tokyo to Sapporo
12/11(Man)	9:30	-	11:00	Sapporo Civic Disaster Prevention Center, earthquake, smoke, strong wind, fire-fighting experience
12/11(Mon)	13:00	-	14:20	Regional disaster prevention plan for snowy cold regions
	14:00		16:00	Disaster prevention activities at home and community in Sapporo
12/12(Tue)	9:00	-	11:30	About disaster prevention in Hokkaido
12/12(146)	15:30	-		Transfer from Sapporo to Tokyo
	9:30	-	12:00	Evaluation method of earthquake disaster risk and utilization for disaster prevention plan
12/13(Wed)	13:30	-	15:00	Advanced research on utilization of disaster information
	15:000	-	16:30	Introduction to the National Institute of Disaster Prevention, tour of shaking table and rain test facility
12/14(Thu)	9:00	-	11:00	About utilization of disaster information
12/14(Thu)	13:30	-	16:30	Application examples of Fujisawa City's e-community map
12/15(Fri)	9:00	-	12:30	Earthquake disaster countermeasures in Japan

	13:10	-	15:20	Review meeting and presentation
	15:30	-	16:00	Evaluation
	16:30	-		Closing Ceremony
12/16(Sat)				Depart from Japan

ANNEX 2 List of Products

ANNEX 2 List of Products

1. Guidelines for Disaster Management, Seismic Diagnosis and DRR Education, and Regulation, draft of agreement

[Output 1]

- 1-1 Guideline on Earthquake Disaster Risk Assessment (JP, MN)
- 1-2 Technical Guideline on Earthquake Disaster Risk Assessment
 - 1-2-1 Technical Guideline on Earthquake Disaster Risk Assessment (JP, MN)
 - 1-2-2 Manual of Damage Calculation (JP, MN)
 - 1-2-3 Calculation Sheet for Damage (JP, MN)
- 1-3 National Earthquake Disaster Protection Planning Guideline (JP, MN)
- 1-4 State Earthquake Disaster Protection Service Planning Guideline (JP, MN)
- 1-5 Regional Earthquake Disaster Protection Planning Guideline (JP, MN)
- 1-6Agreement
 - 1-6-1 Manual of Preparation Procedure of the Agreement (JP, MN)
 - 1-6-2 Draft of Agreements (eleven cases) (JP, MN)
- 1-7 Guideline on Operation and Management of Spatial Information System for Disaster Risk Reduction (JP, MN)

[Output 2]

- 1-8 Seismic Evaluation and Retrofitting Method of Existing Reinforces Concrete Buildings (JP, MN)
- 1-9 Seismic Evaluation and Retrofitting Method of Existing Wall type Precast Concrete Buildings (JP, MN)
- 1-10 Seismic Evaluation and Retrofitting Method of Existing Masonry Buildings (JP, MN)
- 1-11 Methodology of Seismic Risk Analysis Evaluation of Road, Bridge and Engineering Supply System (JP, MN)

[Output3]

- 1-12 Program for Life Safety Education (JP, MN)
- Manual or Materials for Training on Disaster Management, Seismic Diagnosis and DRR Education [Output2]
- 2-1 Manual to Support Training Program Implementation
 - 2-1-1 Manual to Support Training Program Implementation (RC, PC, Masonry) (JP, MN)
 - 2-1-2 Manual to Support Training Program Implementation (Infrastructure and Lifelines) (JP, MN)

[Output 3]

- 2-2 Guidebook on Life Safety Program
 - 2-2-1 Guidebook for teachers on the Life Safety (School) (JP, MN)
 - 2-2-2 Guidebook for teachers on the Life Safety (Pre-School) (JP, MN)
- 2-3 Instructor's Manual DRR Experience Program (JP, MN)
- 3 . Draft of an Earthquake Disaster Protection Plan and a Manual of amendment of an Earthquake Disaster Protection Plan
 - 3-1 The Earthquake Disaster Protection Plan of Darkhan-Uul Aimag, (JP, MN, EN)
 - 3-2 The Earthquake Disaster Protection Plan of Umnugovi Aimag (JP, MN)

- 3-3 The Earthquake Disaster Protection Plan of Bayangol District (JP, MN)
- 3-4 The Earthquake Disaster Protection Plan of Chingeltei District (JP, MN)
- 3-5 Manual for Earthquake Disaster Risk Reduction Planning (JP, MN, EN)
- 4. White Paper and Manual of White Paper
- 4-1White Paper (JP, MN, EN)
- 4-2 Creation Manual of the Disaster Risk Reduction White Paper (JP, MN, EN)
- 5. Dissemination Materials of the Project at International Conferences, etc (EN)
 - 5-1 The brochure of the project distributed in the AMCDRR, 2018
 - 5-2 Seismic Diagnosis and Formulation of Reinforcement Design Standards for Masonry Buildings in Mongolia, 16th ECEE, 2018
 - 5-3 Development of Seismic Diagnosis and Retrofitting Standards for Existing Buildings in Mongolia, 7th ACEE, 2018
 - 5-4 Development of Seismic Evaluation and Retrofit Standards for Existing Buildings in Mongolia, International Science Conference on Strengthening Urban Disaster Resilience in Mongolia, 2019

Note MN: Mongolia JP: Japanese EN: English

ANNEX 3 Monitoring Sheet

ANNEX 3 Monitoring Sheet

Format of Monitoring Sheet TO Chief Representative of JICA ●● OFFICE

PROJECT MONITORING SHEET

Project Title:

Version of the Sheet: Ver.1.0 (Term: Month, Year - Month, Year)

Vame:

Title: Chief Advisor Submission Date:

I. Summary

- 1 Progress
- 1-1 Progress of Inputs
- 1-2 Progress of Activities
- 1-3 Achievement of Output
- 1-4 Achievement of the Project Purpose
- 1-5 Changes of Risks and Actions for Mitigation
- 1-6 Progress of Actions undertaken by JICA
- 1-7 Progress of Actions undertaken by Gov. of ••
- 1-8 Progress of Environmental and Social Considerations (if applicable)
- 1-9 Progress of Considerations on Gender/Peace Building/Poverty Reduction (if applicable)
- 1-10 Other remarkable/considerable issues related/affect to the project (such as other JICA's projects, activities of counterparts, other donors, private sectors, NGOs etc.)
- 2 Delay of Work Schedule and/or Problems (if any)
- 2-1 Detail
- 2-2 Cause
- 2-3 Action to be taken
- 2-4 Roles of Responsible Persons/Organization (JICA, Gov. of●●,etc.)
- 3 Modification of the Project Implementation Plan
- 3-1 PO
- 3-2 Other modifications on detailed implementation plan

(Remarks: The amendment of R/D and PDM (title of the project, duration, project site(s), target group(s), implementation structure, overall goal, project purpose, outputs, activities, and input) should be authorized by JICA HDQs. If the project team deems it necessary to modify any part of R/D and PDM, the team may propose the draft.)

- 4 Preparation of Gov. of • toward after completion of the Project
- II. Project Monitoring Sheet I & II as Attached

Project Monitoring Sheet I

Version 1 Dated Dec. 7th, 2016

Project Title: Project for Strengthening the National Capacity of Earthquake Disaster Protection and Prevention in Mongolia Implementing Agency: National Emergency Management Agency (NEMA)

Target Group: NEMA, Ministry of Construction and Urban Development, Ministry of Education, Culture and Science, General State Inspection Agency, Emergency Management Department of the Capital City (EMDC), Construction Quality and Safety Department, Master Planning Agency of Capital City

Period of Project: December 2016 to November 2019 Project Site: Mongolia

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption	Achievement	Remarks
Seismic risk will be reduced.	Number of the approved guideline, rules, provisions Number of white paper open to public Number of the executed seismic assessment Number of the seismic strengthed building Number of implemented activities on disaster risk reduction education	Study by NEMA	The policy on disaster risk reduction will not be changed in Mongolia.		
The Capacity of National Emergency Management The Capacity of National Emergency Management Agency will be enhanced through the activities for strengthening the countermeasures for seismic risk.	The number of the approved guidelines and agreement The number of the data on disaster risk reduction which newly established and improved	Project report	NEMA expands the pilot activities in other aimags and sums.		
Outputs 1. Capacity for data collection on disaster risk reduction and coordination among related organizations will be enhanced. 2. Capacity of public administration officer related with the seismic assessment and seismic strengthening for buildings will be enhanced.	1.1 The number of guidelines, operational rules, provisions which are developed. 1.2 The number of the draft of agreement developed and participants who participated in the training programs on agreements. 1.3 White peper on disaster risk reduction. 2.1 Guideline for seismic assessment. The number of the participants in the training program on seismic assessment. 2.2 Guideline for seismic strengthening. The number of the training program on seismic strengthening. Strenathening.	Project report	The counterparts from NEMA, the Ministry of Construction and Urban Development and the Ministry of Education continue to work in the same position. 2. Participants in training programs continue to work in the same position. 3. The relation among related organizations is maintained. 4. Exchange information is maintained among the related organizations.		

3. Implementing plan on disaster risk reduction education and awareness raising activities will be	3.1 The number of the cases of delivering classes on Ordinance of Ministry of Education, disaster risk reduction based on the activities of the	Ordinance of Ministry of Education, Culture and Science		
developed and realized.	Project 3.2 The number of visitos in Training Center	Ordinance of NEMA		
Activities	Inputs		Important Assumption	
	The Mongolian Side	The Japanese Side		
1.1.1 To identity problems and challenges on implementation of legal frameworks of disaster risk	Assignment of counterparts	Dispatch of Experts		
reduction	- Project Managers	- Disaster Risk Management		
	- Project Coordinator - Project Members	- Disaster Risk Reduction Framework		
1.1.2 To develop guidelines on improvement of legal frameworks and plans, assessment of disaster risk and	Eor Output 1	- Disaster Risk Reduction Information		
database on disaster risk reduction	Policy Coordination and Cooperation Depertment,	- Seismic Strengthening		
1.1.3 To develop new regulation and the drafts(note 1-	ter Operational Department	- Seismic Strengthening Method		
1)) of revised version of regulation on implementation of	 - Disaster Prevention Department, NEMA - Disaster Research Institute, NEMA 	 Seismic Strengthening Design Disaster Risk Reduction 		
Law of disaster protection	- Emergency Management Department of Capital	Education		
പ്പാ.1 To develop the draft of the agreement (note 1-2)) which shows the coordination and cooperation among NEMA and related organizations	City (EMDC)	- Disaster Risk Reduction at Commnity Level - Educational Material Development		
1.2.2 To realize training programs for disseminating the agreement menttioned in 1.2.1 and strengthening the coordination structure among organizations related with disaster risk reduction				
1.3.1 To identify problems and challenge of monitoring, report, evaluation and disclosure of disaster protection plan at national and local levels (note 1-3))		Provision of Equipment - Equipment for seismic assessment Farthouske simulation experience		
1.3.2 To revise these plans and make a manual for the revision of disaster protection plan		equipment for Training Center such as shaking table		
1.3.3 To improve the present system (note 1-4)) which collect and analyze information on disaster risk reduction		Training in Japan and/or the third countries		
_		_		

						Pre-Conditions	
		int					
		For Output 2 - Disaster Operational Department NEMA - Disaster Prevention Department, NEMA - Ministry of Construction and Urban Development - Master Planning Agency of Capital City					
1.3.4 To develope white paper on disaster risk reduction which let the Mongolian people know the progress on implementation, monitoring, evaluation of disaster risk reduction plan at national and local levels through the activities of 1.3.1 to 1.3.3	1.3.5 To improve the system of database on seismic strength of buildings, infrastructure and lifeline (note 1-5))	2.1.1 To analyze the manual of seismic assessment of buildings and lifeline (note 2-1)) based on the context of the Law of Disaster Protection and develop the draft of revised version	2.1.2 To develop guidelines-methodologies (note 2-2)) which show the method for implementing seismic assessment for buildings and lifelines, and how to use equipment	2.1.3 To implemnt training programs (note 2-3)) for enhancing the knowledge and capacity of experts who assess the seismic strength of buildings and lifeline	2.2.1 To develop guidelines-methodologies on seismic strengthening and reconstruction of buildings	2.2.2 To support the introduction and dissemination of seismic strengthening techniques for reconstructing collective housing, kindergarden, schools, hospital, national buildings and design the reconstruction and seismic strengthening of each type of buildings a pilot	2.2.3 To realize training programs with the participation of NEMA for enhancing knowledge and capacity of the experts who implement seismic strengthening of buildings

			< ssues and countermesures>			
For Output 3 - Disaster Prevention Department, NEMA - Ministry of Education, Culture and Science - Teacher Training Institute - Educational Research Institutte - Emergency Management Department at aimag						
3.1.1 To develop a guideline which shows contents, method and implementation way of disaster risk reduction education in kindergaten and schools based on Law of Disaster Protection	3.1.2 To develop textbooks, supplementary readers and level eduational materials related with disaster risk reduction education in kindergarten and primary and secondary schools	3.1.3 To implement training programs for the instructors (note 3-1)) of Teacher Traininig Institutes and experts of educational department in local governments, using the guideline and materials developed in 3.1.1 and 3.1.2 respectively	3.1.4 To implement the training program for teachers by the instructors and experts who received the training programs mentioned in 3.1.3	3.2.1 To develop comprehensive work plan (note 3-2)) for disaster risk reduction education and raising awareness at national and local levels	3.2.2 To develop materials for the training on disaster risk reduction education and raising awareness, and implement the training for the target groups (note 3-3)) in pilot areas	3.2.3 To develop and implement educational and training program for implementing disaster prevention and simulation program in Training Center

1-1) Amended Law of Disaster Protection "8.2 Rules of risk evaluation", "9.3 Guidelines and methodologies to develop disaster management plan", "12.1 Guidelines for preparation system", and "13.2 Rules and regulations of disaster management", and etc..

- 1-2) Contracts, cooperation plan and MoU are equivalent to agreement mentioned in the PDM
 - 1-3) National level, UB city and two provinces are the target areas
 - 1-4) Improvement of existing "Disaster Information Sharing System"
- 1-5) Improve existing database for sharing with related agencies (Components of the database system of UB city are under investigation)
- Lifeline: Warm water pipeline, Water supply and sewerage, electric transmission and distribution facilities 2-1) Buildings: Buildings, Road and Bridge
- 2-3) Target: Ministry of Construction and Urban Development, Ministry of Education, Culture and Science, UB city, General State Inspection Agency, province level officers in charge of buildings, infrastructure and lifeline, 2-2) Guidelines are regarded as operational guidelines by Resolution of Minister
 - 3-1) Instructors of Institute of Teacher's Professional Development, experts of training departments of provinces and cities, and certificated teacher's instructors association of architects, association of design engineers etc.
- 3-2) A document to clarify the targets, implementers and instructors of public education and training, and the contents of required education and training activities for the purpose of ensuring of nationwide implementation of education and training program to all the necessary target stakeholders
- 3-3) Target groups: (1) Staff of NEMA Disaster Prevention Department/ Emergency Operation Department, Training Center, and Emergency Management Departments of Cities, Provinces, and Districts, (2) Members in charge of disaster prevention in Disaster Protection Services at National, Province and City levels, (3) Heads of governor's offices of Provinces, Soums, and Districts (4) Heads of Bags and Khoroos, (5) Coordinators of civil activities in Provinces, Districts, and Khoroos and (6*) Volunteers (*only in pilot areas)
 - 3-4) The facility that the EMDC is constructing and preparing for providing DRR training and education to the citizens in Khan Uul district in UB city.

Countermeasures Solution Issue & Dated Dec. 7th, 2016 Monitoring Achievements Version 1 lssue Responsible Organization <u>60</u> Remarks Japan Þ Ħ Ħ 2020 2020 Ħ Δ Þ Ħ 2019 2019 Ħ -Ν 2 Ħ Ħ Project Title: The Project for Strengthening the National Capacity of Earthquake Disaster Protection and Prevention in Mongolia 2018 2018 Ħ -_ Δ **Project Monitoring Sheet II** Ħ 2017 2017 = _ 2016 2016 2 Actual Year Actual Year Plan Z 4 ≻ 4 Z 8 4 4 F 4 Z 0 **-** 4 0 - < 1 - 5 < x - 0 0 < 5 < x - 0 a 5 < 0 x - x a 4 0 x - 5 < - b a 0 x - x a 4 0 x - 5 < - b a 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < 0 x - 5 < S -- O I - Y 4 % 4 z - o I - -0 0 03404 F3K3F4 Earthquake simulation experience equipment for Training Center such as shaking table.

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	contents, method and implementation way of disaster risk reduction (DRR) education in																					
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	3.1.2 To develop educational materials such as		Plan										.l			1						
	textbooks and supplementary readers for DRR education in kindergarten and primary and secondary schools	0	O Actual																			
	3.1.3 To implement training programs for the		Plan				-							.l	ļ							
	instructors of Teacher Training Institutes and experts of educational department in local governments, using the guideline and materials developed in 3.1.1 and 3.1.2 respectively	0	O Actual																			
	3.1.4 To implement the training program for		Plan				_															
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	3.2.1 To develop comprehensive work plan for		Plan				-							 								
3-9	disaster risk reduction education and raising awareness at national and local levels	0	Actual																			
	3.2.2 To develop materials for the training on		Plan																			
	disaster risk reduction education and raising awareness, and implement the training for the target groups in pilot areas	0	O Actual																			
	3.2.3 To develop and implement educational		Plan																			
	and training program for implementing disaster prevention and simulation program in Training Center	0	O Actual																			

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Summary and Draft Project Monitoring Sheet I & II "Ver. 2"

TO Chief Representative of JICA Mongolia OFFICE

PROJECT MONITORING SHEET

Project Title: Project for Strengthening the National Capacity of Earthquake

Disaster Protection and Prevention in Mongolia

Version of the Sheet: Ver. 2.0 (Term: November, 2016 - May, 2017)

Name: Uuganbayar

Title: Director of Disaster Prevention

Department, NEMA

Name: Kiyotaka Owada

Title: Team leader / Integrated disaster

management I

Submission Date: June 29, 2017

I. Summary

1. Progress

1-1 Progress of Inputs

(1)Dispatch of Experts

The following Experts from Japanese side were assigned in this term.

	Area of responsibility	Experts name	Period of assignment
Project	Team Leader / Integrated Disaster	Kiyotaka OWADA	Nov. 23 - Dec. 17, 2016
Management	Risk Management I		Feb. 1 – Feb. 26, 2017
Group			Apr. 3 – Apr. 30, 2017
	Deputy Team Leader / Integrated	Akihiro FURUTA	Nov.23-Dec.12, 2016
	Disaster Risk Management II		Mar.15-Apr.15,2017
			May.22-June.17,2017
OUTPUT1:	Disaster Management Plan I	Osamu NISHII	Jan.30-Feb.24,2017
Disaster			Apr.06May 05,2017
Management	Disaster Management Plan II	Kensuke ICHIKAWA	Nov.23-Dec.17,2016
Plan	Disaster Management system I	Yoshitaka YAMAZAKI	Jan.30-Feb.18,2017
	Disaster management system II	Shiro MAKITA	Nov.25 - Dec.17,2016
			Apr.09 - Apr.29,2017
	Disaster management information I	Tadashi ISE	Nov.25-Dec.5,2016
	_		Apr.05 – Apr.17,2017
	Disaster management information II	Akihiro FURUTA	Dec.13-Dec.17, 2017
Output 2:	Seismic-Resistance	Seiichiro	Nov.23 – Dec.17,2016

	Area of responsibility	Experts name	Period of assignment
Seismic		FUKUSHIMA	Apr.06 – May 05,2017
Resistance	Seismic Diagnosis of Infrastructures	Jun MATSUO	Jan.30-Feb.13.2017
	and Lifelines		March.27 - Apr.08 2017
	Seismic Diagnosis of Buildings /	Masahide AOKI	Nov.23 – Dec.12,2016
	Seismic Strengthening I (RC, PC)		Jan.30 – Feb.20,2017
	Seismic Diagnosis of Buildings /	Shigeki KITA	Nov.23 – Dec.4,2016
	Seismic Strengthening II (Masonry)		Apr.30 – May13, 2017
	Seismic-Resistant Design	Hideto OMINE	Nov.23 – Dec.12,2016
Output 3:	DRR Education I	Miki KODAMA	Nov.23 – Dec.8,2016
DRR			May.09 – May 24,2017
Education	DRR Education II	Yujiro OGAWA	Nov.27 – Dec.2, 2016
			Jan.30 – Feb.15,2017
			March.31-Apr.21 2017
	Community-Based Disaster	Toshikazu HIWAKI	Nov.23 – Dec.17,2016
	Management / Project Coordination I		Jan.30 – Feb.26 ,2017
	Development of Disaster	Yoko OTA	May.08 – May.27.2017
	Management Teaching Materials I		
	Development of Disaster	Amarjargal	Nov. 23 – Dec. 17, 2016
	Management Teaching Materials II /	NAYANBAATAR	Jan. 30 – Feb. 10, 2017
	Project coordination II		Feb. 14 – Feb. 16, 2017
			Apr. 11 – Apr. 14, 2017

(2) Assignment of counterparts

The current administration of authorities concerned of Mongolia is as following,

- (a) Project Director:
 - B. Uuganbyar, Director of Disaster Prevention Department, the National Emergency Management Agency (hereinafter referred to as "NEMA")
- (b) Project Manager:

Luvsansharav Ulziibayar, Director of Policy Coordination and Cooperation Department, NEMA

- (c) Project Coordinators
 - Z.Battulga, Disaster Operation Department, NEMA
 - D.Bazarragchaa, Disaster Risk Management Department, NEMA

The Project Director approved in the Record of Discussions (hereinafter referred to as "R/D") on the Project for Strengthening the National Capacity of Earthquake Disaster Protection and Prevention in Mongolia (hereinafter referred to as "the Project") signed on July 8, 2016 was amended twice as following,

Original signed on July 8, 2016	Deputy Chief of NEMA will be responsible for overall administration and implementation of the Project
Amended on January 5, 2017	Director of Disaster Operation Department of NEMA will be responsible for overall administration and implementation of the Project

Amended on April 14, 2017	Director of Disaster Prevention Department of NEMA will be
	responsible for overall administration and implementation of
	the Project

Reason: Since Disaster Prevention Department is responsible for basic coordination and operation of nationwide disaster risk reduction (hereinafter referred to as "DRR") activities including capacity enhancement of NEMA officers and implementation of DRR education and training for school and regional administrative officers, from this point of view of the project purpose, Disaster Prevention Department is closely associated with national capacity enhancement of earthquake disaster prevention, therefore Project Director is to be changed from Director of Disaster Operation Department of NEMA to Director of Disaster Prevention Department under the order of the Chief of NEMA.

According to the R/D, the project organization of Mongolia side includes the counterpart (hereinafter referred to as "C/P") of working groups (hereinafter referred to as "WG") in order to implement project activities at output level of the Project.

In the second Joint Coordinating Committee (hereinafter referred to as "JCC") on April 14, 2017, Mongolian side submitted the member list of the C/P for each WG that was amended from the member list approved in the first JCC on December 7, 2016 in order to take their share of responsibility for each sub-WG activity and work closely with JICA Expert team. JCC members agreed the members of WG as shown below.

WG	Member	Job title	
	D.Bazarragchaa (Coordinator for WG1)	Disaster Risk Management Department, NEMA	
	D.Serjmyadag	Law Enforcement University of Mongolia	
	P.Amarzaya	Disaster Research Institute, NEMA	
	B.Batbayar	Disaster Risk Management Department, NEMA	
	B.Bayanmunkh	Policy Coordination and Cooperation Department, NEMA	
	B.Myagmardorj	Disaster Operation Department, NEMA	
WG1: Disaster	Ch.Otgontugs	Fire Department, NEMA	
Management Plan	B.Khishigbaatar	Disaster Operation Department, NEMA	
	E.Batbayar	EMDC	
	B.Purevnyam	Disaster Operation Department, NEMA	
	D.Badamsuren	Disaster Research Institute, NEMA	
	D. Sodnomragchaa	Disaster Research Institute, NEMA	
	B.Boldkhuu	Disaster Operation Department, NEMA	
	E.Altankhishig	Policy Coordination And Cooperation Department, NEMA	
	B.Duvshin	Disaster Risk Management Department, NEMA	
WG2: Seismic	D.Zanabazar (Coordinator for WG2)	MCUD	
Resistance	Z.Battulga (Coordinator for WG2)	Disaster Operation Department, NEMA	

WG	Member	Job title	
	Sh.Uranchimeg	Inspection Agency	
	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, Survey and Mapping Agency, MCUD	
	M.Oyunchimeg	Mongolian University of Science and Technology	
	B.Munkhsaikhan	Inspection Agency	
	D.Munkhbat (Coordinator for WG3)	Disaster Prevention Department, NEMA	
	J.Myagmar	MECSS	
	Ch.Gantsetseg	MECSS	
	P.Baljinnyam	MECSS	
	Ts.Chimedlkham	MECSS	
	G.Mongolkhatan	Education Research Institute, MECSS	
	B.Erdenechimeg	Education Research Institute, MECSS	
WG3: DRR Education	A.Enkhtogtokh	Education Research Institute, MECSS	
Ludcation	O.Tsend-Ayush	Disaster Prevention Department, NEMA	
	D.Bat-Erdene	Disaster Prevention Department, NEMA	
	B.Uuriingegee	EMDC	
	B.Unenbaatar	EMDC	
	D.Dulamsuren	Public Information Center, Disaster Prevention Department, NEMA	
	S.Amgalan	Administrative Management Department, NEMA	
	M.Amartungalag	MECSS	
WG for the Survey	S.Amgalan (Double as WG3)	Administrative Management Department, NEMA	
of Procuring Equipment	T.Galbadrakh (Double as WG2)	Finance and Logistics Department, NEMA	
	Khurelbaatar	DRR Training Center, EMDC	

1-2 Progress of Activities

(1) Overall of Project

1) Implementation of Joint Coordination Committee (JCC)

JCC for the Project held twice in this term on December 7, 2016 and on April 14, 2017.

For the first JCC, there were totally 28 participants from Japanese side and Mongolian side. The work plan for the Project, Monitoring Sheet I & II "Ver. 1", the WG members and

the amendment of Project Director were discussed mainly and the agreement was made at the meeting as shown in Annex-1.

For the second JCC, there were totally 37 participants from both sides. The change of WG members, second amendment of Project Director, procuring equipment, and training in Japan were discussed mainly and the agreement was made at the meeting as shown in Annex-2.

2) Provision of Equipment

As identified in the work plan of the Project which was approved by the first JCC, the equipment for seismic diagnosis and the earthquake simulation experience equipment for the Disaster Risk Reduction (hereinafter referred to as "DRR") Training Center (temporary name) are supposed to be procured and donated by JICA.

The Mongolian side proposed the Operation and Maintenance (hereinafter referred to as "O&M") plans for installation of equipment in Mongolia and those plans were submitted to JICA Mongolian Office with the official latter signed by head of NEMA.

At the second JCC, the Japanese side gave a response about this matter and pointed out the need to add in the explanations for DRR strategic background to introduce such equipment in Mongolia and to clarify main bodies of O&M activities. Then JICA explained that they plan to send the official letter to request additional contents identified in the O&M plans.

3) Training in Japan and/or the third countries

The training in Japan named "Disaster Risk Reduction and Management" was conducted form March 20th to 29th, 2017. The fifteen persons from Mongolian side had been selected as participants in this training. However, three candidates canceled their participation in the training without detailed explanation to Japanese side at the final minutes and finally twelve counterparts took part in the training.

For sharing the lesson learned from the training in Japan with WG members and related officers in NEMA and other organizations, persons in charge of each WG member who attended in the training made their presentations about knowledge and experiences which were obtained through the training and how to reflect the lesson learned to the WG activity in the presence of Chief Representative of JICA Mongolia Office at the steering committee held on April 12th, 2017.

The Mongolian side requested the second training in Japan in order to learn specific

knowledge and technical approach which will be directly utilized to prepare guidelines, agreements, training programs in the activities of each WG. For this request from Mongolian side, the Japanese side requested that obtained knowledge and experiences through the above-mentioned training in Japan should be reflected in the WG activities firstly. And detailed training items are identified in each WG activity by the next JCC held on June, 2017.

(2) Output1

Activity 1.1.1 To identity problems and challenges on implementation of legal frameworks of disaster risk reduction

The WG1 member examined existing status of formulation of guidelines and manuals for disaster management plan and gathered information about rules and regulations for disaster risk reduction in order to reveal a plan to develop guidelines in the Project. This result showed that rules and regulations concerning emergency response plans were focused currently, and it became clear that the rules and regulations on disaster prevention, recovery and reconstruction are not sufficient in Mongolia. Due to the enforcement of the amended law of disaster protection, NEMA needs to develop new rules and regulations or to revise existing rules and regulations in order to establish the detailed enforcement system of the law. Although it was confirmed that there is the instruction manual for utilization of disaster management plan form (Order of Chief of the NEMA, 2013), the contents directed in this manual is not in detail; the necessity to develop a new guideline for disaster management plan was confirmed.

Activity 1.1.2 To develop guidelines on improvement of legal frameworks and plans, assessment of disaster risk and database on disaster risk reduction

The framework and the configuration of the risk assessment guideline were confirmed in the WG1. Due to the enforcement of the amended law of disaster protection, NEMA is undertaking to revise the regulation for implementation of disaster vulnerability and risk Assessment (Annex of the Cabinet decision of 176, 2006). The WG1 member decided that how to merge this regulation and the risk assessment guideline which will be formulated in the Project is being discussed continuously.

The basic content which should be included in the guideline of disaster management plan was confirmed in the WG1. As clarified in Activity 1.1.1, there is the instruction manual for utilization of disaster management plan form (Order of Head of the NEMA, 2013) in

Mongolia and It is instructed to prepare the disaster management plans in aimags, the capital city, soums, districts, large enterprises, institutions and organizations based on this instruction manual. In this existing instruction manual, the format of the disaster management plan and the items are incorporated, but there is no practical guidance which will be guide to prepare the own disaster management plan by organizations concerned, so it was confirmed that it is difficult for each organization to prepare the disaster management plan using this instruction manual only. For this reason, the WG1 member confirmed that the new guideline that forms the basic formulation of disaster management plan on behalf of the existing instruction manual, and a policy to gain an approval for enforcement of the new guideline from Head of the NEMA was agreed in the WG1.

At the start of the Project, it was considered the formulation of the guideline for preparation system and the guideline for disaster prevention as one of activities in Activity 1.1.2 based on the contents of the Project Design Matrix (hereinafter referred to as "PDM") which was developed and approved when the amended law of disaster protection was still a draft one.

It was assumed that the guideline for preparation system was supposed to deal with setting levels of disaster preparation and preliminary measures according to the level of preparation, and the guideline for disaster prevention was mainly supposed to deal with management concerning investment for damage mitigation assumed at the time of earthquake. However, the articles and the contents of rules and regulations directed to be formulated in a draft of amended law which became occasions to prepare the both guidelines was modified in the official amended law of disaster protection, and the policy of preparation of both guidelines in the Project needs to be changed. Currently, the WG1 member is discussing how to prepare the both guidelines.

Regarding the database guideline, it was confirmed to compile the operational framework of the disaster related information management system, database specifications and procedure of data sharing with related organizations which are supposed to develop through Activity 1.3.3 as a guideline.

<u>Activity 1.1.3</u> To develop new regulation and the drafts of revised version of regulation on implementation of the Law of Disaster Protection

As obviously shown in Activity 1.1.1, it is necessary to establish and revise the rules and regulations based on the obligation and authority of NEMA specified in the amended law of disaster protection. The WG1 member verified the articles of the amended law of disaster protection mainly from the viewpoint of risk assessment, disaster management

plan, preparation system, and disaster prevention, and investigated the necessity to establish new rules and regulations and revise exiting rules and regulations. As a result, it was confirmed that the establishment and revision of eleven rules and regulations are necessary. In addition, the WG1 member analyzed the concepts of extracted rules and regulations and confirmed NEMA's plan to establish new rules and regulations or revise existing rules and regulations. For the regulation for implementation of disaster vulnerability and risk Assessment (Annex of the Cabinet decision of 176, 2006), the revision work of this regulation has been already started by the NEMA, and the Japan Expert Team (hereinafter referred to as "JET") has inputted Japanese experiences for a procedure of seismic risk assessment for this revision work.

The WG1 member confirmed that NEMA takes an initiative in implementing the work of newly establishing and revising rules and regulations and the JET inputs continuously knowledge and experience in Japan on demand from NEMA. Meanwhile, for the development of guidelines complementing the practical operation of rules and regulations, the WG1 member confirmed that those guidelines are prepared by WG1 member as the main body.

Activity 1.2.1 To develop the draft of the agreement which shows the coordination and cooperation among NEMA and related organizations

In the WG1, it was clarified that twenty five (25) agreements will be required to conclude among NEMA and twenty seven (27) related organizations based on the survey results by NEMA. Since those agreements should cover a lot of contents and target fields, the draft manual of agreement preparation procedure has been prepared based on the comparison and analysis of the existing agreements in Mongolia and Japan for the purpose of showing the standard procedure to formulate of an agreement.

In addition, the field of Information and communication was selected as the first target field to conclude an agreement, WG1 member is trying to consult with related organizations for preparation of an agreement in accordance with the draft manual of agreement preparation procedure.

Activity 1.3.1 To identify problems and challenge of monitoring, report, evaluation and disclosure of disaster protection plan at national and local levels

As described in Activity 1.1.1, the WG1 member reviewed the current disaster management plans mainly for seismic disaster in national level, Ulaanbaatar (UB) city, aimag and soum level and summarized the issues of those plans. Regarding the current national disaster management plan, the contents of emergency response for each

disaster are mainly described and there are few descriptions about disaster prevention and preparation. Therefore, the JET shared the document of "Countermeasures Common to All Disaster Types" in the basic disaster management plan in Japan with WG1 member as reference. Based on this input from the JET, Mongolian side C/P is considering some items which should be included in national disaster management plan in Mongolia from the standpoint of disaster prevention and preparation.

As shown in Activity 1.1.1, regional disaster management plans of UB city, aimag and soum level were basically prepared based on the instruction manual for utilization of disaster management plan form (Order of Head of the NEMA, 2013). And it was found that those plans are described not only in a structured way but abstract terms such as simple enumeration of the items in the instruction manual. As mentioned in Activity 1.1.2, the new guideline that forms the basic formulation of disaster management plan is being prepared in the WG1 and the policy to revise the regional disaster management prevention plans based on this guideline was confirmed.

Activity 1.3.2 To revise the plans made in 1.3.1 and make a manual for the revision of disaster protection plan

As described in Activity 1.3.1, Mongolian side C/P started the revision work of mainly adding the contents of disaster prevention and preparation in the national disaster management plan with reference to the basic disaster prevention plan in Japan.

Activity 1.3.3 To improve the present system which collect and analyze information on disaster risk reduction

According to the Article 14 "Creating a Disaster Database" of the amended law of disaster protection, NEMA is responsible for improving database for disaster related data. Currently, the disaster research institute in NEMA is gathering and managing historical record data for disaster events, but the types of databases that can be utilized for disaster management plans and the white paper preparation are limited. In addition, it was found that the information sharing and collaboration of databases with the local disaster management departments and related institutions, and disclosure of information to the public has not progressed sufficiently.

As a result of discussion for the improvement policy of the current system in the WG1, there was a request from the Mongolian side C/P for information sharing based on the map data, and the WG1 member have confirmed to develop a database of disaster related information based on Geographic Information System (hereinafter referred to as "GIS"). The JET introduces the e-comi map system which is web-based GIS developed by

the National Research Institute for Earth Science and Disaster Resilience in Japan (hereinafter referred to as "NIED"), and the WG1 member decided to install the e-comi map system to the Mongolian National Data Center (hereinafter referred to as "NDC") from the viewpoint of security and ensuring the system operation continuity by NEMA. Now is at the stage of installation work of the e-comi map system.

Activity 1.3.4 To elaborate white paper on disaster risk reduction which let the Mongolian people know the progress on implementation, monitoring, evaluation of disaster risk reduction plan at national and local levels through the activities of 1.3.1 and 1.3.2

In the WG1, a draft format of the white paper on disaster management in Mongolia was reviewed by reference to the table of contents of the white paper on disaster management in Japan

Based on this draft format, the Mongolian side C/P has drawn up a work plan to prepare the white paper in Mongolia and has obtained approval of this work plan from the Head of NEMA. According to this work plan, the department in charge and the schedule of data collection are specified for each item of contents in the table, and also instructions on collection of data will be issued to each director of department.

(3) Output2

Activity 2.1.1 To analyze the manual of seismic assessment of buildings and lifeline based on the context of the Law of Disaster Protection and develop the draft of revised version

The challenges and suggestions for improvement of the current instruction for seismic assessment of buildings and lifelines are identified in the WG2.

The targeted existing instructions are as follows: "Instruction of seismic diagnosis for existing buildings (Building Rules 31-102-00) "and "Instruction of the building passport activation aimed at seismically active zones (Building Rules 31-103-00)". It was found as challenges that the purpose of diagnosis was weighted in deterioration and construction quality evaluation and the procedure of diagnosis is based on qualitative method depending on the diagnosis technician. And the contents of those instructions are old and cannot reflect current situation. As an improvement plan, it was confirmed to prepare quantitative seismic diagnostic standards based on Japan's standards, and include a diagnostic methodology in consideration of different types of building structures based on the field survey.

The targeted existing instructions on infrastructures are "Standards for the period of usage,

inspection and maintenance of buildings and lifelines (Building rules 13-04-03)" and "Vulnerability evaluation report and checklist prepared by National Inspector Agency". These instructions are mainly used for evaluation of deterioration and they are not targeted for seismic evaluation. On the other hand, the infrastructures and pipelines in Mongolia get older and the progress of aging and the reduction of seismic resistance are interrelated. In consideration of this point, as an improvement plan, it was confirmed to add standards for seismic damage evaluation of infrastructures and lifelines in building rules 13-04-03.

Activity 2.1.2 To develop guidelines-methodologies which show the method for implementing seismic assessment for buildings and lifelines, and how to use equipment

On the basis of the results of Activity 2.1.2, the policy and framework of the guidelines for seismic evaluation of buildings, which types divided in the reinforced concrete structure (hereinafter referred to as "RC"), the precast concrete structure (hereinafter referred to as "PC") and the masonry, lifelines, pipelines were reviewed and draft guidelines were prepared in the WG2.

It was confirmed that the standards for seismic diagnosis of buildings and the standards for seismic damage evaluation of infrastructures and lifelines which become key elements in the guidelines is developed, evaluated and authorized by the standard procedure in Ministry of Construction Urban Development (hereinafter referred to as "MCUD"). This procedure will be carried out by Consulting Service Team (hereinafter referred to as "CST") that is an organization selected by Construction Development Center to establish standards. Prior to the selection of CST, it is necessary to prepare the terms of reference (hereinafter referred to as "TOR") related to standards creation and to get an approval of the TOR at the technical committee. Currently, it is the stage where the TOR was prepared in the WG2 and the approval of the chemical committee was obtained. Based on this TOR, the consulting team will be selected under the guidance of MCUD. Furthermore, the JET is implementing a technical seminar to input concepts and concrete procedures of seismic diagnosis for the WG2 member and candidate organizations of the consulting team.

In consideration of the procedure to authorize standards of seismic diagnosis as described above, the way of technology transfer concerning the development of standards of seismic diagnosis in the WG2 was discussed. As a result, it was confirmed that the WG2 member and consulting team collaborated on the activities of standards development to promote technology transfer to the WG2 member.

Activity 2.2.1 To develop guidelines-methodologies on seismic strengthening and reconstruction of buildings

In Mongolia there are few examples of seismic strengthening and reconstruction of buildings, so the JET is implementing a technical seminar to input concepts and concrete procedures of seismic strengthening for the WG2 member and candidate organizations of the consulting team.

(4) Output3

Activity 3.1.1 To develop a guideline which shows contents, method and implementation way of disaster risk reduction (DRR) education in kindergarten and primary and secondary schools based on Law of Disaster Protection

The activity for preparation of the guideline for DRR education in pre-school, elementary school and junior high school is going on based on the work plan agreed by the WG3 member at the start of the project

The JET shared the document in which descriptions for DRR in the guideline for DRR education, curriculum guidelines and school textbooks in Japan and good practices for DRR education were listed with the WG3 member. The WG3 member agreed to compile the current status of DRR education in Mongolia with reference to this document and prepare specific contents of the guideline by themselves after clarification of the missing parts of the guideline.

In addition, Ms. Myagmar, the Head of Department of Ministry of Education, Culture, Science and Sports (hereinafter referred to as "MECSS"), inputted the necessity of teacher's training for enhancement of their capacity to implement DRR education and the necessity of cooperation among related organizations along with the preparation of the guideline for DRR education based on the knowledge and experiences obtained from the training in Japan.

Activity 3.2.1 To develop comprehensive work plan for disaster risk reduction education and raising awareness at national and local levels

The WG3 member began to consider the management and operation system of the comprehensive schedule for DRR education and raising awareness with the aim of unified management and efficient information sharing for activities of DRR education and raising awareness carried out by various organizations, and discussed these matters with leading organizations in Mongolia. It was confirmed that the disaster prevention department in NEMA takes leadership for the management and operation for the comprehensive

schedule. And also, the basic policy to utilize the operational framework of the web system developed by the Asian Disaster Preparedness Center (hereinafter referred to as "ADPC") which has been ahead of similar activities in NEMA was confirmed. The activities to revise the web system and make the mailing list are going on in the WG3.

Activity 3.2.2 To develop materials for the training on disaster risk reduction education and raising awareness, and implement the training for the target groups in pilot areas

The current status of development of materials for the training on DRR education and raising awareness by the United Nations Development Programme (hereinafter referred to as "UNDP") and World Vision Mongolia were surveyed in the WG3. As a result of the survey, it became clear that UNDP's curriculum of DRR education and raising awareness had been approved by Head of NEMA, and World Vision Mongolia started to prepare teaching materials based on the UNDP's educational curriculum. Considering such a situation, the policy of activities to develop teaching materials in the Project was discussed in the WG3, and teaching materials to promote the understanding of residents based on the UNDP's educational curriculum will be created after clarifying a demarcation of works for development of teaching materials with World Vision Mongolia. Coordination for the division of the activities between the Project and World Vision Mongolia is ongoing under leadership of the disaster prevention department in NEMA.

Activity 3.2.3 To develop and implement educational and training program for implementing disaster prevention and simulation program in Training Center

The discussion on the training program for DRR Training Center (temporary name) in the UB city was started. It was agreed to prepare the report on how to improve the current training program in the WG3.

1-3 Achievement of Output

(1) Output1

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

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

Achievement in this term: The WG1 has just created the basic frameworks of the guideline of risk assessment and the guideline of disaster management plan, and it has not reached the stage of evaluation with quantitative indicators.

1.2 The number of the draft of agreement developed and participants who participated in the training programs on agreements

Achievement in this term: The WG1 has created the draft manual of agreement preparation procedure and started to create an agreement on the field of Information and communication.

1.3 White paper on disaster risk reduction

Achievement in this term: The WG1 has gotten an approval of the work plan to prepare the white paper from Chief of NEMA.

(2) Output2

The following two indicators are applied to evaluate the achievement of the Output 2 based on the PDM.

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

The achievement in this term: The WG2 has just started to develop the guideline. For the purpose of technical transfer of seismic diagnosis in Japan, the first seminar was held on April 20th, 2017. There are 25 attendees at this seminar.

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

The achievement in this term: The WG2 has just started to develop the guideline. For the purpose of technical transfer of seismic strengthening in Japan, the first seminar was held on May 3rd, 2017. There are 22 attendees at this seminar.

(3) Output3

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

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

Achievement in this term: The WG3 has just started to prepare the guidelines and teaching materials for DRR education and raising awareness, and it has not reached the stage of evaluation with quantitative indicators.

3.2 The number of visitors in Training Center

Achievement in this term: The WG3 has just started to prepare the guidelines and teaching materials for DRR education and raising awareness, and it has not reached the stage of evaluation with quantitative indicators.

1-4 Achievement of the Project Purpose

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

1. The number of the approved guidelines and agreement

2. The number of the data on disaster risk reduction which newly established and improved

The achievement in this term: After grasping the issues and challenges of the current status of legal frameworks of DRR in Mongolia for each Output, development of guidelines, agreements, standards of seismic diagnosis and strengthening, teaching materials have been just started at each WG. In order to ensure sustainability after the Project, each activity is planned and implemented so that guidelines and other related outputs which will be developed in the Project are approved by NEMA, MCUD or MECSS through their standard procedures.

1-5 Changes of Risks and Actions for Mitigation

Activity 1.1.2 To develop guidelines on improvement of legal frameworks and plans, assessment of disaster risk and database on disaster risk reduction

At the start of the Project, it was considered the formulation of the guideline for preparation system and the guideline for disaster prevention as one of activities in Activity 1.1.2 based on the contents of the PDM which was developed and approved when the amended law of disaster protection was still a draft one. However, as explained in Section 1-2, the articles and the contents of rules and regulations directed to be formulated in a draft of amended law which became occasions to prepare the both guidelines were modified in the official amended law of disaster protection, and the policy of preparation of both guidelines in the Project needs to be changed. In the case of changing the policy of preparation of both guidelines, the description of "Note 1-1) Amended Law of Disaster Protection "8.2 Rules of risk evaluation", "9.3 Guidelines and methodologies to develop disaster management plan", "12.1 Guidelines for preparation system", and "13.2 Rules and regulations of disaster management", and etc.." in the PDM might need to be changed. It should be confirmed whether the change of the description of Note 1-1) in PDM is necessary.

Activity 1.3.1 To identify problems and challenge of monitoring, report, evaluation and disclosure of disaster protection plan at national and local levels

In the WG1 activity, two pilot aimags are assumed for revision of the local disaster management plan, but these targeted places have not been selected yet. After selection of two aimags in the WG2, it will be discussed in the Steering Committee and the JCC in order to receive approval.

Activity 2.2.1 To develop guidelines-methodologies on seismic strengthening and reconstruction of buildings

In Mongolia there are few examples of seismic strengthening of buildings,, it is effective to identify specific target structures for creating examples in the preparation of guidelines on seismic strengthening of buildings and reconstruction. For this reason "Activity 2.2.2 (To support the introduction and dissemination of seismic strengthening techniques for reconstructing collective housing, kindergarten, schools, hospital, national buildings and design the reconstruction and seismic strengthening of each type of buildings a pilot) will be started earlier than the initial work plan.

Activity 3.2.2 To develop materials for the training on disaster risk reduction education and raising awareness, and implement the training for the target groups in pilot areas

In the WG3 activity, three different places selected from urban area, Ger area (unplanned area), and rural area are assumed as the pilot areas for the training on DRR education and raising awareness but these pilot places have not been identified yet. After selection of three places in the WG3, it will be discussed in the Steering Committee and the JCC in order to receive approval.

1-6 Progress of Actions undertaken by JICA

N/A

1-7 Progress of Actions undertaken by Gov. of Mongolia

(1) Output1

The necessity of compilation of the guideline for preparation system and the guideline for disaster prevention in this Project will be discussed in Mongolia side and in JCC.

The pilot areas for Activity 1.3.1 have been proposed by NEMA, namely UB City, Darkhan-Uul and Khentii. These candidates will be approved by JCC.

(2) Output2

Under consultation of NEMA and MCUD, CDC made efforts to examine TOR and to select appropriate CST such as MACE (Mongolian Association of Civil Engineers) to promote the establishment of standards, so that the Activity 2.2.2 will start earlier than planned.

N/A

1-8 Progress of Environmental and Social Considerations (if applicable)

N/A

1-9 Progress of Considerations on Gender/Peace Building/Poverty Reduction (if applicable)

N/A

1-10 Other remarkable/considerable issues related/affect to the project (such as other JICA's projects, activities of counterparts, other donors, private sectors, NGOs etc.)

Output 2: the project on seismic diagnosis and strengthening of school buildings targeted in Ulaanbaatar city are being implemented by World Bank. Since this project is related to the activity of the Output 2 in the Project, information gathering for this project is carried out continuously. It is assumed that the output in the World Bank project is mentioned as one of referential documents in the guidelines for seismic diagnosis and strengthening of buildings in the Project.

Output 3: MECSS is working with World Vision Mongolia to establish a platform for information sharing among school DRR personnel. For the purpose of information sharing, the JET of WG3 participates in events of their activity as an observer.

Outcome 3: It turned out that World Vision Mongolia is carrying out similar activities in development of teaching materials for DRR education and raising awareness. The JET of WG3 continues to discuss this matter with NEMA with a view to the division of the activities for development of materials by disaster type.

2. Delay of Work Schedule and/or Problems (if any)

2-1 Detail

The delay of each WG activity is concerned due to the busy schedule of WG members. The WG meetings were sometimes postponed.

2-2 Cause

Concentration of works and events which Mongolian side C/P has to deal with for each organization. Participation of overseas trainings implemented by other donors, etc.

2-3 Action to be taken

The JET explains the significance of the activities in the Project and effects of the output at each organization to supervisors of each Mongolian side C/P continuously in order to get their understanding of the Project. And also the JET requests the sharing of event schedule adequately. National staff in the Project confirms the working progress by Mongolian side C/P continuously.

2-4 Roles of Responsible Persons/Organization (JICA, Gov. of Mongolia, etc.)

N/A

3. Modification of the Project Implementation Plan

3-1 PO

N/A

3-2 Other modifications on detailed implementation plan

(Remarks: The amendment of R/D and PDM (title of the project, duration, project site(s), target group(s), implementation structure, overall goal, project purpose, outputs, activities, and input) should be authorized by JICA HDQs. If the project team deems it necessary to modify any part of R/D and PDM, the team may propose the draft.)

N/A

4. Preparation of Gov. of Mongolia toward after completion of the Project

In this term, the specific policy and actions are not discussed yet.

II. Project Monitoring Sheet I & II as Attached

Project Monitoring Sheet I (Version.2 as of May 31, 2017)

Version 2 Dated June 29, 2017

Project Title: Project for Strengthening the National Capacity of Earthquake Disaster Protection and Prevention in Mongolia implementing Agency: National Emergency Management Agency (NEMA).

Target Group: NEMA, Ministry of Construction and Urban Development, Ministry of Education, Culture and Science, General State Inspection Agency. Emergency Management Department of the Capital City (EMDC), Construction Quality and Safety Department, Master Planning Agency of Capital City.

Period of Project: December 2016 to November 2019 Project Site: Mongolia

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Natiative Summary	objectively verifiable indicators		IIIIportaiit Assumption	Acinevellien	Religins
Gverall Goal Seismic risk will be reduced.	Number of the approved guideline, rules, provisions Number of white paper open to public Number of the executed seismic assessment Number of the seismic strengthed building Number of implemented activities on disaster risk reducition education	Study by NEMA	The policy on disaster risk reduction will not be changed in Mongolia.		
Project Purpose The Capacity of National Emergency Management Agency will be enhanced through the activities for strengthening the countermeasures for seismic risk.	1. The number of the approved guidelines and agreement 2. The number of the data on disaster risk reduction which newly established and improved	Project report	NEMA expands the pilot activities in other aimags and sums.	After grasping the issues and challenges of the current status of legal frameworks of DRR in Mongolal for each Output, development of guidelines, agreements, standards of seismic diagnosis and strengthening, teaching materials has been just started at each W.G.	In order to ensure sustainability after the Project, each WG makes it a goal to get an approval of guidelines and other related outputs which will be developed in the Project from NEMA, MCUD or MECSS through their standard procedures.
Outputs 1. Capacity for data collection on disaster risk reduction and coordination among related organizations will be enhanced.	1.1 The number of guidelines, operational rules, provisions which are developed. 1.2 The number of the draft of agreement developed and participants who participated in the training programs on agreements 1.3 White peper on disaster risk reduction	Project report	1. The counterparts from NEMA, the Ministry of Construction and Urban Development and the Ministry of Education continue to work in the same position. 2. Participants in training programs continue to work in the same position. 3. The relation among related organizations is maintained. 4. Exchange information is maintained among the related organizations.	The WG1 has just created the basic frameworks of the guideline of risk assessment and the guideline of disaster management plan. The WG1 has created the draft manual of agreement preparation procedure and started to create an agreement on the field of information and communication. The WG1 has gotten an approval of the work plan to prepare the white paper from Head of NEMA.	
2. Capacity of public administration officer related with the seismic assessment and seismic strengthening for buildings will be enhanced.	2.1 Guideline for seismic assessment The number of the participants in the training program on seismic assessment 2.2 Guideline for seismic strengthening The number of the training program on seismic strengthening	Project report		The WG2 has just started to develop the guideline for seismic assessment. For the purpose of technical transfer of seismic diagnosis in Japan, the first seminar was held on April 20th, 2017. There are 25 attendees at this seminar. The WG2 has just started to develop the guideline for seismic strengthening. For the purpose of technical transfer of seismic strengthening in Japan, the first seminar was held on May 3rd, 2017. There are 22 attendees at this seminar.	
3. Implementing plan on disaster risk reduction education and awareness raising activities will be developed and realized.	3.1 The number of the cases of delivering classes on disaster risk reduction based on the activities of the Project 3.2 The number of visitos in Training Center	Ordinance of Ministry of Education, Culture and Science Ordinance of NEMA		The WG3 has just started to prepare the guidelines and teaching materials for DRR education and raising awareness.	

Assista	da	Innute	Important Accumulation
Multiple of the state of the st	n Side	The Japanese Side	mportant Assamption
1.1.1 To identity problems and challenges on implementation of legal frameworks of disaster risk reduction	Assignment of counterparts - Project Director	Dispatch of Experts - Leader - Disseter Risk Management	
1.1.2 To develop guidelines on improvement of legal frameworks and plans, assessment of disaster risk and database on disaster risk reduction	- ringed managers - Project Coordinator - Project Members	- Disaster Nan wariagement - Disaster Risk Reduction Framework - Disaster Risk Reduction Information - Seismic Strengthening Assessment	
1.1.3 To develop new regulation and the drafts(note 1-1)) of revised version of regulation on implementation of Law of disaster protection	For Output 1 - Policy Coordination and Cooperation Depertment, NEMA - Disaster Operational Department, NEMA	Seismic Strengthening Method Seismic Strengthening Design Disaster Risk Reduction at Community Level Constant Risk Reduction at Community Level	
1.2.1 To develop the draft of the agreement (note 1-2)) which shows the coordination and cooperation among NEMA and related organizations	- Disaster Teveniuo i Depariment, NEWA - Disaster Research Institute, NEWA - Emergency Management Department of Capital City (EMDC)	- Educatorial Material Development Provision of Equipment	
1.2.2 To realize training programs for disseminating the agreement menttioned in 1.2.1 and strengthening the coordination structure among organizations related with disaster risk reduction		- Equipment for seismic assessment - Earthquake simulation experience equipment for Training Center such as shaking table	
1.3.1 To identify problems and challenge of monitoring, report, evaluation and disclosure of disaster protection plan at national and local levels (note 1-3))		Training in Japan and/or the third countries	
1.3.2 To revise these plans and make a manual for the revision of disaster protection plan			
1.3.3 To improve the present system (note 1-4)) which collect and analyze information on disaster risk reduction			
1.3.4 To develope white paper on disaster risk reduction which let the Mongolian people know the progress on implementation, monitoring, evaluation of disaster risk reduction plan at national and local levels through the activities of 1.3.1 to 1.3.3			
1.3.5 To improve the system of database on seismic strength of buildings, infrastructure and lifeline (note 1-5))			
2.1.1 To analyze the manual of seismic assessment of buildings and lifeline (note 2-1)) based on the context of the Law of Disaster Protection and develop the draft of revised version	For Output 2 - Disaster Operational Department, . NEMA - Disaster Prevention Department, NEMA		Pre-Conditions
2.1.2 To develop guidelines-methodologies (note 2-2)) which show the method for implementing seismic assessment for buildings and lifelines, and how to use equipment	 Ministry of Construction and Urban Development Master Planning Agency of Capital City General State Inspection Agency 		
2.1.3 To implemnt training programs (note 2-3)) for enhancing the knowledge and capacity of experts who assess the seismic strength of buildings and lifeline			
2.2.1 To develop guidelines-methodologies on seismic strengthening and reconstruction of buildings			
2.2.2 To support the introduction and dissemination of seismic strengthening techniques for reconstructing collective housing, kindergarden, schools, hospital, national buildings and design the reconstruction and seismic strengthening of each type of buildings a pilot			
2.2.3 To realize training programs with the participation of NEMA for enhancing knowledge and capacity of the experts who implement seismic strengthening of buildings			•

3.1.1 To develop a guideline which shows contents, method and implementation way of disaster risk reduction education in For Output 3	n For Output 3	
kindergaten and schools based on Law of Disaster Protection	- Disaster Prevention Department, NEMA	< continue and countermestimes
	- Ministry of Education, Culture and Science	
3.1.2 To develop textbooks, supplementary readers and eduational materials related with disaster risk reduction education	- Teacher Hamili Burute - Educational Research Institutte	The delay of each WG activity is concerned
in kindergarten and primary and secondary schools	- Emergency Management Department at	due to the busy schedule of WG members.
	aimag level	The WG meetings were sometimes
3	•	postponed by concentration of works and
3.1.3.10 implement training programs for the instructors (note 3-1)) or reacher training institutes and experts or		events which Mongolian side C/P has to deal
educational department in local governments, using the guideline and materials developed in 3.1.1 and 3.1.2 respectively		with for each organization.
		The JET explains the significance of the
3.1.4 To implement the training program for teachers by the instructors and experts who received the training programs		activities in the Project and effects of the
mentioned in 3.1.3		each Mongolian side C/P continuously in order
		to get their understanding of the Project. And
3.2.1 To develop comprehensive work plan (note 3-2)) for disaster risk reduction education and raising awareness at		also the JET requests the sharing of event schedule adequately.
ilauoial aiu loca reveis		
3.2.2 To develop materials for the training on disaster risk reduction education and raising awareness, and implement the		
training for the target groups (note 3-3)) in pilot areas		
3.2.3 To develop and implement educational and training program for implementing disaster prevention and simulation		
program in Training Center		
Notes		

- 1-1) Amended Law of Disaster Protection "8.2 Rules of risk evaluation", "9.3 Guidelines and methodologies to develop disaster management plan", "12.1 Guidelines for preparation system", and regulations of disaster management", and etc.
- 1-2) Contracts, cooperation plan and MoU are equivalent to agreement mentioned in the PDM
 - 1-3) National level, UB city and two provinces are the target areas
- 1-4) Improvement of existing "Disaster Information Sharing System"
- 1-5) Improve existing database for sharing with related agencies (Components of the database system of UB city are under investigation)
- 2-1) Buildings: Buildings, Road and Bridge Lifeline: Warm water pipeline, Water supply and sewerage, electric transmission and distribution facilities
- 2-2) Guidelines are regarded as operational guidelines by Resolution of Minister
- 2-3) Target Ministry of Construction and Urban Development, Ministry of Education, Culture and Science, UB city, General State Inspection Agency, province level officers in charge of buildings, infrastructure and lifeline, association of architects, association of
- 3-1) Instructors of Institute of Teacher's Professional Development, experts of training departments of provinces and cities, and certificated teacher's instructors
- 3-2.) A document to clarify the targets, implementers and instructors of public education and training, and the contents of required education and training, and the contents of required education and training program to all the necessary target stakeholders
- 3-3) Target groups: (1) Staff of NEMA Disaster Prevention Department/ Emergency Operation Department, Training Center, and Emergency Management Departments of Cities, Provinces, and Districts, (2) Members in charge of disaster prevention in Disaster Protection Services at National, Provinces and City levels, (3) Heads of governor's offices of Provinces, Soums, and Districts (4) Heads of Bags and Khoroos, (5) Coordinators of civil activities in Provinces and City levels, (3) Heads of governor's offices of Provinces, Soums, and Districts (4) Heads of Bags and Khoroos, (5) Coordinators of civil activities in Provinces and City levels, (3) Heads of governor's offices of Provinces, Soums, and Districts (4) Heads of Bags and Khoroos, (5) Coordinators of civil activities in Provinces and City levels, (3) Heads of governor's offices of Provinces, Soums, and Districts (4) Heads of Bags and Khoroos, (5) Coordinators of civil activities in Provinces and City levels, (6) Heads of governor's offices of Provinces and City levels, (7) Heads of governor's offices of Provinces and City levels, (7) Heads of governor's offices of Provinces, (8) Heads of Bags and City levels, (9) Heads of governor's offices of Provinces, (9) Heads of Governor's offices of Province
- 3-4) The facility that the EMDC is constructing and preparing for providing DRR training and education to the citizens in Khan Uul district in UB city.

voiest Title: The Brojest for Strengthen	ving the National Canacity of Fa	orthoniske Die	aster Protection and Pre	eilonan in Monay					Dated June 23, 2017	Monitorina
Year 2016 2017 2018		Year 2	2017	2018		2019	2020	Remarks	enssl	Solution
x						2		A		
Kiyotaka OWADA		Plan								
Aláhiro FURUTA		Plan						<u> </u>		
Osamu NISHII		Plan						.[].		
Kensuke ICHIKAWA		Plan								
Shirou MAKITA		Plan								
Yoshitaka YAMZAKI		Plan								
Tadashi ISE		Plan								
Selichiro FUKUSHIMA		Plan								
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Miki KODAMA		Plan								
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Yooko OTA		Actual								
Amaijargal NAYANBAATAR		Plan								
Equipment		Actual								
for seismic assessment		Plan		<						
Earthquake simulation experience equipment for Training		Plan						.][
Center such as shaking table		Actual	ς-	-						
Comprehensive disaster risk reduction (tentative)		Plan						Ţ .		
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Sub Activities		< ⊢ < α	H H	I .	1 1	E H	H	IV Japan GOM		
Output 1:										
1.1. To identity problems and challenges on implementation of legal frameworks of disaster										
risk reduction										
1.1.1.1 To review the current legal frameworks of dispear risk reduction		Plan	-	-					The WG1 member examined existing status of formulation of guidelines and manuals for disaster management plan and gathered information	89 -
	0 0							,	about rules and regulations for disaster risk reduction in order to rever- plan to develop quidelines in the Project.	ıala
		Actual								
1.1.1.2 To summarize the problems and challenges		Plan							As a result of Activity 1.1.1.1, it showed that rules and regulations concerning emergency response plans were focused currently, and it	Due to the enforcement of the amended law of disaster protection, NEMA needs to develop new rules and regulations or to revise previou
	0 0							,	became clear that the rules and regulations on disaster prevention, recovery and reconstruction are not sufficient in Mongolia.	
		Actual	_							
1.1.2 To develop guidelines on improvement of legal frameworks and plans, assessment of										
disaster risk and database on disaster risk										
1.1.2.1 To develop the guideline of risk		Plan		-					The framework and the configuration of the risk assessment guideline were confirmed in the WG1.	NEMA is undertaking to revise the regulation for implementation of disaster vulnerability and risk Assessment (Amex of the Cabinet
110110000000	0 0							`		decision of 178, 2006). The WG1 member decided that how to merge this requisition and the risk assessment mildeline which will be
		Actual								formulated in the Project is being discussed confinuously.
1.1.2.2 To develop the guideline of disaster management plan		Plan							The basic content which should be included in the guideline of disaster management plan was confirmed in the WG1.	er fhere is the instruction manual for utilization of disaster management plan form (Order of Head of the NEMA, 2013) in Mongolia, but there is
	0 0			-				,		no practical guidance. Therefore, the WG1 member confirmed that the new guideline that forms the basic formulation of disaster management
		Actual	_	_						plan on behalf of the existing instruction manual.
1:1.2.3 To develop the guideline of the disaster preparedness plan		Plan								It is necessary to identify whether this guideline is to be included in the disaster management guideline.
	0	Actual		-						
1.1.2.4 To develop the guideline of										It is necessary to confirm whether inputs from JET are suitable for this
earthquake risk management	0 0	Plan Actual								gudeline.
1.1.2.5 To develop the Guideline of Database		Plan							It was confirmed to compile the operational framework of the disaster related information management system, database specifications and	
	0							,	procedure of datases a service of a service	pag
		Actual							O develop an object accention in contrary to see a garantee	

	1.1.3 To develop new regulation and the drafts of revised version of regulation on			-	_				
	nplementation of the Law of Disaster Protection					 			
	1.1.3.1 To examine the contents of the Law of Disaster Protection and extract regulations		Plan			 		ember verified the articles of the amended law of disaster is a result, it was confirmed that the establishment and	NEMA takes an initiative in implementing the work of newly establishing and revising rules and regulations and the JET inputs continuously
	to be newly established and/or to be revised	0	Actual					even rules and regulations are necessary.	knowledge and experience in Japan. Meanwhile, for the development of guidelines complementing the practical operation of rules and regulations, those guidelines are prepared by WG1 member as the main
	1.1.3.2 To develop new regulations and revised regulations		Plan						borly.
		0	Actual						
	1.1.3.3 To place the new and revised regulations in the process of approval and	(Plan						
	endodenen	0	Actual	-					
	2.1 To develop the draft of the agreement hich shows the coordination and cooperation mond NFMA and related circuit arisings.								
	1.2.1.1 To extract items that need to conclude agreement to build cooperative		Plan						Since those agreements should cover a lot of contents and target fields, the draft manual of agreement preparation procedure has been prepared
	system between NEMA and related organizations	0	Actual	-					based on the comparison and analysis of the existing agreements in Mongolia and Japan for the purpose of showing the standard procedure formulate of an agreement.
	1.2.1.2 To organize the items to be described in the agreement on the extracted	((Plan	-					
	activity items, coordinate with related organizations, prepare draft agreement 1.2.1.3 To conclude agreement	0	Actual						
	,	0	Actual						
	2.2 To realize training programs for seeminating the agreement mentioned in 1.2.1								
	d strengthening the coordination structure nong organizations related with disaster risk duction					 			
	1.2.2.1 To prepare training program on agreement between related organizations	0 0	Plan						
	1.2.2.2 To implement the training program		Plan						
		0	Actual	-					
	3.1 To identify problems and challenge of onitoring, report, evaluation and disclosure of taster protection plan at national and local								
	1.3.1.1 To conduct workshop for identifying issues on the national disaster prevention		Plan					The contents of emergency response for each disaster are mainly lescribed and there are few descriptions about disaster prevention and	The JET shared the document of "Countermeasures Common to All Disaster Types" in the basic disaster management plan in Japan with
	plan	0	Actual						
	1.3.1.2 To conduct workshop for revision of disaster prevention plan in UB city	(Plan						ann bebatration. As mentioned in Activity 1.1.2, the new guideline that forms the basic formulation of disaster management plan is being prepared in the WG1 and the rolling to revise the regional diseases management plane based.
		0	Actual						
	1.3.1.3 To conduct workshop for revision of disaster prevention plan in Selenge Aimag	0	Plan						It is necessary to discuss in SC and/or JCC whether Selenge Aimag is suitable for the plot area
)	Actual			 			
	1.3.1.4 To conduct workshop for revision disaster prevention plan in Gobi-Altai Almag	0 0	Plan						It is necessary to discuss in SC and'or JCC whether Gobt-Altai Amag is suitable for the pilot area
	3.2 To revise the plans made in 1.3.1 and		Actual						
	ake a manual for the revision of disaster otection plan								
	1.3.2.1 To revise existing disaster prevention plan	(Plan					jolan side C/P started the revision work of mainly adding the nits of disaster prevention and preparation in the national disaster porment blan with reference to the basic disaster prevention dan in	
		0	Actual					A.	
	 3.3 To improve the present system which allect and analyze information on disaster risk duction 								
S S S S S S S S S S S S S S S S S S S	1.3.3.1 To identify problems and scope of disaster information exetem		Plan				 Aoct	rding to the amended law of disaster protection, NEMA is snable for improving database for disaster related data. Currently.	As the improvement policy of the current system, there was a request from the Mondolian side C.P. for information sharing based on the map
		0	Actual					saster research institute in NEMA is gathering and managing tical record data for disaster events, but the types of databases that the utilized for disaster management plans and the white paper	data, and the WG1 member have confirmed to develop a database of disaster related information based on Geographic Information System (GIS):
			Plan			 		ration are invited s found that the information sharing and collaboration of databases less found that the information sharing and collaboration of databases less and a formation of the cutting box and accompanied.	the WGf member decided to install the Web-GIS (e-comi map) to the Mongdian National Data Center (NDC) from the viewpoint of security and countries the NEMA About to a fact and contracts.
but		0	Actual						
und und CCC		0	Plan						
			Actual	-					
)		0 0 0	Actual						

								ļ. ļ.				
reduction which let the Mongolian people know					1							
the progress on imperimentation, monitoring, evaluation of disaster risk reduction plan at national and local levels through the activities of 13.1 and 13.2.					preparatio	preparation of White paper of each	ach year	 				
13.4.1 To conduct discussion on the contents and function of white paper	0 0 0 0	Plan Actual								,	in the WGI, a draft format of the white paper on diseater management in abhoragels was reviewed by reference to the table of contents of the white paper on deaster management in Japan.	
13.42 To prepare the white paper preparation plan	0 0 0	Plan Actual							-	,	Based on the fuel formult he knowledge and each of an avork gland operated the white proper in Mongolian and has obtained approval of this work plan from the Head of NEMA.	
1.3.4.3 To develop white paper	0 0 0	Plan Actual										
1.3.5 To improve the system of database on seismic strength of buildings, infrastructure and lifeline.				- + -								
1.3.5.1 To identify the present database system	0 0	Plan										
1.3.5.2 To improve the present database system	0 0	Plan	+	+								
Output 2:			- + -	 -								
2.1.170 analyze the manual of seismic assessment of buildings and lifeline based on the context of the Lav of Disaster Protection and develop the draft of revised version												
2.1.1.1 To identify problems of present specifications of seismic resistance	0 0 0	Plan							-	,	The WG2 investigated existing norms and standards followed by the identification and atrangement of problems regarding to seismic resistance.	It must be further duscus sed how to reflect the problems into current norms and standard or into guidelines that will be newly establishued
2.1.1.2 To revise the present specifications and to develop new code of seismic		Plan						 			It was confirmed that the standards for seismic diagnosis of buildings and the standards for seismic damage evaluation of infrastructures and	
resistance	0 0 0	Actual						 	-	,	iffelines which become key dements in the guidelines is developed, evaluated and authorized by the standard procedure in MCUD.	reference (TOR) related to standards creation. Currently, it is the stage where the TOR was prepared in the WG2 and the approval of the chemical committee was obtained. Based on this TOR, the consulting
2.1.2 To develop guidelines-methodologies which show the method for implementing seismic assessment for buildings and iffelines, and how to use continuent.				>								BRRIT WILL DE ARBECTER LINDER FOR CHICAGOS OF MA. 1.0.)
4.1.2.1 To consult the contents of Guideline regarding the seismic evaluations	0 0 0 0 0	Plan							-	,	The WG2 decided to employ and modify Japanese standards for seismic authorison of budgates needstaling Monoglain ones. For infrastructures and iffelines, it is decided to employ vulnerability functions to judge relative seismic resistance.	0
2.1.2.2 To develop the seismic evaluation of RC and PC building		_									Rough draft of guideline was proposed by the WG2. The JET is implementing a technical sembar to input concepts and concrete	Some issues such as determination of target seismic resistance shall be discussud among the WG2 and consulting team, so that the guideline
	0	Actual						 		,	procedures of setsmic diagnosis for the WG2 member and candidate organizations of the consulting team.	can be practical.
2.1.2.3 To develop the seismic evaluation of masonry building	0	Plan								,	Rough draft of guideline was proposed by the WG2. The JET is implementing a technical seminar to input concepts and concelle procedures of seismir disappasis for the WG2 member and candidate organizations of the coreuling feam.	Some issues such as determination of target seismic resistance shall be discussud among the WG2 and consulting learn, so that the guideline can be practical.
2.1.2.4 To develop the seismic evaluation of infrastructure and lifeline		Actual Plan						 			Rough draft of guideline was proposed by the WG2. The WG2 explained the concept and concete procedure of selsmic evaluation to technical	Additional check list for seismic evaluation needed to be established for quick diagnosis by National Investigation Agecy.
	0	Actual							-	,	committee members.	
2.1.3 To implemnt training programs for enhancing the knowledge and capacity of experts who assess the seismic strength of												
buildings and lifeline 2.1.3.1 To consult training program of the guidelines	0 0 0	Plan										
2.1.3.2 To implement training for the evaluation of seismic resistance	(Actual Plan										
)	Actual										
2.2.1 I o develop guidelines-metrochologies on seismic strengthening and reconstruction of buildings												
2.2.1.1 To consult the contents of guidelines- methodologies	0	Plan							-	,	The WG2 decided to employ and modify Japanese standards for seismic retrofiting of buildings in establishing Mongolian ones.	v
2.2.1.2 To develop the guidelines- methodologies	(Plan						 			The JET is implementing a technical seminar to input concepts and concrete procedures of seismic dagnosis for the WG2 member and	Some discussions on retrofitting procedure available in Mongolia are needed to make the guideline practical. For the purpose above,
,	0	Actual								,	candidate organizations of the consulting team.	selection of model buildings will be preferable.

2.2.2 To support the introduction and					 _				 			
dissemination of seismic strengthening techniques for reconstruction collective housing				 	 _		+		 			
kindergarden, schools, hospital, national buildings and design the reconstruction and seismic strengthening of each type of buildings a				 	 	 	 		 			
2.2.2.1 To consult the target buildings for			Plan		-							
- Report to the	0	0	Actual		 -	 			 			
2.2.2.2 To design of rebuilding and			Plan	 					 			
90 II DI DO	0	0	Actual		-							
2.2.3 To realize training programs with the participation of NEMA for enhancing knowledge				 	 _	 			 			
and capacity of the experts who implement seismic strengthening of buildings					 	 				 		
2.2.3.1 To plan training progarm			Plan		 	 						
	0	0	Actual	 	 -	 	 		 			
2.2.3.2 To implemnt training progarm	C	C	Plan									
))	Actual	 	 	 	 		 			
Output 3:					_							
3.1.1 To develop a quideline which shows						 						
contents, method and implementation way of disaster risk reduction (DRNs education in kindergaten and primary and secondary schools based on Law of Disaster Protection.												
3.1.1.1 To review current situation of DRR education in kindengarten and primary and			Plan		 						The WG3 member studied Japanese practices and reviewed & summarized current contents of the DRR and safety related study in the	
secondaty schools comparing with Japanese practices		0	Actual			 				 ,	Course of Study (Standard) in Mongolia.	
3.1.1.2 To develop the guideline through the activities of the School DRR Education			Plan	 		 	 		 		The activity for development of the guideline for DRR education in pre- school, elementary school and junior high school is going on based on	The WG3 member is too busy for their other works in the MECSS and have difficulties to find out the time to work for drafting the guideline. To
Working Group (WG)		0	Actual			 	 			,	the work plan agreed by the WGS member at the start of the project	secue a time so concentrate, a drawing workshop will be reid on 12-13. June.
3.1.2 To develop educational materials such as lexbooks and supplementary readers for DRR				 			 		 			
education in kindergarten and primary and secondary schools				 	 _	 	 		 			
3.1.2.1 To collect and review existing educational materials through the WG arthrities.		0	Plan	 		 	 			 		
			Actual	 	 -	 	 		 			
3.1.2.2 To establish 1 ask Forces for the development of the educational materials (one hask force each for kindercarten)		0	Plan	 		 	 		 	 		
primary, and secondary schools)			Actual	 				+	 			
3.1.2.3 to organize workshops and discuss and decide the contents of educational materials to be deviationed.		0	- Plan	 	 		 		 	 		
9.4.9.4 To describe and finalize the			Actual	 		 	 		 			
5.1.2.4 To develop and market the deducational materials through the Task Force and the WG activities		0	Plan		 					 		
3.1.3 To implement training programs for the				 	 		 					
instructors of Teacher Training Institutes and experts of educational department in local governments, using the guideline and materials developed in 3.1.1 and 3.1.2 respectively												
3.1.3.1 To formulate the training programs frrough workshops and the WG activities		C	Plan	 	 -				 			
)	Actual	 		 	 		 			
3.1.3.2 To implement pilot training		0	Plan	 	 	 	 		 			
		1	Actual	 	 _	 	 		 			
3.1.3.3 To review the training and formulate training manuals		C	Plan	 	 		 					
)	Actual	 	 	 	 		 			
3.1.4 To implement the training program for teachers by the instructors and experts who				 	 _							
received the training programs mentioned in 3.1.3				 	 	 	 		 			
3.1.4.1 To support the training for teachers		0	Plan									
)	Actual	 	 _	 	 		 			
3.1.4.2 To review the result of the training of 3.1.3 and 3.1.4 through workshops and the		C	Plan	 			 		 			
WG activities and compile lessons learnt)	Actual	 		 	 		 	 		

3.2.1 To develop comprehensive work plan for				_							
usasier is noucción autorani and issuita awareness at national and local levels				_							
3.2.1.1 To interview related organizations		Plan								IE 8	The WG3 member visited the relevant organizations and get their initial noblen.
about coordination and cooperation	0 0 0									,	nion.
	l	Actual									
3.2.1.2 To examine framework for NEMA to conduct integrated management		Plan								1 9	was confirmed that the disaster prevention department in NEMA takes densitip for the management and operation for the competitions to
	0 0 4 4	Actual				<u> </u>				7	controllule. And also, the basic policy to utilize the operational framework of the web system developed by the Asian Disaster Preparedness Center (ADPC) was confirmed.
3.2.1.3 To implement regular meetings		Plan		-							
	0 0 4 4	Actual		-							
3.2.14 To create a website for the coordination and share information among		Plan								Fő	The VR35 member discussed with the LT specialists of NEMA for the adversariant of the NEMA cannot conduct intensive work for the development of the website. Also, the member gold detailed information of development of the website for the "Comprehensive Schedule". To
the relevant organizations	0 0 4 4	Actual								, ,	ADPC project to utilize the NEMA server developed under the secure a time to concentrate, a workshop to develop the website was ject. hed on 25 May.
3.2.2 To develop materials for the training on desider risk returchion education and raising											
awareness, and mplement the training for the brond crows in nich areas											
3.2.2.1 To review existing textbooks of DRR education for communities	(Plan									The policy of activities to develop leaching materials in the Project was Coordination for the division of the activities between the Project and discussed in the WQLs, and establing materials are promote the WQL wild Vasion Ampgils is conjointy under leadership of the disaster understanding of sealents haven on the IMPDE advancational conjunction dependent in MEMA.
	0 0 0 4 4	O							-	7	
3.2.2.2 To discuss and develop training materials	0	Plan									
		Actual									
3.2.2.3 To implement Training of Trainers workshop	(Plan		_							
	0 0 4 4	Actual									
3.2.2.4 To implement workshops in the pilot area	(Plan		-							
The state of the s	0 0 4 4	Actual									
3.2.3 To develop and implement educational and training program for implementing disaster				>							
prevention and simulation program in Training Center											
3.2.3.1 To examine and consider a study program for the training center		Plan								,	The WG3 member examined the current program of the training center and reviewed. For the improvement, it was agreed to pepale the inport on how/un inversors the current training socialing the WG3.
	0 0 4 4	Actual								,	On the strain field from the strain of the s
3.2.3.2 To examine materials and equipment for improvement of training center		Plan									he WG3 member made an initial examination.
	0 0 0 4 4	O								,	
3.2.3.3 To support procurement of		Plan									
edribment	0 0 0 4 4										
3.2.3.4 To develop educational materials such as movie, exhibition, etc.	0 0 4 4	O Plan									
3.2.3.5 To operate training program	C C <	Plan									
	1	Actual									
3.2.3.6 To examine expansion to other regions	0 4 4	Plan Actual									
		-	† 	\ \ \ \	† 	 	 	 	 	1	
Duration / Phasing		Plan									
Monitoring Plan		Year	2017		2018	<u> </u>	2019	2020		Remarks	Issue Solution
Monitoring				T (1)	=	- I	M = 1	=	+		
Joint Coordinating Committee		Plan									
Set-up the Detailed Plan of Operation		Actual									
Submission of Monitoring Sheet		Actual			ļ.ļ.						
Work Plan / Project Interim Report		Plan									
Project Completion Report		Actual									
Public Relations		Plan									
		Plan									

TO Chief Representative of JICA Mongolia OFFICE

PROJECT MONITORING SHEET

Project Title: Project for Strengthening the National Capacity of Earthquake

Disaster Protection and Prevention in Mongolia

Version of the Sheet: Ver. 3.0 (Term: June, 2017 - November, 2017)

Name: D.Batsaikhan

Title: Director of Disaster Prevention

Department, NEMA

Name: Kiyotaka Owada

Title: Team leader / Integrated disaster

management I

Submission Date: January 17, 2018

I. Summary

1. Progress

1-1 Progress of Inputs

(1)Dispatch of Experts

The following Experts from Japanese side were assigned in this monitoring period.

	Area of responsibility	Experts name	Period of assignment
Project	Team Leader / Integrated Disaster	Kiyotaka OWADA	Jun.14 – Jul. 9, 2017
Management	Risk Management I		Sep.4 – Oct.3, 2017
Group			Nov. 22 – Nov 30, 2017
	Deputy Team Leader / Integrated	Akihiro FURUTA	Jun. 1 – Jun. 17, 2017
	Disaster Risk Management II		Oct. 30 – Nov. 25, 2017
OUTPUT1:	Disaster Management Plan I	Osamu NISHII	Jun. 12 – Jul. 1, 2017
Disaster			Oct. 30 – Nov. 11, 2017
Management	Disaster Management Plan II	Kensuke ICHIKAWA	Sep. 10 – Oct. 10, 2017
Plan	Disaster Management system I	Yoshitaka YAMAZAKI	Aug. 31 – Sep. 19, 2017
	Disaster management system II	Shiro MAKITA	Jun. 8 – Jun. 23, 2017
	Disaster management information I	Tadashi ISE	Jun. 5 – Jun. 14, 2017
	Disaster management information II	Akihiro FURUTA	_
Output 2:	Seismic-Resistance	Seiichiro	Jun. 13 – Jul. 1, 2017
Seismic		FUKUSHIMA	Nov. 29 – Nov 30, 2017
Resistance	Seismic Diagnosis of Infrastructures	Jun MATSUO	Jun. 1 – Jun. 22, 2017
	and Lifelines		Oct. 23 – Nov. 11, 2017
	Seismic Diagnosis of Buildings /	Masahide AOKI	Aug. 24 – Sep. 12, 2017
	Seismic Strengthening I (RC, PC)		
	Seismic Diagnosis of Buildings /	Shigeki KITA	Oct. 30 – Nov. 8, 2017
	Seismic Strengthening II (Masonry)		

	Area of responsibility	Experts name	Period of assignment	
	Seismic-Resistant Design	Hideto OMINE	Aug. 13 – Aug. 30, 2017	
Output 3:	DRR Education I	Miki KODAMA	Sep. 10 – Sep. 23, 2017	
DRR			Nov. 16 – Nov 29, 2017	
Education	DRR Education II	Yujiro OGAWA	Jun. 11 – Jun. 23, 2017	
		_	Nov. 27 – Nov 30, 2017	
	Community-Based Disaster	Toshikazu HIWAKI	Jun. 13 – Jul. 2, 2017	
	Management / Project Coordination I		Nov. 22 – Nov 30, 2017	
	Development of Disaster	Yoko OTA	Aug. 7 – Aug. 18, 2017	
	Management Teaching Materials I		_	
	Development of Disaster	Amarjargal	Jun. 13 – Jun. 29, 2017	
	Management Teaching Materials II /	NAYANBAATAR	Aug. 8 – Aug. 16, 2017	
	Project coordination II		Sep. 14 – Sep. 28, 2017	
			Nov. 17 – Nov. 28, 2017	
			*Intermittent assignment	
			during above periods	

(2) Assignment of counterparts

The current administration of authorities concerned of Mongolia for the Project for Strengthening the National Capacity of Earthquake Disaster Protection and Prevention in Mongolia (hereinafter referred to as "the Project") is as following,

(a) Project Director:

D.Batsaikhan, Director of Disaster Prevention Department, the National Emergency Management Agency (hereinafter referred to as "NEMA")

(b) Project Manager:

Luvsansharav Ulziibayar, Director of Policy Coordination and Cooperation Department, NEMA

(c) Project Coordinators

Z.Battulga, Disaster Operation Department, NEMA Enkhbat, Policy Coordination and Cooperation Department, NEMA

The Project Director and one of Project Coordinators were changed according to transfers of personal within the NEMA. D.Batsaikhan who was promoted the Director of Disaster Prevention Department was assigned to the Project Director as the successor of B. Uuganbayar who was promoted to the Deputy Chief of NEMA. Enkhbat who is an officer of Policy Coordination and Cooperation Department was assigned to the Project Coordinator as the successor of D.Bazarragchaa who was transferred to Disaster Risk Management Department.

According to the Record of Discussions (hereinafter referred to as "R/D"), the project organization of Mongolia side includes the counterpart (hereinafter referred to as "C/P") of working groups (hereinafter referred to as "WG") in order to implement project activities at

output level of the Project.

The member list of the C/P for each WG had been amended accordingly at the third Joint Coordinating Committee (hereinafter referred to as "JCC") on June 29th, 2017 and at the forth Steering Committee (hereinafter referred to as "SC") on September 28th, 2017 based on the member list approved in the second JCC on April 14th, 2017. And at the fifth SC on November 27th, 2017, further amendment of C/P member was confirmed as shown below.

(a) Member of Sub-Group of WG1 (As of November, 2017)

Sub-WG	Name	Job Title	Timing Nomir	nated as W d of Activity	
Sub-WG	Name	Job Tide	3rd JCC Jun.2017	4th SC Sep.2017	5th SC Nov.2017
Coordinator for WG1	D.Bazarragchaa	Disaster Risk Management Dep., NEMA	0	0	0
	D.Serjmyadag	Law Enforcement University of Mongolia	0	0	0
	P.Amarzaya	Disaster Research Institute, NEMA	0	0	0
Disaster Risk	D.Bazarragchaa	Disaster Risk Management Dep., NEMA	0	0	0
Assessment	B.Batbayar	Disaster Risk Management Dep., NEMA	0	0	0
	B.Khishigbaatar	Disaster Operation Dep., NEMA			0
	S.Bazarragchaa	Disaster Research Institute, NEMA			0
	B.Bayanmunkh	Policy Coordination and Cooperation Dep., NEMA	0	0	0
	B.Myagmardorj	Disaster Operation Dep., NEMA	0	0	0
Disaster	T. Turbileg	Disaster Operation Dep., NEMA		0	0
Protection Planning	Ch.Otgontugs	Fire Dep., NEMA	0	0	0
	E.Batbayar	Emergency Management Department of Capital City (EMDC)	0	0	0
	A.Dashnyam	EMDC	0	0	0
Disaster Reduction Agreement	B.Duvshin	Disaster Risk Management Dep., NEMA	0	0	0
White	E.Altankhishig	Policy Coordination and Cooperation Dep., NEMA	0		
Paper	O.Tsend-Ayush	Disaster Prevention Dep., NEMA		0	0
	B.Purevnyam	Public Announcement and Emergency Administration Centre, NEMA	0	0	0
	D.Badamsuren	Disaster Research Institute, NEMA	0	0	
Disaster	D. Sodnomragchaa	Disaster Research Institute, NEMA	0	0	0
DB	B.Boldkhuu	Public Announcement and Emergency Administration Centre, NEMA	0	0	0
	D. Bayarbaatar	Public Announcement and Emergency Administration Centre, NEMA			0

(b) Member of Sub-Group of WG2 (As of November, 2017)

Sub WC	Nome	lah Titla		ninated as W	
Sub-WG	Name	Job Title	3rd JCC Jun.2017	4th SC Sep.2017	5th SC Nov.2017
Coordinator	D.Zanabazar	Ministry of Construction and Urban Development (MCUD)	0		
for WG2	B.Soyomboo	MCUD			0
	Z.Battulga	Disaster Operation Dep., NEMA	0	0	0
	D.Zanabazar	MCUD	0		
	B.Soyomboo	MCUD			0
	G.Erkhembayar	MCUD	0	0	0
	B.Gantulga	Land Management, Geodesy and Cartography Agency, MCUD	0	0	0
Seismic	Sh.Uranchimeg	General Agency for. Specialized Inspection (GASI)	0	0	0
Diagnosis of Buildings	N.Ganchimeg	GASI	0	0	0
Dullulings	B.Tsend-Ayush	Master Planning Agency of Capital City	0	0	0
	Ts.Khulan	Master Planning Agency of Capital City	0	0	0
	G.Saruultuya	Construction Development Center	0	0	0
Seismic Diagnosis of on the structures and Lifelines	Z.Battulga	Disaster Operation Dep., NEMA	0	0	0
	T.Galbadrakh	Finance and Logistics Dep., NEMA		0	0
	D.Zanabazar	MCUD	0		
	B.Soyomboo	MCUD		1	0
	B.Gantulga	Land Management, Geodesy and Cartography Agency, MCUD	0	0	0
	Sh.Uranchimeg	GASI	0		
	N.Ganchimeg	GASI	0	0	0
	B.Munkhsaikhan	GASI	0	0	0
	Z.Battulga	Disaster Operation Dep., NEMA	0	0	0
	T.Galbadrakh	Finance and Logistics Dep., NEMA	0	0	0
	D.Zanabazar	MCUD	0		
	B.Soyomboo	MCUD			0
	G.Erkhembayar	MCUD	0	0	0
Design for Seismic	B.Tsend-Ayush	Master Planning Agency of Capital City	0	0	0
Strengthening	Ts.Khulan	Master Planning Agency of Capital City	0	0	0
	G.Saruultuya	Construction Development Center	0	0	0
	Z.Battulga	Disaster Operation Dep., NEMA	0	0	0

(c) Member of Sub-Group of WG3 (As of November, 2017)

Sub-WG	Name	Job Title	Timing Nominated as WG Member and Period of Activity in WG		
Sub-WG	Name	Job Hue	3rd JCC Jun.2017	4th SC Sep.2017	5th SC Nov.2017
Coordinator for WG3	D.Munkhbat	Disaster Prevention Dep., NEMA	0	0	0
	J.Myagmar	Ministry of Education, Culture, Science and Sports (MECSS)	0	0	0
	Ch.Gantsetseg	MECSS	0	0	0
	P.Baljinnyam	MECSS	0	0	0
	A.Enkhtogtokh	Education Research Institute (ERI), MECSS	0	0	0
School	B.Erdenechimeg	ERI, MECSS	0	0	0
DRR Education	G.Mongolkhatan	ERI, MECSS	0	0	0
(WG3-1)	G.Khaliun	ERI, MECSS	0	0	0
	Munkhbayar	Institute of Teacher Professional Development	0	0	0
	D.Munkhbat	Disaster Prevention Dep., NEMA	0	0	0
	O.Tsend-Ayush	Disaster Prevention Dep., NEMA	0		
	L.Munkhchimeg	Disaster Prevention Dep., NEMA			0
	D.Munkhbat	Disaster Prevention Dep., NEMA	0	0	0
	D.Bat-Erdene	Disaster Prevention Dep., NEMA	0	0	0
	D.Dulamsuren	Public Information Center, Disaster Prevention Dep., NEMA	0	0	0
Community DRR	S.Amgalan	Administrative Management Dep., NEMA	0	0	0
Education (WG3-2)	S.Doljinsuren	EMDC			0
	B.Chinbat	EMDC	0	0	0
	B.Uuriingegee	DRR Training Center, EMDC	0	0	0
	B.Ariunchimeg	National Center for Long life Education		0	0
	M.Amartungalag	MECSS	0		

1-2 Progress of Activities

(1) Overall of Project

1) Implementation of Steering Committee (SC) and Joint Coordination Committee (JCC)

The third JCC and three (3) times of SCs have been held in this monitoring period.

No.	Date	Participants	Contents of discussion		
Third SC	June 20, 2017	NEMA, WG member for each OUTPUT	 Documentary of public awareness activity for seismic risk reduction in Mongolia Monitoring Sheet, version2 Procuring equipment Target Aimags for revision of the regional disaster management plan Pilot places for the training on DRR education and raising awareness Proposed training contents and candidates Next training in Japan 		
Third JCC	June 29, 2017	NEMA, MCUD, MECSS, GASI, Construction Quality and Safety Department; City Planning and Master Planning Agency of Capital City, etc. Total: 42 participants	 Project Monitoring Sheet I & II "Ver. 2" Progress of Activities for each Working Group 2nd Training in Japan Procuring equipment 		
Fourth SC	Sep. 28, 2017	NEMA, WG member for each OUTPUT	 Working Group Member Procuring equipment Target Aimags for revision of the regional disaster management plan Pilot places for the training on DRR education and raising awareness 		
Fifth SC	Nov. 24, 2017	NEMA, WG member for each OUTPUT	 Amendment of Working Group Member Procuring Equipment Target Aimags for revision of the regional disaster management plan 		

2) Provision of Equipment

As identified in the work plan of the Project which was approved by the first JCC, the equipment for seismic diagnosis and the earthquake simulation experience equipment for the Disaster Risk Reduction (hereinafter referred to as "DRR") Training Center (temporary name) are supposed to be procured and donated by JICA.

Regarding the equipment for seismic diagnosis, the Mongolian side formulated an equipment training program at WG of Output 2, and then they incorporated the training program into the Operation and Maintenance (hereinafter referred to as "O&M") plan, and submitted the plan to the JICA Mongolian Office. As a result of the above process, the

process of procurement of the equipment for seismic diagnosis in Mongolia was started by the JICA Mongolia office.

Regarding the earthquake simulation experience equipment, the Mongolian side formulated a training program using equipment in the DRR Training Centre at WG of Output 3. After some modifying, they attached the program to the O&M plan with consideration for the contents of the training program. The plan was submitted to the JICA Mongolian Office. As a result of the above process, the process of procurement of the earthquake simulation experience equipment for the DRR Training Centre was started by JICA Headquarters.

3) Training in Japan

The Mongolian side requested the second training in Japan in order to learn specific knowledge and technical approach which will be directly utilized to prepare guidelines and training programs in the activities of each WG. For this request from Mongolian side, the Japanese side requested that obtained knowledge and experiences through the first training in Japan should be reflected in the WG activities firstly, and detailed training items would be identified in each WG activity by the third JCC held on June, 2017.

At the third JCC meeting, the representatives for each WG member made their presentations about the status of WG activities based on the lessons learned from the first training in Japan and proposed subjects of that they need to promote better understanding by the further training in Japan.

As the result of the discussion about the further training in Japan based on the presentation by the representatives for each WG member, both the Japanese side and the Mongolian side agreed with the implementation of the second training program in Japan by dividing into three times (3) for each output.

The training for OUTPUT3 with ten (10) trainees named as "Capacity Improvement for the promotion of DRR" was implemented from October 29th to November 11th, 2017. After that, training for OUTPUT2 with nine (9) trainees named as "Capacity Improvement for Seismic Diagnosis and Strengthening Buildings" was also implemented from November 12 to 22, 2017.

The training for OUTPUT1 with thirteen (13) trainees named as "Capacity Improvement for Disaster Management Planning" are going to be implemented from December 6th to 16th, 2017.

(2) Output1

Activity 1.1.1 To identity problems and challenges on implementation of legal frameworks of disaster risk reduction

At the beginning of the Project, the needs to develop new rules and regulations or to revise existing rules and regulations had been discussed in the WG1 based on the draft contents of the amended Law of Disaster Protection, and it had been considered that five (5) guidelines (hereinafter referred to as "GL") would be formulated in the activities for Output 1, namely "Risk Assessment GL", "Disaster Protection Planning GL", "Disaster Preparedness GL", "Disaster Management GL" and "Disaster Database GL".

It had been assumed that the Disaster Preparedness GL would deal with setting the levels of disaster preparation and preliminary measures according to the level of preparation, and the Disaster Management GL would be mainly supposed to deal with management concerning investment for mitigation at the time of an earthquake. However, in the Formal Amended Law of Disaster Protection, the provisions that had been the basis of the assumption for formulating the Disaster Preparedness GL and the Disaster Management GL were revised or deleted.

In particular, the provisions of Articles 10.2, 10.8 and 11.1 had been initially considered to correspond to the Disaster Preparedness GL. However, these provisions were revised and the roles of the police, public security, and military chiefs' headquarters were described mainly in those Articles. Since some of their roles and resource data are confidential, it was decided that the Disaster Preparedness GL would not be prepared independently but the part of activities in preparedness phase would be included in the Disaster Protection Planning GL.

And also the provisions of Article 12.2 had been initially considered to correspond to the Disaster Management GL. However, the part of investment for mitigation was deleted from the Article and it was newly described that "Disaster Management" is an audit of disaster prevention activities of relevant agencies by the National Audit Committee. The National Audit Committee is planned to be established within NEMA and the National Auditor shall independently conduct the audit work. Therefore, Mongolian side mentioned that an audit work is including confidential data and it is no necessary for the support from the JICA Expert Team (hereinafter referred to as "JET") to prepare the GL for the national auditing.

From the above viewpoint, three (3) GLs shall be developed in Output 1 of the Project, namely, the "Risk Assessment GL", "Disaster Protection Plan GL", and "Disaster

Database GL".

Activity 1.1.2 To develop guidelines on improvement of legal frameworks and plans, assessment of disaster risk and database on disaster risk reduction

1) Disaster Risk Assessment Guideline

The framework and the configuration of the Risk Assessment GL were confirmed in the WG1. Due to the enforcement of the amended Law of Disaster Protection, NEMA is undertaking to revise the Regulation for Implementation of Disaster Vulnerability and Risk Assessment (Annex of the Cabinet Decision of 176, 2006). The revised regulation mainly states the administrative framework of general disaster risk assessment. There are six (6) annexes for the revised regulation, and Annex 4 named as "Technical Guideline (GL) for Earthquake Risk Assessment" is considered to be the guideline which will be formulated in the Project.

The Technical GL for Earthquake Risk Assessment created by JICA in the Turkish project was modified by WG1 to be suitable for Mongolia. Using this GL as a basic material, WG decided to develop two (2) guidelines namely, 1) Comprehensive earthquake disaster risk assessment GL for the central and local governments and 2) Detailed earthquake disaster risk assessment GL for experts and researchers of related organizations. The WG1 member created the first draft of the comprehensive earthquake disaster risk assessment GL.

2) Disaster Protection Planning Guideline

The WG1 member prepared three (3) draft GLs namely, national earthquake disaster management operation planning GL, Aimag / Soum level earthquake disaster protection planning GL and Ulan Bator (hereinafter referred to as "UB") City / District earthquake disaster protection planning GL. Draft national earthquake disaster protection planning GL is under preparation. These draft GLs are prepared based on the input from the JET with reference to the Basic Disaster Management Plan in Japan, disaster management operation plan of several ministries in Japan and Regional Disaster Prevention Plan in Sapporo City, Japan.

These GLs do not replace the existing "Instruction Manual for Utilization of Disaster Management Plan Form" (Order of Chief of the NEMA, 2013). Because these GLs are for formulating disaster protection plan specialized for earthquake. On the other hand, the Internal WG in NEMA has been established to update the existing Instruction Manual, and this WG is trying to update the Instruction Manual by reference to the GLs created in the Project. It will be new Instruction Manual in order to formulate disaster protection plans for

other disasters.

3) Disaster Database Guideline

Regarding the disaster database guideline, the intent was confirmed to compile the operational framework of the disaster related information management system, database specifications and procedure of data sharing with related organizations which are supposed to be developed through Activity 1.3.3 as a GL.

Activity 1.1.3 To develop new regulation and the drafts of revised version of regulation on implementation of the Law of Disaster Protection

The WG1 member verified the articles of the Amended Law of Disaster Protection mainly from the viewpoint of risk assessment and disaster protection, and disaster prevention, and investigated the necessity to establish new rules and regulations and/or revise existing rules and regulations. As a result, it was confirmed that the necessity for establishment and revision of one (1) regulation which was corresponded to the Risk Assessment GL and six (6) regulations which were corresponded to the Disaster Protection Planning GL.

As described in Activity 1.1.2, for the Regulation for Implementation of a Disaster Vulnerability and Risk Assessment (Annex of the Cabinet Decision of 176, 2006), the revision work has already been started by the NEMA, and the main text of the regulation has already been completed. Annexes of this regulation include earthquake risk assessment guideline which will be prepared in the Project. Annexes are currently under development.

Activity 1.2.1 To develop the draft of the agreement which shows the coordination and cooperation among NEMA and related organizations

Draft manual of preparation procedure of the agreement has been developed based on the comparison and analysis of the existing agreements in Mongolia and Japan. The contents of the manual are mainly, (i) grasping the current situation, (ii) examining the scope of the agreement, (iii) examining the contents of the agreement, (iv) negotiating the framework of the agreement, and (v) preparing an agreement draft. The manual has been updated while preparing the actual draft agreement in WG1, and it is at present, version 0.8.

After discussion in WG1, three (3) fields, namely, "information / communication", "fuel" and "medicine" were selected as fields for establishing the agreement during the Project period. In addition, the item "(i) grasping the current situation" in the manual was

conducted by brainstorming style using a large piece of paper and post-it notes.

<Information / communication>

WG1 exchanged views with the Prime Minister's Information and Communication Coordination Committee and four (4) mobile phone companies to discuss the possibility of cooperation agreement to secure information communication at the time of a disaster. As a result of the discussion, the members agreed to work on the agreement for securing mobile phone communications during disasters. The draft agreement is prepared by the WG1 and these organizations plan to sign the agreement next February, 2018.

<Fuel>

Since it turned out that the national stockpile is a state secret, WG1 decided to explore the possibility of signing an agreement with only private stockpiles and supplies.

WG1 studied on the agreement for priority supply of fuel to emergency response activities by NEMA, the Petroleum Authority, and private companies. Finally, the agreement on fuel supply for emergency activity was prepared. These parties are considering the possibility of concluding an agreement in 2018.

<Medicine>

The stockpiling and distribution of medicine in the country were investigated through the Ministry of Health (hereinafter referred to as "MOH"). WG1 and MOH discussed about NEMA's support to prepare cooperation agreements between MOH and relevant organization on the emergency distribution of medicine at the time of disaster which should be included as an appendix in the Disaster Management Operation Plan of MOH. In addition, to implement the demonstration experiment of this cooperation agreement was discussed and it was planned that this experiment would be conducted in the training on the national disaster management operation plan of the MOH held in March 2018.

<Other fields>

WG investigated the possibility of agreement in the field of "food", "evacuation place / temporary housing" and "water supply and sewerage". Draft agreements were prepared and presently under discussion between Ministry of Agriculture and Food, Ministry of Construction and Urban Development, and UB City Water and Sewerage Bureau respectively.

Activity 1.3.1 To identify problems and challenge of monitoring, report, evaluation and disclosure of disaster protection plan at national and local levels

The current National Disaster Protection Plan in Mongolia mainly describe the emergency response activities for each disaster and there are a few descriptions about disaster prevention and preparedness. Therefore, the JET shared the document of "countermeasures common to all disaster types" in the Basic Disaster Management Plan in Japan with the WG1 member as a reference.

The current regional disaster protection plans of UB city, Aimag and Soum levels were basically prepared based on the Instruction Manual for Utilization of Disaster Management Plan Form (Order of Head of the NEMA, 2013). The new draft earthquake disaster protection planning guidelines were prepared in the WG1 as described in Activity 1.1.2, and the policy to revise the regional disaster protection plans based on this guideline was confirmed.

Activity 1.3.2 To revise the plans made in 1.3.1 and make a manual for the revision of disaster protection plan

In the activity 1.1.2., WG1 member prepared draft national earthquake disaster protection operation guideline, draft aimag / soum level earthquake disaster protection planning guideline and draft UB City / District earthquake disaster protection planning guideline. Also draft national earthquake disaster protection plan is under preparation.

In the 4th SC held on 24th November 2017, Darkhan-Uul Aimag and Umnugovi Aimag were selected as pilot areas to revise the exiting earthquake disaster protection plan and Chingeltei District and Bayangol District of UB City were proposed as pilot districts.

Based on these developed guidelines, the WG1 will shortly start the revision work.

Activity 1.3.3 To improve the present system which collect and analyze information on disaster risk reduction

NEMA is responsible for improving the database for disaster related data under the Article 14 "Creating a Disaster Database" of the Amended Law of Disaster Protection. From the point of views of carrying out the NEMA's duty in the Law and contributing to the priority actions in "Sendai Framework for Disaster Risk Reduction 2015-2030" in Mongolia, the improvement policy of the present system had been discussed in the WG1. As cerise of discussions, the over-all framework of upgrading database for disaster related data and installing new information sharing system in NEMA was clarified in consideration of expected relationships among NEMA headquarters, regional offices and related organizations in Mongolia. And the WG member confirmed their intent to develop a new spatial database of disaster events and disaster related information based on a

Geographic Information System (hereinafter referred to as "GIS") for supporting DRR activities by NEMA as mission-critical system.

As of the first of June, 2017, the installation work for the e-comi map system which is free open-source software developed by the National Research Institute for Earth Science and Disaster Resilience in Japan (hereinafter referred to as "NIED") in the server of the Mongolian National Data Center (hereinafter referred to as "NDC") has been completed.

The works of developing a conversion tool between daily-basis incident report system managed by the Early Warning Center (hereinafter referred to as "EWC") in NEMA to new spatial database of disaster events and designing of new database such as identification of data types, contents and formats in database are on-going by the WG1 member under technical support by the JET.

For effective utilization of the new spatial database, a new rule and regulation for system operation in NEMA is needed and also the enhancement of human capacity for spatial database management is important in order to get the system entrenched in NEMA and to ensure sustainable spatial database management. As of the first of August, 2017, the WG1 member reported the status of database improvement activity in the Project at the board meeting of NEMA and also explained necessity to enhance human capacity for operation and management of spatial database and to upgrade hardware such as a server. The policies of increasing specialized staff of database management in the EWC and securing a budget to install new server in NEMA was indicated by the chief of NEMA.

The most suitable procedures for operation and management of spatial database for NEMA are being discussed with the WG1 member through the development of the Database Guideline and Operation Manual. As of the middle of November, 2017, the Database Guideline was drafted by the 1-day workshop in the WG1 activity.

Activity 1.3.4 To elaborate white paper on disaster risk reduction which let the Mongolian people know the progress on implementation, monitoring, evaluation of disaster risk reduction plan at national and local levels through the activities of 1.3.1 and 1.3.2

The WG1 explained the overall plan of editing the white paper to the person in charge of the ten (10) departments of NEMA and instructed the contents of necessary materials and the collection destination. The explanatory material serves as a draft of the preparation manual.

The person in charge changed and a new person was appointed. The status of data collection as of the end of October is as follows;

Table 1.1 Data Collection Status for White Paper

Department in NEMA	Number of items to be collected	To be collected by the end of October	Result
Policy Coordination and Cooperation	7	4	3
Disaster Prevention	4	1	1
Disaster Risk Management	2	1	0
Disaster Operation	10	6	1
Fire	3	2	0
National Stockpiling and Humanitarian Support	3	2	0
Administrative Management	1	0	0
Finance and Procurement	1	0	0
Disaster Research Institute	3	0	2
EMDC	1	0	0
TOTAL	39	16	7

(3) Output2

Activity 2.1.1 To analyze the manual of seismic assessment of buildings and lifeline based on the context of the Law of Disaster Protection and develop the draft of revised version

The WG2 member investigated the current standards and regulations regarding the evaluation of buildings to identify the issues and to examine the countermeasures. It was noted that current documents were regarding evaluation of deterioration and/or aging. Therefore, WG2 decided that the issues and countermeasures that are identified will be reflected in the guidelines that will be newly established in the project.

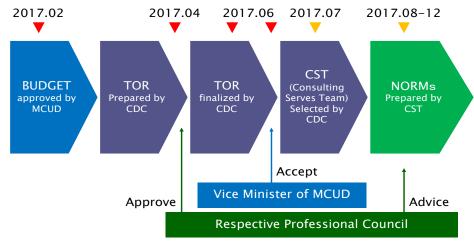
The WG2 member also discussed the seismic evaluation of infrastructure and lifeline structures with personnel of relevant organizations. In the discussions it was pointed out that regular replacement of structures is urgently needed and effective since many of the structures are aged and deteriorated. So the WG2 concluded that seismic capacity of the structures will be examined based on the existing check sheet with some modifications.

Activity 2.1.2 To develop guidelines-methodologies which show the method for implementing seismic assessment for buildings and lifelines, and how to use equipment

Since the newly established guidelines must be used practically, the WG2 decided to follow the Mongolian procedure shown in Figure 2.1 to make standards and regulations. In

the figure, a tentative schedule is also given.

In this project, it was decided to prepare four guidelines, three for buildings and one for Infrastructures and lifeline structures. To transfer the Japanese technology and knowhow to Mongolian counterparts, the formation shown in Table 2.1 was established. Each member of WG2 is expected to share the information in the WG2.



TOR: Terms of Reference, CDC: Construction Development Center, CST: Consulting Serves Team NORM: Mongolian Standard

Figure 2.1 Procedure to prepare guidelines

Table 2.1 Formation for establishment of guidelines

		RC ^{*1} Building	PC*2 Building	Masonry Building	Infrastructures and Lifelines	
CST	Organization	MACE			"Sart-Sharaid" LLC ^{*3} (Private Company in Mongolia)	
	Leader	Ganzorig				
	Secretary	Ganbayar			Member of	
	Members	Tulga Tulbat Bazarsad	Duinkherjav Baasanjav Odbayar	Munkhbayar Sharaa Javkhlan	"Sart-Sharaid" LLC	
JET	Leader	Fukushima				
JEI	Members	Aoki	Aoki	Kita	Matsuo	
WG2	Representati ve Persons	Gantulga Erkhenbayar Ganchimeg	Saruultuya Galbadrakh	Tsend-Ayush Khlan	Battulga Munkhsaikhan	

^{*1)} RC: Reinforced Concrete, *2)PC: Precast Concrete, *3)LLC: limited liability company

1) Establishment of seismic evaluation guidelines for buildings

WG2 discussed the construction of seismic evaluation of buildings and decided on the two-level evaluations. The level of evaluation will be determined by the importance of the buildings and/or limitations of time and budget. Another advantage of employing the two-level evaluations is that it is possible to select the method by the skill of engineers. Level-1 evaluation is simple and can be used by those who are not familiar with engineering matters. Level-2 evaluation is more precise way that requires some knowledge on seismic design or evaluation. Level 3 evaluation that is not included in the scope may be the one equivalent to the current seismic design.

Based on the Japanese standard for seismic evaluation and seismic strengthening, The WG2 determined the contents and prepared the prototypes of guidelines for RC, PC and Masonry buildings. Some issues derived from converting from prototypes to draft guidelines were discussed with the Consulting Serves Team (hereinafter referred to as "CST"), followed by submitting draft guidelines to the Construction Development Center (hereinafter referred to as "CDC") from the CST. Draft guidelines are under examination by the CDC.

2) Establishment of seismic evaluation guideline of Infrastructures and lifeline structures

The WG2 discussed the seismic evaluation method for Infrastructures and lifeline structures, and reached the conclusion that a method using a damage function is suitable to such structures. The WG2 established the concrete damage function reflecting the result of the Phase-1 Project and shared it with the other members in WG2. Draft guideline was submitted to the CDC for their examination and approved by the technical committee.

Also, the prototype of a checklist was established based on the request from the General Agency for. Specialized Inspection (hereinafter referred to as "GASI"). It is noted that this checklist has been converted to an excel spread sheet so that necessary scoring and judgment based on that score can be done automatically.

Activity 2.1.3: Implementation of the Training to Improve Knowledge and Ability for Those Who Carry Out Seismic Estimation on Structures and Lifelines

Some excel spread sheets for level-1 evaluation of buildings and for check of Infrastructures and lifeline structures were prepared in advance. These spread sheets were originally made to help CST members understand current Japanese standards, and they need to be improved after establishment of the draft guideline for seismic evaluation.

Also, the WG2 conducted the prototype of training using the spread sheet for seismic diagnosis of infra and lifeline structures, in order to identify the issues to be solved for the training course planned in the Project.

Activity 2.2.1 To develop guidelines-methodologies on seismic strengthening and reconstruction of buildings

The WG2 decided that seismic evaluation and seismic strengthening should be combined in one guideline for each structure except for Infrastructures and lifelines, since seismic evaluation and seismic strengthening are strongly related to each other.

The WG2 and the CST examined the seismic strengthening methods for buildings based on the Japanese standard for seismic strengthening. The strengthening method were examined and selected by the WG2 and experts in Mongolia, so that they are practical and achievable with Mongolian materials and skills. Especially this is the case of PC large panel structure, which is unique structure by former Soviet Union.

Judgement of strengthening will be incorporated in the guideline after sufficient discussion among the WG2, the CST and other relevant organization.

Activity 2.2.2: Trial Design of Rebuilding and Strengthening Construction for Housing, Kindergartens, Schools, Hospitals and Government Buildings

The WG2 discussed the selection of model buildings that will be used in the trial design based on some features such as structural type, usage, and collapse characteristics. WG2 reached to the consensus that the typical or standard buildings should be selected for each usage denoted in the Work Plan.

The final decision on the selection was not made because of absence of the chief of bureau of the Ministry of Construction and Urban Development (hereinafter referred to as "MCUD"). The WG2 will grasp the situation of inauguration of new chief and will explain him/her about the selection to obtain the official decision.

(4) Output3

Activity 3.1.1 To develop a guideline which shows contents, method and implementation way of disaster risk reduction (DRR) education in kindergarten and primary and secondary schools based on Law of Disaster Protection

1) Implementation Policy for the Activities for the Development of School DRR Education Guidelines

After the detailed discussions with the counterparts, it was decided not to establish a committee for the development of the guideline which was originally planned and to conduct main development activities by the WG3-1 members in periodical consultation with the external experts for their technical advice and comments.

Also, it was decided that the guideline is to be developed covering not only earthquake, but also all the disasters which occur in Mongolia as target disasters, with the consideration for developing comprehensive school DRR guidelines.

The work plan for the development activities was designed as shown in the Table 3.1.

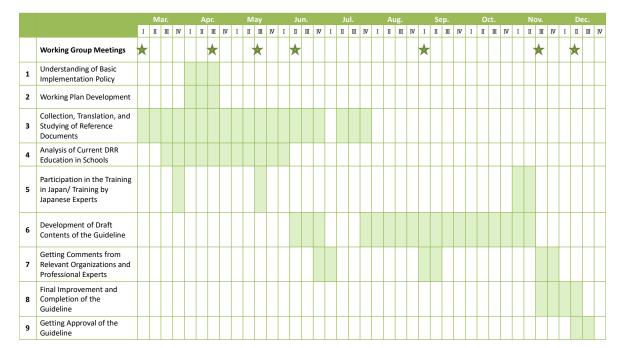


Table 3.1 Working Plan of the Guideline Development

2) Introduction of the guideline and reference documents in Japan

Prior to the development activities, basic ideas and systems for the school DRR education in Japan were introduced using the guideline "Reference Book for School DRR: Implementation of DRR Education for Nurturing a Zest for Living" developed by the Ministry of Education, Culture, Sports, Science, and Technology (hereinafter referred to as "MEXT") in Japan. Also, the detailed DRR education plans and guidebooks developed based on the guideline by the prefectural and municipality education boards were introduced. Further, the table which shows the relationship of the educational contents described in the guideline and sample lecture plans was provided showing the respective

pages of the school textbooks. In addition, more reference documents for the guideline were translated into Mongolian and provided for the WG3-1 activities.

In cooperation with the field visit to Mongolia of Prof. Fujioka, the Education Department of Shiga University under the action research of the MEXT Scientific Research conducted a trial DRR lesson in No. 131 School. Targeting the grade 4 students of the primary school, lessons on the blessings and disasters that are laid upon us by nature and disaster preparedness were provided. The target students and the WG3-1 members that attended as observers of the lesson were impressed by one of the sample practical lessons that utilized an experiment for understanding disaster mechanisms. After the trial lesson, a meeting was held for opinion exchange with the WG3-1 members and the teachers of the No. 131 School. In the meeting, the mission and objectives of the School DRR Education Guidelines in Japan, the educational revolution and DRR education, and some video programs of the sample DRR lessons in the schools were introduced by Prof. Fujioka. The WG3-1 members commented that the utilization of the video program for teacher's reference is useful and effective.

3) Research on Current Situation of School DRR Education in Mongolia

In order to identify the current situation of school DRR education in Mongolia, DRR education contents in each educational level are examined in the Course of Study for Pre-School, Primary School, and Secondary School in Mongolia. The major findings by the research were as follows

- The contents of hazard phenomenon and disasters are sufficiently included in the higher education, and higher and lower secondary education. In the pre-school education and primary education, contents of hazard phenomenon and disasters are reasonably well included.
- The content on disasters derived from ecology is 48%. Most of them are reflected mainly in the subjects of geography and chemistry of basic education, higher education and secondary education
- Contents of natural disasters are included in the geography education programs.
- Contents of technology disasters are included in the chemistry educational program in connection with confirming the handling of chemical substances and the influence of toxic substances.
- The contents of social disasters are not much included in education programs, and biological disasters are not included in educational programs.

- In general, purposes and objectives of the DRR education in the current education programs are not clear. Although DRR-related educational contents are individually included in some subjects such as geography and social studies, they are not systematically treated as DRR learning.
- Contents of personal safety education are included more in pre-school and primary education programs and education contents related to hazard phenomenon, accidents, disaster, and social safety are included more in lower and higher secondary education.

4) Development of the Draft Guideline for School DRR Education

Based on the studies of the reference documents and result of the research on the current school DRR education situation, title, composition, and purpose of the DRR education of each educational level was discussed and decided as follows.

- Title of the Guideline: "The Program for Life Safety Education"
- Type of the document: Course of Study which will be approved by the Minister of Education and Vice Prime Minister.
- Contents: The education guideline for life safety as a whole, not merely covering natural disasters
- Composition of the Program: 1) Background, 2) Purpose, 3) Contents, and 4) Teaching Method

Based on the above outline, the draft Program was developed. After the initial technical comments in the Ministry of Education, Culture, Science and Sports(hereinafter referred to as "MECSS") were collected in September, a hearing meeting for taking technical comments and advice for the draft Program was organized on 4 October by inviting professionals and experts in the relevant organizations for finalization of the document. Currently it is in the process for the final improvement by the working group members based on the knowledge learned in the counterpart training in Japan and comments sent by the relevant organizations.

5) Collaboration with Comprehensive School Safety (CSS) Program

Since 2016, MECSS and World Vision Mongolia in cooperation with NEMA, UNICEF, and UNDP has conducted "Comprehensive School Safety (hereinafter referred to as "CSS") Programs. The CSS program is aiming at promoting three areas of activities; (1) School Building Safety, (2) School Disaster Management, and (3) Education for Capacity

Enhancement to Reduce Disaster Risk and improve Disaster Resilience by coordinating and sharing relevant information among stakeholders.

On 28-29 November 2016, the first "Comprehensive School and Pre-school Safety Policy Forum" was held with the participation of the officers of the Emergency Management Department and Education Departments of the Prefectures and Municipalities, and DRR education stakeholders in government and non-governmental organizations, which was concluded with the practical recommendations for promoting school safety. Based on their recommendations, a 4-year Plan for School Safety Promotion was formulated to pursue the implementation of each of the recommended activities in a coordinated and balanced manner through the discussions among stakeholders. Also, a platform to monitor and promote the implementation of the activities was launched and the stakeholders concluded a MoU on the operation for the platform.

Since the output 3 activities of the Project are included in the activity area (3) of the CSS Program, the MECSS requested the Project team to collaborate with the Program. To avoid the duplication of the activities, the Project team decided to be involved in the CSS Program initiatives as an observer and continued to participate in the relevant events including of the workshops in May and August 2017.

Activity 3.1.2: To develop educational materials such as textbooks and supplementary readers for DRR education in kindergarten and primary and secondary schools

Prior to the development of the educational materials, the existing materials for DRR education were collected.

Among them, the textbooks for the school DRR education were developed with the support of UNDP but still need improvement before they can be used in the school education nationwide. They were composed for teaching the DRR education contents as one subject and the contents and images of the textbook do not consider copyrights and were sometimes just copied from the Russian textbooks.

In addition to the above UNDP textbooks, there are some good materials which can be used in school DRR education, such as the children's educational materials for each disaster developed by World Vision Mongolia. However, no materials have been systematically organized for school education based on each school grade and each subject. It is required to provide the materials and lesson guidebooks in a manner easily utilized by teachers according to their education plans.

Considering the above situation, it was decided to develop a "Guidebook" for teachers'

lessons as an annex of the "The Program of Life Safety Education". Referring to the sample school DRR education lessons in the "Implementation of DRR Education for Nurturing a Zest for Living", the "Guidebook" will be formulated as a format to provide DRR education in line with the contents in the Program of Life Safety Education.

Besides, there are not any school DRR education materials for disabled people. Inclusion of the sample lessons for the disabled people in the "Guidebook" will be considered.

After discussion in the several WG3-1 meetings, the composition of the "Guidebook" was decided as follows.

Foreword

Abbreviations

Chapter 1 Understanding of "Life Safety Education"

- 1. Background and Needs
- 2. What is "Life Safety Education"

Chapter 2 "Life Safety Education" in Preschool and Compulsory Education

- 1. Consistency between subjects (study items) and "life safety education" program
- 2. Consistency between extra-curricular activity and "life safety education" program
- 3. Consistency between life skill improvement activity and "life safety education" program

Chapter 3 "Life Safety Education" Program Implementation Method (Overseas Case)

- 1. Development of school education and action plans for introducing "Life Safety Education" program
- 2. Curriculum of each subject (a. Pre-school education, b. Primary education, c. Lower secondary education, and d. Higher secondary education)

On 28 November 2017, a study workshop for the development of the educational materials was organized for the WG3-1 and WG3-2 members based on the request by the counterpart members to learn more examples of Japanese educational materials. Further a workshop for intensively discussing the contents of the "Guidebook" will be conducted on 10-12 January 2018.

Activity 3.1.3: To implement training programs for the instructors of Teacher Training Institutes and experts of educational departments in local governments, using the guideline and materials developed in 3.1.1 and 3.1.2 respectively.

For including the training schedule in the MECSS annual training plans, discussion on the implementation schedule for the training in the Project was discussed with the director of the Institute of the Teacher's Professional Development (hereinafter referred to as "ITPD") and in the WG3-1 meeting held in September 2017.

Considering the other training schedule for the teachers and instructors, it was decided to

conduct the instructor training for all levels in around the dates in October 2018.

Implementation plan including of the participants to be invited and location of the training will be discussed and finalized by around April 2018.

Activity 3.2.1 To develop comprehensive work plan for disaster risk reduction education and raising awareness at national and local levels

1) Framework for the Comprehensive Work Plan

At the beginning of the Activity 3.2.1, the current situation and issues for planning the DRR education and raising awareness were reviewed and summarized in the WG 3-2 activities. Major issues are as follows.

- DRR education and training annual plans of the NEMA and the Emergency Management Department of Capital City (hereinafter referred to as "EMDC") are individually developed. The plans are not updated in the course of implementation in a year.
- Donors' activities which provide a lot of assistance to the DRR education and training are not considered when making the plans in NEMA and EMDC.
- There is no coordination mechanism among donors regarding DRR education and awareness raising activities and material development, and some of the donors' activities overlap.
- Information of the DRR education and awareness activities are not published well.

The following activities were proposed for solving the above issues.

- Development of institutional framework among stakeholders of the DRR education and awareness raising activities to regularly update the training schedule.
- Development of a website which can be accessed by government organizations and donor agencies and manage the DRR education and training activities plans. The simple system and design of the website is to be developed in consideration of easy to update at any time of the year and ensuring sustainability.
- Integration of the donor's activities in the annual plan.
- Development and operation of a mailing list with which government organizations and donor agencies can share the latest information

Prior to the major activities, cases in Myanmar and Nepal for the development of platforms

for information sharing were introduced and studied as references.

2) Development and Activities of Comprehensive Training Schedule <Operational System>

The first draft of the operational system for sustainable activities of the Comprehensive Work Plan was developed through WG3-2 activities, and discussed in the meeting that the stakeholders relevant to the DRR education and awareness activities had been invited to.

As a result of the discussions in the meeting, a "DRR Training and Raising Awareness Team" was established as a system led by the Disaster Prevention Department of NEMA and supported by the Policy Coordination and Cooperation Department of NEMA, with external support by World Vision Mongolia for the Comprehensive Training Schedule. The operational rules including purpose, composition and roles of the members of the Team were designated and approved as a regulation by the NEMA Administrator.

Information to be shared for the Comprehensive Training Schedule was discussed in detail with the references to the cases in Myanmar and Nepal. As a result, a platform which can display the major necessary information regarding the activities, such as "When (date)", "Who (organizers)", "Where (place)" and "What kind of activities" at a glance was designed. Also, the data entry system was developed in consideration of easy input of data by each stakeholder.

The following existing two websites were examined to choose the location to install the system for the Comprehensive Work Plan.

- A website was developed through the support of the World Vision for publishing the information on implementation of the DRR awareness and education activities conducted by NEMA and the Emergency Management Department of the Districts and Cities (http://ontsgoisur.gov.mn/)
- A website was developed with the support of the Asian Disaster Preparedness Center (hereinafter referred to as "ADPC") for mapping of the projects of the donors which conduct DRR activities in Mongolia (http://www.ontsgoi.gov.mn/)

The latter website has a search function for the projects by target areas and implementation period, which is required for the search function of the Comprehensive Work Plan. Therefore, it was decided to utilize the website (www.ontsgoi.gov.mn) and operate the developed website in the site after the transfer of the management authority from ADPC to NEMA.

In September 2017, the working group members noticed that the website developed by ADPC was not in a stand-alone server for the NEMA and needed to be installed in the NEMA server, which is currently no available space for new web pages. Consequently, the system for the Comprehensive Work Plan cannot be installed together with the ADPC website and need to be reconsidered for the way to provide the service.

< Mailing List for the Team >

A mailing list (mdptteam@googlegroups.com) for the DRR Training and Raising Awareness Team was created by utilizing a Google group. Through the trial use, operation rules of the mailing list will be finalized.

< Regular Meetings of the DRR Training and Raising Awareness Team >

The meetings for the DRR Training and Raising Awareness Team were conducted on 23 May 2017 and 28 June 2017. The members from NEMA, EMDC, MECSS, the Institute of Astronomy and Geophysics (hereinafter referred to as "IAG"), World Vision Mongolia, Save the Children, and UNDP attended the meetings as possible steering committee members of the Team and discussed the framework of the Team including operational rules. The team decided to conduct regular meetings once every three months.

As the first regular meeting, a Team meeting for the coordination of the relevant events for the "International DRR Day" was conducted on 29 September 2017. In the meeting, also improvement of the mailing list and website utilization was discussed.

Activity 3.2.2 To develop materials for the training on disaster risk reduction education and raising awareness, and implement the training for the target groups in pilot areas

1) Development of the DRR Training Materials for the Community

Prior to starting development work for the new educational materials, the existing DRR education materials for the community were collected and listed. (Refer to the Activity 3.1.2).

Among the collected materials, a series of the textbooks and curriculum developed by UNDP for the DRR education to "Residents", "Volunteers", and "Employees of Companies and Organizations" were approved by the NEMA Administrator Regulation. The Project team reviewed the textbooks and curriculum for "Residents" in detail, since DRR education and awareness activities by NEMA and relevant organizations are conducted based on the Regulation. As a result, it was identified that the textbooks have very detailed explanations for the DRR education and training contents, however, more easy-to-understand educational materials are required for the community training

program.

The activities of the component 3 (called "Be Ready!") of the "Disaster Resilient Ulaanbaatar Project" conducted by the World Vision Mongolia with NEMA help includes development of a set of DRR training materials and implementation of DRR awareness activities for the community. The Project team learned that the development of the educational material for the "Be Ready!" segment is also planned for the preparing of easy-to-understand additional educational materials for conducting the DRR educational activities under the UNDP curriculum approved by the NEMA Administrator Regulation, which is similar to the Project. After the identification of the similarity, the Disaster Prevention Department of NEMA requested the collaboration of the two Project activities so as to develop one package of educational materials as a standard for DRR training and education.

In view of the circumstances, the Project team studied and sorted out the proposed outputs of the "Be Ready!", so as to avoid duplication of the activities to be conducted in the Project. NEMA, the JET and World Vision held a coordination meeting in August 2017 and decided to work on the material development under the leadership of NEMA. Also, the JET joined some of the meetings of the "Be Ready!" and gave technical comments for the draft educational materials developed by them.

In the meanwhile, JET introduced some Japanese sample training materials for community DRR activities. The development of the educational materials in the Project has been pursued through the learning of the samples and in coordination with the activities of "Be Ready!" by February 2018.

2) Selection of the Pilot Areas for Community DRR Training and Education

The selection of the pilot areas for the community DRR training and education in the Project was discussed in the WG3-2 meeting. As selection criteria, risks of deteriorated buildings for urban areas, and disaster risks other than earthquake, such as flood, for the Ger area, and earthquake risks for rural areas were proposed. As a result, the three pilot areas were proposed in the JCC held in June 2017. The final decision of the pilot areas was made in the Steering Committee held in the end of September after the detailed discussions and studies with the relevant persons. Bayngol District and Bayanzurkh District in UB City, and Zavkhn Aimag were selected.

The proposed two pilot areas in UB city was observed by the WG3-2 members in August and the relevant information of Zavkhn Aimag was collected in October for analyzing the current situation of the disasters, disaster risk management and community DRR activities.

Further coordination with the selected areas will be made toward the implementation of the training program in March 2018.

Activity 3.2.3 To develop and implement educational and training program for implementing disaster prevention and simulation program in Training Center

As a first activity, the current situation of the operation of the education program and equipment installed in the Center was reviewed. The Center officially launched the training activities in October 2016 and had conducted many training programs, with the training equipment provided from China and Korea, such as an earthquake simulation shaking table and a vehicle with DRR experience devices.

Through the WG3-2 activities including the observation of the current training program in the Center, the current situation and issues of the Center were discussed. The major issues raised in the discussion were as follows.

- Only a part of the Program officially prepared for the Center in October 2016 is implemented due to the lack of educational materials, etc.
- Mainly school student groups are the current target of the training, although the schools without school buses have difficulty to visit the Center.
- More exhibits which school children can directly experience are required.
- The movie used in the earthquake simulation shaking table, which starts with an earthquake early warning alert should be improved. There is no early warning service for earthquake at this moment and usually most of earthquakes occur without any previous warning.
- Consideration of the use of volunteers for the operation of the Center so as to provide more training programs, is a proposal from the practice learned in the training in Japan.

Based on the above identified issues, discussions on the improvement of the Program were held in May and June 2017. After the introduction of the training programs and basic plans of some DRR training centers in Japan, the Program was revised with the view to incorporate the importance of experiences into the purpose of the Program as a whole. Also, the other Japanese ideas for the educational contents, such as the catch phrase "Don't push, don't run, don't speak, and don't return (O-Ha-Shi-Mo) for the experience program for evacuation from smoke, were taken as good examples for learning which children can easily remember.

Several workshops were conducted for supporting the improvement of the Program. A workshop was conducted for introducing the movies and educational program introduced in the Training Center in Japan on 15 August, and a mini-workshop for DRR leaning in practice was conducted on 21 September using some educational tools including of "Paper Bururu" developed by Prof. Fukuwa, Nagoya University. Further, after the second counterpart training in Japan, a meeting to introduce what the training participants learned in Japan was conducted for the officers of the Training Center on 17 November 2017, especially focused on the training and educational tools and facilities for the DRR training centers.

1-3 Achievement of Output

(1) Output1

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

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

Achievement in this term:

The WG1 has developed draft of national earthquake disaster operation planning guideline, aimag / soum level earthquake disaster protection planning guideline and draft UB City / District level earthquake disaster protection planning guideline. National disaster protection planning guideline (earthquake edition) is under development.

The WG1 member decided to develop two (2) risk assessment guidelines, namely general risk assessment guideline and detailed risk assessment guideline. A draft detailed technical earthquake risk assessment guideline have been compiled and shared by the WG1 members.

The WG1 member was discussed the most suitable procedures for operation and management of spatial database in NEMA and they started development of the draft Database Guideline and Operation Manual of spatial database.

1.2 The number of the draft of agreement developed and participants who participated in the training programs on agreements

Achievement in this term:

In the three (3) pilot fields, texts of agreement on "information and communication" and "fuel" are completed. Draft agreement on "medicine" between the MOH is prepared and under discussion. Additionally, the fields of "food", "evacuation place / temporary housing", "water supply and sewerage" were selected. The Draft agreement were prepared and presently under discussion between Ministry of Agriculture and Food, Ministry of Construction and Urban Development, UB City Water and Sewerage Bureau respectively.

1.3 White paper on disaster risk reduction

The achievement in this term:

As described in the Activity 1.3.4, 39 items scheduled to be included in the white paper. 7 items were collected at the end of October 2017.

(2) Output2

The following two indicators are applied to evaluate the achievement of the Output 2 based on the PDM.

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

The achievement in this term:

The WG2 is developing the guidelines. For technical transfer of seismic diagnosis for buildings in Japan, the seminar on the basic concept of Seismic Demand Index Iso was held on June 27th, 2017. There were 25 attendees at this seminar.

After establishing draft guideline of seismic diagnosis for infra and lifeline structures, model training seminars to explain the guideline were held on October 26th at NEMA, on October 27th at GASI, and on November 8th at CDC. There were 42, 17 and 40 attendees, respectively.

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

The achievement in this term:

No activity on the dissemination of techniques of seismic strengthening was held in this period.

(3) Output3

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

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

Achievement in this term:

The WG3 is developing the guidelines and teaching materials for DRR education and raising awareness, and it has not reached the stage of evaluation with quantitative indicators.

3.2 The number of visitors in Training Center

Achievement in this term:

The WG3 is preparing the improved training program and teaching materials for DRR education and raising awareness for the Training Center, and it has not reached the stage of evaluation with quantitative indicators.

1-4 Achievement of the Project Purpose

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

- 1. The number of the approved guidelines and agreement
- 2. The number of the data on disaster risk reduction which newly established and improved

The achievement in this term:

Activities for developing guidelines, agreements, standards of seismic diagnosis and strengthening, teaching materials have been continued at each WG. In order to ensure sustainability after the Project, each activity is planned and implemented so that guidelines and other related outputs which will be developed in the Project are approved by NEMA, MCUD or MECSS through their standard procedures.

1-5 Changes of Risks and Actions for Mitigation

(1) Output1

1) How to Utilize Japanese Materials for Preparation of Each Guideline in Mongolia

The Mongolian side has great interest in Japanese disaster risk assessment, disaster prevention plans, guidelines for disaster prevention plans, disaster prevention agreements etc., and exceedingly and positively wants to obtain this knowledge. They, therefore, strongly hope to fully translate their materials such as the basic disaster management plan in Japan, the regional disaster prevention plan, disaster prevention work plan of each ministry and disaster prevention agreements.

However, if they receive a complete translation, they may tend to use it unchanged. Then, there is a danger that they will develop plans and agreements that cannot be realized in Mongolia. Therefore, the JET showed only the items necessary for disaster prevention planning and agreement preparation, etc. It is necessary to discuss these concerns within

WG so as to create content that can be realized in Mongolia for these items.

2) Human Capacity Development for Database Management

One of the most important parts of the database utilization in NEMA is the human capacity development. NEMA recently reorganized and new departments and divisions have already been established. According to the new organizational structure, there are only a few capacities for IT technology response units in NEMA. Shortages of human resources for management of database and information system are major challenges in NEMA currently. After development of the spatial database as well as disaster information sharing system as one of the WG1 activities, if there are no specific persons who can manage the system by themselves in NEMA, it will be difficult to get the system entrenched in NEMA and to ensure sustainable spatial database management.

The WG1 proposed to establish a new management unit for Spatial database management under the NEMA in order to get the system entrenched in NEMA and to ensure sustainable spatial database management after the Project. The chief of NEMA agreed to this proposal and NEMA started establishing the management team in July, 2017.

(2) Output2

1) Establishment of Mongolian Standards

To make the guideline practical and effective, the WG2 decided to follow the Mongolian standards that were established under the direction of MCUD, since the previous guideline for mid- and high-rise buildings, which was established in the Phase-1 Project is not being used. On the other hand, implementing the official procedure was time consuming. For example, needed were the time for preparation of the TOR to obtain acceptance from the Respective Professional Council, time for finalizing the TOR and receiving acceptance from MCUD, time for application of the CST and other relevant times. These additional times and related efforts caused delay in proceeding the activities.

To forward the project on schedule, WG2 and JET collaborated to prepare the TOR and to give explanations to members of the CST and of the Respective Professional Council in advance.

WG2 also made prototype of each guideline to help the CST to establish draft guideline, followed by the frequent exchange of opinions to make prototype practical in Mongolia.

2) Utilization of tools for explanation of evaluation procedures

Many Mongolian standards and regulations do not contain enough figures, tables and sample calculations for readers' understanding.

So, the WG2 and the CST decided that some sample calculations for seismic diagnosis and some examples of seismic strengthening work are included on the guideline so that readers can understand the contents easily. Also, the WG2 asked the CST to provide illustrative figures and photos.

It may be difficult for some personnel relevant to seismic diagnosis to conduct a complicated procedure requiring computational effort. Also, it may not be necessary to conduct such a complicated procedure depending on the situation.

It is the first trial for Mongolian engineers to introduce Japanese technology on seismic evaluation. So, the WG2 made the members of the CST understand the Japanese way of evaluation by holding small training courses utilizing some excel spreadsheets for quick evaluation.

These are very effective for them to understand how an evaluation is done, and to know the pros and cons of the various methods, so that all the engineers of the CST accepted the introduction of the Japanese method into Mongolian guidelines. It is noted the tool can also be used in the training course not only in the project period, but also after completion of the Project.

(3) Output3

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

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

For a more comfortable working environment of the counterparts for the Project activities, regular explanations, reporting, and consultation with the superiors of the counterparts

from the Project team were conducted. Also, explanations to the counterparts about the procedures of the Project activities were repeated.

2) Need for Coordination with Other Projects

Along with the discussions for the revision of the Law on Disaster Protection, which focuses on the strengthening of disaster prevention and preparedness, some projects related to the DRR education and training were formulated and have been conducted by other donor agencies and NGOs. Similar or relevant activities with the Project are planned in some projects, which make coordination with the activities in other projects more important for avoiding duplication and effective utilization of the outputs of those other projects.

The Activity 3.2.1 was conducted for better coordination among the stakeholders for effective implementation of the DRR education and training activities. The activities are still in the initial stage, however, more information relevant to DRR education and training is expected to be shared among the stakeholders through the system introduced by the activities. Further, the NEMA is expected to coordinate stakeholders' activities for avoiding duplications.

Also, the platform launched by the Comprehensive School Safety (CSS) program by MECSS and World Vision Mongolia provides the opportunities for effective coordination among the actors of the school DRR activities. The Project team could also get information regarding the other stakeholder's activities for School DRR by the initiative.

The Project team will work together with the stakeholders of the above two initiatives for ensuring the sustainability of the coordination efforts.

3) Hand over and Operation of ADPC's Website

Handover of the ADPC's website, which the JET is supposed to integrate with the comprehensive training schedule, was made in September. The major hindrance of the operation is the insufficient capacity of the NEMA's server to transfer the data source from ADPC. This issue had not been fully discussed among NEMA and ADPC during the project implementation period. As of September 2017, NEMA has a plan to increase the capacity of the server by depending on the financial assistance from Asian Development Bank (hereinafter referred to as "ADB"), yet there is no guarantee of an immediate increase in the capacity of the server.

Therefore, it is necessary to rearrange the means of updating the comprehensive training schedule within the physical capacity of the existing server and the technical capacity of

NEMA's persons in charge of IT management. It is indispensable to communicate with NEMA to raise the awareness of the importance of opening the information to the public and accumulation of necessary information by securing the information in servers of appropriate capacity. The JET will continue to secure the data storage by supporting efforts to secure the budget to increase the capacity or utilize the available sources.

1-6 Progress of Actions undertaken by JICA

The process of procurement of the earthquake simulation experience equipment for the DRR Training Centre was started by JICA Headquarters. But the delivery date of the equipment to Mongolian side will be slipped to the latter half of the year in 2018 due to various reasons of Japanese side. The schedule of procurement of the equipment was already explained to NEMA, it is necessary to pay attention to the delay of shipping and to share the progress of procurement with Mongolian side timely.

The procurement of the equipment for seismic diagnosis that was started by the JICA Mongolia office will be completed by the end of May in 2018. The technology transfer relating to utilization of diagnostic equipment is scheduled to begin soon after the procurement.

1-7 Progress of Actions undertaken by Gov. of Mongolia

Output2: Under consultation of NEMA and MCUD, CDC examined TOR and selected the Mongolian Association of Civil Engineers (hereinafter referred to as "MACE") and Sart Sharaid LLC as SCTs. The former is for buildings and the latter is for infra and lifeline structures.

Putput3: MECSS will be in the process of the approval of the "Life Safety Education Program" in the Ministry in December 2017.

1-8 Progress of Environmental and Social Considerations (if applicable)

N/A

1-9 Progress of Considerations on Gender/Peace Building/Poverty Reduction (if

applicable)

N/A

1-10 Other remarkable/considerable issues related/affect to the project (such as other JICA's projects, activities of counterparts, other donors, private sectors, NGOs etc.)

Output 3: MECSS is working with World Vision Mongolia to establish a platform for information sharing among school DRR personnel. For the purpose of information sharing, the JET of WG3 participates in events of their activity as an observer.

Output 3: It turned out that World Vision Mongolia is carrying out similar activities in development of teaching materials for DRR education and raising awareness. The JET of WG3 continues to discuss this matter with NEMA with a view to the division of the activities for development of materials by disaster type.

2. Delay of Work Schedule and/or Problems (if any)

2-1 Detail

N/A

2-2 Cause

N/A

2-3 Action to be taken

N/A

2-4 Roles of Responsible Persons/Organization (JICA, Gov. of Mongolia, etc.)

N/A

3. Modification of the Project Implementation Plan

3-1 PO

N/A

3-2 Other modifications on detailed implementation plan

(Remarks: The amendment of R/D and PDM (title of the project, duration, project site(s), target group(s), implementation structure, overall goal, project purpose, outputs, activities, and input) should be authorized by JICA HDQs. If the project team deems it necessary to modify any part of R/D and PDM, the team may propose the draft.)

N/A

4. Preparation of Gov. of Mongolia toward after completion of the Project

In this term, the specific policy and actions are not discussed yet.

II. Project Monitoring Sheet I & II as Attached

Project Monitoring Sheet I Ver. 3.0 (Term: June, 2017 - November, 2017)

Version 3 Dated January 17, 2018

Project Title: Project for Strengthening the National Capacity of Earthquake Disaster Protection and Prevention in Mongolia implementing Agency. National Emergency Management Agency (NEMA)

Target Group: NEMA, Ministry of Construction and Urban Development, Ministry of Education, Culture and Science, General State Inspection Agency, Emergency Management Department of the Capital City (EMDC), Construction Quality and Safety Department, Master Planning Agency of Capital City

Period of Project: December 2016 to November 2019 Project Site: Monapila	November 2019		Ī		
Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption	Achievement	Remarks
Overal Goal Seismic risk will be reduced.	1. Number of the approved guideline, rules, provisions 2. Number of white paper open to public assessment 4. Number of the seismic strengthed building 5. Number of implemented activities on disaster risk reduction education	Study by NEMA	The policy on disaster risk reduction will not be changed in Mongolia.		
Project Purpose The Capacity of National Emergency Management Agency will be enhanced through the activities for strengthening the countermeasures for seismic risk.	The number of the approved guidelines Project report and agreement The number of the data on disaster risk reduction which newly established and improved	Project report	NEMA expands the pilot activities in other almags and sums.	Activities for developing guidelines, agreements, standards of seismic diagnosis and strengthening, teaching materials have been continued at each W.G.	In order to ensure sustainability after the Project, each WG makes it a goal to get an approval of guidelines and other related outputs which will be developed in the Project from NEMA, MCUD or MECSS through their standard procedures.
Outputs 1. Capacity for data collection on disaster risk reduction and coordination among related organizations will be enhanced.	1.1 The number of guidelines, operational rules, provisions which are developed. 1.2 The number of the draft of agreement developed and participants who participated in the training programs on agreements 1.3 White peper on disaster risk reduction	Project report	1. The counterparts from NEMA, the Ministry of Construction and Urban Development and the Ministry of Education continue to work in the same position. 2. Participants in training programs continue to work in the same position. 3. The relation among related organizations is maintained. 4. Exchange information is maintained among the related organizations.	1.1: The WG1 has drafted three (3) guidelines for national earthquake disaster operation planning, aimag/ soum level earthquake disaster protection planning and draft UB City/ District level earthquake disaster protection planning. And also, The WG1 members decided to develop two (2) guidelines for earthquake risk assessment, namely general risk assessment guideline and detailed risk assessment guideline. "There (3) fields, namely, "information / communication," "uel of "medicine" were selected as fields for establishing the agreement during the Project period. Agreements on "information /"medicine" between Ministry of Health is prepared and under discussion.	
2. Capacity of public administration officer related with the seismic assessment and seismic strengthening for buildings will be enhanced.	2. Capacity of public administration officer related with the seismic assessment and seismic strengthening program on seismic assessment for buildings will be enhanced. 2.2 Guideline for seismic strengthening The number of the traning program on seismic strengthening.	Project report		2.1: The WG2 is dveloping the guidelines. For technical transfer of seismic diagnosis for buildings in Japan, the seminar on the basic concept of Seismic Demand Indeex Iso was held on June 27th, 2017. There were 25 attendees at this seminar. 2.1: After establishing draft guideline of seismic diagnosis for infra and lifeline structures, model training seminars to explain the quideline were held on October 26th at NEMA, on October 27th at GASI, and on November 8th at CDC. There were 42, 17 and 40 attendees, respectively. 2.2: No activity on the dissemination of techniques of seismic strengthening was held in this period.	
3. Implementing plan on disaster risk reduction education and awareness raising activities will be developed and realized.	3.1 The number of the cases of delivering classes on disaster risk reduction based on the activities of the Project 3.2 The number of visitos in Training Center	Ordinance of Ministry of Education, Culture and Science Ordinance of NEMA		3.1: The WG3 is developing the guidelines and teaching materials for DRR education and raising awareness, and it has not reached the stage of evaluation with quantitative indicators. 3.2: The WG3 is preparing the improved training program and teaching materials for DRR education and raising awareness for the Training Center, and it has not reached the stage of evaluation with quantitative indicators.	

Activities		Inputs	Important Assumption
	The Mongolian Side	The Japanese Side	
1.1.1 To identity problems and challenges on implementation of legal frameworks of disaster risk reduction	ssignm	Dispatch of Experts	
1.1.2 To develop guidelines on improvement of legal frameworks and plans, assessment of disaster risk and franchase on disaster risk reduction	- Project Ulrector - Project Managers	- Leader - Disaster Risk Management	Pre-Conditions
1.1.3 To develop new regulation and the drafts(note 1-1)) of revised version of regulation on	- Project Coordinator	- Disaster Risk Reduction Framework	
implementation of Law of disaster protection		- Seismic Strengthening Assessment	
1.2.1 To develop the draft of the agreement (note 1-2)) which shows the coordination and cooperation among NEMA and related organizations	For Output 1 - Policy Coordination and Cooperation	- Seismic Strengthening Method - Seismic Strengthening Design	< ssues and countermesures>
	Depertment, NEMA	- Disaster Risk Reduction Education	
1.2.2 To realize training programs for disserting the agreement mentioned in 1.2.1 and sit enginering the coordination structure among organizations related with disaster risk reduction	 Disaster Operational Department, NEMA 	 Disaster Risk Reduction at Commnity Level Educational Material Development 	Outpur: 1) How to Utilize Japanese Materials for Preparation of Each Guideline in
1.3.1 To identify problems and challenge of monitoring, report, evaluation and disclosure of disaster	- Disaster Prevention Department,	-	Mongolia The .IET do not share fully translated materials in .lanan_bacause It is imnortant
protection plan at national and local levels (note 1-3))	- Disaster Research Institute. NEMA	Provision of Equipment	to discuss the items necessary for disaster prevention planning and agreement
1.3.2 To revise these plans and make a manual for the revision of disaster protection plan 1.3.3 To improve the present system (note 1-4.) which collect and analyze information on disaster risk	- Emergency Management Department of Capital City (EMDC)		preparation in WG so as to create contents that can be realized in Mongolia. 2) Human Capacity Development for Database Management
reduction		Center such as shaking table	The WGT proposed to establish a new management unit for spatial database management under the NEMA in order to ensure sustainable spatial database
1.3.4 To develope white paper on disaster risk reduction which let the Mongolian people know the progress on implementation, monitoring, evaluation of disaster risk reduction plan at national and local levels through the activities of 1.3.1 to 1.3.3		Training in Japan and/or the third countries	management after the Project. The chief of NEMA agreed to this proposal and NEMA started establishing the management team.
2.1.1 To analyze the manual of seismic assessment of buildings and lifeline (note 2-1)) based on the context For Output 2 of the Law of Dissaster Potestion and the Law of Dissaster potential asserts on the develop guidelines—methodologies (note 2-22)) which show the method for implementing seismic NEMA assessment for buildings and lifelines, and how to use equipment	For Output 2 - Disaster Operational Department,. NEMA - Disaster Prevention Department,		1) Establishment of Mongolian standards To make the practical and effective guidelines, the WG2 decided to follow the Mongolian standards that were established under the direction of MCUD. 2) Utilization of tools for explanation of evaluation procedures
2.1.3 To implement training programs (note 2-3)) for enhancing the knowledge and capacity of experts who assess the seismic strength of buildings and fifeline 2.2.1 To develop cutelefines—methodologies on seismic strengthening and reconstruction of buildings	onst		It is the first trial for Mongolian engineers to introduce Japanese technology on seismic evaluation. Therefore, the WIG2 and the CST decided that some sample reactivities for extension disconnections and some availables of existing strandhaming.
2.2.2 To support the introduction and dissemination of seismic strengthening techniques for reconstructing collective housing, kindergarden, schools, hospital, national buildings and design the reconstruction and	Development - Master Planning Agency of Capital City		various and some degrees are some examples of some subgreening work are included on the guideline so that readers can understand the contents easily.
seismic strengthening of each type of buildings a pilot 2.2.3 To realize training programs with the participation of NEWA for enhancing knowledge and capacity of	- General State Inspection Agency		Outout3:
the experts who implement seismic strengthening of buildings			1) Better Understanding of the Project Activities as a Technical Assistance Project
3.1.1 To develop a guideline which shows contents, method and implementation way of disaster risk reduction education in kindergaten and schools based on Law of Disaster Protection	For Output 3 - Disaster Prevention Department,		Since this Project is the first project for NEMA as a Technical Assistance Project, the countenants had some confusion recarding what should be done by the IFT
3.1.2 To develop textbooks, supplementary readers and eduational materials related with disaster risk reduction education in kindergarten and primary and secondary schools	NEMA - Ministry of Education, Culture and		and what should be done by the Mongolian side. For a more confortable working environment of the counterparts for the Project activities, regular explanations,
3.1.3 To implement training programs for the instructors (note 3-1)) of Teacher Training Institutes and	Science - Teacher Training Institute		reporting, and consultation with the superiors of the counterparts from the Project learn were conducted. Also, explanations to the counterparts about the
experts of educational department in local governments, using the guideline and materials developed in 3.1.1 and 3.1.2 respectively	- Educational Research Institutte - Emergency Management Department		procedures of the Project activities were repeated. 2) Need for Coordination with Other Projects
3.1.4 To implement the training program for teachers by the instructors and experts who received the training programs mentioned in 3.1.3	at aimag level		Similar or relevant activities with the Project are planned in some projects conducted by other donor agencies and NGOs, which make coordination with
3.2.1 To develop comprehensive work plan (note 3-2)) for disaster risk reduction education and raising awareness at national and local levels			the activities in other projects more important for avoiding duplication and effective utilization of the outputs of those other projects. Therefore, The Activity
3.2.2 To develop materials for the training on disaster risk reduction education and raising awareness, and implement the training for the target groups (note 3-3)) in pilot areas			3.2.1 is being conducted for better coordination among the stakeholders for effective implementation of the DRR education and training activities in
3.2.3 To develop and implement educational and training program for implementing disaster prevention and simulation program in Training Center			Mongolia.
Nation			

- 1-11. Amended Law of Disaster Protection "8.2 Rules of risk evaluation", "9.3 Guidelines and methodologies to develop disaster management plan", "12.1 Guidelines for preparation system", and "13.2 Rules and regulations of disaster management", and etc.. 1-2) Contracts, cooperation plan and Moul are equivalent to agreement mentioned in the PDM
 1-3) National level, UB city and two provinces are the target areas
- 1-4) Improvement of existing "Disaster Information Sharing System".
 1-5) Improvement of existing "Disaster Information Sharing System" (Components of the database system of UB city are under investigation).
 2-1) Buildings: Buildings, Road and Bridge Lifeline: Warm water pipeline, Water supply and sewerage, electric transmission and distribution facilities.
 2-2) Guidelines are regarded as operational guidelines by Resolution of Minister
- 2-3) Target Ministry of Construction and Urban Development, Ministry of Education, Culture and Science, UB city, General State Inspection Agency, province level officers in charge of buildings, infrastructure and lifelier, association of architects, association of design engineers etc.
- 4.3-2). A document to clarify the targets, implementers and instructors of public education and training, and the necessary target stakeholders 3-1) Instructors of Institute of Teacher's Professional Development, experts of training departments of provinces and cities, and certificated teacher's instructors
- 3-3) Target groups: (1) Staff of NEMA Disaster Prevention Department, Training Center, and Emergency Management Departments of Cities, Provinces, and Districts, (2) Members in charge of disaster Prevention in Disaster Protection Services at National, Province and City levels, (3) Heads of Geovernor's offices of Provinces, Sourns, and Districts (4) Heads of Bags and Khoroos, (5) Coordinators of civil activities in Provinces, Districts, and Khoroos and (6*) Volunteers (*only in pilot areas)
 3-4) The facility that the EMDC is constructing and providing DRR training and education to the citizens in Khan Uul district in UB city.

		Project N	Aonitoring Sh	eet II (Re	Project Monitoring Sheet II (Revison of Plan of Operation)	peration)						Version 3 Dated January 17, 2018	
Project Title: The Project for Strengthening the National Capacity of Earthquake Disaster Protection and Prevention in Mongolia	the National Capa	scity of Earthq	uake Disaste	r Protecti	on and Prevention	in Mongolia						Monitoring	
Inputs			Year 20	91	2017	8		2019	ŀ	2020	Remarks	enssi	Solution
France			A	1	II II	1	I N	A II II	1	=	N		
Kiyotaka OWADA			Plan										
Akihiro FURUTA			Plan										
IHSIN numersO			Actual										
Kensuke ICHIKAWA			Plan										
Shirou MAKITA			Plan										
Yoshitaka YAMZAKI			Plan										
Tadashi ISE			Plan								ļļ		
Selichiro FUKUSHIMA			Plan										
Jun MATSUO			Plan								ļļ		
Masahide AOKI			Plan								J J		
Shigeki KITA			Plan								ļļ.		
Hideto OMINE			Plan								 		
Miki KODAMA			Plan								ļļ		
Yujiro OGAWA			Plan								ļļ		
Toshikazu HIWAKI			Plan								ļļ.		
ATO OJWY			Plan										
ALO ONO			Actual										
Amarjargai NAYANBAATAK			Actual										
Equipment Equipment for seismic diagnosis			Plan			5	Link to Activity 2.1.3						In eschedule of procurement of the equipment was already explained to NEMA, it is necessary to pay attention to the delay of ethionion of the arthrulake eminitarion exceptions an imment for
Earthquake simulation experience equipment for			Plan				Link to Activity 3.2.3	3.2.3					DRRT Training Centre and to share the progress of procurement with Monoring each time!
Training in Japan			Actual										water monigorian eace annealy.
Comprehensive disaster risk reduction			Plan										
In-country/Third country Training			Plan										
			Actual										
Activities A	M A A A A A A A A A A A A A A A A A A A	X - F A 0 M - N I 0 D A A 1 - W A I	Year		2017	2018		2019		2020	Responsible Organization	2 5	
Sub-Activities	S I - E 4 4	⊻ - ∢ ≥ ∢	A		H	H	F 1	A H H	н	Ħ	IV Japan GOM	Achievements	Issue & Countermeasures
Output 1:	short on of local features	of of other states				-	 - - - -	-					
1i i o temuly probems and challenges on imperentiation of legal frameworks of disaster risk reduction	entation of legal framewor	ks of disaster risk											
1.1.1.1 To review the current legal frameworks of earthquake disaser risk reduction	0		Plan								,	<completed> The WG1 member gathered information about exiting rules and regulations for disaster risk reduction in order to reveal a plan to develop guidelines in the Project.</completed>	
			Actual										
1.1.1.2 To summarize the problems and challenges	C		Plan								, ,	<completed> Due to the enforcement of the amended law of disaster protection, WG1 decided to develop new rules and regulations or to revise previous them for whole DRR</completed>	Based on a series of discussion in WG1, three (3) guidelines shall be developed in Output 1 of the Project, manely, the "Risk of the Project
			Actual								=	parining and activities .	Sessifier GL, Disaster Froedon Fall GL, and Disaster Database GL".

1.1.2 To develop guidelines on improvement of legal frameworks and plans, assessment of disaster risk and database on disaster risk reduction	assessment of					 		
1.1.2.1 To develop the guideline of earthquake								The WG1 member decided to develop two (2) technical guidelines (GL) for earthquake risk NEMA is undertaking to revise the Regulation for implementation
risk assessment		Plan			 	 		assessment. One is for the central and local governments and the other is for experts and researchers of related organizations. The WG1 member created the first draft GL for the
		Actual					,	governments namely "Comprehensive earthquake disaster risk assessment GL".
		Plan						The WG1 member prepared three (3) draft GLs for earthquake disaster protection planning. These GLs targets at national disaster management operation plan, Aimag / Soum level
0 0		Actual				 	,	disaster protection plan and UB City / District disaster protection plan. Draft national disaster protection planning GL (earthquake edition) is under preparation.
1.1.2.3 To develop the guideline of the earthquake disaster preparedness		Plan				 		
00		Actual	 		 	 	,	preparedness phase would be included in the Disaster Protection Planning GL.
1.1.2.4 To develop the guideline of earthquake disaster management		Plan						The Formal Amended Law of Disaster Protection describes "Disaster Management" as an it is necessary to confirm this GL will not be prepared in the Project independent audit of disaster prevention activities of relevant agencies by the National Audit at the JCC.
0000		Actual	 					Committee which is planned to be established within NEMA. Therefore, The WG1 decided the GL for earthquake disaster management will not be prepared in the Project.
		Plan						It was confirmed to compile the operational framework of the disaster related information management system, database specifications and procedure of data sharing with related
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		Actual					,	
1.1.3 To develop new regulation and the drafts of revised version of regulation on implementation of the Law of Disaster Protection	on on implementation							
		Plan						it was confirmed that the neosasity for establishment and revision of one (1) regulation which is corresponded to the Ack sessesment GL and six (6) regulations which are corresponded to the Ack sessesment GL and six (6) regulations which are corresponded to
00		Actual					,	
1.1.3.2 To develop new regulations and revised regulations		Plan						NEMA has revised existing regulation for implementation of disaster vulnerability and risk assessment (Arnex of the Cabinet decision of 176, 2006). Annexes of this regulation include a
0		Actual			 	 	7	earthquake risk assessment guideline. Annexes are under development. are completed.
1.1.3.3 To place the new and revised regulations in the process of approval and		Plan	 		 	 		
enforcement		Actual						
1.2.1 To develop the draft of the agreement which shows the coordination and cooperation among NEMA and related organizations	nd cooperation among				 	 		
epn		Plan				 		
between NEMA and related organizations		Actual				 	7	discussion in WG1, three (3) fields namely, "information" communication," "their and "medicine" were selected as fields for establishing the agreement during the Project period.
1.2.1.2 To organize the items to be described in the agreement on the extracted activity items, coordinate with related organizations, recovers deat enreament		Plan						In the tree (g) bot ledfest, least of agenerator of "information and communication" and "fuel" are completed between mobile privace operators and the problem, Authority Daff agreement on "information and information and an accompleted and under decision, Authority Daff agreement on "information and an accompleted and under decision, Authority Daff agreement and an accompleted and under decision, and an accomplete and under decision, and accomplete an accomplete and under decision and
		Actual				 	,	
1.2.1.3 To conclude agreement		Plan	 			 		
0)		Actual	 			 		
1.2.2.1 or ealize training programs for disseminating the agreement mentioned in 1.2.1 and strengthening the coordination structure among organizations related with disaster risk reduction	d in 1.2.1 and saster risk reduction					 		
1.2.2.1 To prepare training program on agreement between related organizations		Plan						
)		Actual						
1.2.2.2 To implement the training program		Plan	 		 	 		
)		Actual	 	 	 	 	_	

1.3.1 To identify problems and challenge of monitoring, report, evaluation and disclosure of disaster	port, evaluation and disclosure of c	lisaster							
protection plan at national and local levels						 	 		
1.3.1.1 To conduct workshop for identifying issues on the national earthquake disaster		Plan							The contents of emergency response for each disaster are mainly described and there are few descriptions about disaster prevention and preparation.
	0	Actual						,	
1.3.1.2 To conduct workshop for revision of earthquake disaster protection plan in UB City		Plan		 		 	 		Chingeltei District and Bayangol District were selected as pilot districts. Existing earthquake disaster protection plan of Chingeltei District and Bayangol District shall be collected and examined.
	0	Actual						,	
1.3.1.3 To conduct workshop for revision of earthquake disaster protection plan in	4	Plan							Darkhan-Uul Aimag was selected as one of pilot area to revise the exiting deaster protection. Existing earthquake disaster protection plan shall be collected and plan in the 4th SC held in November.
	0	Actual	_					,	
x workshop for revision er protection plan in	(Plan							Umnugovi Aimag was selected as one of plid area to revise the exiting disaster protection Existing earthquake disaster protection plan shall be collected and plan in the 4th SC held in November.
Umnugobi Aimag		Actual						7	
1.3.2 To revise the disaster protection plans at national and local level, and revision of disaster protection plan	make a manual	for the							
1.3.2.1 To revise the national earthquake disaster protection plan and make manual		Plan					 		In the activity 1.1.2.2, WG1 members prepared draft rational earthquake disaster probection operation guideline. Also draft national earthquake disaster protection plan is under
	0	Actual						,	preparation. Based on the guidelines, two (2) plans at national level is under revision.
1.3.2.2 To revise earthquake disaster protection plan in UB City	(Plan							In the activity 1.1.2.2, WG1 members prepared that UB City / Khoroo disaster protection planning guideline. Based on the guideline, the UB City earthquake disaster protection plan is
	0	Actual	_				 	.	under revision.
1.3.2.3 To revise earthquake disaster protection plan in Darkhan-Uul Aimag	(Plan					 		
	0	Actual							
1.3.2.4 To revise earthquake disaster protection plan in Umnugobi Aimag		Plan		 			 		
		Actual		 		 	 		
 3.3 To improve the present system which collect and analyze information reduction 	alyze information on disaster risk								
1.3.3.1 To identify problems and scope of disaster information system	C	Plan						3	As cerise of discussions, the over-all framework of uggrading database for disaster related The WGT member explained necessity to enhance human capacity data and management of spatial database and to upgrade data and management of spatial database and to upgrade to the propertion of the properties o
))	Actual							expected relationships among victiva neadquarters, regional offices and related organizations. Instrumere such as a server at the board meeting of NEMA. In Mongolia.
1.3.3.2 To identify rules and regulation on data collection and information sharing		Plan					 	3	The WG1 member confirmed their intent to develop a new spatial database of disaster events and disaster inclade information based on GIS for supporting DRR activities by NEMA as
)	Actual		 		 	 		missionficial system.
1.3.3.3 To prepare the database gideline based on the result in 1.3.3.2	(Plan				 	 		The most suitable procedures for operation and management of spatial database for NEMA are being discussed with the WG1 member through the development of the Database
))	Actual				 	 	,	Guldeine.
1.3.3.4 To improve the present system and system operation manual	0 0	Plan						,	The WG1 just started developing Operation Manual of spatial database and information sharing system.
		Actual				 	 		
13.4 To elaborate white paper on disaster risk reduction which let the Mongolian people know the progress on implementation, monitoring, evaluation of disaster risk reduction plan at national and local levels through the artivities of 1.3.1 and 1.3.2.	which let the Mongolian people kno aster risk reduction plan at national	ow the land			1				
1.3.4.1 To conduct discussion on the contents and function of white paper		Plan							In the WG1, a draft format of the white paper on disaster management in Mongolia was reviewed by reference to the table of contents of the white paper on disaster management in
	0	Actual	_					,	Japan.
1.3.4.2 To prepare the white paper preparation plan	000000000000000000000000000000000000000	Plan				 	 	,	Based on the draft format, the WG has drawn up a work plan to prepare the white paper in Mngdia and has obtained approval of this work plan from the Head of NEMA.
)	Actual					 		
1.3.4.3 To develop white paper		Plan					 	3	Of the 39 items scheduled to be included in the white paper, 7 items were collected at the end Data collection must be accelerated, of October 2017.
)	Actual							
seismic	strength of buildings, infrastructure and			 			 		
1.3.5.1 To identify the present database system	C	Plan							
)	Actual		 		 	 		
1.3.5.2 To improve the present database system	C	Plan		 			 		
)	Actual		 		 	 		

Activities W W W W R	M C C C C C C C C C C C C C C C C C C C	0 H O B O C C C C C C C C C C C C C C C C C			2017		2018		2019		2020	Respo	Responsible Organization	
Sub-Activities	2	x -	Þ		E E	-	H	-	B	H	н	Japan	Achievements Issue & Countermeasures	oasuros
Output 2: 0 1 1 To analyze the manual of seismic assessment of his	ildings and lifeline based on the	outext of	1	-				- - - -	1 -					
the Law of Disaster Protection and develop the draft of revised version	vised version													
2.1.1.1 To identify problems of present specifications of seismic resistance	C	Plan										`	The WG2 investigated existing norms and standards followed by the identification and arrangement of problems regarding to seismic resistance.	ect the problems into lelines that will be newly
)	Actual										`		
2.1.1.2 To revise the present specifications and to develop new code of seismic resistance		Plan											It was confirmed that the standards for seminic degrades of buildings and the standards for in The procedure will be contended that you for the seek and seminication of infrastructures and lifetimes with become key elemental in the selection of consulting learn, it is necessary to prepare the terrine of guidelines is developed, evaluated and authorized by the standard procedure in MOUD.	nsulting team. Prior to the sary to prepare the terms of reation. Currently, it is the
	0 0 0	Actual										>	of the demicinal committees are consistent of the committee of t	d. Based on this TOR, the the guidance of MCUD.
2.1.2 To develop guidelines-methodologies which show the method assessment for buildings and lifelines, and how to use equipment	re method for implementing seisn uipment	oje.												
2.1.2.1 To consult the contents of Guideline regarding the selsmic evaluations		Plan										1	The WG2 decided to employ and modify Japanese standards for seismic evaluations of buildings in establishing Monopilan ones.	
)	0 0 0 0 0	Actual										,		
2.1.2.2 To develop the seismic evaluation of RC and PC building	(Plan										,	CST (Consulting Service Team) was established and started preparing guideline based on the Some issues such as determination of natural period of structural and the WG2. Some members in WG2 collaborates with CST to solve the strength of structural members are remains unsolved. So that	natural period of structures, ains unsolved. So that
		Actual										•	problems to convert Japanese technologies to Mongolian ones.	32, CS1 and JE1.
2.1.2.3 To develop the seismic evaluation of masonry building	C	Plan										``	CST (Consulting Service Team) was established and started preparing guideline based on the Isome issues such as determination of natural period of structures, rough draft made by WG2. Some members in WG2 collaborates with CST to solve the strength of brick wall against out-of-plan force are remains	natural period of structures, n force are remains
		Actual										•	problems to convert Japanese technologies to Mongolian ones.	needed among WGZ, CS1
2.1.2.4 To develop the seismic evaluation of infrastructure and lifeline	0	Plan										,	CST (Consulting Service Team) was established and started proparing guideline based on the Additional check list for seismic evaluation needed to be rough drain made by WG2, Some members in WG2 colaborates with CST to solve the stablished for quick diagnosis by National investigation Agency. Very consult manages inchindrate in Advonction to Monchain which work in the Monchain will be supplied to the consult manages inchindrate in Advonction to Monchain and Monchain an	ion needed to be inal Investigation Agency.
		Actual												
2.1.3 To implement training programs for enhancing the knowledge and capacity of experts who assess the seismic strength of buildings and iffeline	owledge and capacity of experts	who					Equipment for	or seismic diagnosis						
2.1.3.1 To consult training program of the guidelines	-	Plan												
	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Actual												
2.1.3.2 To implement training for the evaluation of seismic resistance	C	Plan												
)	Actual												
ismic	strengthening and reconstruction of													
2.2.1.1 To consult the contents of guidelines- methodologies	C	Plan										3	The WG2 decided to employ and modify Japanese standards for seismic retrofitting of buildings in establishing Mongolian ones.	
		Actual												
2.2.1.2 To develop the guidelines- methodologies	C	Plan											CST (Consulting Service Team) was exhibited and stanked preparing guideline based on the Some steas such as dearmation of cataloa of steadhering (cough definated by WG2, Some members in WG2 colleges with CST to solve the problems to convert Japanese technologies to Mongolian ones.	criteria of strengthening Also providing strengthening sideration due to the lack of
)	Actual												discussion is needed
2.2.2 To support the introduction and dissemination of seismic strengthering techniques i reconstructing collective housing, kindergarden, schools, hospital, national buildings and reconstruction and seismic strengthering of each type of building as a pilot	ismic strengthening techniques for hospital, national buildings and d building as a pilot	for design the												
2.2.2.1 To consult the target buildings for traial design	(Plan										3	WG discussed the candidates of the buildings for trial design of seismic strengthening. Due to the lack of chief of relevant bureau, the discussion will not reach to the agreement, so that further discussion will	au, the discussion could ther discussion will be
		Actual										•		
2.2.2.Z To design of rebuilding and strengthening on target buildings	C	Plan												
)	Actual												
2.2.3 To realize training programs with the participation of NEMA for enhancing knowledge capacity of the experts who implement selemic strengthening of buildings	f NEMA for enhancing knowledge ning of buildings	and												
2.2.3.1 To plan training progarm	C	Plan												
		Actual												
2.2.3.2 To implemnt training progarm	0	Plan												
		Actual												

	A L L L L L L L L L L L L L L L L L L L	- 4		2017		2018		2019		2020	Responsible Organization	
_ 												Achievements Issue & Countermeasures
Sub-Activities		∢⊢∢≅	I A	=	E E	H	E E	Ħ	I E	H	IV Japan GOM	
Output 2: 18:1. The develop a guideline which shows contents, method and implementation way of diseaser 18:1. The develop a guideline which shows contents, method and implementation way of diseased on Law	nod and implementation way of disasing and secondary schools based on	ter -aw										
of Disaster Protection 31.1.1.1 To review current situation of DRR		Plan										The WG3-1 member studied Japanese practices and reviewed & analyzed current contents of the DBD and reclass realised reviewed in the Danies of Study (Standard) in Manages.
secondary schools comparing with Japanese practices	0	Actual			+						,	tire D'An ail asatay teatra soliou toudatoi II tire Coulse oi coudy (clarinato) II twoligara.
3.1.1.2 To develop the guideline through the activities of the School DRR Education		Plan										A draft DRR education guideline in school "Life Salety Education Program" was developed hongring from the made and selection of the words a advisites. A confirmation hearing inviting experts on DRR and education in Training in Japan will be made by mid December 2017.
Working Group (WG)	0	Actual									,	Mongdia was organized in October 2017.
3.1.2 To develop educational materials such as textbooks and education in kindergarten and primary and secondary schools	s and supplementary readers for DRF nools	~										
3.1.2.1 To collect and review existing educational materials through the WG		Plan										Based on the research results of the working group members from ERI and the translated reference materials of Japan, composition of the "Guidebook" for the "Life Salety-Education
activities	0	OActual									,	Program* was discussed in the WG meetings.
3.1.2.2 To establish Task Forces for the development of the educational materials (one		Plan										Initial discussion for the plan and task broce members for the development of the educational The members of the task force groups will be decided in latter materials was conducted. Nevember or early December 2017.
task force each for kindergarten, primary, and secondary schools)	0	O									,	
3.1.2.3 To organize workshops and discuss and decide the contents of educational	(Plan										Initial Discussion for the development of the educational materials was conducted on 28 3-day workshops for the development of the educational materials November 2017.
materials to be developed	0	Actual									7	
3.1.2.4 To develop and finalize the educational materials through the Task Force and the WG	(Plan										
activities		Actual										
3.1.3 To implement training programs for the instructors of Teacher Training Institutes and experts of educand department in local governments, using the guideline and materials developed in 14.1 and 3.1.2 researchedo.	of Teacher Training Institutes and exe e guideline and materials developed	perts in										
3.1.3.1 To formulate the training programs through workshops and the WG activities	(Plan										Considering the suitable period for the training and time for the development of materials, the schedule has been changed.
	0	Actual									ļ	
3.1.3.2 To implement pilot training	(Plan										
		Actual										
3.1.3.3 To review the training and formulate training manuals	(Plan										
		Actual										
3.1.4 To implement the training program for teachers by the instructors the training programs mentioned in 3.1.3	the instructors and experts who received	pea										
3.1.4.1 To support the training for teachers	0	Plan										Aorg with the change of the schedule of ToT, the schedule has been changed.
		Actual										
3.1.4.2 To review the result of the training of 3.1.3 and 3.1.4 through workshops and the	C	- Plan										
WG activities and compile ressons rearn.)	Actual										
disaster	risk reduction education and raising											
3.2.1.1 To interview related organizations about coordination and cooperation	<	Plan									,	The WG3 member visited the relevant organizations and got their initial opinions for the effective coordination among stakeholders.
	1											
3.2.1.2 To examine framework for NEMA to conduct integrated management	٧	Plan									3	Through the WG meetings and discussion with stakeholders, TDRR Education Team" was established for the effective coordination for the implementation of the community DRR.
	1											training and education. Also, the rule for the Team was stipulated and approved by the NEWA Administrator.
3.2.1.3 To implement regular meetings	•											The Team decided to organize regular meetings once three months. The first meeting was organized in June 2017, and the second meeting was convened on the occasion for
	0 d d	Actual									, ,	
3.2.1.4 To create a website for the coordination and share information among the relevant organizations												The WG members developed a website for the "DRR Education" Fean" to share the DRR. Diet by the members developed a website for the "DRR Education" Fean" to share the DRR. Diet by the developed by the decussion and westign with IT specialists of the ADPC project for the RFM, reconstitution from the server as once to be uitsized for the westign in the server of the server of the Sacrop for the "DRR Education" Team" westign is required. The
	4	Actual									,	

3.2.2 To develop materials for the training on disaster risk reduction education and raising awareness, and implement the training for the target groups in pilot areas	ising													
3.2.2.1 To review existing textbooks of		Plan							1					The policy of activities to develop teaching materials in the Project was discussed in the WGS. For developing well-coordinated materials with the "Be Ready!! 2 and leading materials to remove the understanding of condenses of condenses the head of the Mondal Union Mondal Condenses to condenses the condenses of cond
	4 0 0 0 0 0 0	Actual											,	
3.2.2.2 To discuss and develop training materials	(Plan												Relevance of the Japanese materials for the training was introduced and initial discussion for The training materials will be developed utilizing the ideas and the materials to be developed in the Project was conducted.
	0	Actual											, ,	
3.2.2.3 To implement Training of Trainers Workshop	0	Plan												The schedule for the ToT was changed considering the period for the development of the training materials
)	Actual												
3.2.2.4 To implement workshops in the pilot area		Plan												
•	4	Actual												
3.2.3 To develop and implement educational and training program for implementing disaster prevention and simulation program in Training Center	lisaster						J Earthqua	ce simulation ex	simulation experience equipment					
3.2.3.1 To examine and consider a study program for the training center	(Plan												The reference documents of Horip Bosaikan and Kjolo DRR Training Center in Japan were introduced. The WG3 members and the staff of the Training Center examined the current
	0 0 0	Actual											,	program of the training center and revised it.
3.2.3.2 To examine materials and equipment for improvement of training center	(Plan												The WG3 member made an initial examination and studies of the current equipment and materials of the Training Center.
)	Actual											, ,	
3.2.3.3 To support procurement of equipment	1	Plan												Due to the delay of the procurement procedure, the schedule will be extended.
	4	Actual											,	
3.2.3.4 To develop educational materials such as movie, exhibition, etc.	(Plan												After the Training in Japan, discussion of the development of the educational materials was started.
	4	Actual											, ,	
3.2.3.5 To operate training program	(Plan												
	0 0 0	Actual												
3.2.3.6 To examine expansion to other regions		Plan												
		Actual												
Duration / Phasing	4 ×	Plan												
Monitoring Plan		Year		2017		2018			2019	-	2020		Remarks	Solution
Monitoring				=	1 M	•	A	• •	*	-	•	a		
Joint Coordinating Committee	* *	Plan												
Set-up the Detailed Plan of Operation	Δ.Α	Plan												
Submission of Monitoring Sheet	- A	Plan												
Reports/Documents	N'	إ												
Work Plan / Project Interim Report	- 4	Actual												
Project Completion Report	- A	ctual												
Public Relations	V°	Eg.												
	· 4 ·	Actual												
	- 4	ctual				$\frac{1}{1}$				\parallel				

TO Chief Representative of JICA Mongolia OFFICE

PROJECT MONITORING SHEET

Project Title: Project for Strengthening the National Capacity of Earthquake

Disaster Protection and Prevention in Mongolia

Version of the Sheet: Ver. 4.0 (Term: December, 2017 - May, 2017)

Name: D.Batsaikhan

Title: Director of Disaster Prevention

Department, NEMA

Name: Kiyotaka Owada

Title: Team leader / Integrated disaster

management I

Submission Date: June 29, 2018

I. Summary

1. Progress

1-1 Progress of Inputs

(1)Dispatch of Experts

The following Experts from Japanese side were assigned in this monitoring period.

	Area of responsibility	Experts name	Period of assignment
Project	Team Leader / Integrated Disaster	Kiyotaka OWADA	Dec.1 – Dec. 6, 2018
Management	Risk Management I		Jan.18 – Feb.16, 2018
Group			Apr.10 – May 7, 2018
	Deputy Team Leader / Integrated	Akihiro FURUTA	Feb. 27 – Mar. 22, 2018
	Disaster Risk Management II		Apr. 10 – Apr. 28, 2018
OUTPUT1:	Disaster Management Plan I	Osamu NISHII	Feb. 26 – Mar.25, 2018
Disaster			May. 2 – May. 31, 2018
Management	Disaster Management Plan II	Kensuke ICHIKAWA	_
Plan	Disaster Management system I	Yoshitaka YAMAZAKI	Mar. 25 – Apr. 13, 2018
	Disaster management system II	Shiro MAKITA	_
	Disaster management information I	Tadashi ISE	Mar. 5 – Mar. 14, 2018
	Disaster management information II	Akihiro FURUTA	_
Output 2:	Seismic-Resistance	Seiichiro	Dec.1 – Dec. 23, 2018
Seismic		FUKUSHIMA	Apr. 16 – May 15, 2018
Resistance			May. 30 – May 31, 2018
	Seismic Diagnosis of Infrastructures	Jun MATSUO	May. 24 – May 31, 2018
	and Lifelines		
	Seismic Diagnosis of Buildings /	Masahide AOKI	Mar. 18 – Apr. 6, 2018
	Seismic Strengthening I (RC, PC)		
	Seismic Diagnosis of Buildings /	Shigeki KITA	_

	Area of responsibility	Experts name	Period of assignment
	Seismic Strengthening II (Masonry)		
	Seismic-Resistant Design	Hideto OMINE	_
Output 3:	DRR Education I	Miki KODAMA	Jan. 28 – Feb. 3, 2018
DRR			Mar. 28 – Apr. 5, 2018
Education			Apr. 15 – Apr. 22, 2018
			Apr. 29 – May 8, 2018
	DRR Education II	Yujiro OGAWA	Dec. 1 – Dec. 7, 2018
	DRR Education II	Seiji SUWA	Apr. 29 – May 8, 2018
	Community-Based Disaster	Toshikazu HIWAKI	Dec.1 – Dec. 2, 2018
	Management / Project Coordination I		May 29 – Jun. 15, 2018
	Development of Disaster	Yoko OTA	Dec. 11 – Dec. 24, 2018
	Management Teaching Materials I		Mar. 8 – Mar. 31, 2018
			May 7 – May 27, 2018
	Development of Disaster	Amarjargal	*Intermittent assignment
	Management Teaching Materials II /	NAYANBAATAR	during above periods
	Project coordination II		

(2) Assignment of counterparts

The current administration of authorities concerned of Mongolia for the Project for Strengthening the National Capacity of Earthquake Disaster Protection and Prevention in Mongolia (hereinafter referred to as "the Project") is as following,

(a) Project Director:

D.Batsaikhan, Director of Disaster Prevention Department, the National Emergency Management Agency (hereinafter referred to as "NEMA")

(b) Project Manager:

Luvsansharav Ulziibayar, Director of Policy Coordination and Cooperation Department, NEMA

(c) Project Coordinators

Z.Battulga, Disaster Operation Department, NEMA Enkhbat, Policy Coordination and Cooperation Department, NEMA

The member of current administration of authorities concerned of Mongolia has not been changed since last monitoring period.

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

The member list of the C/P for each WG had been amended accordingly at the fourth

Joint Coordinating Committee (hereinafter referred to as "JCC") on December 1st, 2017 and at the sixth Steering Committee (hereinafter referred to as "SC") on March 19th, 2018 based on the member list confirmed in the fifth SC on November 24th, 2017. And at the fifth JCC on April 18th, 2018, further amendment of C/P member was approved as shown below.

(a) Member of Sub-Group of WG1 (As of May, 2018)

Sub-WG	Name	Job Title	Timing Nomir and Period	nated as W	
Sub-WG	Name	Job Title	4th JCC Dec.2017	6th SC Mar.2018	5th JCC Apr.2018
Coordinator for WG1	D.Bazarragchaa	Disaster Risk Management Dep., NEMA	0	0	0
	D.Serjmyadag	Disaster Research Institute, NEMA	0	0	0
Disaster	P.Amarzaya	Disaster Research Institute, NEMA	0	0	0
Risk	D.Bazarragchaa	Disaster Risk Management Dep., NEMA	0	0	0
Assessment	B.Batbayar	Disaster Risk Management Dep., NEMA	0	0	0
(WG1-1)	B.Khishigbaatar	Disaster Operation Dep., NEMA	0	0	0
	S.Bazarragchaa	Disaster Research Institute, NEMA	0	0	0
	B.Bayanmunkh	Policy Coordination and Cooperation Dep., NEMA	0	0	0
Disaster	B.Myagmardorj	Disaster Operation Dep., NEMA	0	0	0
Protection	T. Turbileg	Disaster Operation Dep., NEMA	0	0	0
Planning	Ch.Otgontugs	Fire Dep., NEMA	0	0	0
(WG1-2)	E.Batbayar	Emergency Management Department of Capital City (EMDC)	0	0	0
	A.Dashnyam	EMDC	0	0	
Disaster Reduction Agreement (WG1-3)	B.Duvshin	Disaster Risk Management Dep., NEMA	0	0	0
White Paper (WG1-4)	O.Tsend-Ayush	Disaster Prevention Dep., NEMA	0	0	0
	B.Purevnyam	Public Announcement and Emergency Administration Centre, NEMA	0	0	0
Disaster	D. Sodnomragchaa	Disaster Research Institute, NEMA	0	0	0
Database (WG1-5)	B.Boldkhuu	Public Announcement and Emergency Administration Centre, NEMA	0	0	0
	D. Bayarbaatar	Public Announcement and Emergency Administration Centre, NEMA	0	0	0

After the fifth JCC, D. Amarzaya and S. Bazarragchaa retired from their work in the Disaster Research Institute in May 2018, and they left the sub-WG for Disaster Risk Assessment in WG1 accordingly. And also, as a replacement for A. Dashnyam in EMCD, B. Myagmardorgi transferred to EMDC, but he is assigned to the member of the sub-WG for Disaster Protection Planning in WG1 continuously. Furthermore, B. Dubshin left the

sub-WG for Disaster Reduction Agreement in WG1 and handed off the baton to T.Bilguun, Policy Coordination and Cooperation Department in NEMA.

(b) Member of Sub-Group of WG2 (As of May, 2018)

Sub-WG	Name	Job Title		ninated as W lod of Activity	
Sub-WG	ivanie	Job Title	4th JCC Dec.2017	6th SC Mar.2018	5th JCC Apr.2018
Coordinator for WG2	B.Soyomboo	Ministry of Construction and Urban Development (MCUD)	0	0	0
IOI VVG2	Z.Battulga	Disaster Operation Dep., NEMA	0	0	0
	B.Soyomboo	MCUD	0	0	0
	G.Erkhembayar	MCUD	0	0	0
	B.Gantulga	Land Management, Geodesy and Cartography Agency, MCUD	0	0	0
Seismic Diagnosis of Buildings	N.Ganchimeg	General Agency for. Specialized Inspection (GASI)	0	0	0
(WG2-1)	B.Tsend-Ayush	Master Planning Agency of Capital City	0	0	0
	G.Saruultuya	Construction Development Center	0	0	0
	Z.Battulga	Disaster Operation Dep., NEMA	0	0	0
	T.Galbadrakh	Finance and Logistics Dep., NEMA	0	0	0
	B.Soyomboo	MCUD	0	0	0
Seismic	G.Erkhembayar	MCUD	0	0	0
Diagnosis of Infrastructures	B.Gantulga	Land Management, Geodesy and Cartography Agency, MCUD	0	0	0
and Lifelines (WG2-2)	N.Ganchimeg	GASI	0	0	0
	B.Munkhsaikhan	GASI	0	0	0
	Z.Battulga	Disaster Operation Dep., NEMA	0	0	0
	B.Soyomboo	MCUD	0	0	0
	G.Erkhembayar	MCUD	0	0	0
	B.Gantulga	Land Management, Geodesy and Cartography Agency, MCUD	0	0	0
Design for Seismic	N.Ganchimeg	GASI	0	0	0
0: ::	B.Tsend-Ayush	Master Planning Agency of Capital City	0	0	0
	Ts.Khulan	Master Planning Agency of Capital City	0	0	0
	G.Saruultuya	Construction Development Center	0	0	0
	Z.Battulga	Disaster Operation Dep., NEMA	0	0	0

(c) Member of Sub-Group of WG3 (As of May, 2018)

Sub-WG	Name	Job Title	Timing Nominated as WG Member and Period of Activity in WG		
			4th JCC Dec.2017	6th SC Mar.2018	5th JCC Apr.2018
Coordinator for WG3	D.Munkhbat	Disaster Prevention Dep., NEMA	0	0	0

Sub-WG	Name	Job Title	Timing Nominated as WG Member and Period of Activity in WG		
Sub-VVG	Name	Job Title	4th JCC Dec.2017	6th SC Mar.2018	5th JCC Apr.2018
	J.Myagmar	Ministry of Education, Culture, Science and Sports (MECSS)	0	0	0
	Ch.Gantsetseg	MECSS	0	0	0
	P.Baljinnyam	MECSS	0	0	0
	A.Enkhtogtokh	Education Research Institute (ERI), MECSS	0	0	0
School	B.Erdenechimeg	ERI, MECSS	0	0	0
DRR Education	G.Mongolkhatan	ERI, MECSS	0	0	0
(WG3-1)	G.Khaliun	ERI, MECSS	0	0	0
	N.Munkhbayar	Institute of Teacher Professional Development	0	0	0
	D.Munkhbat	Disaster Prevention Dep., NEMA	0	0	0
	L.Munkhchimeg	Disaster Prevention Dep., NEMA	0		
	G.Enkhtsolmon	Disaster Prevention Dep., NEMA		0	0
	D.Munkhbat	Disaster Prevention Dep., NEMA	0	0	0
	D.Bat-Erdene	Disaster Prevention Dep., NEMA	0	0	0
Community DRR Education (WG3-2)	D.Dulamsuren	Public Information Center, Disaster Prevention Dep., NEMA	0	0	0
	S.Amgalan	Administrative Management Dep., NEMA			
	S.Doljinsuren	EMDC	0	0	0
	B.Chinbat	EMDC	0	0	0
	B.Uuriingegee	DRR Training Center, EMDC	0	0	0
	B.Ariunchimeg	National Center for Long life Education	0	0	0

1-2 Progress of Activities

(1) Overall of Project

1) Implementation of Steering Committee (SC) and Joint Coordination Committee (JCC)

The fourth and fifth JCCs, and the sixth SC have been held in this monitoring period.

No.	Date	Participants	Contents of discussion
Fourth JCC	Dec. 1, 2017	NEMA, MCUD, MECSS, GASI, Construction Quality and Safety Department; City Planning and Master Planning Agency of Capital City, etc. Total: 32 participants	 Progress of WG Activities Amendment of Working Group Member Procuring Equipment Target Aimags for revision of the regional disaster management plan
Sixth SC	June 29, 2017	NEMA, WG member for each OUTPUT Total: 31 participants	 Progress of WG Activities Amendment of Working Group Member Schedule of Installing Equipment Target Sum & Khoroo for Community

No.	Date	Participants	Contents of discussion
			DRR Education in Zavkhan Aimug and Ulan Bator (hereinafter referred to as "UB") city - Schedule of Next JCC
Fifth JCC	Sep. 28, 2017	NEMA, MCUD, MECSS, GASI, Construction Quality and Safety Department; City Planning and Master Planning Agency of Capital City, etc. Total: 35 participants	 Progress of WG Activities Amendment of Working Group Member Schedule of Installing Equipment Pilot Areas for DRR Education and Awareness Activities Schedule of Next JCC

2) Provision of Equipment

As identified in the work plan of the Project which was approved by the first JCC, the equipment for seismic diagnosis and the equipment of earthquake simulation experience for the Disaster Protection Training and Methodology Center are supposed to be procured and donated by the Japan International Cooperation Agency (hereinafter referred to as "JICA"). The process of procurement of equipment has already been started by JICA Headquarters and JICA Mongolian office respectively.

For the schedule of installing equipment and its procedure, following things were confirmed between Japanese side and Mongolian side at the fifth JCC on April 18th, 2018.

Regarding the equipment for seismic diagnosis, Japanese side explained that the timing for installing equipment is going to be behind schedule and requested Mongolian side to discuss how to conduct the usage guidance of the equipment as a part of the training for seismic evaluation planned on June, 2018. Mongolian side accepted the delay of installing equipment for seismic diagnosis and mentioned that the implementation method of guidance of the equipment shall be discussed in the activity of WG2.

Regarding the equipment of earthquake simulation experience for the Disaster Protection Training and Methodology Center, Japanese side requested that Mongolian side shall provide a proper response to advance preparation, equipment transport, supporting installation and control maintenance based on the Operation and Maintenance (hereinafter referred to as "O&M") Plan approved in the third JCC held on June 26, 2017. In addition, Japanese side also requested Mongolian side shall build a safety fence and steps in the appropriate place and prepare a portal crane and a hand lift jack used for installing equipment as advance preparation. Mongolian side accepted those requests and asked to provide documents and drawings necessary for dealing with them.

(2) Output1

Activity 1.1.1 To identity problems and challenges on implementation of legal frameworks of disaster risk reduction

As mentioned in the monitoring sheet ver.3.0, as a result of careful examination of the amended Law on Disaster Protection, Disaster Preparedness Guideline (hereinafter referred to as "GL") and Disaster Management GL were decided not to be created in the Project. WG1 confirmed that three (3) GLs namely, "Earthquake Disaster Risk Assessment GL", "Earthquake Disaster Protection Planning GL", and "Disaster Database GL" shall be developed in Output 1 of the Project.

Activity 1.1.2 To develop guidelines on improvement of legal frameworks and plans, assessment of disaster risk and database on disaster risk reduction

1) Earthquake Disaster Risk Assessment Guideline

Due to the enforcement of the amended Law on Disaster Protection, NEMA revised the Regulation for Implementation of Disaster Vulnerability and Risk Assessment (Annex of the Cabinet Decision of 176, 2006). The revision works were mainly conducted by the WG1 members. The revised regulation mainly states the administrative framework of general disaster risk assessment. There are six (6) annexes for the revised regulation, and Annex 4 named as "Technical Guideline for Earthquake Risk Assessment" is considered to be the guideline which will be formulated in the Project.

The member of WG1 decided to develop two (2) guidelines namely "Comprehensive Earthquake Disaster Risk Assessment GL" for the central and local governments and "Detailed Earthquake Disaster Risk Assessment GL" for experts and researchers of related organizations. As a first step, the Comprehensive GL has been developed to be applied to the pilot activities for regional earthquake disaster protection planning. In this GL, the risk assessment method prescribes a method suitable for Mongolia, so that governmental staff who do not have expert knowledge about earthquake risk can also evaluate by using the attached application software. Using this GL, risk assessment was conducted in pilot Aimags.

2) Earthquake Disaster Protection Planning Guideline

The member of WG1 has prepared three (3) GLs namely "National Earthquake Disaster Protection Planning GL", "Aimag / Soum Level Earthquake Disaster Protection Planning GL" and "Capital City / District Level Earthquake Disaster Protection Planning GL". One more GL is under preparation namely "Sate Earthquake Disaster Protection Service Planning GL". For this GL, risk assessment part is still under discussion.

The member of WG1 learned the composition and concept of the regional disaster protection plan in Japan at the training in Japan conducted in December 2017. The results of the learning at the training were reflected in the contents of new GLs. Especially, in order to use the results of risk assessment in the earthquake disaster protection plan effectively, the member of WG1 has adopted a new concept in Mongolia that sets earthquake disaster reduction goals. Furthermore, the necessity of establishment of the working group to formulate the disaster protection plan and the procedure of the plan formulation by the working group were also clearly stated in those GLs.

3) Disaster Database Guideline

Through the Activity 1.3.3, the need to establish a management team to operate and manage disaster database (hereinafter referred to as "DB") using new information management system for disaster risk reduction (hereinafter referred to as "DRR") was discussed in the sub-WG for disaster DB continuously. Finally the new division namely "Spatial Information and Technology Division" was established under Public Announcement and Emergency Administration Center in NEMA at the end of May 2018. The GL for operation and management of Disaster Spatial Database (hereinafter referred to as "DSDB") were being developed on the assumption of new job descriptions of the new division. From here on, the first draft of GL is going to be updated in parallel with discussing the detailed work procedure and responsibility in the new division.

Activity 1.1.3 To develop new regulation and the drafts of revised version of regulation on implementation of the Law of Disaster Protection

The member of WG1 verified the articles of the Amended Law on Disaster Protection mainly from the viewpoint of risk assessment and disaster protection, and investigated the necessity to establish new rules and regulations and/or revise existing rules and regulations. Table 1.1 shows the related rules and regulations with handling policy in the Project.

Table 1.1 Related Rules and Regulations with Handling Policy

Regulations Stipulated in the Amended Law on Disaster Protection	Handling Policy and Related GL
7.4 Regulation and procedure for disaster risk assessment	Regulation for Implementation of Disaster Vulnerability and Risk Assessment was revised. 1) Comprehensive Earthquake Disaster Risk Assessment GL and 2) Detailed Earthquake Disaster Risk Assessment GL shall be created in the Project as annexes of the revised regulation.
8.3 Instruction on development of disaster protection plan	Earthquake disaster protection planning GL in the Project is corresponded to the earthquake part of this instruction.
10.2 Procedure on check up and testing of disaster readiness assurance	These procedures and directive will not be prepared in the Project. The general part on "earthquake disaster

10.8 Procedure on special working regime 11.1 Directive on shifting to high level and all out	preparedness" shall be part of the earthquake disaster protection planning GL.
readiness level	procession pranting GE.
12.2 Procedure on state control implementation of disaster protection	This procedure will not be prepared in the Project. NEMA shall prepare.
15.3 Common regulation on implementation of search and rescue operation	
16.5 Approve procedure for transmission of disaster announcement signals	Earthquake part of these rules, regulations and procedures correspond to the National Earthquake Disaster Protection
18.2 Rule and procedure of disaster operation groups	Planning G", the Sate Earthquake Disaster Protection Service Planning GL, the Aimag / Soum Level Earthquake Disaster Protection Planning GL and the Capital City / District Level
19.2 Procedure on mobilization of manpower and evacuation	Earthquake Disaster Protection Planning GL prepared in the Project.
20.3 Procedures and instructions for disaster damage and needs assessment	i i ojeci.
20.4 Regulation on reimbursement for a regal body who performed official disaster response activities and assistance	This regulation will not be prepared in the Project.

Activity 1.2.1 To develop the draft of the agreement which shows the coordination and cooperation among NEMA and related organizations

Draft agreements are under discussion within each organization. It is expected to be signed between NEMA, organizations, and private sectors in the near future.

Status of agreement development in sectors is summarized as below.

<Stable supply of doctors and medicines during disaster>

Two draft agreement documents were prepared, between the Ministry of Health (hereinafter referred to as "MOH") and the Private Hospital Association, and between MOH and the Drug Association. The responsible person in MOH changed frequently. NEMA's responsible officer, Mr. Munkhbaatar in emergency relief and medical unit in disaster and emergency response department will explain the status of Agreement to Mr. Altanbagana,s Senior officer from medical relief department in MOH.

<Stable supply of foods and water to evacuation places and temporary housings>
The draft agreement was prepared between NEMA and the Ministry of Food and Agriculture (hereinafter referred to as "MOFA)". Mr. Naranchuluun, in Husbandry Policy Department Senior officer in MOFA had reviewed draft agreement and the document was given to Mr. Ulziibayar in NEMA. Mr. Ulziibayar will reflect the comment given by stock department and disaster and emergency response department.

<Supply of construction materials and temporary housings>
Two draft agreement documents were prepared between the Ministry of Construction and

Urban Development (hereinafter referred to as "MCUD") and the Construction Material Association, and between MCUD and the Construction Association. Response from Legal advisor of MCUD, Ms. Amartuvshin is awaited. Inquiry by Mr. Ulziibayar in NEMA will be necessary.

<Stable transport and securing road transport during disaster>

The Ministry of Road and Transportation and NEMA have draft agreement.

<Stable fuel supply during disaster>

The Mineral Resource and Petroleum Agency and NEMA have draft agreement on stable fuel supply during disaster. The Ministry recommended that stakeholders other than NEMA will be added to be effective.

<Set up priority telephone lines on disaster>

NEMA and mobile phone company namely "Unitel" have draft agreement on communication during disaster.

<Waste water treatment and stable water supply during disaster>

NEMA and the Water Management Authority have draft agreement on waste water treatment and stable water supply during disaster.

Activity 1.2.2 To realize training programs for disseminating the agreement mentioned in 1.2.1 and strengthening the coordination structure among organizations related with disaster risk reduction

In order to test the effectiveness of agreement for earthquake disaster response, and to demonstrate good practice of agreement to promote agreement in health sector to other sectors, a joint training was made on April 9th in Ulaanbaatar City (hereinafter referred to as "UB City"). A total of 38 participants from various sectors jointed the training.

Good practice of agreement for disaster response in Japan, progress of agreement in Mongolia, and draft agreement in health sector in Mongolia was presented by NEMA and the JICA Expert Team (hereinafter referred to as "JET"). Then, participants conducted table-top exercise based on an earthquake disaster scenario in UB City to fill the gaps in health workers and medicines using draft agreement and 1/50,000 scale map for the period from 6 to 72 hours after earthquake of intensity VIII.





Presentation at the Training

Table-top Exercise

Figure 1.1 Scenes of Training to Test the Effectiveness of Agreement for Earthquake

Disaster Response

Activity 1.3.1 To identify problems and challenge of monitoring, report, evaluation and disclosure of disaster protection plan at national and local levels

This activity is completed, and the results were described in the monitoring sheet summary version 3.0.

Activity 1.3.2 To revise the plans made in 1.3.1 and make a manual for the revision of disaster protection plan

The member of WG1 planned to revise the existing national earthquake disaster protection plan by October 2018 using the developed National Earthquake Disaster Protection Planning GL. The same goes for UB City earthquake disaster protection plan. The Sate Earthquake Disaster Protection Service Planning GL will be distributed to related ministries and organizations after completion for their own revision / development.

Since there is no existing earthquake disaster protection plan at Aimag / Soum level nor District level in UB City, it will be newly created using GLs. In May 2018, the WG1 member conducted pilot activities using the Comprehensive Earthquake Disaster Risk Assessment GL and the Aimag / Soum Level Earthquake Disaster Protection Planning GL in pilot two Aimags of Darkhan-Uul and Umnugovi. In both Aimags, 2-day workshops were held and a dozen staff members gathered from related organizations, learned the contents of the risk assessment GL and planning GL, and actually conducted the earthquake risk assessment of the Aimag Center using the GL and application sofeware. The earthquake disaster protection plan of these pilot Aimags will be developed by October 2018.

Pilot activities at Chingeltei District and Bayangol District of UB City will be conducted in September 2018.

Activity 1.3.3 To improve the present system which collect and analyze information on disaster risk reduction

NEMA is responsible for improving the database for disaster related data under the Article 14 "Creating a Disaster Database" of the amended Law on Disaster Protection. From the point of views of carrying out the NEMA's duty in the Law and contributing to the priority actions in "Sendai Framework for Disaster Risk Reduction 2015-2030" in Mongolia, the improvement policy of the present system had been discussed in the WG1 and now following actions are being implemented.

1) Development of New information Management System for Disaster Spatial Database (DSDB)

After discussing the over-all framework of upgrading database for disaster related data, the sub-WG for disaster DB decided to install the e-comi map which is a free open-source software for web-based Geographic Information System (hereinafter referred to as "GIS") produced by the National Research Institute for Earth Science and Disaster Resilience in Japan (hereinafter referred to as "NIED") as the new information management system for DSDB among NEMA headquarters, regional offices and related organizations in Mongolia.

As of the first of March 2018, almost all installation works including a setup of the server in the Mongolian National Data Center (hereinafter referred to as "NDC") had been completed. The system is on a test run in order to check accessibility from central and regional offices to the server and connectivity with the other spatial database managed by related organizations such as the National Agency of Land Administration, Geodesy and Cartography (hereinafter referred to as "ALAGaC"). The capacity of the existing server is still not enough to process multiple complex transactions concurrently, therefore NEMA has a plan to obtain higher spec server for enhancement of processing capacity.

The works of developing a new tool to convert a data format of disaster event records between text-based DB of daily-basis incident report system managed by the Public Announcement and Emergency Administration Center in NEMA and DSDB managed by the new management team is on-going by the sub-WG member under technical support by JET.

2) Development of Guideline for Operation and Management of Disaster Spatial Database (DSDB)

The most suitable rules and procedures for operation and management of DSDB by NEMA were discussed with the sub-WG member through the development of the GL in consideration of feedbacks from regional offices' staff. From November 2017, the sub-WG

member has spent their time to formulate the first draft of GL on the assumption of new job descriptions of the new management team which has been proposed by aiming to secure a human capacity to operate and manage DSDB using the new information management system called Internet-based Disaster Spatial Information System (hereinafter referred to as "I-DSIS"). At the end of May 2018, the new division was established under Public Announcement and Emergency Administration Center in NEMA, and the first draft of GL is going to be updated based on the result of discussing about detailed work procedure and responsibility in the new division.

3) Making Agreements for Spatial Database Sharing with Related Organizations

The sub-WG member has spent their time and effort making agreements for spatial database sharing between NEMA and related organizations which have original and unique spatial database regarding topographical maps, estimated seismic intensity zones, results for seismic diagnosis of building and others by aiming to develop better environment of data exchange for DRR related activities in Mongolia. At the first step of this action, the sub-WG member started discussion with ALAGaC and the Master Planning Agency of Capital City.

At the middle of April 2018, the official agreement on cooperation and spatial data sharing between ALAGaC and NEMA has been concluded as the result of a series of discussions about both technical matters and administrative affairs.

On the other hand, making agreement with the Master Planning Agency of Capital City is still under discussion. The Master Planning Agency has already understood the effects of data exchange for DRR activities in the UB City and both sides have been basically in agreement about this matter. For making agreement, NEMA side sent an official letter to the Master Planning Agency in order to request to move forward in this matter again.

4) Implementation of Training for Utilization of DSDB for DRR in NEMA

For formulating new organization structure for operation and management of DSDB, assessment and development of human capacity for NEMA Headquarters as well as EMDC and regional offices in 21 Aimags are one of the key actions, and as its first step, the training for Utilization of DSDB for DRR in NEMA was conducted.

50 staff from central NEMA and local emergency departments participated in 2-day training held on March, 12th and 13th 2018. Main purposes of training were to gain basic knowledge and skill of DSDB using I-DSIS and to discuss a better way to utilization of DSDB for DRR activities in NEMA.

Many positive comments for practical operation and management of I-DSIS were provided

and most of the trainees mentioned that the exercise on the second day was most effective. Furthermore, there were many opinions that they wanted more time for the exercise. It seems that they could obtain practical knowledge and experience by cooperating with the group member. It was not so difficult for them to gain system operation of I-DSIS as many of the trainees has already had basic skill of GIS operations.





Figure 1.2 Scenes of Exercises in the 2-Day Training for Utilization of DSDB

Activity 1.3.4 To elaborate white paper on disaster risk reduction which let the Mongolian people know the progress on implementation, monitoring, evaluation of disaster risk reduction plan at national and local levels through the activities of 1.3.1 and 1.3.2

The white paper in 2017 described in Mongolian has been completed and editing of the present appearance is under way.

English translation is currently being conducted and it will be completed in early June 2018. The WG1 member will also prepare English summary versions and compile brochures for the Asian Ministerial Conference on Disaster Risk Reduction in 2018 (hereinafter referred to as "AMCDRR"). The white paper described in Mongolian and English, and the brochure in English will be completed by AMCDRR starting on July 2nd.

Table 1.2 Contents of White Paper

Preface

Chapter 1 Status of Mongolia Country Disaster Countermeasures Initiatives

- 1.1. Disaster protection related laws of Mongolia
- 1.2. Disaster-related policy documents
- 1.3. Disaster protection system, organization, composition

Chapter 2 Efforts on disaster protection

2.1. Measures for disaster protection and disaster risk

Chapter 5 State Stockpiling

- 5.1. Policy documents on state stockpiles and humanitarian assistance
- 5.2. Efforts of national stockpiles and humanitarian assistance efforts, and its business

Chapter 6 Earthquake disaster protection status and earthquake disaster countermeasures

6.1. Activity of earthquake disaster protection standing committee

reduction

- 2.2. Disaster protection education, enlightenment
- 2.3 Measures to secure disaster preparedness structure
- 2.4. Early warning at the time of disaster, adjustment of emergency measures
- 2.5. Measures to eliminate damage
- 2.6. Personnel and equipment related to disaster protection
- 2.7. Disaster drill

Chapter 3 Disaster reduction cooperation

- 3.1. International Disaster Protection Cooperation
- 3.2. Mutual cooperation among institutions related to national disaster protection work
- 3.3 Participation of public organizations, non-governmental organizations (NGOs), communities and residents in disaster protection

Chapter 4 Fire-fighting Activities

- 4.1. Policy document on fire countermeasures
- 4.2. Firefighting efforts

- 6.2. Policy document on promotion of earthquake disaster protection measures
- 6.3. Study on earthquake situation in Mongolia
- 6.4. Study on active fault around Ulaanbaatar city
- 6.5. Ulaanbaatar City earthquake disaster emergency operation plan
- 6.6. Education and training related to earthquake disaster protection

Chapter 7 Activities of the Disaster Research Institute

- 7.1. Research investigation at disaster research laboratory
- 7.2. Disaster database

Chapter 8 Disaster protection finance

- 8.1. Investment by state budget
- 8.2. Foreign investment
- 8.3. Projects and programs implemented in NEMA
- 8.4. Compensation for victims payment
- 8.5. Measures taken to eliminate damage

Chapter 9 Disaster Protection Business Report for 2017

Activity 1.3.5 To improve the system of database on seismic strength of buildings, infrastructure and lifeline

As described in the Activity 1.3.3, the sub-WG for disaster DB is developing DSDB for DRR. As one of the considerations of the DB development, the structure of spatial database including items of attributes is being designed to accumulate and manage the result of seismic diagnosis of buildings, infrastructure and lifeline which will be evaluate by appropriate organizations. And also, the sub-WG member is trying to make an agreement for data exchange with the Master Planning Agency of Capital City. The Master Planning Agency is implementing seismic diagnosis of buildings by own method and all of evaluation results for each building are managed using the formalized sheet named as "Passport". If the agreement will be concluded, NEMA and the Master Planning Agency can share the result of seismic diagnosis of not only buildings but infrastructures and lifelines, and they will be able to utilize those results for planning of disaster protection.

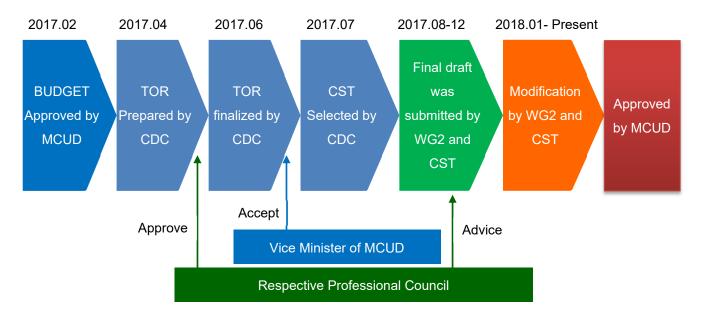
(3) Output2

Activity 2.1.1 To analyze the manual of seismic assessment of buildings and lifeline based on the context of the Law of Disaster Protection and develop the draft of revised version

As stated in the previous monitoring sheet, The WG2 member investigated the current standards and regulations regarding the evaluation of buildings, infrastructure and lifeline structures with personnel of relevant organizations, and followed by the conclusion, issues identified through the investigation will be reflected in the guidelines that will be newly established in the project.

Activity 2.1.2 To develop guidelines-methodologies which show the method for implementing seismic assessment for buildings and lifelines, and how to use equipment

The WG2 member decided to follow the Mongolian procedure shown in Figure 2.1 to make standards and regulations. In the figure, a tentative schedule is also given.



TOR: Terms of Reference, CDC: Construction Development Centre, CST: Consulting Serves Team NORM: Mongolian Standard

Figure 2.1 Procedure to prepare guidelines

1) Establishment of seismic evaluation guidelines for buildings

The WG2 determined the contents and prepared the prototypes of GLs for RC, PC and Masonry buildings. Some issues derived from converting from prototypes to draft GLs were discussed with the Consulting Serves Team (hereinafter referred to as "CST"),

followed by submitting draft GLs to the Construction Development Center (hereinafter referred to as "CDC") from CST.

CDC examined the submitted GLs from the viewpoint of adequacy as Mongolian Standards, and requested CST to revise and update some items as below;

- To add field survey results in sample seismic evaluation
- To add more illustration of seismic evaluation
- To add sample calculation of Is value for model buildings in each guideline to examine the Is value's adequacy

After discussing with WG2 on the concrete responses for the items above and solving them, CST resubmitted amended GLs to CDC, where the Respective Professional Council finally approved GLs. However, CDC is now requiring CST to conduct the field survey for their understanding the GLs. WG2 discussed with CST and concluded that supplementary survey is held for a RC building for which field survey was not conducted. For a PC building and a masonry one, the data from existing survey will be referred instead.

WG2 also conducted 2-day training meeting on May 4th and 5th using the draft GLs for buildings to have enough knowledge on them for future technology dissemination in Mongolia. A look of the meeting is shown in Figure 2.2.





Figure 2.2 Training meeting for draft guideline in WG2

2) Establishment of seismic evaluation guideline of Infrastructures and lifeline structures

The GL of seismic evaluation for infrastructures and lifeline structures was approved by the Science and Technology Council of MCUD in December 2017, and now in waiting for signing by the Minister. Because 6 months have passed since the council, JET will ask the WG2 leader who is the chief of a bureau of MCUD to promote the process of signing.

Activity 2.1.3: Implementation of the Training to Improve Knowledge and Ability for Those Who Carry Out Seismic Estimation on Structures and Lifelines

WG2 discussed the contents and time table of 4-day training course for seismic evaluation for buildings, infrastructures, and lifeline structures, as shown in Figure 2.3.

	Day1	Day2	Day3	Day4
AM1	Opening Ceremony Remarks Introduction On Guideline Group Photo	RC bldg. (1) • Explanation of Guideline	Masonry bldg. • Explanation of Guideline • Exercise of Seismic Evaluation	Infra & Lifeline (1) Past Damage in Japan Brief Explanation of Phase-1 Project Group Photo
AM2	General (1) Current Guidelines in Mongolia Seismic Evaluation by UB	RC bldg. (2) • Exercise of Seismic Evaluation	General (4) • Seismic Diagnosis System in Japan	Infra & Lifeline (2) • Current Situation on Mongolia • On Guideline
PM1	General (2) • Past Disaster and Response in Japan • Examples of Seismic Retrofitting	PC bldg. (1) • Explanation of Guideline	Equipment Introduction of Equipment for Survey Brief Explanation	Infra & Lifeline (3) • Exercise of Seismic Evaluation • Discussion on Future Activity
PM2	General (3) • Seismic Diagnosis Procedure • Conversion of Japanese Standard	PC bldg. (2) • Exercise of Seismic Evaluation	Closing Ceremony • Awarding • Closing Remarks	Closing Ceremony • Awarding • Closing Remarks

Figure 2.3 Time table of training course for seismic evaluation

Details discussed and determined by WG2 were as follows;

- The training course is held from June 4th to 6th,
- Venue is CDC's conference room, and,
- Numbers of trainees will be 90 from various organizations.

Before the training course, 2-day pilot training including "General (2) & (3)", "RC bldg. (1) & (2)", "PC bldg. (1) & (2)", and "Masonry bldg. (1) & (2)" in Figure 2.3 was conducted for 20 trainees at the Mongolian Association of Civil Engineers (hereinafter referred to as "MACE") office on May 10th and 11th to identify the issues in the training program. Result of questionnaire to trainees is summarized in Figure 2.4. The pilot training consisted of lectures and drills, whose look is shown in Figure 2.5.

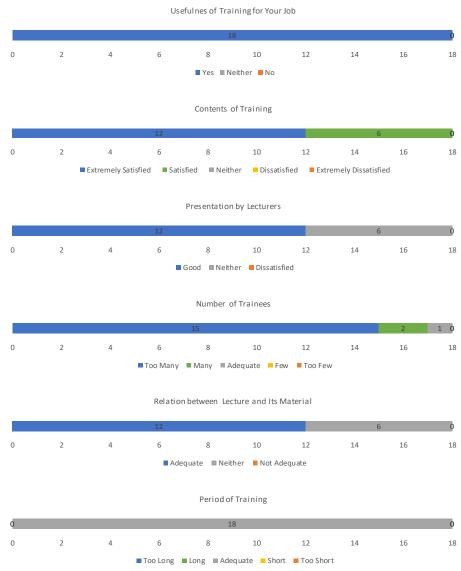


Figure 2.4 Summary of result of questionnaire





Lectures on Seismic Diagnosis

Drill using Excel Spread Sheet

Figure 2.5 Pilot training courses at MACE office

Activity 2.2.1 To develop guidelines-methodologies on seismic strengthening and reconstruction of buildings

The WG2 decided that seismic evaluation and seismic strengthening should be combined in one GL for each structure except for Infrastructures and lifelines, since seismic evaluation and seismic strengthening are strongly related to each other.

As mentioned before, CDC examined the submitted GLs from the viewpoint of adequacy as Mongolian Standards, and requested CST to revise and update some items as below;

To add more illustration of seismic retrofitting

After discussing with WG2 on the concrete measures and solving the item above, CST resubmitted GLs to CDC, where the Respective Professional Council finally approved the guidelines.

Activity 2.2.2: Trial Design of Rebuilding and Strengthening Construction for Housing, Kindergartens, Schools, Hospitals and Government Buildings

The final decision on the selection of model buildings was done by WG2 with new group leader who is the chief bureau of MCUD. The nominated buildings are summarized in Table 2.1.

The data necessary for strengthening design for these buildings, such as design drawings, calculation sheets, report of existing seismic evaluation and so on were collected and arranged by WG2.

Table 2.1 Model buildings for seismic strengthening

Structural Type	Usage	Name	Location	Note
	Kindergarten	No. 105 Kindergarten	Songino Khairkhan District	Constructed with standard design drawings
Masonry	School	No. 23 School	Chingeltei District	Large-scale school, based on standard design
	Public Office	NEMA	Sukhbaatar District	Public office necessary for emergency response
RC	Hospital	No.1 Gynecology Hospital	Sukhbaatar District	One of few RC hospital buildings
PC	Apartment House	9-Storey Apartment	Bayangol District	Apartment house based on standard design

(4) Output3

Activity 3.1.1 To develop a guideline which shows contents, method and implementation way of disaster risk reduction (DRR) education in kindergarten and primary and secondary schools based on Law of Disaster Protection

The draft GL for DRR education titled "The Program for Life Safety Education" was reviewed and finalized based on the knowledge learned in the counterpart training in Japan and comments sent by the relevant organizations in the WG3-1 activities in January and February 2018.

After submitting the final draft to the Ministry of Education, Culture, Science and Sports (hereinafter referred to as "MECSS") in March 2018, the Program was modified based on the comments provided by the reviewers in the official approval process in MECSS.

The Program was approved by MECSS on April 6th 2018.

The Program is composed by 1) Background, 2) Purpose, 3) Contents, 4) Teaching Method, 5) Evaluation, and Matrix of DRR Education Contents in the School Education Curriculum in each educational level as addendum.

Activity 3.1.2: To develop educational materials such as textbooks and supplementary readers for DRR education in kindergarten and primary and secondary schools

The writing and editing work of the "Guidebook" for teachers' lessons as an annex of the "The Program of Life Safety Education" was proceeded through the workshops in February and April 2018 as well as the individual works by the working group members.

The draft composition of the Guidebook is as shown in the below table.

Table 3.1 Draft composition of the Guidebook

Foreword

Abbreviations

Chapter 1 General Outline of "Life Safety Education"

- 1. Background and Needs
- 2. What is "Life Safety Education"

Chapter 2 "The Program for Life Safety Education" in Preschool and Compulsory Education

- 1. Outline of the Program for Life Safety Education
- 2. Consistency between subjects (study items) and "the Program for Life Safety Education" (educational levels, subjects, and extra-curricular activities)

Chapter 3 Implementation Method of the "Program for Life Safety Education"

- 1. Development of school education and action plans for introducing "the Program for Life Safety Education"
- 2. Sample lesson plans for each subject (a. Pre-school education, b. Primary education, c.

Lower secondary education, and d. Higher secondary education)

Appendixes:

- 1) References for basic understanding of disasters
- 2) Terminology on DRR
- 3) List of references (books, audio, websites, etc.)

Besides, for the reference of the sample lesson plans, trial lessons for pre-school, 5th grade students, and 8th grade students were conducted by JET on May 1st and 2nd 2018 by inviting the staff members of the counterpart organizations including of working group members and teachers of the target schools.

The first draft Guidebook will be compiled by mid July 2018 by the individual works by the working group members.

Activity 3.1.3: To implement training programs for the instructors of Teacher Training Institutes and experts of educational departments in local governments, using the guideline and materials developed in 3.1.1 and 3.1.2 respectively.

Implementation plan including of the participants to be invited and location of the training were discussed through the working group activities. Considering the other training schedule for the teachers and instructors in a year, it was decided to conduct the training programs for three educational levels as shown in the table below.

Location of the Khovd UB City (Batch 1) UB City (Batch 2) Training Date (3 days) 11-13 September 2018 18-20 September 2018 8-10 October 2018 Target Areas (tbc) Bayan-Ölgii, Arkhangai, Dundgovi, 9 districts of UB city Govi-Altai, Khovd, Uvs, Uvurkhangai, Darkhan-Uul, Zavkhan Umnuguvi, Selenge, Govisumber, Tuv (5 aimags) Bayankhongor, (9 districts and 3 Dornogovi, Bulgan, aimags) Khuvsgul, Orkhon, Khentii, Dornod, Sukhbaatar (13 aimags) Number of Trainees 3 persons from each aimag and district (Total 90 trainees)

Table 3.2 Implementation plan of training programs

Initial discussion of the contents of the training was conducted in the WG3-1 meeting on May 7th 2018. The detailed contents and other logistics matters will be discussed and decided by mid-August 2018 and finalized by the preparation workshop in the beginning of September 2018.

Activity 3.2.1 To develop comprehensive work plan for disaster risk reduction education and raising awareness at national and local levels

< Regular Meeting of the "DRR Training and Raising Awareness Team">

The 4th regular meeting of the "DRR Training and Raising Awareness Team" was conducted on December 21st 2017, March 16th 2018 to report the update of activities of each member organization and to coordinate for the collaboration each other.

<Webpage for the Team to share the training schedule>

Due to unavailability of the server space of the NEMA for the webpage of the Team to share and coordinate the training schedule at the time of discussion in December 2017, the Team decided to check the items to be shared in the webpage using MS-Excel worksheet in the Google Drive at first and currently the Team members are in the process of the trial and review of them.

Some space in the NEMA's training website (http://ontsgoisur.gov.mn/) was made available in April 2018 for the webpage of the Team. After checking and confirming the items (columns) for the schedule, the data entry system will be developed based on the result of the trial and review and put under the website.

< Mailing List for the Team >

A mailing list (mdptteam@googlegroups.com) for the DRR Training and Raising Awareness Team had been effectively used for the schedule sharing and coordination.

Activity 3.2.2 To develop materials for the training on disaster risk reduction education and raising awareness, and implement the training for the target groups in pilot areas

1) Development of the DRR Training Materials for the Community

After extensive coordination with the World Vision Mongolia related to the activities of the component 3 (called "Be Ready!") of the "Disaster Resilient Ulaanbaatar Project" throughout the period and the WG3-2 activities, including of 2-day workshop February in 2018. meetings in February and March 2018, and individual works, the draft

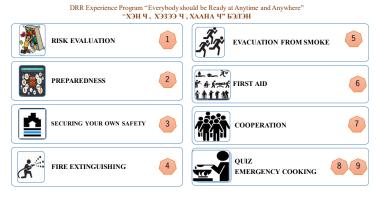


Figure 3.1 Contents of the Training Program

DRR training materials and tools in the Project were prepared in March 2018.

The training was named as "DRR Experience Program – Everybody be ready at anytime and anywhere-"

2) Selection of the Pilot Areas for Community DRR Training and Education

The selection of the pilot areas, i.e., Bayngol district and Bayanzurkh district in UB City, and Zavkhan Aimag, was confirmed in the SC held in March 2018 and the JCC in April 2018.

3) Implementation of the Training for Trainers

The workshops for the Training for Trainers (hereinafter referred to as "ToT") were conducted on March 21st 2018 in UB City and on March 26th 2018 in Zavkhan Aimag combined with the "Be Ready" training program organized by the World Vision Mongolia and Mongolian Red Cross Society. The 50 participants of each workshop were the DRR Volunteer Team members, and staff members of the local governments and the lifelong learning centers in the target Aimags and Soums.

After the ToT workshops, the materials used in the training were compiled with detailed instruction points, information for preparation of "DRR Experience Program", and reference data as a draft guidebook for instructors.

4) Implementation of the Workshop for DRR Awareness Raising

The workshops for DRR Awareness Raising in Zabkhan Aimagi were successfully conducted on May 12th 2018 in Otgon Soum and on May 14th 2018 in Uliastai Soum. Also the workshops in the pilot area in UB City were conducted on May 17th 2018 in Bayangol district and on May 20th 2018 in Bayanzurkh district with great success. Each workshop was mainly coordinated by the instructors trained in the ToT workshop in March 2018 using the draft guidebook for instructors.

Besides, on 20 March 2018, prior to the ToT, based on the request from the NEMA, the WG3-2 members provided support to conduct "DRR Experience Program" in the 87 school of the Bayanzurkh district utilizing the materials and tools prepared for the Project activities as one of the events for the Earthquake Awareness Day in Mongolia.

Based on the review of the ToT and the workshops as well as the event in the school, the WG3-2 members will revise and finalize the instructor's guidebook for wide dissemination of the activities in Mongolia.

Activity 3.2.3 To develop and implement educational and training program for

implementing disaster prevention and simulation program in Training Center

After the training in Japan in November 2017, the WG3-2 members discussed improvement of the exhibits of the Center based on the learning in Japan through several meetings and 2-day workshop held in February 2018. Also, the members made coordination with the World Vision Mongolia which has a plan to support the Center's activities for avoiding duplication. As a result, the members decided to develop following items for the improvement of the exhibits of the Centers in the Project activities.

- Posters/Panels for the Earthquake Experience Room
- Miniature Building Models for learning Seismic Resistant Structure
- Educational material: DRR Quiz for Kids' Room

On May 3rd 2018, a mini workshop was conducted for the development of the miniature building model. Also, the team discussed improvement of the training program for the Earthquake Experience Room after the installment of the new Shaking Table in November 2018 in the meeting on May 24th 2018.

1-3 Achievement of Output

(1) Output1

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

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

Achievement in this term:

The WG1 has a plan to prepare two (2) types of earthquake disaster risk assessment guidelines (GLs), four (4) types of disaster protection planning GLs and one (1) disaster database GL.

Regarding earthquake disaster risk assessment GLs, the comprehensive version has been developed, and the detailed technical version has been compiled and shared by the WG1 member. And for disaster protection planning GLs, National Level, Aimag / Soum Level and Capital City / District Level have been developed. On the other hand, Sate Services Level is under development. And also for disaster database GL, the first draft for operation and management of Disaster Spatial Database (DSDB) is being updated based

on the detailed work procedure and responsibility of the new division established on May 2018.

1.2 The number of the draft of agreement developed and participants who participated in the training programs on agreements

Achievement in this term:

Total eight (8) types of draft agreements are under discussion within sectors for "Medical and Pharmaceutical Supplies", "Foods and Water Supplies", "Construction Materials and Temporary Housings", "Securing Road Transport", "Telecommunication" and "Waste Water Treatment and Water Supply".

1.3 White paper on disaster risk reduction

Achievement in this term:

The white paper in 2017 has been completed and editing of the present appearance is under way.

(2) Output2

The following two indicators are applied to evaluate the achievement of the Output 2 based on the PDM.

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

The achievement in this term:

The WG2 completed the four (4) types of GLs for seismic evaluation of buildings (RC, PC and Masonry) and infrastructures and lifelines. The WG2 is waiting for approval by the Science and Technology Council of MCUD, and for signing by Minister.

On March 29th, WG2 conducted seminar of seismic evaluation of RC structures for young engineers in Mongolia at MACE office, where 25 engineers attended.

After establishing draft GLs of seismic evaluation for RC, PC, and Masonry buildings, 2-day pilot training to explain the GL was held on May 10th and 11th, where 18 trainees from MACE and from Mongolian Association of Design Offices attended. This pilot training was authorized as official training course by MACE, so that all the attendants obtained points necessary for their licensing.

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

strengthening

The achievement in this term:

The WG2 decided that seismic evaluation and seismic strengthening should be combined in one GL for each building structure except for Infrastructures and lifelines. As mentioned above, the WG2 completed the three (3) types of GLs for seismic evaluation including seismic strengthening of buildings (RC, PC and Masonry) and they are waiting for approval by the Science and Technology Council of MCUD, and for signing by Minister.

(3) Output3

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

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

Achievement in this term:

The WG3 has just developed the GL in April 2018 and is still in the process for preparing teaching materials for DRR education and raising awareness, and it has not reached the stage of evaluation with quantitative indicators.

3.2 The number of visitors in Training Center

Achievement in this term:

The WG3 is preparing the improved training program and educational materials for DRR education and raising awareness for the Training Center, and it has not reached the stage of evaluation with quantitative indicators.

1-4 Achievement of the Project Purpose

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

- 1. The number of the approved guidelines and agreement
- 2. The number of the data on disaster risk reduction which newly established and improved

The achievement in this term:

Activities for developing GLs, agreements, and necessary materials have been continued at each WG. In order to ensure sustainability after the Project, each activity is planned and implemented so that guidelines and other related outputs which will be developed in the Project are approved by NEMA, MCUD or MECSS through their standard procedures. The existing status of developing related documents are as below;

Doe	cuments Prepared in each Activity	Administrative Jurisdiction	Existing Status of Development
	National Earthquake Disaster Protection Planning GL	NEMA	Draft GL was completed. After translation into Japanese, the JET is due to give some comments about the contents of the draft one.
	State Earthquake Disaster Protection Service Planning GL	NEMA	Now work in process. It is expected to complete draft GL by the middle of June 2018.
	Aimag / Soum Level Earthquake Disaster Protection Planning GL	NEMA	Draft GL was Completed. It will be updated or revised based on the feedbacks from pilot Aimags.
	Capital City / District Level Earthquake Disaster Protection Planning GL	EMDC	Draft GL was completed. After translation into Japanese, the JET is due to give some comments about the contents of the draft one.
Output1	Earthquake Disaster Risk Assessment GL	NEMA	Draft GL for Comprehensive version was updated base on comments from the JET. Only the framework of draft GL for detailed version was confirmed.
	GL for Operation and Management of Disaster Spatial Database (DSDB)	NEMA	Now work in process. The first draft of GL is going to be updated in parallel with discussing the detailed work procedure and responsibility in the new division.
	Agreements	NEMA or other related organizations	As explained in Activity 1.2.1, eight (8) draft agreements were prepared.
	White Paper	NEMA	Mongolian version was completed. Translation tasks into English and Japanese are underway.
	Seismic Evaluation and Retrofitting Method of Existing Reinforced Concrete Buildings	MCUD	Still under review by the Science and Technology Council of MCUD.
Output2	Seismic Evaluation and Retrofitting Method of Existing Wall Type Precast Concrete Buildings	MCUD	Still under review by the Science and Technology Council of MCUD.
	Seismic Evaluation and Retrofitting Method of Existing Masonry Buildings	MCUD	Still under review by the Science and Technology Council of MCUD.

Doo	cuments Prepared in each Activity	Administrative Jurisdiction	Existing Status of Development
	Seismic Evaluation Method of Infrastructures and Pipelines	MCUD	Already approved by the Science and Technology Council of MCUD, now waiting for signing by the Minister.
O. 14m 1.142	Life Safety Education Program	MECSS	Approved on April 6th 2018
Output3	Guidebook for Life Safety Education	MECSS	Now work in process.

1-5 Changes of Risks and Actions for Mitigation

(1) Output1

1) Impact of Preparation Work of AMCDRR

Many of WG1 members are assigned as members of AMCDRR preparation working group. Since AMCDRR is scheduled to be held in early July, this preparatory work takes time, and the progress of the Project has been affected. For example, Mr. Bayanmunkh, who is in charge of disaster protection planning in the Project, serves as the chairman of the preparation working group, so there are circumstances that he is not possible to participate in the pilot activity in the pilot Aimag. After AMCDRR is over, the WG1 members go into the summer vacation, so there is concern that the progress of the Project will be stopped until mid-August when the summer vacation ends.

(2) Output2

1) Technical transfer of seismic evaluation by precise method

Two-level seismic evaluation methods, simple method and precise one, were established for RC and PC buildings. Though the former method has been fully explained not only in WG2 but also to other engineers from various organizations, the latter method has not, since the precise method is complicated and requires calculation tools. However, the precise method gives more accurate evaluation and higher *Is* values than simple method does, so that the precise method is preferable for personnel who is in charge of seismic retrofitting.

So that JET and WG2 will collaborate to prepare more detailed materials including some calculation tools to transfer the knowledge, technology and knowhow to the relevant personnel and engineers from private sectors.

Training course with the materials above must also be conducted to practically disseminate the precise method. So, WG2 will examine the training course with MACE or

other organization so that the training course can be authorized as official one to motivate engineers to attend.

2) Seismic evaluation for model buildings for retrofitting

After the training course held in June, WG2 will conduct seismic retrofitting design for five model buildings. Since seismic retrofitting is quite new technology in Mongolia and requires a lot of data including field survey to conduct the precise seismic evaluation for seismic diagnosis, enough communication is needed between WG2 and JET to proceed the project in schedule.

In accordance with the Work Plan, the strengthening design must start in July, so that necessary actions mentioned above shall be completed by the end of June. WG2 and JET must divide the work and make the start as soon as possible.

(3) Output3

1) Implementation of the Lessons based on the developed school DRR education guideline "Program for Life Safety Education"

The school DRR Education guideline "Program for Life Safety Education" was approved and issued on 6 April 2018 after completion by the efforts of the WG3-1 members. For the implementation of the Program in each school of Mongolia, more information and understanding of the contents and teaching methods of school teachers are needed. Since the DRR education is a new educational area out of a subject and is taught in some parts of existing subjects, integrated study, or extracurricular activities, there will be some difficulties for the teachers to conduct lessons without substantial information and understanding of teaching plans and methods of DRR education. Also, it is required to enhance awareness of local educational administration for the importance of DRR education. In these contexts, the MECSS requested to provide the training program targeting the instructors in all over Mongolia.

The WG3-1 will discuss with the counterparts and make necessary adjustments to change the original plan which was to provide the training to the instructors only in UB City.

2) Need for Coordination with Other Projects

Through the period of the activities, the WG3 members coordinated with other stakeholders of DRR education and awareness and established a good relationship with them. There are some plans for providing support for the DRR education and awareness activities in coming years, the WG3 will continue to strive to capitalize on the good

relationships for appropriately distributing limited resources.

1-6 Progress of Actions undertaken by JICA

The process of procurement of the equipment of earthquake simulation experience for the Disaster Protection Training and Methodology Center was started by JICA Headquarters. The delivery date of the equipment in Mongolia is planned before November 2018.

The procurement of the equipment for seismic diagnosis that was started by the JICA Mongolia office is going to be behind schedule. Japanese side promised that the technology transfer relating to utilization of diagnostic equipment is going to be implemented soon after the procurement.

1-7 Progress of Actions undertaken by Gov. of Mongolia

The report of approval of guidelines of seismic evaluation for buildings will be prepared by CDC, followed by the final approval by the Science and Technology Council of MCUD for signing by the Minister. The guideline for infrastructures and lifeline structures is in the process of signing by the Minister.

1-8 Progress of Environmental and Social Considerations (if applicable)

N/A

1-9 Progress of Considerations on Gender/Peace Building/Poverty Reduction (if applicable)

N/A

1-10 Other remarkable/considerable issues related/affect to the project (such as other JICA's projects, activities of counterparts, other donors, private sectors, NGOs etc.)

It is necessary to revise the members in WG2 due to the following reason; Mr. Battuga of NEMA, sub-leader of WG2, is supposed to transfer to new position, and Mr. Gantilga of ALAGaC also left his organization. Since NEMA is the main C/P of the Project and ALACaC will conduct seismic evaluation for GASI, new members from the organizations are desired.

2. Delay of Work Schedule and/or Problems (if any)

2-1 Detail

N/A

2-2 Cause

N/A

2-3 Action to be taken

N/A

2-4 Roles of Responsible Persons/Organization (JICA, Gov. of Mongolia, etc.)

N/A

3. Modification of the Project Implementation Plan

3-1 PO

N/A

3-2 Other modifications on detailed implementation plan

(Remarks: The amendment of R/D and PDM (title of the project, duration, project site(s), target group(s), implementation structure, overall goal, project purpose, outputs, activities, and input) should be authorized by JICA HDQs. If the project team deems it necessary to modify any part of R/D and PDM, the team may propose the draft.)

N/A

4. Preparation of Gov. of Mongolia toward after completion of the Project

In this term, the specific policy and actions are not discussed yet.

II. Project Monitoring Sheet I & II as Attached

Project Monitoring Sheet I Ver. 4.0 (Term: December, 2017 - May, 2018)

Version 4 Dated June 29, 2018

Project 1'tile: Project for Strengthening the National Capacity of Earthquake Disaster Protection and Prevention in Mongolia implementing Agency. National Emergency Management Agency (NEMA)

Target Group: NEMA, Ministry of Construction and Urban Development, Ministry of Education, Culture and Science, General State Inspection Agency, Emergency Management Department of the Capital City (EMDC), Construction Quality and Safety Department, Master Planning Agency of Capital City

Period of Project: December 2016 to November 2019	November 2019				
Project Site: Mongolia		:	:		
Overall Name of the Control of the C	Unumber of the approved guideline, full with a provided seismic assessment as season of the seismic strengthed building full with a provided guiden ground guiden of implemented activities on disaster risk reduction education	Study by NEMA	Important Assumption The policy on disaster risk reduction will not be changed in Mongolia.	Actieverient	Refiat NS
Project Purpose The Capacity of National Emergency Management Agency will be enhanced through the activities for strengthening the countermeasures for seismic risk.	The Capacity of National Emergency The Capacity of National Emergency Management Agency will be enhanced and agreement through the activities for strengthening 2. The number of the data on disaster risk the countermeasures for seismic risk. reduction which newly established and	Project report	NEMA expands the pilot activities in other aimags and sums.	Activities for developing Guidelines (GLs), agreements, and necessary materials have been continued at each WG.	In order to ensure sustainability after the Project, each WG makes it a goal to get an approval of guidelines and other related outputs which will be developed in the Project from NEMA, MCUD or MECSS through their standard procedures.
Outputs 1. Capacity for data collection on disaster risk reduction and coordination among related organizations will be enhanced.	1.1 The number of guidelines, operational rules, provisions which are developed. 1.2 The number of the draft of agreement developed and participants who participated in the training programs on agreements 1.3 White peper on disaster risk reduction	Project report	1. The counterparts from NEMA, the Ministry of Construction and Urban Development and the Ministry of Education continue to work in the same position. 2. Participants in training programs continue to work in the same position. 3. The relation among related organizations is maintained. 4. Exchange information is maintained among the related organizations.	1.1: Regarding risk assessment GLs, the comprehensive version has been completed and shared by the WG1 members. For planning GLs, National Level, and Angland Clay District Level have been despited to the Law eland Capital City O bistrict Level have been despeloped. But, Sale Services Levels is under development For dissels and states as GL, the first draft GL is being updated based on the work procedure and responsibility of the new division established on May 2018. 1.2: Total eight (8) types of Draft agreements are under discussion within sectors 1.3: The white paper in 2017 described in Mongolian has been completed and editing of the present appearance is under way.	11. The WG1 has a plan to prepare following GLs, - Two (2) types of Earthquake Disaster Risk Assessment GLs 1) Comprehensive Earthquake Disaster Risk Assessment GL 2) Detailed Earthquake Disaster Risk Assessment GL - Four (4) types of disaster protection planning GL - Four (4) types of disaster protection planning GL - State Earthquake Disaster Protection Planning GL 3) Aimag / Sourn Level Earthquake Disaster Protection Planning GL 4) Capital City (1) startic Level Earthquake Disaster Protection Planning GL - One (1) disaster database GL - One (1) disaster database GL - To The sectors where draft agreements are under discussion are "Medical and Phamaceutical Supplies", "Construction Materials and Phamaceutical Supplies", "Foods and Water Supplies", "Construction Materials and Temporary Housings", "Securing Road Transport," "Telecommunication" and "Waste Treatment and Water Supply".
2. Capacity of public administration officer related with the seismic assessment and seismic strengthening for buildings will be enhanced.	2. Capacity of public administration officer related with the seismic assessment and seismic strengthening program on seismic assessment for buildings will be enhanced. 2.2 Guideline for seismic strengthening The number of the traning program on seismic strengthening.	Project report		2.1 & 2.2: The WG2 completed the four (4) types of guidelines (GLs) for [2.1 & 2.2: The WG2 has a plan to prepare following GLs, seismic evaluation and seismic strengthening of buildings (RC, PC, Masony) and for seismic evaluation of infrastructures & lifelines. They buildings are waiting for approval by the Science and Technology Council of Seismic Evaluation and Retrofitting Method of Existing MCUD and/or for signing by the Minister. 2.1: On March, WG2 conducted seminar of seismic evaluation of RC, Buildings (PC) Buildings	2.1 & 2.2: The WG2 has a plan to prepare following GLs, 1) Seismic Evaluation and Retrofitting Method of Existing Reinforced Concrete (RC) Buildings 2) Seismic Evaluation and Retrofitting Method of Existing Wall Type Precast Concrete (PC) Buildings 3) Seismic Evaluation and Retrofitting Method of Existing Masonry Buildings 4) Seismic Evaluation Method of Infrastructures and Pipelines
3. Implementing plan on disaster risk reduction education and awareness raising activities will be developed and realized.	3.1 The number of the cases of delivering classes on disaster risk reduction based on the activities of the Project 3.2 The number of visitos in Training Center	Ordinance of Ministry of Education, Culture and Science Ordinance of NEMA		3.1: The WG3 has just developed the GL in April 2018 and is still in the coordination of the coordination and raising it awareness, and it has not reached the stage of evaluation with quantitative indicators. 3.2: The WG3 is preparing the improved training program and reductional materials for DRR education and related for DRR education and related for DRR equalities and relating denter, and it has not reached the stage of evaluation with quantitative indicators.	3.1: The GL for DRR education titled "The Program for Life Safety Education" was approved by MECSS on April 6th 2018.

A addition		ab control	
Activities	i	Sindul	Important Assumption
1.1.1 To identity problems and challenges on implementation of legal frameworks of disaster risk reduction	I ne Mongolian Side Assignment of counterparts	Ine Japanese Side Dispatch of Experts	
1.1.2 To develop guidelines on improvement of legal frameworks and plans, assessment of disaster risk and	- Project Director	- Leader	
database on disaster risk reduction	- Project Managers	- Disaster Risk Management	Pre-Conditions
1.1.3 To develop new regulation and the drafts(note 1-1)) of revised version of regulation on	- Project Coordinator - Project Members	- Disaster Risk Reduction Framework - Disaster Risk Reduction Information	
implementation of Law of disaster protection	,	- Seismic Strengthening Assessment	
1.2.1 To develop the draft of the agreement (note 1-2)) which shows the coordination and cooperation	For Output 1 - Policy Coordination and Cooperation	- Seismic Strengthening Method - Seismic Strengthening Design	<issues and="" countermesures=""></issues>
aniong incidits and related organizations	Depertment, NEMA	- Disaster Risk Reduction Education	
1.2.2 To realize training programs for disseminating the agreement mentioned in 1.2.1 and strengthening the coordination structure among organizations related with disaster risk reduction.	- Disaster Operational Department,	- Disaster Risk Reduction at Commnity Level	(1) Output1: Impact of Preparation Work of AMCDRR Many of WG1 members are assigned as members of AMCDRR preparation working
וויפ כסטימווימוסו אווימנימוב מוויסוא סואמווידמוסווא ובומנסת אוויו מואמאנים וואר במתכניום	NEMA	- Educational Material Development	group. Since AMCDRR is scheduled to be held in early July, this preparatory work takes
1.3.1 To identify problems and challenge of monitoring, report, evaluation and disclosure of disaster protection plan at national and local levels (note 1-3))	- Disaster Prevention Department, NEMA		time, and the progress of the Project has been affected.
7	- Disaster Research Institute, NEMA	Provision of Equipment	(2) Output2: Technical transfer of seismic evaluation by precise method
1.3.2 TO TOYISE RICES plans and mane a manea for increasion of disasse. proceduring plans 1.3.2 To improve the present exetem (note 1.4)) which collect and analyze information on disaster rick	- Emergency Management Department	- Equipment for seismic assessment	Two-level seismic evaluation methods, simple method and precise one were established
rect to impose the protein space (1900 1-7)) when concertain and permitting of the protein and		- Eartifudare simulation experience equipment for maining. Center such as shaking table	Is values than simple method does, but the expertize for calculation process is required
1.3.4 To develope white paper on disaster risk reduction which let the Mongolian people know the progress	•	cointenant bailed and the account of parision	to understand the precise method. For this purpose, the WGZ decided to prepare more detailed materials including some calculation tools to transfer the knowledge, technology
on implementation, monitoring, evaluation of disaster risk reduction plan at national and local levels through			and knowhow to the relevant personnel and engineers from private sectors. And also,
the activities of 1.3.1 to 1.3.3			training course that may be authorized as official one in Mongolia with the materials above must also be conducted to practically disseminate the precise method.
1.3.5 To improve the system of database on seismic strength of buildings, infrastructure and lifeline (note 1-			
2.1.1 To analyze the manual of seismic assessment of buildings and lifeline (note 2-1)) based on the context For Output 2	t For Output 2		(3) Output2: Seismic evaluation for model buildings for retrofitting After the training course held in June WG2 will conduct seismic retrofitting design for 5
or the Law of Disaster Protection and develop the draft of revised version 2.1.2 To develop guidelines-methodologies (note 2-2)) which show the method for implementing seismic	 Disaster Operational Department,. 		model buildings. Since seismic retrofitting is quite new technology in Mongolia and
assessment for buildings and lifelines, and how to use equipment	- Disaster Prevention Department		requires a lot of data including field survey to conduct the precise seismic evaluation for
2.1.3 To implemnt training programs (note 2-3)) for enhancing the knowledge and capacity of experts who			seismic diagnosis, enough communication is needed between WG2 and JET to proceed the project in schooling in accordance with Work Dlan, the strengthaning design must
assess the seismic strength of buildings and lifeline	- Ministry of Construction and Urban		start in July. so that necessary actions mentioned above shall be completed by the end
Z.z. 1 To develop guidelines-methodologies on seismic strengthening and reconstruction of buildings	Development		of June. W G2 and JET must divide the work and make the start as soon as possible.
12.2.2 To support the introduction and dissemination of seismic strengthening techniques for reconstructing collective housing kindergarden schools hospital national huidings and design the reconstruction and	- Master Planning Agency of Capital		A Onteristy, leavelessed and the Lance because heaved and the description of the leavest seems of the leavest the second seems
Seismic strengthening of each type of buildings a pilot	City - General State Inspection Agency		(4) Outputs: Implementation of the Lessons based on the developed school DRR education guideline "Program for Life Safety Education"
for an instancial properties of the marticipation of NEMA for anhancing knowledge and canacity of	(For the implementation of the Program for Life Safety Education in each school of
2.2.5. To realize training programs with the participation of NEWA for emirancing knowledge and capacity of the experts who implement seismic strengthening of buildings			Mongolia, more information and understanding of the contents and teaching methods of school teachers are needed. Since the DRR education is a new educational area out of a
3.1.1 To develop a quideline which shows contents, method and implementation way of disaster risk	For Output 3		subject, there will be some difficulties for the teachers to conduct lessons without
reduction education in kindergaten and schools based on Law of Disaster Protection	- Disaster Prevention Department,		substantial information and understanding of teaching plans and methods of DKK education. In these contexts, the MECSS requested to provide the training program
3.1.2 To develop textbooks, supplementary readers and eduational materials related with disaster risk	NEMA		targeting the instructors in all over Mongolia. The WG3 is discussing how to make
reduction education in kindergarten and primary and secondary schools	 Ministry of Education, Culture and Science 		necessary adjustments to change the original plan which was to provide the training to the instructors only in UB city.
3.1.3 To implement training programs for the instructors (note 3-1)) of Teacher Traininig Institutes and	- Teacher Training Institute		
experts of educational department in local governments, using the guideline and materials developed in	- Educational Research Institutte		(5) Output3: Need for Coordination with Other Projects Through the period of the activities the WG3 members coordinated with other
3.1.1 and 3.1.2 respectively	 Emergency Management Department at aimag level 		stakeholders of DRR education and awareness and established a good relationship with
3.1.4 To implement the training program for teachers by the instructors and experts who received the			them. There are some plans for providing support for the DRR education and awareness
training programs mentioned in 3.1.3 3.2.1 To develop comprehensive work plan (note 3-2)) for disaster risk reduction education and raising			relationships for appropriately distributing limited resources.
awareness at national and local levels 13.2.7 To develop materials for the training on disaster risk reduction education and raising awareness and			
implement the training for the target groups (note 3-3)) in pilot areas			
3.2.3 To develop and implement educational and training program for implementing disaster prevention and simulation program in Training Center			
Notes			

Notes

1-1) Amended Law of Disaster Protection "8.2 Rules of risk evaluation", "9.3 Guidelines and methodologies to develop disaster management plan", "12.1 Guidelines for preparation system", and "13.2 Rules and regulations of disaster management", and etc...
1-2) National level. UB city and two provinces are the farget areas
1-3) National level. UB city and two provinces are the farget areas
1-4) Improvement of estable "Disaster Information Sharing System"
1-5) Improvement of estable "Disaster Information Sharing System"
1-5) Improvement of estable "Disaster Information Sharing Water supply and sewerage, electric transmission and distribution facilities
2-3) Guidelines are regarded as operational guidelines by Resolution of Minister

2-3) Target Ministry of Construction and Urban Development, Ministry of Education, Culture and Science, UB city, General State Inspection Agency, province level officers in charge of buildings, infrastructure and lifeline, association of architects, association of design engineers etc.

A document to clarify the targets, implementers and instructors of public education and training, and the ocntents of required education and training activities for the purpose of ensuring of nationwide implementation of education and training program to all the necessary target stakeholders 3-1) Instructors of Institute of Teacher's Professional Development, experts of training departments of provinces and cities, and certificated teacher's instructors

3-3) Target groups: (1) Staff of NEMA Disaster Prevention Department, Training Center, and Emergency Management Departments of Cities, Provinces, and Districts, (2) Members in charge of disaster Protection Services at National, Province and City levels, (3) Heads of Bags and Khoroos, (5) Coordinators of civil activities in Provinces, Districts, and Khoroos, (6) Coordinators of civil activities in Provinces, Districts, and Khoroos, (5) Coordinators of civil activities in Provinces, Districts, and Khoroos and (6*) Volunteers (*only in pilot areas)
3-4) The facility that the EMDC is constructing and providing DRR training and education to the citizens in Khoroo

	Proj	Project Monitoring Sheet II (Revison of Plan of Operation)	g Sheet II	(Revison of I	Plan of Oper≀	tion)							Pa Ce	Version 4 Dated June 29 2018
roject Title: The Project for Strengthening the National Capacity of Earthquake Disaster Protection and Prevention in Mongolia	the National Capacity of Ea	arthquake Dis	aster Prot	ection and P	revention in	longolia							Ч	Monitoring
puts		Year	2016	2017		쮰	,	•	H	-	2020		Remarks	Issue Solution
****		١	N .	=	N	-	A .	1	AI III	-	=	A .		
ACANO CARTERIA		Plan												
Notice promotive		Actual												
Akihiro FURUTA		Actual								ļ				
Osamu NISHII		Plan												
Kensuke ICHIKAWA		Plan												
Shirou MAKITA		Plan												
Yoshitaka YAMZAKI		Plan												
TadashilSE		Plan												
Seiichiro FUKUSHIMA		Actual												
GIGTAMANA		Plan												
Jun MAI SOO		Actual												
Masahide AOKI		Actual										· []		
Shigeki KITA		Plan												
Hideto OMINE		Plan										<u> </u>		
MIN KOD AMA		Actual												
CANCON DIIA		Actual												
Yujiro OGAWA		Actual												
Seiji SUEA		Plan												
Too History		Plan												
LOSIIIRAZU TIVVAN		Actual												
Yooko OTA		Actual												
Amarjargal NAYANBAATAR		Plan												
quipment								A A SECTION OF						
Equipment to sensine diagnosis		Actual					•	A DACHVILY 2.	9				is is	regarding the equipment to seasing dag loos, Japanese suc expanses that the timing for investigation acceptant to state of the state of equipment is going to be behind schedule. Installing equipment is going to be behind schedule. In uniquenees of the equipment stall be discussed in WG2.
Earthquake simulation experience equipment for DRR Training Centre		Plan					T L	k to Activity 3.2	8				A Tra	Expension for experiment of extribute insulation recovered for the case of the
raining in Japan Comprehensive disaster risk reduction		Plan	1											
		Actual												
o W W	R C C C C C C C C C	н – № В А А		2017		2018		8	2019		2020	Resp	Responsible Organization	
			AI AI	H H	E E	н	E H	1	E H	-	H	IV Japan	W 00W	Achievements Issue & Countermeasures
utput 1: It is taleaths second and abullanear an invalormentation of land formanisation of themselves and	station of love of fermens and see of all an other	dala	1											
r.c.n.o.denuy probems and challenges on implemen reduction	ntation of regal frameworks of disaster	IISK												
1.1.1.1 To review the current legal frameworks of earthquake disaser risk reduction	0 0	Plan										,	, 7 A = 5	-Compietos. The WG1 member gathered information about exting rules and regulations for disaster risk retuction in order to revea a plan to deved og guldelines in the Project.
1.1.1.2 To summarize the problems and		i	_										ý	:Completed>
challenges	0	Plan										,	, Due	Due to the enforcement of the amended law on disaster protection, WG1 decided to develop new rules and regulations or to revise previous them for whole DRR planning and activities.
		Actual												

	disaster risk and database on disaster risk reduction	_			 	 			
1.1.2.1 to develop the guideline of earthquake risk assessment		Plan		 	 	 		The Worll member plepared "Complemensive earinquake disaster risk assessment GL". The Nerwa WG1 developed application software for earthquake risk assessment for central and local "Vulnerability convernment staff. The WG member determined the composition of "Detailed earthquake risk and 716 2016.	NEMA revised the regulation for impementation of Lbs aster Vulnerability and Risk Assessment (Annex of the Cabinet Decision of 178, 2005). There are six (6) annexes for the revised regulation.
	0	Actual					,	ggestenning CL*.	and Amex 4 named as "Technical Guideline (GL) for Earthquake Risk Assessment" is considered to be the GL which will be formulated in the Project.
1.1.2.2 To develop the guideline of earthquake disaster protection plan		Plan			 	 		The WG1 member prepared (3) GLs namely, "National Earthquake Disaster Protection Planning GL", "Aimag / Soum Level Earthquake Disaster Protection Planning GL" and "Capital	"Sate Earthquake Disaster Protection Service Planning GL" is still under preparation. For this GL, risk assessment part is still under
	0	Actual			 	 	,	City / District Level Earthquake Disaster Protection Planning GL".	ė
1.1.2.3 To develop the guideline of the earthquake disaster preparedness		Plan							
	0	Actual					,		
1.1.2.4 To develop the guideline of earthquake disaster management		Plan					,	Based on the result of discussion in Activity 1.1.1, the WG1 decided the GL for earthquake disaster management will not be prepared in the Project.	
		Actual	 	 	 	 			
1.1.2.5 To develop the Guideline of Database	((((((((((((((((((((Plan	 		 	 		The new division was established under Public Announcement and Emergency Administration Center in NEMA at the end of May 2018. The GL for operation and management of Disaster	From here on, the first draft of GL is going to be updated in parallel with discussing the detailed work procedure and responsibility in
	0	Actual				 			ilvision.
1.1.3 To develop new regulation and the drafts of revised of the Law of Disaster Protection	d version of regulation on implementatior	no			 				
1.1.3.1 To examine the contents of the Law of Disaster Protection and extract regulations to be newly established and/or to be revised	(Plan					,	Completed (Completed) I was confirmed that the necessity for establishment and revision of one (1) regulation which it comesponded to the Risk Assessment GI, and six (6) regulations which are corresponded to	
	0	Actual					,	£	
1.1.3.2 To develop new regulations and revised regulations		Plan			 			Regarding the seven (7) regulations confirmed in Activity 1.1.3.1, earthquake disaster part of the regulations is considered to develop in the Project.	The seven (7) regulations for disaster species other than the earthquake are not created in the Project. The prospects for
	0000	Actual				 	7		completion are not established. Therefore, the regulations shall be specialized for earthquake disasters.
ace the new and revised the process of approval and	(Plan				 			
enforcement	0	Actual				 			
1.2.1 To develop the draft of the agreement which shows the coordination and cooperation among NEMA and related organizations	the coordination and cooperation amor	Buc							
1.2.1.1 To extract items that need to conclude agreement to build cooperative system		Plan			 	 			
between NEMA and related organizations	0	Actual					,	line" and 'water supply and sewerage", a new field "transportation" was also selected for establishing the agreement during the Project period.	
1.2.1.2 To organize the items to be described in the agreement on the extracted activity items, coordinate with related organizations, presare drift agreement		Plan			 	 		Two drift agreement documents were prepared, theseen MMH and Private Hospital Activated Association. And settled agreement was prepared the MMH and Drug Association for "doctor and medicine, and settled was prepared the MMH and Drug Association for "doctor and medicine, and settled was prepared brug Merkere in Relativation and Add Add agreement document and agreement document were prepared by the MMH and Association. The drift all agreement documents were prepared by the MMH and Association.	A draft agreement was prepared between Mineral Resource and Petrobeum Agency and NEMA. for "fuel". But Ministry of Mining recommended that stakeholders other than NEMA will be added to be effective.
	0				 	 		and between MCUD and Construction Association for "construction materials and temporary housing". A draft agreement was prepared between Ministry of Road and Transportation and NEMA for	
		Actual			 	 		"Unapportition;" A draft agreement was prepared between NEMA and mobile phone company Unitel for "priority telephone fine". A draft agreement was a spreamed to the company to the company and a special agreement and severage."	
1.2.1.3 To conclude agreement	(Plan				 			
	0	Actual					ļ		
$1.2.2\mathrm{To}$ realize training programs for disseminating the agreement mentioned in $1.2.1\mathrm{and}$ strengthening the coordination structure among organizations related with disaster risk reduction	greement mentioned in 1.2.1 and ions related with disaster risk reduction	-							
1.2.2.1 To prepare training program on agreement between related organizations	C	Plan			 	 	3		
)	Actual	 		 	 			
1.2.2.2 To implement the training program		Plan	 		 	 		Joint training was made on April 9th in UB city. A total of 38 participants from 16 sectors jointed the training. Good practice of agreement in Japan, and draft agreement in health	
	0	Actual	 	 	 	 	,	sector in Mongfail was presented by Furtha and Lit. Aso, table-up exercise based on an earthquake dissalers scenario in UB olty was conducted to ill in tegps in health workers and medicines using draft agreement after earthquake of intensity VIII.	

1.3.1 Lo identify problems and challenge of monitoring, report, evaluation and disclosure of disaster protection plan at national and local levels.	disaster					
A A A A A				ľ	Description	
issues on the national and ocal level	Plan		3	ν	Competed> The current National Disaster Protection Plan in Mongolia mainly describe the emergency	
)	Actual				response activities for each disaster and there are a few descriptions about disaster prevention and preparedness.	
1.3.1.2 To conduct workshop for revision of earthquake disaster protection plan in UB City	Plan		 	V⊢	cCompleted> The current Disaster Protection Plan in UB City mainly describe the emergency response	
0	Actual		`	<i>y</i>	activities for each disaster and there are a few descriptions about disaster prevention and preparedness. There is no earthquake disaster protection plan of District level. Chingeltei District and	
1.3.1.3 To conduct workshop for revision of earthquake disaster protection plan for Aimag /	Plan				engenger park, were senected as procuents. CompleteD CompleteD There is no Almag/Soum level earthquake disaster protection plan. Darkhan-Uul and	
Soumievel	Actual		,	,	Jmnugovi Aimags were selected as pilot districts.	
1.3.2.7 o revise the disaster protection plans at national and local level, and make a manual frevision of disaster protection plan	for the					
1.3.2.1 To revise the national earthquake disaster protection plan and make manual	Plan				In the activity 1.1.2.2, WG1 members prepared national earthquake disaster protection operation guideline. Also draft national earthquake disaster protection plan is under	The existing national earthquake disaster protection plan will be revised by October 2018. National Earthquake Disaster
0 0	Actual		,	7		Management Operation Planning GL will be distributed to related ministries and organizations after completion for their own revision / development.
1.3.2.2 To revise earthquake disaster protection plan in UB City	Plan			<u> </u>	In the activity 1.1.2.2, WG1 members prepared UB City / District disaster protection planning guideline.	Plot activities at Chingeltei District and Bayangol District of UB City will be conducted in September 2018. By the time, earthquake risk
)	Actual					assessment results of these district in Phasel shall be summarized.
1.3.2.2 To revise earthquake disaster protection plan in Darkhan-Uul Almag	Plan			-00.	In May 2018, WGI members conducted pilot activities taling the Comprehensive Earthquake Disaster Risk Assessment GL and the Almag / Soum Level Earthquake Disaster Protection Planning GL in Darkhan-Uul, 2 days workshop was held and a dozen staff members gathreed Planning Disaster Protection	Earthquake disaster protection plan of the Aimags will be developed by October 2018.
)	Actual		2			
	Plan				In May 2018, pilot activities was conducted in similar way as Darkhan-Uul. 2 days workshop was held and earthquake risk as sessment of the Aimag Center was performed.	Earthquake disaster protection plan of the Aimags will be developed by October 2018.
00	Actual		2	,		
 3.3 To improve the present system which collect and analyze information on disaster risk reduction 			 			
	Plan				Completed> The WG1 member confirmed necessity to enhance human capacity for operation and	
000000000000000000000000000000000000000	Actual		`	7	nanagement of spatial database and to upgrade hardware such as a server.	
1.3.3.2 To identify rules and regulation on data collection and information sharing	Plan		3	- Z ₹	The most suitable rules and procedures for operation and management of the DSDB by NEMA were discussed with the sub-WG member frirough the development of the GL in management of the GL.	
)	Actual					
	Plan			E O	From November 2017, the sub-WG member has spent their time to formulate the first draft of G. C. or the assumption of new job descriptions of the new management team which has been	At the end of May 2018, the new division was established under Public Announcement and Emergency Administration Centre in
0 0 0 0 0 0 0	Actual		`	3		NEWA, and the first draft of CL is going to be updated based on the result of discussing about detailed work procedure and responsibility in the new division.
1.3.3.4 To improve the present system and system operation manual	Plan			< 0	Almost all installation works including a setup of the server in the Mongolian National Data Center (NDC) had been completed.	
0 0 0 0 0 0	Actual		`	7	For formulating new organization stucture for operation and management of the DSDB, assessment and development of human capacity for NEMA Headquarters as well as EMDC and regional offices in it's Aimags are one of the key, actions, and as its first site, the training for Utilization of Spatial Database for DRR in the NEMA was conducted.	
1.3.4 To elaborate white paper on disaster risk reduction which let the Mongolian people know the opposes on implementation, monitoring, evaluation of disaster risk reduction plan at national and local leves through the activities of 1.3.1 and 1.3.2	ow the					
1.3.4.1 To conduct discussion on the contents and function of white paper	Plan			7	-completed> In the VOX.1, a drift format of the white paper on disaster management in Mongdia was a recited with the visition of contents of the units or many on disaster management.	
	Actual				department of the trace of control of the trace of the tr	
1.3.4.2 To prepare the white paper preparation plan	Plan		`	ў <u>т</u>	CCompleted>	
)	Actual					
1.3.4.3 To develop white paper	Plan		>	<i>y</i>	The Mongolian version white paper has been completed and editing of the present appearance is under way.	English translation is currently being conducted and it will be completed in early June 2018. WG1 will also prepare English enrownare, vareione and commits brockures for 2018 attentions.
	Actual					sufficiently versions and compare productions.
1.3.5 To improve the system of database on seismic strength of buildings, infrastructure and lifeline.			 			
1.3.5.1 To identify the present database system	Plan		3	,	The sub-WG member is trying to make an agreement for data exchange with the Master Planning Agency of Capital City. The Agency is implementing seismic diagnosis of buildings	NEMA has already sent an official letter to request data exchange with the Master Planning Agency of Capital City, but still there is no
)	Actual					reply from the Agency.
1.3.5.2 To improve the present database system O O	Plan		>	∠ <u>.</u> ≥ ≥	As one of the considerations of the DB development, the studius of spatial diabase including them sof attributes is being designed to accumulate and manage the result of seek mic channess of buildings, infrastructure and fifeline which will be evaluate by anomains.	
	Actual			О	organizations.	

Activities	0 A Q C C C C C C C C C C C C C C C C C C	- 8 - B - B - B - B - B - B - B - B - B	O N T A Y A A Year		2017	7	2018	<u> </u>	50.	2019	52	2020	Responsible Organization		:
Sub-Activities	- ∢ ∠ ∢ ≩ ∢ - ∢			Ι ΔΙ	1 1	N H	I I	A H	I I	А	1 1	А ш	Japan GC	Achiwements GOM	Issue & Countermeasures
Output 2: 2.1.1 oranigos the manual of setemic assessment of buildings and feline based on the context of 12.1.1 oranigos the manual of setemic assessment of buildings and feline based on the context of 12.1.1 oranigos the manual of setemic assessment of buildings and feline based on the context of	t of buildings and	lifeline based on the com	text of												
2.1.1.1 To identify problems of present specifications of seismic resistance		0 0	Plan										,	The WG2 investigated existing norms and standards followed by the identification and arrangement of problems regarding to seismic resistance.	It must be further discussed how to reflect the problems into current norms and standard or into guidelines that will be newly established.
2.1.1.2 To revise the present specifications and to develop new code of seismic resistance		0 0 0	Plan										,	It was confirmed that he advanded research against containing and the standards for Three passers confirmed that he advanded reference and filelines which become key elements in the element guidelines is developed, evaluated and authorized by the standard procedure in MGULD.	The procedure with be careful by consultally earsh Prior to the selection of consulting learn, it is recessary to prepare the terms of the reference ICD (50 gladed to standfard coredion. Currelly, it is the stage, where the TOR was prepared in the WICZ and the approval of the chemical committees was obtained. Beaded on this TOR; the consultant learn will be asserted under the cultidation of MCLUD.
2.1.2 To develop guidelines-methodologes which show the method for implementing assessment of buildings and felines, and how to use equipment	how the method 1	for implementing seismic													5
2.1.2.1 To consult the contents of Guideline regarding the seismic evaluations		0 0 0 0	Plan										,	<completed></completed>	
2.1.2.2 To develop the seismic evaluation of RC and PC building		0	Actual Actual										,	Guidelines of easinn: evaluation and strengthening for RC and PC buildings were provided by it is r CST (consulting Service Team) with assistance from WG2, (clowed by the approval by common experts panel arranged by CDC.	It is necessary to obtain approval by science and thronology committee by MCUD. So, it is necessary to prepare the presentation material on establised guidelines.
2.1.2.3 To develop the seismic evaluation of masonry building		0	Plan										,	_	It is neccerary to obtain approval by science and thorology committee by MCUD. So, it is necessary to prepare the presentation material on establised guideline.
2.1.2.4 To develop the seismic evaluation of irrif as tuckure and lifeline		0	Plan										,	Cudeline of seism: evaluation for linfa and lifetine structures was provided by CST (Consulting Service rarm) with assistance from WG2, followed by the approval by science and the temporary committee of MCUO. Also additional check fist for quick diagnosis was issued to GASI.	
2.1.3 To implemnt training programs for enhancing the knowledge and capacity assess the seismic strength of buildings and lifeline	the knowledge ar	nd capacity of experts who	0					₽Eq	LEquipment for seisr	seismic diagnosis					
2.1.3.1 To consult training program of the guidelines		0 0 0	Plan										,	WG2 discussed the training program with draft guidelines and have conducted some lectures it is not be guidelines to entinees from MACE or other parties. WG2 also conducted ingroup any versity to learn the seismic diagnosis method to propagate guidelines.	It is necessary to develop training material such as lext as well as simple Exxal spread sheet for deep understanding. Also needed are some training material for ToT for future spreading of technology.
2.1.3.2 To implement training for the evaluation of seismic resistance		0 0 0	Plan												
seisr	mic strengthening	and reconstruction of													
2.2.1.1 To consult the contents of guidelines- methoddogies		0	Plan										,	<completed></completed>	
2.2.1.2 To develop the guidelines- methodologies		0	Plan										,	Guideline of selective advantage and experimental plan RC. PC and maconly buildings were comproved by experts panel arranged by CDC. approved by experts panel arranged by CDC.	It is necessary to obtain approach by searons and thorology committee by MOLD. So, it is necessary to prepare the presentation material on establised guideline.
2.2.2.To support the introduction and dissemination of seismic strengthening techniques for reconstructing collective housing, Windigarden, schools, hospital, national buildings and design the reconstruction and seismic strendthening of each two of buildings a pilot.	of seismic streng nools, hospital, ne toe of building as	gthening techniques for stonal buildings and designabilot	n the												
2.2.2.1 To consult the target buildings for traial design		0	Plan										,	WG2 discussed and selected five buildings for which trial retrofiting design will be concluded.	
2.2.2.2 To design of rebuilding and strengthening on target buildings		0	Plan												
2.2.3 To realize training programs with the participation of NEMA for enhal capacity of the experts who implement seismic strengthening of buildings.	tion of NEMA for ngthening of buik	enhancing knowledge and Jings	- 5												
2.2.3.1 To plan training progam		C	Plan												
2.2.3.2 To implemnt training progarm			Actual												
		0	Actual												

	Activities A	M A H W :	Year		8	2017		2018	2019	2020	Resp	Responsible Organization		
A				W					Ħ	Ħ			Achievements	Issue & Countermeasures
Liver Action 1 Community C	Output 3: 3.1.1 To develop a guideline which shows contents, mr irsk reduction (DRR) education in kindergarten and prind folkstere Protection	method and implementation way of disaster inimary and secondary schools based on Law												
	3.1.1.1 To review current situation of DRR education in kindergarten and primary and earondate schools commaring with Innances	0	Plan								-	,	ccompleted>	
	practices		Actual						 				UI IRE DANN AIN SAIRTY (SAIIGAIL) II INOUGUIRI III IRE COUSE (II CAULY (CAAIIGAIL) II INOUGUIRI)	, n
Vertical	3.1.1.2 To develop the guideline through the activities of the School DRR Education Working Group (WG)		Plan						 				<com pileted=""> Arial DRR education guideline in school "Life Safety Education Program" was developed through the WGS1 schellas. A confirmation hearing inviting apperts on DRR and education in Monopola was</com>	
From the last of t			Actual						 	 		,	opparized not 0.2.017. Modification based on the experts comments and learning from the Training in Longarized not 0.2.017. Modification based on the experts comments and learning from the Training in Trainized and approved by the Minister of Education on 6 April 2018.	99
A CANTAIN TO THE TOTAL TOTAL TO THE TOTAL TOTAL TOTAL TOTAL TO THE TOTAL	3.1.2 To develop educational materials such as textix education in kindergarten and primary and secondary	supplementary readers												
	3.1.2.1 To collect and review existing educational materials through the WG		Plan							-			Completed> Based on the research results of the working group members from ERI and the translated	
Section 1 and 1 an	activities		Actual						 	 			reference materials of Japan, composition of the "Guidebook" for the "Life Safety Education Program" was discussed in the WG meetings.	
	3.1.2.2 To establish Task Forces for the development of the educational materials (one	(<completed> The WG3-1 member decided to do the work by the group members (not by the Task Forces)</completed>	
Superior	task force each for kindergarten, primary, and secondary schools))							 				and get technical advices from outside experts after the development of the draft.	
Plan Actual Actu	3.1.2.3 To organize workshops and discuss and decide the contents of educational									 			Initial Discussion for the development of the educational materials was conducted on 28 Nov. 2017. A 2-day works hop (Feb. 2018) and a 3-day workshop (Apr. 2018) were organized for the	. 0
Shape Shap	materials to be developed)							 	 			development of the "Guidebook" for the Implementation of the "Program." Also, that lessons for three educational levels were conducted in May 2018.	
Actual Ac	3.1.2.4 To develop and finalize the educational materials through the Task Force and the WG									 		,	Through the workshops and individual works of the WG3-1 members, the development of "Guidebook" was proceeded.	
Plan	activities											,		
Plun Plun Actual Plun Actual Plun Plun Plun Plun Plun Plun Plun Plu	3.1.3 To implement training programs for the instruck of educational department in local governments, using a 1.1.2.2.3.1.1.2.2.2.2.2.2.2.2.2.2.2.2.2.	tors of Teacher Training Institutes and experts ng the guideline and materials developed in							 					
Actual Ac	3.1.3.1 To formulate the training programs through workshops and the WG activities	1	Plan						 				Initial clecuss for for the schedule and famework for the training was made in the 2-day Workshop in Feb. 2018. The schedule for the training was decided in the WG3-1 meeting in	
A CALUMATICAL OF A CA		0	Actual							ļ			April. Discussion for the program of the training was started in the WG3-1 meeting in May 2018.	
1	3.1.3.2 To implement pilot training		Plan						 					
1			Actual						 	 				
dealer this instruction and deposits who meetings and deposits and deposits who meetings are also and deposits and deposits and deposits who meetings are also and deposits an	3.1.3.3 To review the training and formulate training manuals	C							 	 				
details by the instruction and deposits who meeting the instructions and deposits who meeting the instruction and deposits who meeting the instruction and relation to the instruction and relation and)							 					
Actual A	3.1.4 To implement the training program for teachers the training programs mentioned in 3.1.3	and experts who								 				
	3.1.4.1 To support the training for teachers		Plan											
		0	Actual							 				
Variable	3.1.4.2 To review the result of the training of 3.1.3 and 3.1.4 through workshops and the									-				
Companied with restriction and resigning Companied with restriction and resigning Companied with restriction and resigning Companied with restriction C		0												
		risk reduction education							 					
Address of the control of the contro	3.2.1.1 To interview related organizations about coordination and cooperation	<	Plan										Completed> The WG3 member visited the relevant organizations and got their initial opinions for the	
hun Adrusti Advanta		1	Actual						 	 			effective coordination among stakeholders.	
Vertrat Vertra	3.2.1.2 To examine framework for NEMA to conduct integrated management		Plan						 	 			<completed> Through The WG meetings and discussion with stakeholders, "DRR Education Team" was established (for the effective coordination for the implementation of the community DRR trainfing and education, Also,</completed>	
y y y y y y y y y y y y y y y y y y y		O 0	Actual										the rule for the Team was students and approved by the NEMA Adm instrator. Frequent communication among members is realized through the mailinglist of the Team.	u
Address of the control of the contro	3.2.1.3 To implement regular meetings	<	Plan						 	 		,	The Team decided to organize regular meetings once three months. The first meeting was organized in June 2017, and the second meeting was converted on the occasion for	
h Plans		1	Actual						 				discussing events for international Day for Disaster Kisk Keduction 2017. In December 2017 and March 2018, the meetings were held for the Team.	
y variety of the control of the cont	3.2.1.4 To create a website for the coordination and share information among the relevant organizations		Plan						 	 			The Wid members developed a draft website for the "DNR Education Team" to state et the DNR education and training information through the discussion and workshop with 11 specialists of the NEMA and discussing the sever space to be utilized for the website in the servers of the NEMA. The NEMA.	
		O 0	Actual				_			 			webste for training information developed by the World Vision was re-organized in April 2018 and decided to be utilized for the worbste of the "Comprehensive Schedule". Currently verification of the data to be included in the final system is on oping.	a

3.2.2 To develop materials for the training on disaster risk reduction educati	ation and raising								ļ		
awareness, and implement the training for the target groups in pilot areas											
3.2.2.1 To review existing textbooks of DRR education for communities		_									
	0 0 4 4	Actual								,	based on the UNDP's educational curriculum after clarifying a demandation of works for development of teaching materials with World Vision Mongolia.
5.2.2.2 To discuss and develop training materials											Relevence of the Laganese materials for the training was introduced and initial discussion for the materials to the decoped in the Production and associated that Caday workshop held in East 2019 Auditable Area Production and an extending the Lancate formation of Armania formation of Armania and an extension of Armania and
	0 4 4	Actual								,	Year, July, overales use the many program and unlarged as we entiminated. July instantion work of the teaching materials is organize based on result of the ToT and pilot workshops.
3.2.2.3 To implement Training of Trainers workshop		Plan									
	0 0 4 4	Actual								,	with the "Be Ready" training program for producing the synergistic effect. The flot workshops were conducted in 21 March 2018 in UB city and 28 March in Zawkhan almag.
3.2.2.4 To implement workshops in the plict area		Plan								,	
	0 0 4 4	Actual								>	Voronducted on 12 May 2018 in Oppon Sourn and on 14 May 2018 in Usestal Sourn, Alao the workstrops were conducted on 17 May 2018 in Bayangol district and on 20 May 2018 in Bayanzukh district in UB city.
3.2.3 To develop and implement educational and Italining program for implementing disaster prevention and simulation program in Training Center	olementing disaster					1 Earthqua	Ke simulation experience equipment	noe equipment			
3.2.3.1 To examine and consider a study program for the training center		Plan									
	0 0 4 4	Actual								'	Introduced. The WGS members and the staff of the Training Center examined the current program of the training center and revised it.
3.2.3.2 To examine materials and equipment for improvement of training center										,	Completed> After an initial examination and studies of the current equipment and materials of the Training
	1	Actual								\$	
3.2.3.3 To support procurement of equipment	-									,	
	D 4 4	Actual									equipment.
3.2.3.4 To develop educational materials such as movie, exhibition, etc.	(Plan								,	Based on the learning in the training in Jegen and decussion through the working group meetings, the flowbrigh terms were declared to be developed. I obsersed Parelle for the Earthquake Experience Room, 2, Meniature Building Models for learning Seasing Kestisurit Earthquake Experience Room, 2, Meniature Building Models for learning Seasing Kestisurit
	0 1	Actual									
3.2.3.5 To operate training program	٧	Plan									
	0 0 4 4	Actual									
3.2.3.6 To examine expansion to other regions	0 4 4	Plan									
		Actual									
Duration / Phasing		Plan Actual									
Monitoring Plan		Year	-	2017	-	2018	2019	2	2020	Remarks	Issue Solution
Monitoring		\					Ы	H			
Joint Coordinating Committee		Actual									
Set-up the Detailed Plan of Operation		Plan									
Submission of Monitoring Sheet		Plan Actual									
Reports/Documents Work Plan / Project Interim Renort		Plan									
Project Completion Report		Plan									
Public Relations		Via Via									
		Plan									
		Actual									

TO Chief Representative of JICA Mongolia OFFICE

PROJECT MONITORING SHEET

Project Title: Project for Strengthening the National Capacity of Earthquake

Disaster Protection and Prevention in Mongolia

Version of the Sheet: Ver. 5.0 (Term: June, 2018 - November, 2018)

Name: D.Batsaikhan

Title: Director of Disaster Prevention

Department, NEMA

Name: Kiyotaka Owada

Title: Team leader / Integrated disaster

management I

Submission Date: December 11, 2018

I. Summary

1. Progress

1-1 Progress of Inputs

(1)Dispatch of Experts

The following Experts from Japanese side were assigned in this monitoring period.

	Area of responsibility	Experts name	Period of assignment
Project	Team Leader / Integrated Disaster	Kiyotaka OWADA	Jun. 19 – Jul. 8, 2018
Management	Risk Management I		Aug. 29 – Sep. 27, 2018
Group			Nov. 11 – Nov. 30, 2018
	Deputy Team Leader / Integrated	Akihiro FURUTA	Jun. 4 – Jun. 17, 2018
	Disaster Risk Management II		Sep. 2 – Sep. 18, 2018
			Nov. 19 – Nov. 30, 2018
OUTPUT1:	Disaster Management Plan I	Osamu NISHII	Sep. 2 – Oct. 2, 2013
Disaster	Disaster Management Plan II	Kensuke ICHIKAWA	Jun. 1 – Jun. 19, 2018
Management			Aug. 10 – Sep. 7, 2018
Plan	Disaster Management system I	Yoshitaka YAMAZAKI	_
	Disaster management system II	Shiro MAKITA	_
	Disaster management information I	Tadashi ISE	_
	Disaster management information II	Akihiro FURUTA	Jun. 18 – Jun. 22, 2018
			Aug. 28 – Sep. 1, 2018
Output 2:	Seismic-Resistance	Seiichiro	Jun. 1 – Jun. 9, 2018
Seismic		FUKUSHIMA	Aug. 29 – Sep. 26, 2018
Resistance			Nov. 4 – Nov. 17, 2018
	Seismic Diagnosis of Infrastructures	Jun MATSUO	Jun 1 – Jun. 12, 2018
	and Lifelines		
	Seismic Diagnosis of Buildings /	Masahide AOKI	Jun 3 – Jun. 24, 2018

	Area of responsibility	Experts name	Period of assignment
	Seismic Strengthening I (RC, PC)		
	Seismic Diagnosis of Buildings /	Shigeki KITA	_
	Seismic Strengthening II (Masonry)		
	Seismic-Resistant Design	Hideto OMINE	Jun 20 – Jul. 11, 2018
			Oct. 31 – Nov. 17, 2018
Output 3:	DRR Education I	Miki KODAMA	Sep. 6 – Sep. 22, 2018
DRR			Oct. 3 – Oct. 13, 2018
Education	DRR Education II	Yujiro OGAWA	_
	DRR Education II	Seiji SUWA	Sep. 6 – Sep. 22, 2018
		•	Oct. 3 – Oct. 12, 2018
	Community-Based Disaster	Toshikazu HIWAKI	Jun. 1 – Jun. 15, 2018
	Management / Project Coordination I		Aug. 30 – Sep. 18, 2018
			Nov.5 – Nov. 19, 2018
	Development of Disaster	Yoko OTA	_
	Management Teaching Materials I		
	Development of Disaster	Amarjargal	*Intermittent assignment
	Management Teaching Materials II /	NAYANBAATAR	during above periods
	Project coordination II		

(2) Assignment of counterparts

The current administration of authorities concerned of Mongolia for the Project for Strengthening the National Capacity of Earthquake Disaster Protection and Prevention in Mongolia (hereinafter referred to as "the Project") is as following,

(a) Project Director:

D.Batsaikhan, Director of Disaster Prevention Department, the National Emergency Management Agency (hereinafter referred to as "NEMA")

(b) Project Manager:

Luvsansharav Ulziibayar, Director of Policy Coordination and Cooperation Department, NEMA

(c) Project Coordinators

B. Dorjderem, Policy Coordination and Cooperation Department, NEMA

There were some changes of project coordinators in charge in this monitoring period. Z. Battulga in Disaster Operation Department, who had been assigned to the coordinator since the beginning of the Project, transferred to the Emergency Management Department in Govi-Altai Aimag virtually around June 2018. Also, Enkhbat in Policy Coordination and Cooperation Department retired from his work in NEMA in September 2018. As a replacement for Enkhbat, B. Dorjderem was assigned to new project coordinator. The successor of Z. Battulga has not been assigned yet.

The other member of current administration of authorities concerned of Mongolia has not

been changed since last monitoring period.

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

The member list of the C/P for each WG had been amended at the seventh Steering Committee (hereinafter referred to as "SC") on September 4th, 2018 based on the member list confirmed in the Joint Coordinating Committee (hereinafter referred to as "JCC") on April 18th, 2018. And at the Sixth JCC on September 21st, 2018, further amendment of C/P member was approved as shown below.

(a) Member of Sub-Group of WG1 (As of November, 2018)

Sub-WG	Name Job Title		Timing Nomir	nated as W	
Gub-WG	Name	JOB TILLE	5th JCC Apr.2018	7th SC Sep.2018	6th JCC Sep.2018
Coordinator for WG1	D.Bazarragchaa	Disaster Risk Management Dep., NEMA	0	0	0
	D.Serjmyadag	Disaster Research Institute, NEMA	0	0	0
Disaster	P.Amarzaya	Disaster Research Institute, NEMA	0		
Risk	D.Bazarragchaa	Disaster Risk Management Dep., NEMA	0	0	0
Assessment	B.Batbayar	Disaster Risk Management Dep., NEMA	0	0	0
(WG1-1)	B.Khishigbaatar	Disaster Operation Dep., NEMA	0	0	0
	S.Bazarragchaa	Disaster Research Institute, NEMA	0		
	B.Bayanmunkh	Policy Coordination and Cooperation Dep., NEMA	0	0	0
		Disaster Operation Dep., NEMA	0		
Disaster Protection	B.Myagmardorj	Emergency Management Department of Capital City (EMDC)		0	0
Planning (WG1-2)	T. Turbileg	Disaster Operation Dep., NEMA	0	0	
(**************************************	Ch.Otgontugs	Fire Dep., NEMA	0	0	0
	E.Batbayar	EMDC	0	0	
	A.Dashnyam	EMDC			
Disaster Reduction Agreement (WG1-3)	B.Duvshin	Disaster Risk Management Dep., NEMA	0	0	0
	T.Bilguun	Policy Coordination and Cooperation Department, NEMA		0	0
White Paper (WG1-4)	O.Tsend-Ayush	Disaster Prevention Dep., NEMA	0	0	0
Disaster	B.Purevnyam	Public Announcement and Emergency Administration Centre, NEMA	0	0	0
Database		Disaster Research Institute, NEMA	0		_
(WG1-5)	D. Sodnomragchaa	Spatial Information and Technology Division, NEMA		0	0

Cub MC	Name	Job Title	Timing Nomir and Period	ated as W	
Sub-WG	iname	Job Tille	5th JCC Apr.2018	7th SC Sep.2018	6th JCC Sep.2018
	B. Boldkhuu	Public Announcement and Emergency Administration Centre, NEMA	0	0	0
	D. Bayarbaatar	Public Announcement and Emergency Administration Centre, NEMA	0	0	0

(b) Member of Sub-Group of WG2 (As of November, 2018)

Cult MC	Name.	Lab Title		ninated as W	
Sub-WG	Name	Job Title	5th JCC Apr.2018	7th SC Sep.2018	6th JCC Sep.2018
Coordinator	B.Soyomboo	Ministry of Construction and Urban Development (MCUD)	0		
for WG2	L.Bilegjargal	MCUD		0	0
	Z.Battulga	Disaster Operation Dep., NEMA	0		
	B.Soyomboo	MCUD	0		
	L.Bilegjargal	MCUD		0	0
	G.Erkhembayar	MCUD	0	1	
	O.Bayarbaatar	MCUD		0	0
	B.Gantulga	Land Management, Geodesy and Cartography Agency, MCUD	0		
Seismic	B.Bayardulam	Land Management, Geodesy and Cartography Agency, MCUD		0	0
Diagnosis of Buildings	N.Ganchimeg	General Agency for. Specialized Inspection (GASI)	0	0	0
(WG2-1)	B.Tsend-Ayush	Master Planning Agency of Capital City	0		
	N.Tamir	Master Planning Agency of Capital City		0	0
	Ts.Khulan	Master Planning Agency of Capital City	0	0	0
	G.Saruultuya	Construction Development Center	0	0	0
	Z.Battulga	Disaster Operation Dep., NEMA	0		
	T.Galbadrakh	Finance and Logistics Dep., NEMA	0	0	0
	B.Soyomboo	MCUD	0		
	L.Bilegjargal	MCUD		0	0
	G.Erkhembayar	MCUD	0		
Seismic	O.Bayarbaatar	MCUD		0	0
Diagnosis of Infrastructures	B.Gantulga	Land Management, Geodesy and Cartography Agency, MCUD	0		
and Lifelines (WG2-2)	B.Bayardulam	Land Management, Geodesy and Cartography Agency, MCUD		0	0
	N.Ganchimeg	GASI	0	0	0
	B.Munkhsaikhan	GASI	0	0	0
	Z.Battulga	Disaster Operation Dep., NEMA	0		
Design for	B.Soyomboo	MCUD	0		

Sub-WG	Name	Job Title	Timing Nominated as WG Member and Period of Activity in WG			
Sup-wG	Name	Job Title	5th JCC Apr.2018	7th SC Sep.2018	6th JCC Sep.2018	
	L.Bilegjargal	MCUD		0	0	
Strengthening (WG2-3)	G.Erkhembayar	MCUD	0			
(1102 0)	O.Bayarbaatar	MCUD		0	0	
	B.Gantulga	Land Management, Geodesy and Cartography Agency, MCUD	0			
N.Ganchimeg		GASI	0	0	0	
B.Tsend-Ayush		Master Planning Agency of Capital City	0			
	N.Tamir	Master Planning Agency of Capital City		0	0	
	Ts.Khulan	Master Planning Agency of Capital City	0	0	0	
	G.Saruultuya	Construction Development Center	0	0	0	
	Z.Battulga	Disaster Operation Dep., NEMA	0			

(c) Member of Sub-Group of WG3 (As of November, 2018)

Sub-WG	Name	Timing Nominated as WG Mer and Period of Activity in W				
Sub-WG	Name	Job Title	5th JCC Apr.2018			
Coordinator for WG3	D.Munkhbat	Disaster Prevention Dep., NEMA	0	0	0	
	J.Myagmar	Ministry of Education, Culture, Science and Sports (MECSS)	0	0	0	
	Ch.Gantsetseg	MECSS	0	0	0	
	P.Baljinnyam	MECSS	0	0	0	
	A.Enkhtogtokh	Education Research Institute (ERI), MECSS	0	0	0	
School	B.Erdenechimeg	ERI, MECSS	0	0	0	
DRR Education	G.Mongolkhatan	ERI, MECSS	0	0	0	
(WG3-1)	G.Khaliun	ERI, MECSS	0	0	0	
	N.Munkhbayar	Institute of Teacher Professional Development	0	0	0	
	D.Munkhbat	Disaster Prevention Dep., NEMA	0	0	0	
	L.Munkhchimeg	Disaster Prevention Dep., NEMA	0			
	G.Enkhtsolmon	Disaster Prevention Dep., NEMA		0	0	
	D.Munkhbat	Disaster Prevention Dep., NEMA	0	0	0	
	D.Bat-Erdene	Disaster Prevention Dep., NEMA	0	0	0	
Community DRR	D.Dulamsuren	Public Information Center, Disaster Prevention Dep., NEMA	0	0	0	
Education	S.Doljinsuren	EMDC	0	0	0	
(WG3-2)	B.Chinbat	EMDC	0	0	0	
	B.Uuriingegee	DRR Training Center, EMDC	0	0	0	
	B.Ariunchimeg	National Center for Long life Education	0	0	0	

1-2 Progress of Activities

(1) Overall of Project

1) Implementation of Steering Committee (SC) and Joint Coordination Committee (JCC)

The seventh SC and the sixth JCC have been held in this monitoring period.

No.	Date	Participants	Contents of discussion
Seventh SC	Sep. 4, 2017	NEMA, WG member for each OUTPUT Total: 30 participants	 Progress of WG Activities Amendment of Working Group Member Progress of Installing Equipment Schedule of Next JCC
Sixth JCC	Sep. 21, 2018	NEMA, MCUD, MECSS, GASI, Construction Quality and Safety Department; City Planning and Master Planning Agency of Capital City, etc. Total: 34 participants	 Progress of WG Activities Amendment of Working Group Member Progress of Installing Equipment Schedule of Next JCC

2) Provision of Equipment

As identified in the work plan of the Project which was approved by the first JCC, the equipment for seismic diagnosis and the equipment of earthquake simulation experience for the Disaster Protection Training and Methodology Center are supposed to be procured and donated by the Japan International Cooperation Agency (hereinafter referred to as "JICA").

Regarding the equipment for seismic diagnosis, the procurement procedure has been carried forward by JICA Mongolia office and five (5) sets of diagnosis devices as shown below were officially handed over to NEMA on November 12, 2018.

Name of equipment	Number of devises
Surface strength measuring instruments	5
Ultrasonic-based measuring instruments	5
Corrosion measuring instruments	5
Concrete covering thickness measuring instruments	5
Surface strength measuring instruments for brick	5

Following handover of the equipment, the WG2 conducted 2-day training course regarding to the equipment utilization on November 12 to 13, 2018 with the participation of

governmental officers from related organizations and engineers from private companies. The detailed outline of the training shall be described in the part of Activity 2.1.3.

The process of procurement of the equipment of earthquake simulation experience for the Disaster Protection Training and Methodology Centre has already been started by JICA Headquarters. Regarding the schedule of installing equipment and its procedure, following things were discussed between Japanese side and Mongolian side at the sixth JCC on September 21, 2018.

Japanese side explained that the preparation for shipment of the equipment of earthquake simulation experience has been underway. Japanese side requested that Mongolian side should complete all advance preparations based on the Operation and Maintenance (hereinafter referred to as "O&M") Plan approved in the 3rd JCC held on June 26, 2017. Mongolian side promised construction works of floor enhancement by October 5, 2018.

In addition, Japanese side also requested that Mongolian side shall implement drainage water disposal and essential countermeasures against further inundation since the underground floor of the Centre was intruded by ground water after heavy rain in early September 2018. Mongolian side accepted and improved the slab of earthquake experience room with protection works for water intrusion on October 10, 2018.

In addition to this measure, Japanese side requested additional water protection countermeasures to prevent whole ground floor from the intrusion of ground water. Mongolian side is supposed to examine the followings; 1) prospect of budgetary allocation, 2) construction method, 3) construction schedule. The equipment is to be installed when Mongolian side addressed the result of the examination to Japanese side.

Mongolian side decided to keep the equipment properly up to the date of installation that arrived on October 20, 2018.

3) Introduction of the Project Activity at Asian Ministerial Conference for DRR 2018

Asian Ministerial Conference on Disaster Risk Reduction (hereinafter referred to as "AMCDRR") was held at the Ulaanbaatar (hereinafter referred to as "UB") from 3 to 6 of July, 2018. JICA Expert Team (hereinafter referred to as "JET") participated in this international event in order to introduce the Project activity to AMCDRR's participants who came from across Asian countries by exhibiting posters and a part of outcomes of the Project at the booth of the market place, attending an side event and delivering simple explanation for the latest status of the Project by Project member at the ignite stage respectively.

From 4 and 5 of July 2018, the booth exhibition was conducted at the market place in Sükhbaatar Square. The JET showed posters to explain the outline and latest status of activities for each output and project deliverables such as practical materials of community-based DRR education and awareness raising, and a model kit to show an effect of seismic strengthen of buildings. And then, the JET also gave a demonstration of how to use a water extinguisher and how to make an improved stretcher by involving visitor of Project's booth. The number of visitors was totally over two hundred (200) persons throughout the two days. At the next of Project's booth, NEMA's booth was set and the activity of Spatial Information and Technology Division which had been newly established last May 2018 to operate and manage Disaster Related Database for DRR using Internet-based Disaster Spatial Information System (hereinafter referred to as "I-DSIS") was introduced. The JET supported preparation and implementation of their exhibition.

On 4 of July 2018, Ms. J. Myagmar who is a coordinator of WG3 in the Project gave a presentation entitled "Ensuring and promotion of school DRR education as a standard education content in Mongolia" based on outcomes of WG3 activity for DRR education in the Project at one of side events of AMCDRR organized by World Vision Mongolia named as "Child-entered disaster risk reduction in Mongolia". The JET supported preparation and implementation of her presentation. The number of participants of this event was approximately forty (40) persons from educational institutions for each country and International Non-Governmental Organizations (hereinafter referred to as "INGO")

On 5 of July 2018, the JET joined the ignite stage held at the market place in Sükhbaatar Square and delivered their explanation about the latest status of the Project. Approximately twenty (20) participants heard a presentation given by the Project member.

(2) Output1

Activity 1.1.1 To identity problems and challenges on implementation of legal frameworks of disaster risk reduction

The activity was completed by the end of the previous reporting period.

The WG1 members confirmed that three (3) guidelines (hereinafter referred to as "GLs") namely, "Earthquake Disaster Risk Assessment GL", "Earthquake Disaster Protection Planning GL", and "Disaster Database GL" shall be developed in Output 1 of the Project.

Activity 1.1.2 To develop guidelines on improvement of legal frameworks and plans, assessment of disaster risk and database on disaster risk reduction

1) Earthquake Disaster Risk Assessment Guideline

The WG1 members created the draft of Comprehensive Earthquake Disaster Risk Assessment GL with application software for simplified calculation of earthquake risk for the central and local government staff. Using this draft GL with application software, earthquake risk assessment was conducted in pilot aimags as a step of aimag level earthquake disaster protection planning.

On the other hand, the draft of Detailed Earthquake Risk Assessment GL is under preparation. It will be prepared by the end of 2018. Both GLs are considered to be a part of the annex of the revised Regulation for Implementation of Disaster Vulnerability and Risk Assessment (Annex of the Cabinet Decision of 176, 2006). However, the whole composition of the revised regulation has not been decided yet.

2) Earthquake Disaster Protection Planning Guideline

The WG1 members are preparing four (4) draft GLs namely, National Earthquake Disaster Protection Planning GL, State Earthquake Disaster Protection Service Planning GL, Aimag / Soum Level Earthquake Disaster Protection Planning GL and Capital City / District Level Earthquake Disaster Protection Planning GL.

Among these GLs, "National" and "State" GLs are the national level GLs and must be coordinated with the Standing Committee for Earthquake Disaster Protection and other ministries and related agencies. Before that, the GLs must be approved by the Executive Committee of NEMA. However, two members of WG1 in charge of "National" and "State" GLs were transferred and preparation works of these two GLs have been delayed. Therefore, the successors in charge of these two GLs must be decided and they should take over and restart the work quickly.

In the pilot aimags and districts, the Earthquake Disaster Protection Plans are being prepared or revised as a part of Activity 1.3.2. Through these pilot activities, feedbacks about the contents of the draft GLs will be gathered from officers who are member of planning in the pilot areas and these GLs will be improved. The revised GLs will be sent to the Executive Committee of NEMA for approval after improvement.

3) Disaster Database Guideline

Through the Activity 1.3.3, The GL for operation and management of Disaster Spatial Database (hereinafter referred to as "DSDB") using Internet-based Disaster Spatial Information System (hereinafter referred to as "I-DSIS") were being developed on the assumption of new job descriptions of the Spatial Information & Technology Division. As of end of October 2018, the drafting work of the GL with some supplemental documents has been finished and approval process by the head of NEMA as official regulation in NEMA is ongoing.

Activity 1.1.3 To develop new regulation and the drafts of revised version of regulation on implementation of the Law of Disaster Protection

The activity was completed by the end of the previous reporting period.

The WG1 member verified the articles of the Amended Law on Disaster Protection mainly from the viewpoint of risk assessment and disaster protection, and identified the related rules and regulations in the Amended Law which are needed to establish new rules and regulations and/or revise existing ones with handling policy in the WG1 activity.

Activity 1.2.1 To develop the draft of the agreement which shows the coordination and cooperation among NEMA and related organizations

The progress of agreement development for each sector is summarized as below.

<Stable supply of foods and water to evacuation places and temporary housings>

The agreement was signed on October 16, 2018 between NEMA and the Ministry of Food and Agriculture (hereinafter referred to as "MOFA"). This agreement was announced through the website of NEMA and MONTSEME News Agency in Mongolia.

<Stable supply of medicines during disaster>

The agreements between the Ministry of Health (hereinafter referred to as "MOH") and three major pharmaceutical sales companies were signed on November 7, 2018. This fact was announced through the website of NEMA.

<Supply of construction materials and temporary housings>

Two agreement documents were prepared between MCUD and the Construction Material Association, and between MCUD and the Construction Association. Agreement documents were already approved by the Minister of MCUD, and the agreements will be signed in December 2018.

<Stable transport and securing road transport during disaster>

The draft agreement has already been prepared. The progress is delayed due to personnel changes at the Ministry of Road and Transport Development (hereinafter referred to "MRTD"). The WG1 will discuss with the people in charge of the Ministry on the contents of the draft, and will negotiate for the Deputy Prime Minister's signature, which is the substitution the Minister.

<Stable fuel supply during disaster>

JET introduced several cases of fuel supply at disaster in Japan. The WG1 consulted with the Mineral Resource and Petroleum Agency about the contents of the agreement. NEMA side submitted the revised plan to the Agency in September 2018. Further discussions will be held to confirm the content.

<Set up priority telephone lines on disaster>

While consulting with the Communication and Information Technology Agency, the WG1 is negotiating to conclude the agreement between NEMA and a mobile phone company, UNITEL. The priority connection has technical and institutional issues, and the agreement can be concluded as soon as it resolves. It is expected to be possible by December 2018.

<Waste water treatment and stable water supply at the evacuation place>

The WG1 members are in discussion under the assumption that EMDC and the Water Management Authority / the Facility Service Office of Ulaanbaatar City (hereinafter referred to as "UB City") will make agreements about the water supply and sewerage supply to the evacuation places. The WG1 is also considering about an agreement to utilize school facilities as the evacuation place between EMDC and the Education Office of UB City. This agreement will include matters concerning the usage and management of disaster prevention facilities of schools constructed by Japan's Official Development Assistance Grants.

Activity 1.2.2 To realize training programs for disseminating the agreement mentioned in 1.2.1 and strengthening the coordination structure among organizations related with

disaster risk reduction

The training programs for disseminating the effectiveness of agreement for earthquake disaster response was conducted during the previous reporting period. Based on the experience to conduct the training programs, the draft manual for implementing training programs will be prepared in the WG1 activity.

Activity 1.3.1 To identify problems and challenge of monitoring, report, evaluation and disclosure of disaster protection plan at national and local levels

The activity was completed by the end of the previous reporting period.

Through the study of existing disaster protection plans in Mongolia, the WG1 members decided to prepare four (4) types of Earthquake Disaster Protection Planning GLs in the Project as described in the Activity 1.1.2.

Activity 1.3.2 To revise the plans made in 1.3.1 and make a manual for the revision of disaster protection plan

The pilot activities to revise / newly develop the earthquake disaster protection plan were conducted in the pilot areas, Darkhan-Uul Aimag, Omnugobi Aimag, Bayangol District and Chingeltei District in UB City. The WG1 performed the workshops (hereinafter referred as WS) several times. In the WS, introduction and explanation of the draft GLs, formulation of task force including the members of infrastructure sectors, setting the schedule of developing the protection plan, earthquake risk assessment, making disaster scenario, decision of risk reduction objectives were implemented. Summary of activities is shown in the Table 1.1.

Result of WSs will be feed backed to the draft GLs.

Table 1.1 Pilot Activities for the Revision of Disaster Protection Plans

Pilot Area	WS Name	Date	Number of Participants	Activity
Darkhan-Ulu	WS1	16, 17 May 2018	19	Introduction of GLCheck on existing dataSimple earthquake risk assessment
Aimag	WS2	18, 19 Sep. 2018	12	Introduction of GL Check on existing data Simple earthquake risk assessment
Omunugovi Aimag	WS1	24, 25 May 2018	17	 Establishment of task force group Determination of planning schedule Setting disaster scenario Determination of risk reduction objective
	WS2	28 Sep.	13	Establishment of task force group

Pilot Area	WS Name	Date	Number of Participants	Activity
		2018		 Determination of planning schedule Setting disaster scenario Determination of risk reduction objective
Bayangol District	Joint	28, 29 Aug.	8	Introduction of GLCheck on existing data
Chingeltei District	WS	2018	8	Setting disaster scenarioExtraction of priority items

Activity 1.3.3 To improve the present system which collect and analyze information on disaster risk reduction

The NEMA is responsible for improving the database for disaster related data under the Article 14 "Creating a Disaster Database" of the amended Law on Disaster Protection. From the point of views of carrying out the NEMA's duty in the Law and contributing to the priority actions in "Sendai Framework for Disaster Risk Reduction 2015-2030" in Mongolia, the improvement policy of the present system had been discussed in the WG1 and now following actions are being implemented.

1) Development of Guideline for Operation and Management of Disaster Spatial Database (DSDB)

As described in Activity 1.1.2, the draft GL for Operation and Management of DSDB using I-DSIS is being developed in consideration of detailed work procedure and responsibility in the new division. From the first of September to the middle of October 2018, the sub-WG member and new division staffs discussed the articles and their descriptions of the draft GL, and contents of supplemental technical documents intensively through a series of weekly workshops supported by JET, finally the drafting work of the GL with some annexed documents has been finished at the end of October, 2018. Now the approval process by the head of NEMA as official regulation in NEMA is ongoing.

2) Modification of Existing Information System in the NEMA for Management of Disaster Incident Records

The disaster research institute in NEMA has been gathering and managing recorded data for past disaster events since 2005. Those recorded data are accumulated using MS Excel and almost all tasks to update recorded data which are reported from the local disaster management departments using different report formats are handled by only a few staff in the disaster research institute in NEMA due to shortage of staff.

After establishment of the new division, the rule to gather disaster incident records from

regional offices moved to the new division. And as one of utilization ways to operate DSDB using I-DSIS, the Sub-WG members discussed the better way to accumulate disaster incident records from regional offices in consideration of indicators for monitoring and reporting on progress in achieving the global targets of the Sendai Framework for DRR (hereinafter referred to as "SFDRR"). Then, the Sub-WG members got on the improvement work of existing daily-basis incident report system managed by the Public Announcement and Emergency Administration Centre in NEMA. As of end of October 2018, work on the existing system improvement is ongoing.

3) Making Agreements for Spatial Database Sharing with Related Organizations

The Sub-WG members have spent their time and effort making agreements for spatial database sharing between NEMA and related organizations which have original and unique spatial database regarding topographical maps, estimated seismic intensity zones, results for seismic diagnosis of building and others by aiming to develop better environment of data exchange for DRR related activities in Mongolia.

The official agreement on cooperation and spatial data sharing between the Administration of Land Affairs, Geodesy, and Cartography of Mongolia (hereafter referred to as "ALAGaC") and NEMA has been concluded as the result of a series of discussions about both technical matters and administrative affairs at the middle of April 2018.

For making agreement with the Master Planning Agency of Capital City is still under discussion. The Master Planning Agency has already understood the effects of data exchange for DRR activities in the UB City and both sides have been basically in agreement about this matter. NEMA side contacted to the Master Planning Agency in order to request to move forward in this matter, and both sides confirmed that they will restart discussions about spatial data exchange intensively.

4) Implementation of Training for Utilization of DSDB for DRR in NEMA

For formulating new organization structure for operation and management of DSDB using I-DSIS, assessment and development of human capacity for NEMA Headquarters as well as EMDC and local offices in 21 aimags are one of the key actions. As its first step, the 2-day training for gaining basic knowledge and skill of DSDB utilization using I-DSIS in NEMA was conducted on March 12 and 13, 2018.

On October 24 and 25, 2018, The Sub-WG members conducted 2nd training for operation and management of DSDB using I-DSIS to invite 30 staff from local emergency departments. The main purpose of the training was to gain advanced knowledge enough to operate the system by them. It seems that they could obtain practical knowledge and

experience, and it was not so difficult for them to gain system operation of I-DSIS as many of the trainees has already had basic skill of GIS operations.





Figure 1.1 Scenes of Exercises in the Advanced Training for I-DSIS held on October 24th and 25th 2018

Activity 1.3.4 To elaborate white paper on disaster risk reduction which let the Mongolian people know the progress on implementation, monitoring, evaluation of disaster risk reduction plan at national and local levels through the activities of 1.3.1 and 1.3.2

The manuscript of "Mongolia Disaster Risk Reduction White Paper 2017" was completed in July 2018 and approval from the Director General of NEMA was obtained. At present, the Paper is under the final check of the appearance. It will be published in December 2018. The contents of the Paper are shown in Table 1.2.

Table 1.2 Contents of White Paper

Chapter 1. Current State and Restructuring of the Legal Environment of Disaster Risk Reduction in Mongolia

- 1.1. Mongolian Disaster Risk Reduction Legislation
- 1.2. Disaster Risk Reduction Policy Documents
- 1.3. Structure and Organization of Disaster Risk Reduction Activities.

Chapter 2. Disaster Risk Reduction Activities

- 2.1. Emergencies, Disasters and Accidents that have Occurred in Mongolia in 2017, Measures Taken
- 2.2. Disaster Risk Reduction and Disaster Prevention Activities
- 2.3. Disaster Risk Reduction Training and Awareness-Raising
- 2.4. Measures to Ensure Disaster

Chapter 5. Strategic Reserves and Humanitarian Aid

- 5.1. Documents Related to Strategic Reserves and Humanitarian Aid
- 5.2. Activities Related to Strategic Reserves and Humanitarian Aid

Chapter 6. Earthquake Disaster Prevention Activities

- 6.1. Earthquake Disaster Prevention Standing Committee
- 6.2. Documents Related to Enhancing Earthquake Disaster Prevention Measures
- 6.3. Study of the Faults Near Ulaanbaatar City
- 6.4. Earthquake Emergency Plan for Ulaanbaatar City

Preparedness

- 2.5. Disaster Alerts and Emergency Management
- 2.6. Disaster Risk Reduction Personnel and Equipment
- 2.7. Disaster Risk Reduction Training

Chapter 3. Multilateral Cooperation in Disaster Risk Reduction

- 3.1. International Cooperation in Disaster Risk Reduction
- 3.2. Coordination of Disaster Risk Reduction Authorities
- 3.3. Participation of Non-Governmental Organizations, Community-Based Organizations and Citizens in Disaster Risk Reduction Activities

Chapter 4. Fire Protection

- 4.1. Documents Related to Fire Protection
- 4.2. Activities to Combat Fires

Chapter 7. Disaster Research and Disaster Risk Reduction Research Activities

- 7.1. Research Conducted by the Disaster Research Institute
- 7.2. Disaster Risk Reduction Database

Chapter 8. Disaster Risk Reduction Budget and Investment

- 8.1. Investments from the National Budget
- 8.2. Foreign Investments
- 8.3. Projects and Programs Being Implemented at the National Emergency Management Agency
- 8.4. Compensation for Disaster Victims

Chapter 9. Disaster Risk Reduction Activity
Report for 2017

Appendixes

For the AMCDRR held in July 2018 at UB City, summary of the 2017 White Paper in English was edited by WG1. 1,000 copies of the summary were printed and distributed to the participants of the Conference.

The WG1 members are currently preparing a creation manual of the white paper. This manual explains about following items while reviewing the process of preparing the white paper in 2017:

- Establishment of a white paper preparation working group
- Discussion of composition and contents
- Determination of collection sources
- Collection of materials
- Arrangement of collected materials
- Preparation of manuscripts
- Editing of manuscripts
- Instruction and management of English translation
- Management of editing by a printing company, etc.,

The manual will be prepared by the end of 2018.

Activity 1.3.5 To improve the system of database on seismic strength of buildings, infrastructure and lifeline

As described in the Activity 1.3.3, as one of the considerations of the DSDB development,

the structure of spatial database including items of attributes is being designed to accumulate and manage the result of seismic diagnosis of buildings, infrastructures and lifelines which will be evaluate by appropriate organizations. WG1and WG2 will discuss a feasible way to gather those results from appropriate organizations.

The Sub-WG members are trying to make an agreement for data exchange including the result of seismic diagnosis of buildings with the Master Planning Agency of Capital City. And the WG1 members have a plan to upload the result of earthquake risk evaluation of buildings, infrastructures and lifelines in UB City estimated in the former JICA's project named as "The Project for Strengthening the Capacity of Seismic Disaster Risk Management in Ulaanbaatar City" to the DSDB. If those actions will be concluded, the DSDB will be improved and NEMA will be able to utilize those results for planning of disaster protection.

(3) Output2

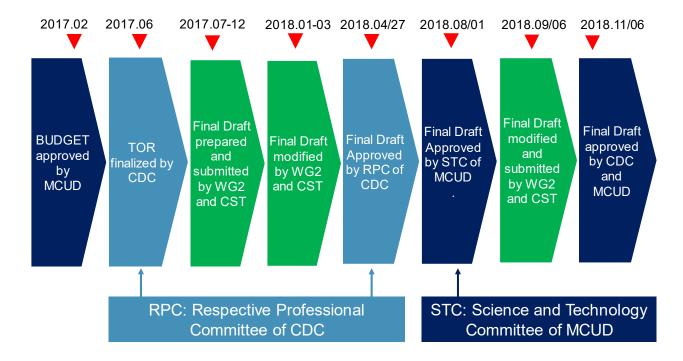
Activity 2.1.1 To analyze the manual of seismic assessment of buildings and lifeline based on the context of the Law of Disaster Protection and develop the draft of revised version

The activity was completed by the end of the previous reporting period.

The WG2 members investigated the current standards and regulations regarding the evaluation of buildings, infrastructure and lifeline structures with personnel of relevant organizations, and followed by the conclusion, issues identified through the investigation will be reflected in the guidelines that will be newly established in the Project.

Activity 2.1.2 To develop guidelines-methodologies which show the method for implementing seismic assessment for buildings and lifelines, and how to use equipment

The WG2 member decided to follow the Mongolian procedure shown in Figure 2.1 to make standards and regulations. In the figure, a tentative schedule is also given.



TOR: Terms of Reference, CDC: Construction Development Centre, CST: Consulting Serves Team NORM: Mongolian Standard

Figure 2.1 Procedure to prepare guidelines

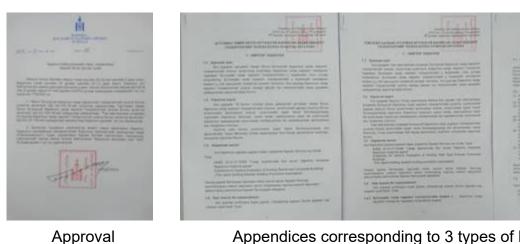
1) Establishment of seismic evaluation guidelines for buildings

In December, 2017, the Consulting Service Team (hereinafter referred as "CST")

submitted the final drafts of GLs for RC, PC and masonry building to CDC followed by some technical comments from the Respective Professional Council (hereinafter referred as "RPC") established by CDC. It is noted that the comments were regarding not only to seismic evaluation but to seismic strengthening, since the guidelines contain both items.

After modifying the draft GLs based on the response policy by WG2 and CST, the drafts were resubmitted to CDC in April, 2018, followed by the approval to submit to MCUD by RPC of CDC. The draft GLs were discussed by Science and Technology Committee (hereinafter referred as "STC") of MCUD in August, 2018, and were finally approved to issue ministerial order.

On 6 November 2018, the GLs were approved by the minister of MCUD as ministerial order as shown in Fig.2.2.



Appendices corresponding to 3 types of buildings
Figure 2.2 Approval on GLs by the Minister of MCUD

The WG2 also conducted 2-day training meeting on September 22 and 23, 2018 using the draft GLs for buildings to transfer the relevant technology for new members in the WG2, since about a half of members were newly assigned in the JCC held in September. 2018.

2) Establishment of seismic evaluation guideline of Infrastructures and lifeline structures

The final draft GL of seismic evaluation for Infrastructures and lifeline structures was discussed by STC of MCUD in December, 2017. However, after MCUD submitted it to the MRTD for their review work since the GL includes not only the structures but also roads and bridges, MRTD requested MCUD to issue a joint ministerial order.

The GL was approved by the minister of MCUD in September, 2018 and was resent to MRTD for approval.

Activity 2.1.3: Implementation of the Training to Improve Knowledge and Ability for Those Who Carry Out Seismic Estimation on Structures and Lifelines

From June 4 to 6, the WG2 conducted the training course for seismic evaluation for RC, PC and masonry buildings at the conference room in CDC in collaboration with MCUD, NEMA, GASI, CDC and MACE. The number of participants including inspectors from GASI and prefectural officers was about 110 that was far beyond the estimation, and it was made clear that they are keenly interested in the new method on seismic evaluation.

The training course included not only lectures and also exercise of evaluation, and special lecture on non-destructive inspection by Prof. Ya.Duinkherjav of Mongolian University of Science and Technology (hereinafter referred as "MUST").



Lecture



Explanation of Equipment

Figure 2.3 Training Course for Seismic Evaluation for Buildings

Following the training course mentioned above, the training course for seismic evaluation for Infrastructures and lifeline structures was held on June 7 also at the conference room in CDC in collaboration with MCUD, NEMA, GASI, and CDC. The number of participants including inspectors from GASI and prefectural officers was 70 that was also beyond the estimation.





Lecture

Awarding Ceremony

Figure 2.4 Training Course for Seismic Evaluation for Infrastructures and Lifeline Structures

One-day training course on seismic evaluation for buildings was also held in Erdenet, Orkhon Aimag on September 8, which was planned as one of the training programs of MACE by being requested by engineers in Erdenet. The training consisted of lectures and exercises, the same as previous ones. The number of the participants was 23 including engineers in a mining company as well as in other companies.

It is noted that all the participants keenly learned the method of seismic evaluation since the program gives them a strong motivation to participate by providing some points needed to obtain qualification. So collaboration with MACE in conducting training course can be one of solutions to disseminate the seismic evaluation technology in Mongolia.



Lecture



Exercise of Seismic Evaluation

Figure 2.5 Training Course for Seismic Evaluation for Buildings held in Erdenet

On November 12, 2018, JICA delivered 5 sets of non-destructive inspection equipment for seismic evaluation to NEMA. Following this, WG2 conducted 2-day training course regarding to the equipment on November 12 to 13, 2018 at the conference room of CDC.

The number of participants including not only governmental offices bat also private companies was 64 that was beyond the estimation. Lecturers consisted of WG members, Japanese experts and some from Mongolian private sectors, so that the training course could include the topics on usage instruction of the equipment as well as the its application in seismic evaluation.

It is noted that this training course includes some exercise, such as concrete strength measurement and re-bar's location and diameter measurement. Questionnaire survey on the training course said that many of participants were satisfied with the exercise. Materials and sample specimens prepared for this training course will be used in the future courses.



Group Photo



Exercise of Strength Measurement



Lecture using Handy Camera



Exercise of Re-bar Measurement

Figure 2.6 Training Course for Equipment for Seismic Evaluation

Activity 2.2.1 To develop guidelines-methodologies on seismic strengthening and reconstruction of buildings

The WG2 members decided that seismic evaluation and seismic strengthening should be 22

3-143

combined in one GL for each structure except for Infrastructures and lifelines, since seismic evaluation and seismic strengthening are strongly related to each other.

As mentioned before, GLs were approved by minister of MCUD on November 6, 2018.

Activity 2.2.2: Trial Design of Rebuilding and Strengthening Construction for Housing, Kindergartens, Schools, Hospitals and Government Buildings

The WG2 members discussed the selection of model buildings that will be used in the trial design. Based on the work plan five buildings with various usage and structural type were selected as shown in Table 2.1. The location and external appearance of the buildings are summarized in Fig.2.7.

Structural Type	Usage	Name	Location	Note
	Kindergarten	No. 105	Songino	Constructed with standard
	Killdergarten	Kindergarten	Khairkhan District	design drawings
Massanni	School	No. 97 School	Bayanzurkh	Constructed with standard
iviasorii y	Masonry School	No. 97 School	District	design drawings
	Public Office	NIENAA	Sukhbaatar	Public office necessary for
		NEMA	District	emergency response
DC	Hoopital	No.1 Gynecology	Sukhbaatar	One of few RC hospital
RC Hospital		Hospital	District	buildings
DC.	Apartment House	9-Storey	Payangal District	Apartment house based on
PC	Apartment House	Apartment	Bayangol District	standard design

Table 2.1 Model buildings for seismic strengthening

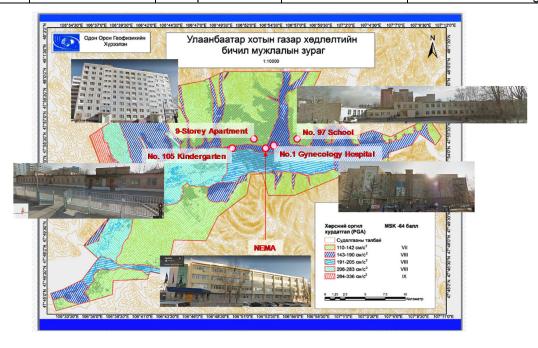


Figure 2.7 Location and External Appearance of Model Buildings for Trial Design

The data necessary for strengthening design for these buildings, such as design drawings, calculation sheets, report of existing seismic evaluation and so on were collected and arranged by WG2, followed by the precise seismic evaluation by which trial strengthening design will be conducted.

Figure 2.8 shows the example of strengthening design for RC hospital building. The upgrading of capacity of building is summarized in Fig.2.9, by which it can be seen that the building is properly strengthened.

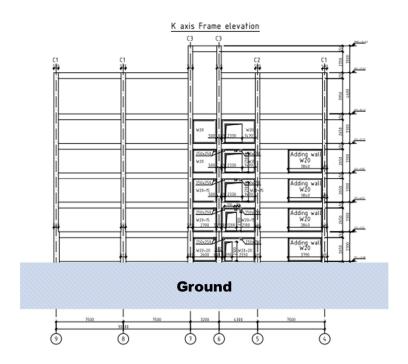


Figure 2.8 Example of Strengthening the RC building by Additional Walls

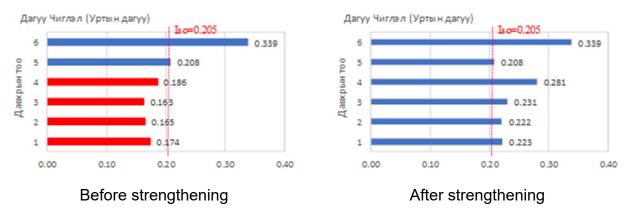


Figure 2.9 Increment of Building Capacity by Additional Walls

(4) Output3

Activity 3.1.1 To develop a guideline which shows contents, method and implementation way of disaster risk reduction (DRR) education in kindergarten and primary and secondary schools based on Law of Disaster Protection

The activity was completed on April 6, 2018 (within the previous reporting period) with the approval of the guideline titled "The Program for Life Safety Education".

Activity 3.1.2: To develop educational materials such as textbooks and supplementary readers for DRR education in kindergarten and primary and secondary schools

The writing and editing work of the "Guidebook" for teachers' lessons as an annex of the "The Program of Life Safety Education" was continuously proceeded through the workshop in September 2018 and the individual works by the working group members.

Further, the contents of the draft Guidebook was introduced in the training programs for the instructors (Activity 3.1.3). Based on the lessons and good practices learned in the programs, the draft Guidebook has been reviewed in October and November 2018. The final Guidebook will be compiled by the end of January 2019 by the individual works of the working group members and working group meetings.

Activity 3.1.3: To implement training programs for the instructors of Teacher Training Institutes and experts of educational departments in local governments, using the guideline and materials developed in 3.1.1 and 3.1.2 respectively.

Through the discussion of the operation and logistic matters of the training in June and July 2018, implementation plan of the training was slightly changed. The working group members decided to have a pre-workshop for trial implementation of the training for the officers of the Education Research Institute and Institute of the Teacher's Professional Development to confirm the program and methods of the training in advance of the training. As a result, the pre-workshop and the training programs for three educational levels were conducted as shown in the table below.

Table 3.2 Final implementation plan of training programs

	Pre-Workshop	Training (Batch 1)	Training (Batch 2)
Location	UB City	UB City	UB City
Date	11-13 September 2018	18-21 September 2018	8-11 October 2018
Target	Officers of Education	Teacher's Instructors/	Teacher's Instructors/
Participants	Research Institute and	Educational Supervisors of	Educational Supervisors of
	Institute of Teacher's	Primary and	Pre-School Education
	Professional Development	Lower-Secondary	
		Education	
Number of	Total 50 persons	2 persons from Education	1 persons from Education

Trainees	Department	of each Department of ea	ach
	provinces ar	nd districts provinces and dis	stricts
	(Total 60 per	rsons) (Total 30 persons	s)

The contents of the training were mainly as shown in the below table and slightly changed in each program considering the target participants.

Table 3.3 Main Contents of the Training Programs

Day 1	Day 2	Day 3	Day 4
Keynote Talk:	Workshop 2: Disaster	Lecture 6: Outline of Life	Lecture 7: Abilities of 21st
Global Framework of	Response Educational	Safety Education Program	Century Learner and
DRR and DRR Education	Game: Cross Road	Workshop 7: Introduction	Educational Assessment
Life Safety Ability and	Lecture 4: Training	of Outline of the Guidebook	Lecture 8: Disaster
Education Policy in	Program for School Safety	and Integration of DRR	Management and
Mongolia	and DRR Education for	Education into Other	Education during Disasters
3) Legal System of Disaster	Various Targets in Japan	Subjects	in Pre-School and School
Management and DRR	Workshop 3: DRR	Workshop 8: Trial Lesson	Workshop 8: Risks in Your
Education in Mongolia	Education Lessons based		Home
Experience Program:	on the Education Plans		Workshop 9: Planning of
Experience of the	Lecture 5: DRR Education		Life Safety Education in
Education Program of	Material "Be Ready!"		Pre-school and School
Citizens DRR Training	Workshop 4-6: DRR		Workshop 10: Planning of
Center	Education Lessons using		Training Program for
Lecture 1: Basic	"Be Ready!" materials:		Teachers on "Life Safety
Understanding of Disasters	Fire Prevention and		Education"
and DRR	Response		
Lecture 2: Basic	Earthquake		
Understanding of DRR	Preparedness and		
Education and Example of	Response		
DRR Education in Japan	Appropriate Use of		
Lecture 3: Introduction of	Chemical Material at		
the "DRR Experience	Home		
Program - Everybody be			
ready at anytime and			
anywhere-"			
Workshop 1: "DRR			
Experience Program -			
Everybody be ready at			
anytime and anywhere-"			







Figure 3.1 Pre-Workshop (Left), Training for Primary and Secondary Education (Middle) and Training for Pre-School Education (right)

After the training programs, the WG3-1 members had review meeting and some follow-up activities were proposed. Among them were to incorporate the life safety education training into the regular training program for teachers provided by Institute of Teacher's Professional Development, and to conduct model activities in some selected kindergarten and schools as good reference for activities in aimag and district. Bseides, the result of the questionnaire to the participants on the trainings was compiled as shown in the below figure. Further discussion for future training will be done in March 2019.

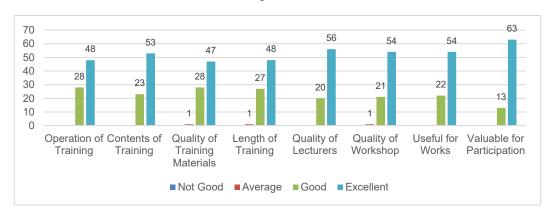


Figure 3.2 Result of the Questionnaire of the Training

Activity 3.1.4 To implement the training program for teachers by the instructors and experts who received the training programs mentioned in 3.1.3

WG3-1 members decided to conduct model activities in some selected kindergarten and schools in March 2019 and started coordination.

Activity 3.2.1 To develop comprehensive work plan for disaster risk reduction education and raising awareness at national and local levels

<Webpage for sharing the DRR training schedule>

During WG3-2 Meeting on 25 June 2018, members discussed the items (columns) for the schedule and the data entry system. In October and November 2018, JET and NEMA examined the specification of the website layout, authority for editing and inputting and operational rules. The development of website will be completed by end of January 2019.

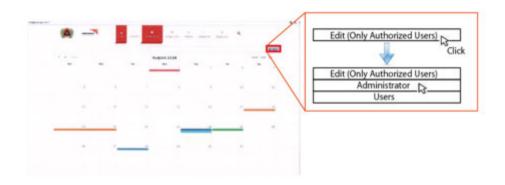


Figure 3.3 Draft Image of the Website for Training Schedule

Activity 3.2.2 To develop materials for the training on disaster risk reduction education and raising awareness, and implement the training for the target groups in pilot areas

Based on the review of the ToT and the workshops as well as the event in the school, the WG3-2 members revised and finalized the Instructor's Manual of "DRR Experience Program – Everybody be ready at anytime and anywhere-" for wide dissemination of the activities in Mongolia. Contents of the Instructor's Manual includes step-by-step process and items to prepare for each training.



Figure 3.4 Contents of the Training Program

The JET printed out the Instructor's Manual and distributed to nine districts in UB city and all aimags to promote implementing the program. In addition, NEMA obtained funding from MRCS to print out additional 1,000 copies for MRCS volunteers to implement the training. The soft copy of the manual are also available on the NEMA website so that everyone can download the contents.

The training equipment used in the TOT and community workshops is stored in EMDC office and rent for those who are interested in conducting the training program.

Activity 3.2.3 To develop and implement educational and training program for implementing disaster prevention and simulation program in Training Center

<Panels for the Earthquake Experience Room>

WG3-2 members appointed one of the instructors of the Disaster Protection Training and Methodology Centre as a person in charge of the panel development. After the discussion in the several meetings in September 2018, the panels to be developed were decided as shown in the below table.

Table 3.4 Contents of the Panels (draft)

- 1) Basic Precautions for the Experience of Shaking Table

- Basic Mechanism of Earthquake
 World Earthquake Map
 Basic Information of the Great Hanshin-Awaji Earthquake
- 5) Basic Information of the Kumamoto Earthquake
- 6) Basic Information of the Niigata Chuetsu Earthquake
- 7) Basic Information of Earthquake in Mongolia (Active Faults, Observation Data, etc.)
- 8) Basic Information of the Past Earthquake in Mongolia
- Earthquake Risks in Mongolia (simulation data, pictures of 1988 Spitak Earthquake, etc.)
- 10) Earthquake Preparedness: Prevention of Furniture Toppling
 - *4)-6) for as information of shakes of the Shaking Table

The JET provided technical advices, information, materials and data for the panel development through some meetings in September, October, and November 2018. Also, the coordination for the data to be used in the panels was made with IAG (Institute of Astronomy and Geophysics) and other relevant activities in October and November 2018.

<Miniature Building Models for learning Seismic Resistant Structure>

WG3-2 members appointed one of the instructors of the Disaster Protection Training and Methodology Centre as a person in charge of the development of miniature building models. To support the development work of the appointed person, some meetings were conducted for providing technical advices to develop the models throughout the period from June to November 2018.



Figure 3.5 Trial Models for the Miniature Building

<Educational material: DRR Quiz for Kids' Room>

Also, one of the instructors of the Disaster Protection Training and Methodology Centre was appointed as a person in charge of the development of the Kids' Room Educational materials. She attended the training program for instructor targeted the Pre-school

Education and enhanced understanding of education materials for kids. Through further discussion in the WG3-2 meeting, the materials to be developed will be decided.

1-3 Achievement of Output

(1) Output1

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

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

Achievement in this term:

The WG1 has a plan to develop two (2) types of Earthquake Disaster Risk Assessment GLs, four (4) types of Earthquake Disaster Protection Planning GLs and one (1) Disaster Database GL.

Regarding Earthquake Disaster Risk Assessment GLs, the draft of comprehensive GL with application software for simplified calculation of earthquake risk was developed and is tried out in the pilot activity of earthquake disaster protection planning. On the other hand, drafting the detailed GL is still ongoing by the WG1 member.

Regarding Earthquake Disaster Protection Planning GLs, Aimag / Soum Level and Capital City / District Level have been developed. On the other hand, National Level and State Services Level is under development.

Regarding disaster database GL, the drafting work of the GL with some annexed documents has been finished at the end of October, 2018. Now the approval process by the head of NEMA as official regulation in NEMA is ongoing.

1.2 The number of the draft of agreement developed and participants who participated in the training programs on agreements

Achievement in this term:

Following two (2) fields of agreement were signed in the period from June 2018 to November 2018.

- Stable supply of foods and water to evacuation places and temporary housings: The agreement was signed on 16 October 2018 between NEMA and the MOFA.
- Stable supply of medicines during disaster: The agreements between MOH and three major pharmaceutical sales companies were signed on 7 November 2018.

Draft agreements are under discussion with following sectors.

- Supply of construction materials and temporary housings
- Stable transport and securing road transport during disaster
- Stable fuel supply during disaster
- Set up priority telephone lines on disaster
- Waste water treatment and stable water supply at the evacuation place

In order to test the effectiveness of agreement for earthquake disaster response, and to demonstrate good practice of agreement to promote agreement in health sector to other sectors, a joint training was made on April 9, 2018 in UB City. A total of 38 participants from various sectors jointed the training.

1.3 White paper on disaster risk reduction

Achievement in this term:

The manuscript of "Mongolia Disaster Risk Reduction White Paper 2017" was completed in July 2018 and approval from the Director General of NEMA was obtained. At present, the Paper is under the final check of the appearance.

(2) Output2

The following two indicators are applied to evaluate the achievement of the Output 2 based on the PDM.

<u>2.1 Guideline for seismic assessment: The number of the participants in the training program on seismic assessment</u>

The achievement in this term:

The WG2 completed the four (4) types of GLs for seismic evaluation of buildings (RC, PC and Masonry) and infrastructures and lifelines. The GLs for buildings were approved by the minister of MCUD on November 6, 2018 and will be published. On the other hand, GL for infrastructures and lifeline structures was also approved by the minister of MCUD and is waiting for one by the minister of MRT for a joint ministerial order.

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

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

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

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

The achievement in this term:

The WG2 members decided that seismic evaluation and seismic strengthening should be combined in one GL for each building structure except for Infrastructures and lifelines. As mentioned above, the WG2 completed the three (3) types of GLs for seismic evaluation including seismic strengthening of buildings (RC, PC and Masonry) and they were approved by the minister of MCUD on November 6, 2018.

(3) Output3

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

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

Achievement in this term:

The WG3 developed the GL in April 2018 and is still in the process for preparing teaching materials for DRR education and raising awareness, and it has not reached the stage of evaluation with quantitative indicators.

3.2 The number of visitors in Training Center

Achievement in this term:

The WG3 is preparing the improved training program and educational materials for DRR education and raising awareness for the Training Center, and it has not reached the stage of evaluation with quantitative indicators.

1-4 Achievement of the Project Purpose

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

1. The number of the approved guidelines and agreement

2. The number of the data on disaster risk reduction which newly established and improved

The achievement in this term:

Activities for developing GLs, agreements, and necessary materials have been continued at each WG. In order to ensure sustainability after the Project, each activity is planned and implemented so that GLs and other related outputs which will be developed in the Project are approved by NEMA, MCUD or MECSS through their standard procedures. The existing status of developing related documents are as below;

Documents Prepared in each Activity		Administrative Jurisdiction	Existing Status of Development
Output1	National Earthquake Disaster Protection Planning GL	NEMA	Now work in process.
	State Earthquake Disaster Protection Service Planning GL	NEMA	Now work in process.
	Aimag / Soum Level Earthquake Disaster Protection Planning GL	NEMA	Draft GL was completed. It will be updated or revised based on the feedbacks from pilot aimags.
	Capital City / District Level Earthquake Disaster Protection Planning GL	EMDC	Draft GL was completed. It will be updated or revised based on the feedbacks from pilot districts
	Earthquake Disaster Risk Assessment GL	NEMA	Draft GL for Comprehensive version was updated base on comments from the JET. Only the framework of draft GL for detailed version was confirmed.
	GL for Operation and Management of Disaster Spatial Database (DSDB)	NEMA	The drafting work of the GL with some supplemental documents has been finished and approval process by the head of NEMA as official regulation in NEMA is ongoing.
	Agreements	NEMA or other related organizations	Two (2) fields of agreement were signed in this reporting period. Five (5) draft agreements were prepared.
	White Paper	NEMA	"Mongolia Disaster Risk Reduction White Paper 2017" was completed
Output2	Seismic Evaluation and Retrofitting	MCUD	The GL was approved by the minister

Documents Prepared in each Activity		Administrative Jurisdiction	Existing Status of Development
	Method of Existing Reinforced Concrete Buildings		of MCUD on November 6, 2018.
	Seismic Evaluation and Retrofitting Method of Existing Wall Type Precast Concrete Buildings		The GL was approved by the minister of MCUD on November 6, 2018.
Seismic Evaluation and Retrofitting Method of Existing Masonry Buildings Seismic Evaluation Method of Infrastructures and Pipelines		MCUD	The GL was approved by the minister of MCUD on November 6, 2018.
		MCUD	The GL was approved by the minister of MCUD, and is waiting for approval by the minister of MRT for joint ministerial approval.
Output3	Life Safety Education Program	MECSS	Approved on April 6th 2018
	Guidebook for Life Safety Education	MECSS	Now work in process.
	Instructor's Manual (with DVD) for Community DRR Training	NEMA	Completed and printed 150 copies in August 2018.

1-5 Changes of Risks and Actions for Mitigation

(1) Output1

1) Frequent Change of Person in Charge and Vacancy of Position

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

However, these two members were transferred together in 2018 and the successors have not been decided. The two GLs are for the national level disaster protection planning and must be coordinated with the Standing Committee for Earthquake Disaster Protection and other ministries and related agencies. It seems that this work will take a considerable time, therefore, the successors must be decided as soon as possible.

2) Preparation Work of the White Paper 2018

Although the white paper 2017 has been completed, the preparation work for 2018 version has not started yet. In order to issue the 2018 version at an appropriate time, the preparation work must start soon. WG1 have to urge the preparation of the manuals and

inform it to each department in NEMA for the formulation of the Working Group for the 2018 Paper. Since the 2018 version is issued during the Project period, JET must work on NEMA side so that better white paper can be created.

3) Upgrading the existing disaster incident reporting system in consideration of SFDRR Indicators

There were some challenges regarding the way to gather detailed metadata for disaster incident in consideration of SFDRR indicators. The WG1 members discussed the effective and efficiency way to deal with this matter, and they decided to upgrade the exiting disaster incident reporting system managed by Disaster Operation and Early Warning Command Centre, NEMA. Now the Sub-WG members are upgrading the system interface and a part of the database corresponding to SFDRR indicators. The Sub-WG members should pay attention to finish the task of the system upgrading on schedule and conduct appropriate trainings for operation of upgraded system for staffs in charge of encoding data of disaster incidents at the local emergency management offices.

(2) Output2

1) Relocation of Persons in charge of Seismic Evaluation and Strengthening

About half of WG2 members including some key persons were relocated before 6th JCC. Since all the members are expected to disseminate the methods within their field of work rather than to establish guidelines themselves.

So, it is an urgent matter to give the new members the necessary information and technologies to catch up with the other members as soon as possible. For this, two-day workshop was held to transfer the technologies.

2) Delay in Approving the Guidelines Established

Though ten (10) months have passed since the GL for seismic evaluation for Infrastructures and lifeline structures was approval by science and technology committee of MCUD, the ministerial order is not issued. WG2 discussed this situation and concluded that the WG2 leader, L.Bilegjargal will watch the approval status and take the appropriate action in case of necessary.

(3) Output3

1) Coordination with Other Projects for Website Development

The development of comprehensive schedule website delayed due to frequent changes of

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

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

1-6 Progress of Actions undertaken by JICA

The process of procurement of the equipment of earthquake simulation experience for the Disaster Protection Training and Methodology Center was started by JICA Headquarters. The shipment of the equipment was arrived on October 20, 2018 in UB City.

Japanese side requested that Mongolian side should complete all advance preparations based on the Operation and Maintenance (hereinafter referred to as "O&M") Plan approved in the 3rd JCC held on June 26, 2017.In addition, Japanese side also requested that Mongolian side shall implement essential countermeasures against further inundation since the underground floor of the Centre was intruded by ground water after heavy rain in early September 2018.

1-7 Progress of Actions undertaken by Gov. of Mongolia

Before installing the equipment of earthquake simulation experience for the Disaster Protection Training and Methodology Center, Mongolian side has a duty to improve the slab of earthquake experience room with protection works for water intrusion and make a commitment to prevent whole ground floor in the Center from the intrusion of ground water by securing a budget for water protection countermeasures.

1-8 Progress of Environmental and Social Considerations (if applicable)

N/A

1-9 Progress of Considerations on Gender/Peace Building/Poverty Reduction (if applicable)

N/A

1-10 Other remarkable/considerable issues related/affect to the project (such as other JICA's projects, activities of counterparts, other donors, private sectors, NGOs etc.)

N/A

- 2. Delay of Work Schedule and/or Problems (if any)
- 2-1 Detail

N/A

2-2 Cause

N/A

2-3 Action to be taken

N/A

2-4 Roles of Responsible Persons/Organization (JICA, Gov. of Mongolia, etc.)

N/A

3. Modification of the Project Implementation Plan

3-1 PO

N/A

3-2 Other modifications on detailed implementation plan

(Remarks: The amendment of R/D and PDM (title of the project, duration, project site(s), target group(s), implementation structure, overall goal, project purpose, outputs, activities, and input) should be authorized by JICA HDQs. If the project team deems it necessary to modify any part of R/D and PDM, the team may propose the draft.)

N/A

4. Preparation of Gov. of Mongolia toward after completion of the

Project

In this term, the specific policy and actions are not discussed yet.

II. Project Monitoring Sheet I & II as Attached

Project Monitoring Sheet I Ver. 5.0 (Term: June, 2018 - November, 2018)

Version 5 Dated December 11, 2018

Project Title: Project for Strengthening the National Capacity of Earthquake Disaster Protection and Prevention in Mongolia

Implementing Agency: National Emergency Management Agency (NEMA)

Target Group: NEMA, Ministry of Construction and Urban Development, Ministry of Education, Culture and Science, General State Inspection Agency, Emergency Management Department of the Capital City (EMDC), Construction Quality and Safety Department, Master Planning Agency of Capital City

Period of Project: December 2016 to November 2019

In order to ensure sustainability after the Project, each WG makes it a goal to get an approval of guidelines and other related outputs which will be developed in the Project from NEMA, MCUD or MECSS through their standard procedures. 2) Seismic Evaluation and Retrofitting Method of Existing Wall Type Precast Concrete **2.1 & 2.2:** The WG2 has a plan to prepare following GLs, 1) Seismic Evaluation and Retrofitting Method of Existing Reinforced Concrete (RC) (PC) Buildings

3) Seismic Evaluation and Retrofitting Method of Existing Masonry Buildings
4) Seismic Evaluation Method of Infrastructures and Pipelines One (1) disaster database GL. 1) GL for Operation and Management of Disaster Spatial Database (DSDB) 2) State Earthquake Disaster Protection Service Planning GL 3) Aimag / Soum Level Earthquake Disaster Protection Planning GL 4) Capital City / District Level Earthquake Disaster Protection Planning GL Set up priority telephone lines on disaster
Waste water treatment and stable water supply at the evacuation place 1.2: Draft agreements are under discussion with following sectors. Two (2) types of Earthquake Disaster Risk Assessment GLs 1) Comprehensive Earthquake Disaster Risk Assessment GL 2) Dealied Earthquake Disaster Risk Assessment GL Pout (4) types of disaster protection planning GLs 1) National Earthquake Disaster Protection Planning GL Supply of construction materials and temporary housings Stable transport and securing road transport during disaster Stable fuel supply during disaster 1.1: The WG1 has a plan to prepare following GLs, Buildings 2.1 & 2.2: The GLs for buildings were approved by the minister of MCUD on November 6, 2018 and will be published. The GL for nfrastructures and lifeline structures was also approved by the minister Stable supply of medicines during disaster: The agreements between MOH and three major pharmaceutical sales companies were signed on 1.1: Regarding Earthquake Disaster Risk Assessment GLs, the draft of Regarding disaster database GL, the drafting work of the GL has been inished at the end of October, 2018. Now the approval process by the Stable supply of foods and water to evacuation places and temporary 1.3: "Mongolia Disaster Risk Reduction White Paper 2017" was completed in July 2018. At present, the Paper is under the final check of Training course of seismic evaluation for buildings in UB city on June t to 6, 2018: 110 trainees. 1.2: Following two (2) fields of agreement were signed in this reporting Soum Level and Capital City / District Level have been developed. On Training course on non-destructive inspection equipment for seismic evaluation in UB city on November 12 to 13, 2018: 64 trainees. ousings: The agreement was signed on 16 October 2018 between VEMA and the MOFA. Training course of seismic evaluation forinfrastructures and lifeline structures in UB city on June 7, 2018: 70 trainees. omprehensive GL was developed. On the other hand, drafting the Training course on seismic evaluation for buildings in Erdenet on Activities for developing Guidelines (GLs), agreements, and necessary materials have been continued at each WG. egarding Earthquake Disaster Protection Planning GLs, Aimag / of MCUD and is waiting for one by the minister of MRT for a joint ne other hand, National Level and State Services Level is under ead of NEMA as official regulation in NEMA is ongoing. September 8, 2018: 23 trainees. etailed GL is still ongoing. November 2018. inisterial order e appearance. levelopment. eriod. The policy on disaster risk reduction wil Education continue to work in the same 4. Exchange information is maintained among the related organizations. NEMA expands the pilot activities in other aimags and sums. continue to work in the same position. The counterparts from NEMA, the Ministry of Construction and Urban Participants in training programs Development and the Ministry of Important Assumption The relation among related not be changed in Mongolia. organizations is maintained. Means of Verification Study by NEMA Project report . The number of the approved guidelines and Project report Project report The number of the participants in the training program on seismic assessment . Number of the seismic strengthed building developed and participants who participated in the training programs on agreements . Number of the approved guideline, rules, Objectively Verifiable Indicators .1 The number of guidelines, operational The number of the data on disaster risk reduction which newly established and .3 White peper on disaster risk reduction 1.2 The number of the draft of agreement .. Number of white paper open to public Number of implemented activities on 2.2 Guideline for seismic strengthening The number of the traning program on rules, provisions which are developed. 2.1 Guideline for seismic assessment . Number of the executed seismic saster risk reduction education agreement through the activities for strengthening disaster risk reduction and coordination Management Agency will be enhanced assessment and seismic strengthening he countermeasures for seismic risk. he Capacity of National Emergency among related organizations will be Capacity of public administration Capacity for data collection on officer related with the seismic for buildings will be enhanced. Project Site: Mongolia Narrative Summan Seismic risk will be reduced. Outputs

3.1: The WG3 developed the GL in April 2018 and is still in the process 3.1: The GL for DRR education itled "The Program for Life Safety Education" was for preparing teaching materials for DRR education and raising approved by MECSS on April 6th 2018. Approved by MECSS on April 6th 2018. Approved by MECSS on April 6th 2018. Approved by MECSS on April 6th 2018.	
3.1: The WG3 developed the GL in April 2018 and is still in the process for preparing teaching materials for DRR education and raising awareness, and it has not reached the stage of evaluation with quantitative indicatios.	The WG3 is preparing the improved training program and educational materials for DRR education and raising awareness for the Training Center, and it has not reached the stage of evaluation with quantitative indicators.
Ordinance of Ministry of Education, Culture and Science	Ordinance of NEMA
3.1 The number of the cases of delivering lasses on disaster risk reduction based on the activities of the Project	3.2 The number of visitos in Training Center
3. Implementing plan on disaster risk reduction education and awareness raising activities will be developed and	lealized.

Activities		Inputs	Important Assumption
	The Mongolian Side	The Japanese Side	
1.1.1 To identity problems and challenges on implementation of legal frameworks of disaster risk reduction	Assignme	Dispatch of Experts	
1.1.2 To develop guidelines on improvement of legal frameworks and plans, assessment of disaster risk and	d - Project Uirector I- Project Managers	- Leader - Disaster Risk Management	Pre-Conditions
מממממס כו חופמסוני ווא במתכיניו	- Project Coordinator	- Disaster Risk Reduction Framework	
1.1.3 I o develop new regulation and the drafts(note 1-1)) of revised version of regulation on implementation of Law of disaster protection	- Project Members	- Disaster Risk Reduction Information - Seismic Strengthening Assessment	•
1.2.1 To develop the draft of the agreement (note 1-2)) which shows the coordination and cooperation	For Output 1	- Seismic Strengthening Method	
among NEMA and related organizations	- Policy Coordination and Cooperation	- Seismic Strengthening Design Disaster Bisk Beduction Education	< ssues and countermesures>
.2.1 and strengthening	- Disaster Operational Department,	- Disaster Risk Reduction at Commnity Level	(1) Output1: Frequent Change of Person in Charge and Vacancy of Position: Two
the coordination structure among organizations related with disaster risk reduction	NEMA	- Educational Material Development	Hembers III charge of Induction Service Planning GL and State Farthquake Disaster Protection Service Planning GL "were transferred together in 2018
g, report, evaluation and disclosure of disaster	 Disaster Prevention Department, NEMA 		and the successors have not been decided. The two GLs are for the national level
	- Disaster Research Institute, NEMA	Provision of Equipment	disaster protection planning and must be coordinated with the Standing Committee for Earthmake Disaster Protection and other ministries and related agencies. It seems that
1.3.2 To revise these plans and make a manual for the revision of disaster protection plan	- Emergency Management Department		this work will take a considerable time, therefore, the successors must be decided as
1.3.3 To improve the present system (note 1-4)) which collect and analyze information on disaster risk reduction	of Capital City (EMDC)	 Earthquake simulation experience equipment for Training Center such as shaking table 	soon as possible. (2) Output1: Preparation Work of the White Paper 2018: The preparation work for
1.3.4 To develope white paper on disaster risk reduction which let the Mongolian people know the progress			2018 version has not started yet. In order to issue the 2018 version at an appropriate time, the preparation work must start soon WG1 have to use the preparation of the
on implementation, monitoring, evaluation of disaster risk reduction plan at national and local levels through		Training in Japan and/or the third countries	manuals and inform it to each department in NEMA for the formulation of the Working
III delivities of 1.3.1 to 1.3.3			Group for the 2018 Paper. Since the 2018 version is issued during the Project period, JET must work on NEMA side so that better white paper can be created.
1.3.5 To improve the system of database on seismic strength of buildings, infrastructure and lifeline (note 1-			(3) Output1: Upgrading the existing disaster incident reporting system in
ie (note 2-1)) based on the context			consideration of SFDRR Indicators: The WG1 members decided to upgrade the
	- Disaster Operational Department,.		exiting disaster incident reporting system managed by Disaster Operation and Early Warning Command Centre NEMA in order to cather detailed metadata for disaster
2.1.2. To develop guidelines-metriodologies (note 2-2.)) which show the metriod for implementing seismic	NEMA		Incident in consideration of SFDRR indicators. Now the WG1 members are upgrading
knowledge and capacity of experts who	- Disaster Prevention Department,		the system interface and a part of the database corresponding to SFDRR indicators. The
	Ministry of Construction and Hrhan		WG1 members should pay attention to finish the task of the system upgrading on
2.2.1 To develop guidelines-methodologies on seismic strengthening and reconstruction of buildings	Development		schedule and conduct appropriate trainings for operation of upgraded system for staffs in charge of encoding data of disaster incidents at the local emergency management
2.2.2 To support the introduction and dissemination of seismic strengthening techniques for reconstructing	- Master Planning Agency of Capital		offices.
collective housing, kindergarden, schools, hospital, national buildings and design the reconstruction and	Oity		(4) Output2: Relocation of Persons in charge of Seismic Evaluation and
seismic strengthening of each type of buildings a pilot	- General State Inspection Agency		Strengthening: About half of WG2 members including some key persons were
2.2.3 To realize training programs with the participation of NEMA for enhancing knowledge and capacity of			relocated before on JCC. Since all the members are expected to disseminate the methods within their field of work rather than to establish quidelines themselves
the experts who implement seismic strengthening of buildings			So, it is an urgent matter to give the new members the necessary information and
3.1.1 To develop a guideline which shows contents, method and implementation way of disaster risk	For Output 3		technologies to catch up with the other members as soon as possible. For this, two-day
	- Disaster Prevention Department,		Workshop was held to translet the technologies. I(5) Output2: Delay in Approving the Guidelines Established: Though ten (10)
3.1.2 To develop textbooks, supplementary readers and eduational materials related with disaster risk	NEMA		months have passed since the GL for seismic evaluation for Infrastructures and lifeline
reduction education in kindergarten and primary and secondary schools	- Ministry of Education, Culture and		structures was approval by science and technology committee of MCUD, the ministerial
3.1.3.To implement training programs for the instructors (note 3.1)) of Teacher Training Institutes and	Science - Teacher Training Institute		order is not issued. WG2 discussed this situation and concluded that the WG2 leader, L. Rilegiannal will watch the approval status and take the appropriate action in case of
5.1.3 to hippenent valuable programs for the instructors (note 5-1) or reacher training instructes and experts of educational department in local governments, using the guideline and materials developed in	- readiel mailing institute - Educational Research Institutte		Diegjargar wir water ure approvat status and take tire appropriate action in case of inecessary.
3.1.1 and 3.1.2 respectively	- Emergency Management Department		(6) Output3: Coordination with Other Projects for Website Development: The
	at aimag level		development of comprehensive schedule website delayed due to frequent changes of
am for teachers by the instructors and experts who received the	,		NEMA's information sharing platforms funded by other donors. Eventually, ADPC's website platform to chare donor's information suspended due to technical difficulties and
ualimity programs memoried in 3.1.3 3.2.1 To develop comprehensive work plan (note 3-2)) for disaster risk reduction education and raising			NEMA developed different platform funded by the World Vision Mongolia. This change
awareness at national and local levels			was informed to JET after developed the platform, which made unifying the entry form
3.2.2.1 of develop materials for the training on disaster risk reduction education and raising awareness, and implement the training for the t			difficult. Fifol cool diffactor afford agencies that develop web platform to similar purpose was indispensable as well as understanding the overarching vision and goal for
13.2.3 To develop and implement educational and training program for implementing disaster prevention and			information sharing as DRR focal agency.
simulation program in Training Center			After recognizing the differences of the web platform system among the relevant

- 1-11 Amended Law of Disaster Protection "8.2 Rules of risk evaluation", "9.3 Guidelines and methodologies to develop disaster management plan", "12.1 Guidelines for preparation system", and "13.2 Rules and regulations of disaster management", and etc.. 1-2) Contracts, cooperation plan and MoU are equivalent to agreement mentioned in the PDM 1-3) National level, UB city and two provinces are the target areas
- 1-4) Improvement of existing "Disaster Information Sharing System".
 1-5) Improvement of existing "Disaster Information Sharing System" (Components of the database system of UB city are under investigation).
 2-1) Buildings: Buildings, Road and Bridge Lifeline: Warm water pipeline, Water supply and sewerage, electric transmission and distribution facilities.
 2-2) Guidelines are regarded as operational guidelines by Resolution of Minister.
- 2-3) Target Ministry of Construction and Urban Development, Ministry of Education, Culture and Science, UB city, General State Inspection Agency, province level officers in charge of buildings, infrastructure and lifeline, association of architects, association of design engineers etc.
- A document to clarify the targets, implementers and instructors of public education and training, and the ocntents of required education and training activities for the purpose of ensuring of nationwide implementation of education and training program to all the necessary target stakeholders 3-1) Instructors of Institute of Teacher's Professional Development, experts of training departments of provinces and cities, and certificated teacher's instructors
- 3-3) Target groups: (1) Staff of NEMA Disaster Prevention Department, Training Center, and Emergency Management Departments of Cities, Provinces, and Districts, (2) Members in charge of disaster Prevention in Disaster Protection Services at National, Province and City levels, (3) Heads of Geovernor's offices of Provinces, Sourns, and Districts (4) Heads of Bags and Khoroos, (5) Coordinators of civil activities in Provinces, Districts, and Khoroos and (6*) Volunteers (*only in pilot areas)
 3-4) The facility that the EMDC is constructing and providing DRR training and education to the citizens in Khan Uul district in UB city.

	Projec	Project Monitoring Sheet II (Revison of Plan of Operation)	g Sheet II	l (Revison	of Plan of C	Operation	_								Version 4 Dated June 29 2018	
Project Title: The Project for Strengthening the National Capacity of Earthquake Disaster Protection and Prevention in Mongolia	g the National Capacity of Eart	thquake Dis	aster Pro	tection and	1 Preventio	n in Mong	olia								Monitoring	
nputs		Year	2016	1 I I	17 III III	-	2018	Þ	Z II I	2019	-	2020	P	Remarks	S enset	Solution
Coert		1	+	+	+	+	+		+	Ŧ	Ť	•	+			
Kiyotaka OWADA		Plan														
Akihiro FURUTA		Plan									- -					
Osamu NISHII		Plan														
Kensuke ICHIKAWA		Plan														
Shirou MAKITA		Plan														
Yoshitaka YAMZAKI		Plan														
Tadashi ISE		Plan														
Seiichiro FUKUSHIMA		Plan														
Jun MATSUO		Plan														
Masahide AOKI		Plan														
Shigeki KITA		Plan														
Hideto OMINE		Plan														
Miki KODAMA		Plan														
Yujiro OGAWA		Plan														
Seiji SUEA		Plan														
Toshikazu HIWAKI		Plan												1 .		
		Actual						-								
Yooko OTA		Actual														
Amarjargal NAYANBAATAR		Actual														
equipment Equipment for seismic diagnosis		Plan						Link	Link to Activity 2.	1.3				ı		Mongolian side accepted the delay of installing equipment for
		Actual													Installing equipment is going to be behind schedule.	seismic diagnosis and mentioned that the implementation method of guidance of the equipment shall be discussed in WG2.
Earthquake simulation experience equipment for DRR Training Centre		Plan						TIL	to Activity 3.	2.3					Regarding the equipment of territhusia maintaine negerieur for the Dasser Perdecion. Monopalan side accepted those Training and Methodology Center, Japanese side requested that Monoplan side shall provide documents and drawings neon a proper response be advance preparation, equipment transport, supporting installation and	Mongolian side accepted those requests and asked to provide documents and drawings necessary for dealing with them.
reining in Japan Comprehensive disaster risk reduction		Plan														
		200						-								
Activities A		⊃⊢∢		2017	17		2018		N	2019		2020		Responsible Organization	0.5	
Sub-Activities	W - W - W - W - W - W - W - W - W - W -	o < < ⊢ < α	B	1 1	H	ı	H	Ŋ	I I	Ħ	I I	н	E N	Japan GOM	Achievements	Issue & Countermeasures
Durput 1: 1.1.1 To identity problems and challenges on implementation of legal frameworks of disaster risk	entation of legal frameworks of disaster ris	sk														
i annonai																
1.1.1.1 to review the current legal transworks of earthquake disaser risk reduction	0	Plan												,	compared methors gathered information about exiting tubes and regulations for disaster risk reduction in order to reveal a plan to develop guidelines in the Project.	
1.1.1.2 To summarize the problems and		ä													<completed></completed>	
challenges	0	Plan												,		
				_			4									

112 To develop quidelines on improvement of legal framewor	orks and plans assessment of	-				L			
disaster risk and database on disaster risk reduction					 		 		
1.1.2.1 To develop the guideline of earthquake risk assessment		Plan							
0	0	Actual					,	,	Section of the WC member determined the composition of "Detailed earthquake risk of 3.2 USD. These as sit (9 amenes or the reveal depulsion and Amené a mand as "Technical Gudeline (GL). Pic Earthquake Researement GL." Formulasse serving the Project in the Project of the Project in the Project in the Project in the CL.
1.1.2.2 To develop the guideline of earthquake disaster protection plan		Plan					 		The WO1 member prepared (3) GLs namely, "National Earthquake Disaster Protection Planning GL" is still planning GL", Almag Sourn Level Earthquake Disaster Protection Planning GL" and "Capital Innder preparation, For this GL, risk assessment part is still under
0	0	Actual			 		 ,	,	
1.1.2.3 To develop the guideline of the earthquake disaster preparedness		Plan					,	3	Based on the result of discussion in Activity 1.1.1, the WG1 decided that the Disaster Preparedness GL would not be prepared independently but the part of activities in
))	Actual	 		 		 	`	preparedness phase would be included in the Disaster Protection Planning GL.
1.1.2.4 To develop the guideline of earthquake disaster management		Plan					,	,	Based on the result of discussion in Activity 1.1.1, the WG1 decided the GL for earthquake disaster management will not be prepared in the Project.
)		Actual	 	 			 		
1.1.2.5 To develop the Guideline of Database		Plan			 		 ,	,	
)		Actual			 		 		Spatial Database (DSDB) were being developed on the assumption of new job descriptions of the new division. the new division.
1.1.3 To develop new regulation and the drafts of revised version of of the Law of Disaster Protection	rsion of regulation on implementation	tion							
		Plan					,	,	-Completed> completed> to confined that the necessity for establishment and revision of one (1) regulation which is one confined that the necessity (6 restablishment and set (6) requisions which are corresponded to the first, Assessment GI, and six (6) requisions which are corresponded to
)	0	Actual						,	the Disaster Protection Planning GL.
1.1.3.2 To develop new regulations and revised regulations		Plan			 		`	,	Regarding the seven (7) regulations confirmed in Activity 1.1.3.1, earthquake disaster part of The seven (7) regulations for disaster species other than the the regulations is considered to develop in the Project. The prospects for
)	Actual					 		competion are not established. Therefore, the regulations shall be specialized for earthquake disasters.
ace the new and revised		Plan	 		 		 		
enforcement	5	Actual							
1.2.1 To develop the draft of the agreement which shows the coordination and cooperation among NEMA and related organizations	coordination and cooperation am	Buo							
1.2.1.1 To extract items that need to conclude agreement to build cooperative system	(Plan	 		 		 		In addition to the selected six (6) fields in monitoring sheet ver. 4 namely, "doctor and medicine", "food", "construction materials and temporary housing", "fuel", "printity telephone
between NEMA and related organizations	0	Actual					 ,	7	ine" and water supply and sewerage", a new field "transportation" was also selected for establishing the agreement during the Project period.
1.2.1.2 To organize the items to be described in the agreement on the extracted activity items, coordinate with related organizations, prepare drift agreement		Plan					 		And tragement documents way perspect between MOH and Private Hoppital And ring agreement designable despetable between the And Drug Association, and Drug Association, and Drug Association and Drug Association and medicine. Petropeum Agency and NBAM for Inferior Editors of Information and Association and MOFA for Chord science and agreement described agreement described and agreement described and agreement described agreement described agreement described agreement agreem
	0 0				 		 ,	7	و ح
		Actual			 		 		d dark agreement was prepared between NEMA and mobile phone company Unitel for priority deleptrone line". Property deleptrone line". The statement was prepared between NEMA and Water Management Authority for water supply and sevenone".
1.2.1.3 To conclude agreement		Plan							
	0	Actual			 				
1.2.2 To realize training programs for disseminating the agreement mentioned in 1.2.1 and strengthening the coordination situcture among organizations related with disaster risk reduction	ement mentioned in 1.2.1 and s related with disaster risk reduction	Ę							
1.2.2.1 To prepare training program on agreement between related organizations	C	Plan			 		 ,	,	The WG1 conducted the preparation works of table top training on agreement in response to the preparation of the preparation works of table top training on agreement in response to the preparation of the preparation works of table to the preparation of the p
)	Actual	 		 		 	•	по и патвоеціскі одалидзіоля и о і овоове то сапу од і тле шаптід от Арпі в.
1.2.2.2 To implement the training program		Plan			 		 		Joint training was made on April 9th in UB city. A total of 38 participants from 16 sectors jointed the training. Good practice of agreement in paging and adjacement in health
	0	Actual	 		 		 ,	,	and the state of t
					-				

1.3.1 To identify problems and challenge of monitoring, report, evaluation and disclosure of disaster innotation man at national and level levels.	sclosure of disaster			 	 		
1.3.1.1 To conduct workshop for identifying issues on the national and ocal level	Plan				;		
)	Actual					response activities for each disaster and there are a few descriptions about disaster prevention and preparedness.	
1.3.1.2 To conduct workshop for revision of earthquake disaster protection plan in UB City	Plan					Completed> The current Disaster Protection Plan in UB City mainly describe the emergency response	
0 0	Actual				,		
1.3.1.3 To conduct workshop for revision of confunitive deserter revelation plan for Alman /	Plan					COmpleted Completed These is no Almaniform laved another make denotes material or new Darkhon I bil and	
Soum level	Actual				,		
1.3.2 To revise the disaster protection plans at national and local level, and make a revision of disaster protection plan	e a manual for the						
	Plan					In the activity 1.1.2.2, WG1 members prepared national earthquake disaster protection operation guideline. Also draft national earthquake disaster protection plan is under	The existing national earthquake disaster protection plan will be revised by October 2018. National Earthquake Disaster
0 0	Actual	_			,	preparation.	Management Operation Planning GL will be distributed to related ministries and organizations after completion for their own revision development.
1.3.2.2 To revise earthquake disaster protection plan in UB City	Plan				 3	In the activity 1.1.2.2, WG1 members prepared UB City/ District disaster protection planning guideline.	Plot activities at Chingeltei District and Bayangol District of UB City will be conducted in September 2018. By the time, earthquake risk
0	Actual			 	 2		assessment results of these district in Phasel shall be summarized.
1.3.2.3 To revise earthquake disaster protection plan in Darkhan-Uul Aimag	Plan				,	In May 2018. WG1 rembers conducted plot activities using the Comprohensive Enthquate Disaster Risk Assessment GL and the Audiog / South Level Enthquate Disaster Protection Primming GL. in Darkhan-Jul. 2 days workshop was held and a dozon staff member spathered.	Earthquake disaster protection plan of the Aimags will be developed by October 2018.
0	Actual	_				from related obstanziations, learned the contents of the risk assessment GL and planning GL, and actually conducted the earthquake risk assessment of the Aimag Center using the GL and application sofeware.	
	Plan					In May 2018, pilot activities was conducted in similar way as Darkhan-Uul. 2 days workshop was held and earthquake risk as sessment of the Aimag Center was performed.	Earthquake disaster protection plan of the Aimags will be developed by October 2018.
0000	Actual				<i>'</i>		
1.3.3 To improve the present system which collect and analyze information on dis reduction	disasterrisk						
1.3.3.1 To identify problems and scope of	Plan					<completed></completed>	
Classification system	Actual				2		
1.3.3.2 To identify rules and regulation on data collection and information sharing	Plan				,	The most suitable rules and procedures for operation and management of the DSDB by NEMA were discussed with the sub-WG member through the development of the GL in	
)	Actual			 		consideration of regulaxis from regional offices start.	
	Plan					From November 2017, the sub-WG member has spent their time to formulate the first draft of GL on the assumption of they job descriptions of the new management team which has been moneyed by a principle section of himse consolidate and moneyed the DSPB indeed the money of the section of the principle of the p	s end of May 2018, the new division was established under 2 Announcement and Emergency Administration Centre in court the free durit of Cl. is noting to be understollowed on
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Actual			 	 ,	propose yaning to secure a trumar datadry to operate that intringe are botton daing the new information management system called Internet-based Disaster Spatial Information System (I-DSIS).	nemy, and the its datt of Oc. is yould to be updated based of the result of discussing about detailed work procedure and responsibility in the new division.
1.3.3.4 To improve the present system and system operation manual	Plan					Almost all installation works including a setup of the server in the Mongolian National Data Center (NDC) had been completed.	
0 0 0 0 0 0	Actual	_			,	For formulating new organization structure for operation are management of the DSDB, assessment and development of human capacity for NEIA Headquarters as well as EMDC and regional driftee in 21 Armags are one of the key actions, and as it is stop, the training for Utilization of Spatial Database for DRR in the NEIAA was conducted,	
1.3.4 To elaborate white paper on disaster risk reduction which let the Morgolian people know the progress on implementation, mortineing, evaluation of desister risk reduction plan at national and local levest though the activities of 1.3.1 and 1.3.2.	n people know the n at national and				1		
1.3.4.1 To conduct discussion on the contents and function of white paper	Plan				3	<completed> In the WG1, a draft format of the white paper on disaster management in Mongolia was</completed>	
)	Actual						
1.3.4.2 To prepare the white paper preparation plan	Plan				 ,	<completed></completed>	
	Actual					Mongolia and has obtained approval of this work plan from the Head of NEMA.	
1.3.4.3 To develop white paper	Plan				 3	The Mongolian version white paper has been completed and editing of the present appearance is under way.	English translation is currently being conducted and it will be completed in early June 2018. WG will also prepare English
)))	Actual						nary versions and complie prochures for 2018 AMCURK.
seismic strength of buildings,	infrastructure and				 		
1.3.5.1 To identify the present database	Plan				,	The sub-WG member is trying to make an agreement for data exchange with the Master Planning Agency of Capital City. The Agency is implementing seismic dagnosis of buildings	NEMA has already sent an official letter to request data exchange with the Master Planning Agency of Capital City, but still there is no
	Actual					by own metrod and all of evaluation results for each building are managed using me formalized sheet named as "Passport".	from the Agency.
1.3.5.2 To improve the present database system	Plan				 ,	As one of the considerations of the DB development, the structure of spatial database including items of a thributes is being designed to accumulate and manage the result of order and a structure of a state of the	
	Actual						

Output 2: A	m A A M A M A M A M A M A M A M A M A M		- M		_							_
Outbut 2: 12.1.1 To analyze the manual of selenth assessment of buildings and lifethe but the Law of Diseaster Protection and devider, the draft of revised version 2.1.1 To develop the present specifications 2.1.2 To develop guidelines-methodobges which show the method for trupen assessment for buildings and lifethes, and how to use equipment regarding the selentie evaluation of RC and PC buildings and lifethes, and how to use equipment regarding the selentie evaluation of RC and PC building.	based on the context of		_	п	I II	I W I	=	и і п	r M H	Japan GOM	Achivoments	Issue & Countermeasures
		Plan								,	The WG2 investigated existing norms and standards followed by the identification and arrangement of problems regarding to seismic resistance.	It must be further discussed how to reflect the problems into current norms and standard or into guidelines that will be newly
O O O O O O O O O O	0	Actual								,		established.
O O O O		Plan									It was confirmed that the standards for searing dagnosis of buildings and the standards for seasons control of the standards of the searing dagnosis of buildings which become tieve elements in the guidelines is severe	The procedure will be carried out by consulting leam. Prior to the selection of consulting team, it is necessary to prepare the terms of reference (TOR) related to standare creation. Coursely, it is the construction of the con
or imple	0	Actual								,		stage where the LVK was prepared in the Wo-2 and the approval of the chemical committee was obtained. Based on this TOR, the consulting team will be selected under the guidance of MCUD.
0 0 0	ementing seismic											
0 0	(Plan								,	<completed></completed>	
0 0	0	Actual								,		
0 0	C	Plan								,	Guidelines of seismo evaluation and strengthening for RC and PC buildings were provided by CST (Consulting Service Team) with assistance from WG2, followed by the approval by	by it is necessary to obtain approval by science and thonology committee by MCUD. So, it is necessary to prepare the
)	Actual									experts panel arranged by CUC.	
	0	Plan								,	Guideline of seisme evaluation and strengthening for Masonry building was provided by CST (Consulting Service Team) with assistance from WG2, followed by the approval by experts then arranged by CDC.	It is neccerary to obtain approval by science and thonology committee by MCUD. So, it is necessary to prepare the presentation material on establised guideline.
		Actual										
2.1.2.4 To develop the seismic evaluation of infrastructure and lifeline		Plan								,	Guideline of seismo evaluation for Infra- and lifeline structures was provided by CST (Consulting Service Team) with assistance from WG2, followed by the approval by science and the chrology committee of MGLID. Also additional check list for quick diagnosis was issued to GASI.	
2.1.3 To implemnt training programs for enhancing the knowledge and capacity of assess the seismic strength of buildings and iffeline	city of experts who					↓ Equipment for	ent for seismic diagnosis	sis				
2.1.3.1 To consult training program of the		Plan								- 9	WG2 discussed the training program with draft guidelines and have conducted some lectures on the culturalisate to an income from MMCE or other conducte MC2 also conducted in arrows	
0	0	Actual					-			,	on the guidelines to enjarges from wave, or other panes. Waz also conducted in-group workshop to learn the seismic diagnosis method to propagate guidelines.	simple Excers preducing material for ToT for future spreading of technology.
2.1.3.2 To implement training for the		Plan										
0	0	Actual										
2.2.1 To develop guidelines-methodologies on seismic strengthening and reconstruction of buildings	construction of											
2.2.1.1 To consult the contents of guidelines-		Plan									<completed></completed>	
0	0	Actual								,		
2.2.1.2 To develop the guidelines- methodologies		Plan									Guidelines of seisme evaluation and strengthening for RC. PC and masonly buildings were provided by CST (Consuling Service Team) with assistance from WG2, followed by the approval by experts panel arranged by CDC.	It is neccerary to obtain approval by science and thonology committee by MCUD. So, it is necessary to prepare the presentation material on establised quideline.
0	0	Actual								,		
2.2.2 To support the introduction and dissemination of seismic strengthening techniques for reconstructing collective busing, integrated in schools, hospital, national buildings and design the reconstruction and seismic strengthenin of each two of buildings a paig.	g techniques for uildings and design the											
2.2.2.1 To consult the target buildings for traial design		Plan									WG2 discoused and selected five buildings for which trial retrofitting design will be conducted	.pa
0)	Actual								,		
2.2.2.2 To design of rebuilding and strengthening on target buildings		Plan										
)	Actual										
2.2.3 To realize training programs with the participation of NEMA for enhancing capacity of the experts who implement seismic strengthening of buildings	nding knowledge and											
2.2.3.1 To plan training progarm	(Plan										
0)	Actual										
2.2.3.2 To implemnt training progarm	(Plan										
)	Actual										

N					-						C TOTAL TOTAL	ro.	
T K T	4 ¥ 4 ¥ 4 ¥ 4 ¥	25	1							F	Ogalication	Achievements	Issue & Countermeasures
¥ - ∀ ∀ ≩ ∀ - ∀	-	< 4 ⊢ 4 ≅	W I	н	I I	н	I II	N H	1	п	Japan GO	иов	
put 3: 3:1:1 To develop a guideline which shows contents, method and implementation way of disaster risk reduction (DRR) education in kindlegarten and primary and secondary schools based on Law Oll Sesset Protedion	nentation way of disaster any schools based on Law												
3.1.1.1 To review current situation of DRR education in kindergarten and primary and	(Plan										<completed> Completed> The WG3-1 member studied Japanese practices and reviewed & analyzed current contents</completed>	
paring with Japanese	0	Actual									,	of the DRR and safety related school education in the Course of Study (Standard) in Mongolia.	
3.1.1.2 To develop the guideline through the activities of the School DRR Education		Plan										Completed> A draft DRF education guideline in school "Life Safety Education Program" was developed through the	
	0	Actual									,	 Would state it Accommon installing state of section in the months of the	
3.1.2 To develop educational materials such as textbooks and supplementary readers education in kindergarten and primary and secondary schools	nentary readers for DRR												
view existing		Plan										Completed	
activities	0 0	OActual									,	passon on the research results or the working group members from Exit and the translated reference materials of Japan, composition of the "Guidebook" for the "Life Safety Education Program" was discussed in the WG meetings.	
3.1.2.2 To establish Task Forces for the development of the educational materials (one		Plan											
rgarten, primary, and	0	O									,	and gettechnical advices from outside experts after the development of the draft.	
3.1.2.3 To organize workshops and discuss and decide the contents of educational		Plan									,	Initial Discussion for the development of the educational materials was conducted on 28 Nov. 2017. A 2-day workshop (Feb. 2018) and a 3-day workshop (Apr. 2018) were organized for the	
Do.)	Actual											
3.1.2.4 To develop and finalize the educational	C	Plan									,	Through the workshops and individual works of the WG3-1 members, the development of "Guidebook" was proceeded.	
)	Actual											
3.1.3 To implement training programs for the instructors of Teacher Training Institutes and experts of educational department in local governments, using the guideline and materials developed in 3.1.1 and 3.1.2 reserving.	aining Institutes and experts d materials developed in												
training programs the WG activities	(Plan										Initial discussion for the schedule and framework for the training was made in the 2-day Workshop in Feb. 2018. The schedule for the training was decided in the WG3-1 meeting in	
	0	Actual									,	April: Discussion for the program of the training was started in the WG3-1 meeting in May 2018.	
.1.3.2 To implement pilot training	C	Plan											
)	Actual											
3.1.3.3 To review the training and formulate training manuals	(Plan											
)	Actual											
3.1.4 To implement the training program for teachers by the instructors and the training programs mentioned in 3.1.3	and experts who received												
3.1.4.1 To support the training for teachers	(Plan											
	0	Actual											
3.1.4.2 To review the result of the training of 3.1.3 and 3.1.4 through workshops and the		Plan											
ale les sons learnt	0	Actual											
3.2.1 To develop comprehensive work plan for disaster risk reduction e awareness at national and local levels	education and raising												
3.2.1.1 To interview related organizations about coordination and cooperation		Plan										<completed> The WG3 member visited the relevant organizations and got their initial opinions for the</completed>	
	0 0 4 4	Actual									7	effective coordination among stakeholders.	
3.2.1.2 To examine framework for NEMA to conduct integrated management		Plan										Completed> Through the WG meetings and discussion with stakeholders, "DRR Education Team" was established	
	0 0 4 4	Actual									,	the rule for the Team was shiulated and approved by the NEMA Administrator. Frequent communication among members is realized through the mailing list of the Team.	
3.2.1.3 To implement regular meetings		Plan										The Team decided to aganize regular meetings once three months. The first meeting was parameter in time 2017 and the second meeting was consistent on the processor for	
	0 0 4 4	Actual									,	organized in John 2011, in the about intelligence connected on the constant of and March 2018, the meetings were held for the Team.	
3.2.1.4 To create a website for the coordination and share information among the		Plan										The WG members developed a draft vebsite for the "DRR Education Team" to share the DRR education and training information for only the decusation and workshop with IT specialises of the NBAA and decusing the second reaches the suitived for the velocities in the second reaches the suitived for the velocities in the second reaches the suitived for the velocities in the second reaches the suitived for the velocities in the second reaches.	
	0 0 4 4										,	✓ website for training information developed by the World Vision was re-organized in April 2018 and	

3.2.2 To develop materials for the training on disaster risk reduction education and raising awareness, and implement the training for the target groups in pilot areas	ation and raising												
3.2.2.1 To review existing textbooks of DRR education for communities		Plan											<completed> The policy of activities to develop leaching materials in the Project was discussed in the WG3</completed>
	0 4	000					_						2. The WG decided to develop training materials to promote the understanding of residents
		Actual											based on the UNLY seducatorial curriculum arier damying a demaication of works for development of teaching materials with World Vision Mongolia.
3.2.2.2 To discuss and develop training materials		Plan											Reference of the Japanese materials for the training was introduced and initial discussion for The nativalish to be deletigoded the Podest was controlled in the 2 days workship held in East 2019 detailed deat training moments and materials usual committed. Committee foresterned
	0 4 4	Actual										,	Year, Jona and it daming you gain and interests were nontineated. Journally instituted to the leading materials is ongoing based on result of the ToT and plot workshops.
3.2.2.3 To implement Training of Trainers workshop		Plan											
	0 0 4 4	Actual										.	with the "Be Ready" taning program for producing the synergistic effect. The ToT workshops were conducted in 21 March 2018 in UB city and 28 March in Zavkhan aimag.
32.2.4 To implement workshops in the pilot area		Plan										,	CompleteD The Transit stands in the ToT with the help of the WG3.2 members prepared for the members prepared for the members prepared for the members proper to the plot areas in April 2018. The workshops were implementation of the workshops in the plot areas in April 2018. The workshops were
	0 4 4	Actual										,	 conducted on 12 May 2018 in Otgon Squim and on 14 May 2018 in Ulisiats Squim. Also the workshops were conducted in 71 May 2018 in Bayangol district and on 20 May 2018 in Bayanzukin district in 18 Giby.
3.2.3 To develop and implement educational and training program for implementing prevention and simulation program in Training Center	olementing disaster						1 Earthquake	nimulation exper	ke simulation experience equipment				
3.2.3.1 To examine and consider a study program for the training center		Plan											
	0 0 0 0 0 0	Actual										,	Introduced. The WGS members and the staff of the Training Center examined the current program of the training center and revised it.
3.2.3.2 To examine materials and equipment for improvement of training center		Plan										,	Compition After an initial examination and studies of the current equipment and materials of the Training
	0 0 0 0 0	Actual										.	Center, based on the learning through the training in Japan, the WG member discussed the plan for the improvement of the "Earthquake Program" and "kids' Room Program".
3.2.3.3 To support procurement of equipment		Plan											
	0 0 4 4	Actual										,	equipment.
3.2.3.4 To develop educational materials such as movie, exhibition, etc.												,	
	0 0 4 4	Actual										>	 Structure, and 3) Educational material: DRR Quiz for Kds' Poon A min' workshop for the development of the miniature building models were conducted in May 2018.
3.2.3.5 To operate training program	0 0	Plan											
	1	Actual											
3.2.36 To examine expansion to other regions	0 4 4	Plan											
		Actual											
Duration / Phasing		Plan Actual											
Monitoring Plan		Year	- -	2017	2	2018	4	2019	A		2020	Remarks	Solution Solution
Monitoring		\setminus					H		Н	'[1		
Joint Coordinating Committee		Plan											
Set-up the Detailed Plan of Operation		Plan Actual											
Submission of Monitoring Sheet		Plan Actual											
Reports/Documents Work Plan / Project Interim Report		Plan											
Project Completion Report		Plan										<u> </u>	
Public Relations		\\											
		Actual											
\rightarrow		Plan										. T.,	

TO Chief Representative of JICA Mongolia OFFICE

PROJECT MONITORING SHEET

Project Title: Project for Strengthening the National Capacity of Earthquake Disaster

Protection and Prevention in Mongolia

Version of the Sheet: Ver. 6.0 (Term: December, 2018 - May, 2019)

Name: D.Batsaikhan

Title: Director of Disaster Prevention

Department, NEMA

Name: Kiyotaka Owada

Title: Team leader / Integrated disaster

management I

Submission Date: June 24, 2019

I. Summary

1. Progress

1-1 Progress of Inputs

(1)Dispatch of Experts

The following Experts from Japanese side were assigned in this monitoring period.

	Area of responsibility	Experts name	Period of assignment
Project	Team Leader / Integrated Disaster	Kiyotaka OWADA	Dec. 1 – Dec. 8, 2018
Management	Risk Management I		Jan. 28 – Feb. 23, 2019
Group			Mar. 17 – Mar. 30, 2019
			Apr. 14 – Apr. 27, 2019
			May. 27– May. 30, 2019
	Deputy Team Leader / Integrated	Akihiro FURUTA	Jan. 14 – Jan. 21, 2019
	Disaster Risk Management II		May. 13 – May. 19, 2019
OUTPUT1:	Disaster Management Plan I	Osamu NISHII	Jan. 9 – Feb. 2 , 2019
Disaster			May. 20 – May. 30, 2019
Management	Disaster Management Plan II	Kensuke ICHIKAWA	_
Plan	Disaster Management system I	Yoshitaka YAMAZAKI	_
	Disaster management system II	Shiro MAKITA	_
	Disaster management information I	Tadashi ISE	_
	Disaster management information II	Akihiro FURUTA	_
Output 2:	Seismic-Resistance	Seiichiro	Jan. 20 – Feb. 15, 2019
Seismic		FUKUSHIMA	Apr. 21 – May. 20, 2019
Resistance	Seismic Diagnosis of Infrastructures and Lifelines	Jun MATSUO	_
	Seismic Diagnosis of Buildings / Seismic Strengthening I (RC, PC)	Masahide AOKI	_

	Area of responsibility	Experts name	Period of assignment
	Seismic Diagnosis of Buildings /	Shigeki KITA	_
	Seismic Strengthening II (Masonry)		
	Seismic-Resistant Design	Hideto OMINE	Apr. 17 – May. 6, 2019
Output 3:	DRR Education I	Miki KODAMA	Jan. 13 – Jan. 26, 2019
DRR			Mar. 3 – Mar. 19, 2019
Education	DRR Education II	Yujiro OGAWA	_
	DRR Education II	Seiji SUWA	Mar. 3 – Mar. 23, 2019
	Community-Based Disaster	Toshikazu HIWAKI	Jan. 23 – Feb. 16, 2019
	Management / Project Coordination I		May. 26 – May. 30, 2019
	Development of Disaster	Yoko OTA	_
	Management Teaching Materials I		
	Development of Disaster	Amarjargal	*Intermittent assignment
	Management Teaching Materials II /	NAYANBAATAR	during above periods
	Project coordination II		

(2) Assignment of counterparts

The current administration of authorities concerned of Mongolia for the Project for Strengthening the National Capacity of Earthquake Disaster Protection and Prevention in Mongolia (hereinafter referred to as "the Project") is as following,

(a) Project Director:

D.Batsaikhan, Director of Disaster Prevention Department, the National Emergency Management Agency (hereinafter referred to as "NEMA")

(b) Project Manager:

Luvsansharav Ulziibayar, Director of Policy Coordination and Cooperation Department, NEMA

(c) Project Coordinator

B. Vanchindorj, Policy Coordination and Cooperation Department, NEMA

There is a change of project coordinator in charge in this monitoring period. B. Dorjderem in Policy Coordination and Cooperation Department retired from his work in NEMA in April 2019. As a replacement for B. Dorjderem, B. Vanchindorj was assigned to new project coordinator.

The other member of current administration of authorities concerned of Mongolia has not been changed since last monitoring period.

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

The member list of the C/P for each WG had been amended at the Eighth Steering Committee (hereinafter referred to as "SC") on January 21st, 2019 based on the member list confirmed in the Joint Coordinating Committee (hereinafter referred to as "JCC") on September 21st, 2018. And at the Seventh JCC on February 1st, 2019 and the Ninth SC on May 28th 2019, further amendments of C/P member were approved as shown below.

(a) Member of Sub-Group of WG1 (As of May, 2019)

Sub-WG	Name	Job Title			as WG Mer	
Sub-WG	Ivaille	Job Hue	6th JCC Sep.2018	8th SC Jan.2019	7th JCC Feb.2019	9th SC May.2019
Coordinator for WG1	D.Bazarragchaa	Disaster Risk Management Dep., NEMA	0	0	0	0
Disaster	D.Serjmyadag	Disaster Research Institute, NEMA	0	0	0	0
Risk	D.Bazarragchaa	Disaster Risk Management Dep., NEMA	0	0	0	0
Assessment	B.Batbayar	Disaster Risk Management Dep., NEMA	0	0	0	0
(WG1-1)	B.Khishigbaatar	Disaster Operation Dep., NEMA	0	0	0	0
	B.Bayanmunkh	Policy Coordination and Cooperation Dep., NEMA	0	0	0	0
Disaster Protection	B.Myagmardorj	Emergency Management Department of Capital City (EMDC)	0	0	0	0
Planning	T. Turbileg	Disaster Operation Dep., NEMA				
(WG1-2)	Ch.Otgontugs	Fire Dep., NEMA	0	0	0	0
	E.Batbayar	EMDC				
	B.Khishigbaatar	Disaster Operation Department, NEMA		0	0	0
Reduction	B.Duvshin	Disaster Risk Management Dep., NEMA	0	0	0	0
Agreement (WG1-3)	T.Bilguun	Policy Coordination and Cooperation Department, NEMA	0	0	0	0
White Paper (WG1-4)	O.Tsend-Ayush	Disaster Prevention Dep., NEMA	0	0	0	0
	B.Purevnyam	Public Announcement and Emergency Administration Centre, NEMA	0	0	0	0
Disaster	D. Sodnomragchaa	Spatial Information and Technology Division, NEMA	0	0	0	0
Database (WG1-5)	B. Boldkhuu	Public Announcement and Emergency Administration Centre, NEMA	0	0	0	0
	D. Bayarbaatar	Public Announcement and Emergency Administration Centre, NEMA	0	0	0	0

(b) Member of Sub-Group of WG2 (As of May, 2019)

Sub-WG	Name	Job Title			as WG Me	
Sub-WG	Name	Job Title	6th JCC Sep.2018	8th SC Jan.2019	7th JCC Feb.2019	9th SC May.2019
Coordinator for WG2	L.Bilegjargal	Ministry of Construction and Urban Development (MCUD)	0	0	0	0
	L.Bilegjargal	MCUD	0	0	0	0
	O.Bayarbaatar	MCUD	0	0	0	0
	B.Bayardulam	Land Management, Geodesy and Cartography Agency, MCUD	0	0	0	0
Seismic Diagnosis of	N.Ganchimeg	General Agency for. Specialized Inspection (GASI)	0	0	0	0
Buildings	N.Tamir	Master Planning Agency of Capital City	0	0	0	0
(WG2-1)	Ts.Khulan	Master Planning Agency of Capital City	0	0	0	0
	G.Saruultuya	Construction Development Center	0			
	S.Munkhdul	Construction Development Center		0	0	0
	T.Galbadrakh	Finance and Logistics Dep., NEMA	0	0	0	0
Seismic	B.Bayardulam	Land Management, Geodesy and Cartography Agency, MCUD	0	0	0	0
Seismic Diagnosis of	L.Bilegjargal	MCUD	0	0	0	0
Infrastructures and Lifelines	O.Bayarbaatar	MCUD	0	0	0	0
(WG2-2)	N.Ganchimeg	GASI	0	0	0	0
	B.Munkhsaikhan	GASI	0	0	0	0
	L.Bilegjargal	MCUD	0	0	0	0
	O.Bayarbaatar	MCUD	0	0	0	0
Design for	N.Ganchimeg	GASI	0	0	0	0
Seismic Strengthening	N.Tamir	Master Planning Agency of Capital City	0	0	0	0
(WG2-3)	Ts.Khulan	Master Planning Agency of Capital City	0	0	0	0
	G.Saruultuya	Construction Development Center	0			
	S.Munkhdul	Construction Development Center		0	0	0

(c) Member of Sub-Group of WG3 (As of May, 2019)

Sub-WG	Name	Job Title Timing Nominated as WG Memb Period of Activity in WG				
Sub-WG			6th JCC Sep.2018	8th SC Jan.2019	7th JCC Feb.2019	9th SC May.2019
Coordinator	D.Munkhbat	Disaster Prevention Dep., NEMA	0	0	0	
for WG3	D.Bat-Erdene	Disaster Prevention Dep., NEMA				0
	J.Myagmar	Ministry of Education, Culture, Science and Sports (MECSS)	0	0	0	0
School DRR	Ch.Gantsetseg	MECSS	0	0	0	0
Education (WG3-1)	P.Baljinnyam	MECSS	0	0	0	0
	A.Enkhtogtokh	Education Research Institute (ERI), MECSS	0	0	0	0
	B.Erdenechimeg	ERI, MECSS	0	0	0	0

Sub-WG	Name	Job Title	Timing Nominated as WG Member and Period of Activity in WG			
Sub-WG	Name	Job Title	6th JCC Sep.2018	8th SC Jan.2019	7th JCC Feb.2019	9th SC May.2019
	G.Mongolkhatan	ERI, MECSS	0	0	0	0
	G.Khaliun	ERI, MECSS	0	0	0	0
	N.Munkhbayar	Institute of Teacher Professional Development	0	0	0	0
	D.Munkhbat	Disaster Prevention Dep., NEMA	0	0	0	
	D.Bat-Erdene	Disaster Prevention Dep., NEMA				0
	G.Enkhtsolmon	Disaster Prevention Dep., NEMA	0	0	0	0
	D.Munkhbat	Disaster Prevention Dep., NEMA	0	0	0	
	D.Bat-Erdene	Disaster Prevention Dep., NEMA	0	0	0	0
Community DRR	D.Dulamsuren	Public Information Center, Disaster Prevention Dep., NEMA	0	0	0	0
Education (WG3-2)	S.Doljinsuren	EMDC	0	0	0	0
	B.Chinbat	EMDC	0	0	0	0
	B.Uuriingegee	DRR Training Center, EMDC	0	0	0	0
	B.Ariunchimeg	National Center for Long life Education	0	0	0	0

1-2 Progress of Activities

(1) Overall of Project

1) Implementation of Steering Committee (SC) and Joint Coordination Committee (JCC)

The Eighth and Ninth SCs and the Seventh JCC have been held in this monitoring period.

No.	Date	Participants	Contents of discussion
Eighth SC	Jan 21, 2019	NEMA, WG member for each OUTPUT Total: 25 participants	 Progress of WG Activities Amendment of Working Group Member Progress of Installing Equipment Schedule of Next JCC
Seventh JCC	Nov. 1, 2019	NEMA, MCUD, MECSS, GASI, Construction Quality and Safety Department; City Planning and Master Planning Agency of Capital City, etc. Total: 36 participants	 Progress of WG Activities Amendment of Working Group Member Progress of Procuring Equipment of Earthquake Simulation Experience for the Disaster Protection Training and Methodology Centre Future Plan for Publishing White Paper Schedule of Next JCC
Ninth SC	May 28, 2019	NEMA, WG member for each OUTPUT Total: 24 participants	 Amendment of Working Group Member Confirmation of the Achievement of the Project Purpose based on

No.	Date	Participants	Contents of discussion	
			Indicators - Discussion How to Evaluate the Achievement of the Overall Goal including items of Indicators - Schedule of Next JCC	

2) Provision of Equipment

As identified in the work plan of the Project which was approved by the first JCC, the equipment for seismic diagnosis and the equipment of earthquake simulation experience for the Disaster Protection Training and Methodology Center (hereinafter referred to as "DPTMC") are supposed to be procured and donated by the Japan International Cooperation Agency (hereinafter referred to as "JICA").

Equipment for Seismic Diagnosis

The procurement procedure for five (5) sets of diagnosis devices had been carried out and all devices were finally handed over from JICA to NEMA on November 12, 2018. Then, the WG2 members and JICA Expert Team (hereinafter referred to as "JET") conducted a training to explain how to use the equipment on November 12 and 13, 2018.

Equipment of Earthquake Simulation Experience for DPTMC

The preparation for installing the equipment has already been carried by Mongolian side. Regarding the schedule of setting up of the equipment and its procedure, a few things were confirmed and discussed between Japanese side and Mongolian side at the seventh JCC on February 1, 2019 as below.

Mongolian side explained that following advance preparations necessary for installing the equipment of earthquake simulation experience at the DPTMC have already been completed and planned.

- Renovation of a slab foundation
- Construction works to prevent the room where the equipment will be installed from flooding
- Installation of switchboard by February 4, 2019 and the wiring on February 11, 2019
- Arrangement of a portal crane and two sets of hand lift jack by February 11, 2019
- Installation of a safety fence and steps in the appropriate place on February 18 and 19, 2019

Japanese side explained that JICA shall dispatch Japanese engineers from 10 to 23 of February 2019 to conduct installation works of the equipment and train DPTMC's staffs in charge to do regular maintenance. Then, Japanese side requested Mongolian side to deal with following matters,

- ➤ To install water stop boards at the edge of a slab foundation to prevent the equipment from flooding directly after installation works of the equipment.
- ➤ To take responsibility for continuing maintenance of the equipment and to secure the annual budget necessary to keep on the proper maintenance and management of the equipment.
- ➤ To undertake essential countermeasures against further inundation in the whole basement floor of DPTMC within 2019.

Mongolian side accepted above requests and promised to conduct waterproofing work of whole basement floor of DPTMC with adequate construction management from the end of March to May 2019. Furthermore, Mongolian side explained that the budget for this waterproofing work has already been secured by Emergency Management Department of the Capital City (hereinafter referred to as "EMDC") as a part of the budget for inspection and maintenance of DPTMC, and the detailed schedule and the constructor of this work will be decided by the end of March 2019.

After the installation work by Japanese engineers, the 2-day practical training toward staffs in charge of operation and management in DPTMC was conducted. In this training Japanese engineers taught them how to operate and maintain the equipment including the daily checking method.

Finally, the handing over ceremony was conducted on March 20, 2019 in the presence of Mr. U.Emkhtubshin, Deputy Prime Minister of Mongolia, Mr. M.Takaoka, Japanese Ambassador to Mongolia, Mr. T. Badral, Chief and Major General, NEMA, Ms. E. Tamura, Chief Representative of JICA Mongolia Office and all concerned at the DPTMC.

(2) Output1

Activity 1.1.1 To identity problems and challenges on implementation of legal frameworks of disaster risk reduction

The activity was completed within the previous reporting period.

The WG1 members confirmed that three (3) guidelines (hereinafter referred to as "GLs") namely, "Earthquake Disaster Risk Assessment GL", "Earthquake Disaster Protection Planning GL", and "Disaster Database GL" shall be developed in Output 1 of the Project.

Activity 1.1.2 To develop guidelines on improvement of legal frameworks and plans, assessment of disaster risk and database on disaster risk reduction

1) Earthquake Disaster Risk Assessment Guideline

The WG1 members prepared "Comprehensive Earthquake Disaster Risk Assessment GL", "Technical GL for Earthquake Risk Assessment" and application software for a simple earthquake risk assessment for the central and local government staff. After the submission of last monitoring sheet (Version 5) on December 11, 2018, the WG1 members decided to integrate the "Comprehensive Earthquake Disaster Risk Assessment GL" and the proposed "Detailed Earthquake Risk Assessment GL". It is because there is not big difference between those two guidelines except the chapter on the method to analyze the risk assessment. The chapters on purpose, scope, terms, preparation of proposal, reflection of risk assessment results in disaster prevention plan, and preparation of earthquake disaster risk assessment report are common. The integrated guideline will be completed by the end of May 2019.

These two GLs and the application software are considered to be a part of the annex of the revised Regulation for Implementation of Disaster Vulnerability and Risk Assessment (Annex of the Cabinet Decision of 176, 2006). However, the whole composition of the Regulation has not been clearly identified.

The WG1 members introduced and used the application software to calculate the earthquake disaster damage in the pilot Aimags.

2) Earthquake Disaster Protection Planning Guideline

The WG1 members are preparing four (4) GLs namely, National Earthquake Disaster Protection Planning GL, State Earthquake Disaster Protection Service Planning GL, Aimag / Soum Level Earthquake Disaster Protection Planning GL and Capital City / District Level Earthquake Disaster Protection Planning GL.

Among these GLs, "National" and "State" GLs are the national level GLs and must be coordinated with the Standing Committee for Earthquake Disaster Protection and other ministries and related agencies. Before that, the GLs must be approved by the Executive Committee of NEMA. The new WG1 members in charge revised these two GLs and prepared for submission to the Executive Committee by the end of May 2019.

In the pilot Aimags and Districts, the Earthquake Disaster Protection Plans are being prepared or revised as a part of Activity 1.3.2. Through these pilot activities, feedbacks about the contents of the draft GLs were gathered from officers who are member of planning in the pilot areas and these GLs was improved. The revised GLs will be sent to the Executive Committee of NEMA for approval shortly.

3) Disaster Database Guideline

Through the Activity 1.3.3, the GL on Operation and Management of Spatial Information System for Disaster Risk Reduction (SISDRR) was approved as the order A/47 by the head of NEMA on 20 February 2019. There are two annexes of the GL about "Disaster Code" and "Spatial Database Design". The GL consists of nine chapters shown in the below table.

Table 2-1 Contents of the GL with annexes

GL on Operation and Management of Spatial Information System for Disaster Risk Reduction

- · Chapter 1: Background
- · Chapter 2: Definition of the Terms
- Chapter 3: Collection of Spatial Database for DRR and its Requirements
- Chapter 4: Administration and Management of SISDRR
- · Chapter 5: Utilization of SISDRR
- · Chapter 6: Duties and Function of Users for SISDRR
- · Chapter 7: Security and Safety of SISDRR
- · Chapter 8: Prohibitions
- · Chapter 9: Legal Responses

Annex 1: Coding system of Spatial Database for DRR

- · 1. Purpose to Establish Cording System
- · 2. Codes of thematic layers /disaster codes/
- · 3. Codes of baseline layers /Location codes/

Annex 2: Design of Spatial Database for DRR

- 1. Introduction of Spatial Database Design
- · 2. Requirements for Titling Layers and Maps
- 3. Creating New Column in Baseline and Thematic Layers, and Editing Texts
- 4. Common Terms for Spatial Database Design
- 5. Design for Baseline Layers
- · 6. Design for Thematic Layers

In the preparation stage of the draft GL, the GL's name was referred to as the GL on Operation and Management of Disaster Spatial Database (DSDB) using Internet-based Disaster Spatial Information System (I-DSIS), but finally the GL's name was defined as described above officially.

Activity 1.1.3 To develop new regulation and the drafts of revised version of regulation on implementation of the Law of Disaster Protection

The activity was completed within the previous reporting period.

The WG1 members verified the articles of the Amended Law on Disaster Protection mainly from the viewpoint of risk assessment and disaster protection, and identified the related rules and regulations in the Amended Law which are needed to establish new rules and regulations and/or revise existing ones with handling policy in the WG1 activity.

Activity 1.2.1 To develop the draft of the agreement which shows the coordination and cooperation among NEMA and related organizations

The progress of agreement development for each sector is summarized as below.

<Stable supply of foods and water to evacuation places and temporary housings>

This agreement has been concluded within previous reporting period between NEMA and the Ministry of Food and Agriculture (hereinafter referred to as "MOFA") on October 16, 2018.

<Stable supply of medicines during disaster>

This agreement has been concluded within previous reporting period between the Ministry of Health (hereinafter referred to as "MOH") and three major pharmaceutical sales companies were signed on November 7, 2018.

<Supply of construction materials and temporary housings>

Two agreement documents were prepared between MCUD and the Construction Material Association, and between MCUD and the Construction Association. Agreement documents were already approved by the Minister of MCUD, and the agreements will be signed shortly.

<Stable transport and securing road transport during disaster>

The draft agreement has already been prepared by the WG1. The Ministry of Road and Transport Development (hereinafter referred to "MRTD").is examining the draft and it is in the process of revising.

<Stable fuel supply during disaster>

The WG1 consulted with the Mineral Resource and Petroleum Agency about the contents of the agreement. NEMA side submitted the revised contents to the Agency in September 2018. The draft agreement is under examination by the Agency.

<Set up priority telephone lines on disaster>

The priority connection has technical issues in mobile phone company UNITEL. The 10

agreement can be concluded as soon as it resolves. However at present, there is no prospect of solution.

<Emergency water supply on disaster>

The WG1 have prepared the draft agreement. The Water Management Authority and NEMA are under discussion about the details of the draft agreement.

<Usage of public buildings, especially schools as evacuation places>

The WG1 initially considered about an agreement to utilize school facilities as the evacuation place between EMDC and the Education Office of Ulaanbaatar City (hereinafter referred to as "UB City"). This agreement will include matters concerning the usage and management of disaster prevention facilities of schools constructed by Japan's Official Development Assistance Grants. However, after discussion, not only schools but also other public buildings were considered to be used as shelters, and it was decided to make an agreement between EMDC and the Mayor's Office of UB City. A draft of the agreement has been made by WG1.

< Wastewater treatment at the evacuation place>

The WG1 prepared a draft agreement between EMDC and the Facility Service Office of UB City. The draft is under examination by the Facility Service Office.

Activity 1.2.2 To realize training programs for disseminating the agreement mentioned in 1.2.1 and strengthening the coordination structure among organizations related with disaster risk reduction

The activity was completed within the previous reporting period.

The training programs for disseminating the effectiveness of agreement for earthquake disaster response was conducted during the previous reporting period. Based on the experience to conduct the training programs, the draft manual for implementing training programs will be prepared in the WG1 activity.

Activity 1.3.1 To identify problems and challenge of monitoring, report, evaluation and disclosure of disaster protection plan at national and local levels

The activity was completed within the previous reporting period.

Through the study of existing disaster protection plans in Mongolia, the WG1 members decided to prepare four (4) types of Earthquake Disaster Protection Planning GLs in the Project as described in the Activity 1.1.2.

Activity 1.3.2 To revise the plans made in 1.3.1 and make a manual for the revision of disaster protection plan

The pilot activities to revise / newly develop the earthquake disaster protection plan continued in the pilot areas, Darkhan-Uul Aimag, Omnugobi Aimag, Bayangol District and Chingeltei District in UB City. The WG1 performed the workshops (hereinafter referred as WS) several times. In the WS, The task force was divided into four groups namely telecommunications, Urban development, Health care and environment, disaster prevention measures and education. Each group discussed about earthquake risk induction measures and their implementer, time, period and budget. These results are summarized in the "risk reduction planning sheets". From the sheets, earthquake risk reduction plan will be compiled. Summary of activities is shown in the Table 2-2.

Result of WSs were feed backed to the draft GLs.

Table 2-2 Pilot Activities for the Revision of Disaster Protection Plans

Pilot Area	WS Name	Date	Number of Participants	Activity
	WS3	15, 16 Nov. 2018	18	Set the risk reduction targets (10 years) of the current disaster scenario Extraction of problems facing the risk reduction target Enumeration of measures to solve the problem
Darkhan-Ulu Aimag	WS4	28 Jan. 2019	19	 Enumeration of measures to resolve issues (continued) Designation of major response agencies Setting of implementation time, period of measure
	WS5	19 Apr. 2019	13	Judgment of priority of measureCalculation of estimated operating expenses
Omunugovi	WS3	28, 29 Nov. 2018	25	 Set the risk reduction targets (10 years) of the current disaster scenario Extraction of problems facing the risk reduction target Enumeration of measures to solve the problem
Aimag	WS4	18 Feb. 2019	23	 Enumeration of measures to resolve issues (continued) Designation of major response agencies Setting of implementation time, period of measure

Bayangol District			8	Set the risk reduction targets (10 years) of the current disaster
Chingeltei District	Joint WS2	31 Jan. 2019	8	scenario Extraction of problems facing the risk reduction target Enumeration of measures to solve the problem
Bayangol District			1	Enumeration of measures to resolve issues (continued)
Chingeltei District	Joint WS3	9 May 2019	7	 Designation of major response agencies Setting of implementation time, period of measure

Activity 1.3.3 To improve the present system which collect and analyze information on disaster risk reduction

The NEMA is responsible for improving the database for disaster related data under the Article 14 "Creating a Disaster Database" of the amended Law on Disaster Protection. From the point of views of carrying out the NEMA's duty in the Law and contributing to the priority actions in "Sendai Framework for Disaster Risk Reduction 2015-2030" in Mongolia, the improvement policy of the present system had been discussed in the WG1 and now following actions are being implemented.

1) Development of Guideline for Operation and Management of Spatial Information System for Disaster Risk Reduction (SISDRR)

After the drafting work by the sub-WG members and new division staffs, and some modifications of the draft GL based on the suggestions from directors in NEMA headquarters, finally the GL on Operation and Management of Spatial Information System for Disaster Risk Reduction (SISDRR) was approved as the order A/47 by the head of NEMA on 20 February 2019.

2) Upgrading installed SISDRR and Modifying Existing Information System in the NEMA for Management of Disaster Incident Records

As one of utilization ways of SISDRR, the Sub-WG members discussed the better way to accumulate disaster incident records from regional offices in consideration of indicators for monitoring and reporting on progress in achieving the global targets of the Sendai Framework for DRR (SFDRR). Then, the Sub-WG members got on the improvement work of existing Daily-Basis Incident Report System (DBIRS) managed by the Public Announcement and Emergency Administration Centre in NEMA. And, the part of existing SISDRR installed in the Project is being upgraded in order to secure the good relation with DBIRS. As of end of May 2019, both works is still ongoing.

3) Making Agreements for Spatial Database Sharing with Related Organizations

The Sub-WG members have spent their time and effort making agreements for spatial database sharing between NEMA and DRR related organizations to develop better environment of data utilization for DRR related activities in Mongolia.

The agreement between the Administration of Land Affairs, Geodesy, and Cartography of Mongolia (hereafter referred to as "ALAGaC") and NEMA was concluded in April 2018 (within the previous reporting period) as the first official agreement on cooperation and spatial data sharing.

In this reporting period, the official agreement between NEMA and the Master Planning Agency of Capital City was concluded on 5 March 2019 after a series of discussions about both technical matters and administrative affairs.

4) Implementation of Training for Utilization of SISDRR in NEMA

For formulating new organization structure for operation and management of SISDRR, assessment and development of human capacity for NEMA Headquarters as well as EMDC and local offices in 21 Aimags are one of the key actions. Therefore, The Sub-WG members and new division staffs are providing a series of training for gaining basic knowledge and skill of SISDRR utilization targeted to central and regional offices of NEMA from March 2018.

In this reporting period, on April 30, 2019, The Sub-WG members and new division staffs conducted 3nd training for operation and management of SISDRR to invite 42 staffs from EMDC, Emergency Management Department of 21 Aimags and the Public Announcement and Emergency Administration Centre in NEMA Headquarters. The main purpose of the training was to learn how to register data for all types of hazards and accidents in SISDRR. The training mainly consisted of hands-on practices using own computers.

Furthermore, it was planned to conduct a series of training targeted to each department of NEMA Headquarters to gain better understanding SISDRR O&M based on the new order A/47 by the head of NEMA. The Sub-WG members has already prepared draft schedule of the training, and they are going to get on this training after getting an approval of the schedule.

Activity 1.3.4 To elaborate white paper on disaster risk reduction which let the Mongolian people know the progress on implementation, monitoring, evaluation of disaster risk reduction plan at national and local levels through the activities of 1.3.1 and 1.3.2

"Mongolia Disaster Risk Reduction White Paper 2017" was published in December 2018. The contents of the Paper are shown in Table 2-3.

Table 2-3 Contents of White Paper

Chapter 1. Current State and Restructuring of the Legal Environment of Disaster Risk Reduction in Mongolia

- 1.1. Mongolian Disaster Risk Reduction Legislation
- 1.2. Disaster Risk Reduction Policy Documents
- 1.3. Structure and Organization of Disaster Risk Reduction Activities.

Chapter 2. Disaster Risk Reduction Activities

- 2.1. Emergencies, Disasters and Accidents that have Occurred in Mongolia in 2017, Measures Taken
- 2.2. Disaster Risk Reduction and Disaster Prevention Activities
- 2.3. Disaster Risk Reduction Training and Awareness-Raising
- 2.4. Measures to Ensure Disaster Preparedness
- 2.5. Disaster Alerts and Emergency Management
- 2.6. Disaster Risk Reduction Personnel and Equipment
- 2.7. Disaster Risk Reduction Training

Chapter 3. Multilateral Cooperation in Disaster Risk Reduction

- 3.1. International Cooperation in Disaster Risk Reduction
- 3.2. Coordination of Disaster Risk Reduction Authorities
- 3.3. Participation of Non-Governmental Organizations, Community-Based Organizations and Citizens in Disaster Risk Reduction Activities

Chapter 4. Fire Protection

- 4.1. Documents Related to Fire Protection
- 4.2. Activities to Combat Fires

Chapter 5. Strategic Reserves and Humanitarian Aid

- 5.1. Documents Related to Strategic Reserves and Humanitarian Aid
- 5.2. Activities Related to Strategic Reserves and Humanitarian Aid

Chapter 6. Earthquake Disaster Prevention Activities

- 6.1. Earthquake Disaster Prevention Standing Committee
- 6.2. Documents Related to Enhancing Earthquake Disaster Prevention Measures
- 6.3. Study of the Faults Near Ulaanbaatar City
- 6.4. Earthquake Emergency Plan for Ulaanbaatar City

Chapter 7. Disaster Research and Disaster Risk Reduction Research Activities

- 7.1. Research Conducted by the Disaster Research Institute
- 7.2. Disaster Risk Reduction Database

Chapter 8. Disaster Risk Reduction Budget and Investment

- 8.1. Investments from the National Budget
- 8.2. Foreign Investments
- 8.3. Projects and Programs Being Implemented at the National Emergency Management Agency
- 8.4. Compensation for Disaster Victims

Appendixes

1 List of Legal Documents Related to Disaster Risk Reduction

The WG1 member also prepared the creation manual of the white paper. This manual explains about following items while reviewing the process of preparing the white paper in 2017:

Establishment of a white paper preparation working group

- Discussion of composition and contents
- Determination of collection sources
- Collection of materials
- Arrangement of collected materials
- Preparation of manuscripts
- Editing of manuscripts
- Instruction and management of English translation
- Management of editing by a printing company, etc.,

Based on the manual, working group for the Disaster Reduction White Paper 2018 were established and the preparation work has started.

Activity 1.3.5 To improve the system of database on seismic strength of buildings, infrastructure and lifeline

As described in the Activity 1.3.3, the SISDRR is upgrading to manage spatial database for DRR including the result of seismic diagnosis of buildings, infrastructures and lifelines which will be evaluate by appropriate organizations.

Based on the agreement for data exchange with the Master Planning Agency of Capital City, the environment to share the result of seismic diagnosis of buildings assessed by UB City with NEMA was developed.

Furthermore, the WG1 members is under preparation for uploading the result of earthquake risk evaluation of buildings, infrastructures and lifelines in UB City estimated in the former JICA's project named as "The Project for Strengthening the Capacity of Seismic Disaster Risk Management in Ulaanbaatar City" to the SISDRR. The contents of spatial database for DRR are gradually increasing as a supporting system for planning of disaster protection.

(3) Output2

Activity 2.1.1 To analyze the manual of seismic assessment of buildings and lifeline based on the context of the Law of Disaster Protection and develop the draft of revised version

The activity was completed within the previous reporting period.

The WG2 members investigated the current standards and regulations and concluded that issues identified through the investigation will be reflected in the guidelines newly established in the Project.

Activity 2.1.2 To develop guidelines-methodologies which show the method for implementing seismic assessment for buildings and lifelines, and how to use equipment

The activity was completed within the previous reporting period.

On 6 November 2018, the GLs for buildings were approved by No.185 Ministerial Order of MCUD.

And on 28 December 2018, the GL for infra structures and lifeline structures was approved by No. 174/303 Joint Ministerial Order of MCUD and MRTD as shown in Figure 2.1.



Figure 2.1 Joint Approvals on GL by the Ministers of MCUD & MTRD

Activity 2.1.3: Implementation of the

Training to Improve Knowledge and Ability for Those Who Carry Out Seismic Estimation on Structures and Lifelines

After the approval of GLs, WG2 has conducted training for seismic evaluation on structures and lifelines not only to the officers in relevant organizations but also to the engineers in private companies, as summarized in Table 2.1.

Table 2.1 Result of training for seismic evaluation.

14516 2.1	result of training for seisini	o cvaldation	
Name of Training	Participants	Venue	

Date	Name of Training	Participants	Venue	Note
2019.1.30	Seismic evaluation for buildings	30 from private companies	MACE	Conducted as MACE's program
2019.3.21	Seismic Evaluation for Buildings	28 from private companies	MACE	Conducted as MACE's program

Date	Name of Training	Participants	Venue	Note
2019.3.28	Seismic evaluation and strengthening	31 in charge of seismic evaluation in each aimag office of MCUD and CDC	CDC	Conducted as part of TOT
2019.4.19	Seismic Evaluation for Buildings	10 from private companies	MACE	Conducted as MACE's program
2019.5.6 to present	TOT for NEMA	3 from risk management agency, NEMA	NEMA	The series of training
2019.5.10	TOT for GASI (building)	4 from relevant sections in GASI	MCUD	
2019.5.13	TOT for MCUD, CDC, ALAGaC	4 from relevant sections in MCUD and CDC	MCUD	
2019.5.14	TOT for UBMPA	5 from UBMPA	UBMPA	
2019.5.15	TOT for GASI (Infra, Lifeline)	6 from relevant sections in GASI	GASI	

It is noted that WG2 decided to conduct TOT for each target organization including private companies, since the objective of seismic evaluation and strengthening differ depending on the target organization. In the same way, technical backbone of each organization is also different.

It is also noticed that TOTs are conducted for small number of participants to make face-to face meeting available, since detailed explanations and discussions are needed for enough technology transfer. Of course, technology transfer is time-consuming, so that the TOTs will be conducted repeatedly.









For NEMA

For MCUD & CDC

For GASI

For UBMPA

Figure 2.2 Training of Trainers for each Relevant Organizations

Activity 2.2.1 To develop guidelines-methodologies on seismic strengthening and reconstruction of buildings

The activity was completed within the previous reporting period.

As mentioned above, GLs were approved by minister of MCUD on November 6, 2018.

Activity 2.2.2: Trial Design of Rebuilding and Strengthening Construction for Housing, Kindergartens, Schools, Hospitals and Government Buildings

The WG2 members discussed the selection of model buildings that will be used in the trial design. Based on the work plan five buildings with various usage and structural type were selected as shown in Table 2.2. The location and external appearance of the buildings are summarized in Fig.2.3.

Structural Type	Usage	Name	Location	Note
	Kindergarten	No. 105 Kindergarten	Songino Khairkhan District	Constructed with standard design drawings
Masonry	School	No. 97 School	Bayanzurkh District	Constructed with standard design drawings
	Public Office	NEMA	Sukhbaatar District	Public office necessary for emergency response
RC	Hospital	No.1 Gynecology Hospital	Sukhbaatar District	One of few RC hospital buildings
PC	Apartment House	9-Storey Apartment	Bayangol District	Apartment house based on standard design

Table 2.2 Model buildings for seismic strengthening

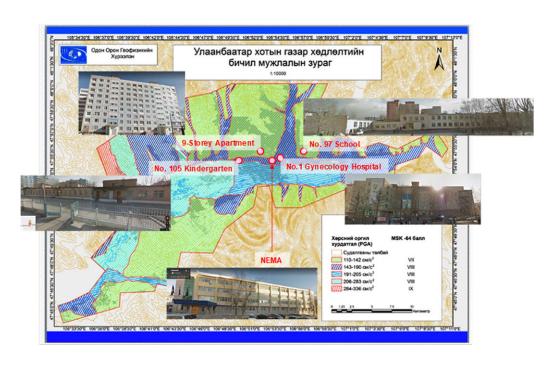


Figure 2.3 Location and External Appearance of Model Buildings for Trial Design

The data necessary for strengthening design for these buildings, such as design drawings,

calculation sheets, report of existing seismic evaluation and so on were collected and arranged by WG2, followed by the precise seismic evaluation by which trial strengthening design will be conducted.

Following data collection, the precise seismic evaluation was conducted for RC and PC buildings in accordance with GLs established, to obtain the necessary amount of strengthening as required in Japan. Then seismic strengthening design were conducted for the buildings. Figures 2.4 to 2.6 show the examples of design drawings.

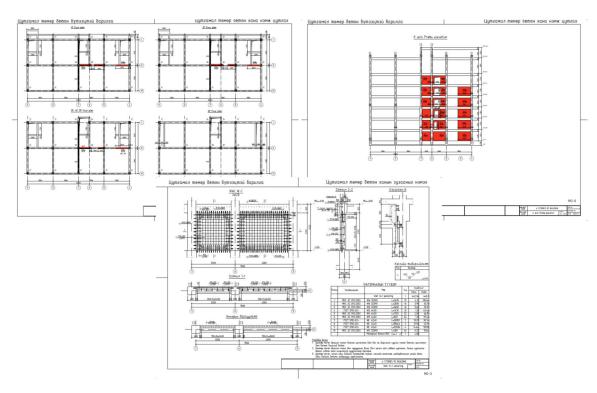


Figure 2.4 Example of Strengthening the RC building by Additional RC Walls

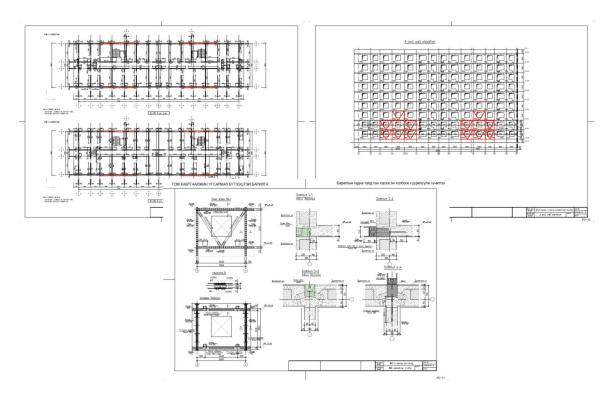


Figure 2.5 Example of Strengthening the PC building by Outer Frame

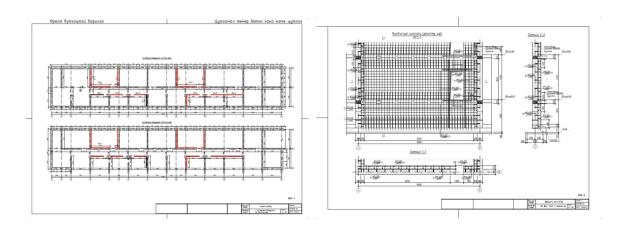


Figure 2.6 Example of Strengthening the masonry building by Additional RC Walls

It is noted some other types of strengthening method were examined and applied to make trial of strengthening design compatible to GLs.

Activity 2.2.3: To realize training programs with the participation of NEMA for enhancing knowledge and capacity of the experts who implement seismic strengthening of buildings

The WG2 members discussed about the training course for seismic strengthening and decided the date, venue, program as shown in Table.2.3.

Table 2.3 Outline of training for seismic strengthening

	5.1	5.2	5.3
	Disaster Protection Training and Methodology Centre		
AM	Opening remarkPlenary lecture 1Introduction of Mongolian Activity	Lecture & exercise of precise seismic evaluation 1	Lecture & exercise of precise seismic strengthening 1
PM	Practice in Japan Plenary lecture 2	Lecture & exercise of precise seismic evaluation 2	Lecture & exercise of precise seismic strengthening 2 Closing remark Awarding



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Group Photo at Training Center

Plenary Lecture by Prof. Ganzorig







Training of Seismic Strengthening

Figure 2.7 Training of Seismic Strengthening

65 participants from each organization including engineers from private companies learned the methodology and did the exercise. Result of questionnaire survey suggests that the training was useful and satisfactory for attendants, though some points commented shall be improved for the future trainings.

(4) Output3

Activity 3.1.1 To develop a guideline which shows contents, method and implementation way of disaster risk reduction (DRR) education in kindergarten and primary and secondary schools based on Law of Disaster Protection

The activity was completed on April 6, 2018 (within the previous reporting period) with the approval of the guideline titled "The Program for Life Safety Education".

Activity 3.1.2: To develop educational materials such as textbooks and supplementary readers for DRR education in kindergarten and primary and secondary schools

The writing and editing work of the "Guidebook" for teachers to implement lessons based on the "The Program of Life Safety Education" was continuously proceeded by each working group member. The final draft from each member was edited in consideration of the total structure and compiled as guidebooks for pre-school education and primary and secondary school education from March to the beginning of May 2019.

The table of contents of the final draft is as shown in the below table.

Table of Contents of Guidebook for Primary and Secondary Education

Foreword

Life-Safety Education Program

Introduction

- ♦ Background of "Life-Safety Education" Program
- ♦ Outline of "Life-Safety Education" Program
- ♦ Contents and How to Utilize "Guidebook"

Chapt. 1: Understanding of Disasters

- Disaster Situation
- ♦ Disaster, Hazard, Vulnerability
- ♦ Earthquake and DRR

Chapt. 2: Lesson Plans in the Subjects for Elementary School

- ♦ Environmental Safety: Develop a sense of direction
- ♦ Environmental Safety: Climate Change
- Natural Disasters: Build Earthquake Resistant Buildings
- ♦ Earthquake DRR
- ♦ Fire Disaster Prevention

Chapt. 3: Lesson Plans in the Subjects for Lower Secondary School

- Environmental Safety: Health Protection from Water Pollution
- Abnormal Weather Phenomenon: "Become Weather Forecaster" / Our Roles for Addressing Climate Change
- Natural Disasters: Protect Ourselves from Earthquake / Protection from Lightening Disaster

Chapt. 4: Lesson Plans in the Subjects for Upper Secondary School

- Natural Disasters: Family Risk Management Planning
- Social Environmental Safety: Prevention from Cyber Crime

Chapt. 5: Education Activity and Teaching Method

- Example of defider Activity
 Extracurricular Activity
- Elementary School: Contents of Life-Safety Education in the Extracurricular Activity
- Lower Secondary School: Contents of Life-Safety Education in the Extracurricular Activity
- Upper Secondary School: Contents of Life-Safety Education in the Extracurricular Activity

Glossarv

List of Reference Documents

Table of Contents of Guidebook for Pre-school Education

Foreword

Life-Safety Education Program

Chapt. 1: Understanding of Disasters and Safety in Pre-schools

- 1.1 Basic Understanding of Disasters
- 1.2 Disaster, Hazard, Vulnerability, and Risk

Chapt. 2: Incorporating DRR Education Contents in the Pre-school Education Curriculum

- 2.1 Consistency of "Life-Safety Education Program" in the Pre-School Education "Core Program"
- 2.2 Implementation of "Life-Safety Education" Program in the Daily Education Activities
- 2.3 Examples of Lesson Plans

Glossary

List of Reference Documents

The final draft submitted to the Ministry of Education, Culture, Science and Sports (hereinafter referred to as "MECSS") in May 2019 will be modified and finalized based on the comments provided by the reviewers in the official process of the MECSS.

The Guidebook will be printed and distributed to the schools and kindergartens across the country after the completion of review and modification process from June to September 2019.

Activity 3.1.3: To implement training programs for the instructors of Teacher Training Institutes and experts of educational departments in local governments, using the guideline and materials developed in 3.1.1 and 3.1.2 respectively.

The activity was completed by November 2018 (within the previous reporting period) with the implementation of the pre-workshop on 11-13 September 2018, training programs on 18-21 September and 8-11 October 2018.

Activity 3.1.4 To implement the training program for teachers by the instructors and experts who received the training programs mentioned in 3.1.3

On 27-28 December 2018, a training program on "Life-Safety Education" was conducted for the principals and teacher's instructors of kindergartens in Bayanzurkh district with the support of EMDC, WG3-1 members, and Japanese Expert Team.

On 16 January 2019, the instructors who were trained in the Activity 3.1.3 conducted DRR training in the MECSS's regular in-service training for 10-year experienced teachers with the support of the Japanese Expert Team.

Further, the model school activities were conducted to give good examples for promoting

DRR education in line with the "Life-Safety Education Program" in the No. 244 kindergarten, No.13 school, and No. 42 school as shown in the below table.

Purpose Participants	 ♦ To give good examples for promoting DRR education in line with the "Life-Safety Education Program" in pre-school, primary and secondary education ♦ To develop video program of the lessons which are conducted as a final result of model school activities for the annex of "Guidebook" Students, teachers and staff of the selected model schools, Staff of Education 			
	Department and EMDC located, and WG3-1 me		trict which the selecte	ed model schools are
Duration	5-19 March 2019	IIIDOIO		
Venue	Selected Model Schools	3		
Main Activities,		No. 244 Kindergarten	No. 13 School (primary)	No. 42 School (lower-secondary)
Date and Time (no. of participants)	Seminar for Teachers and Staff	3/5 10:00~13:00 (43 persons)	3/7 10:10~13:10 (53 persons)	3/6 9:30~12:30 (38 persons)
,	2) Workshop 1 for model lessons	3/11 10:00~13:00 (14 persons)	3/12 10:15~13:10 (4 persons)	3/11 14:00~17:00 (5 persons)
	3) Workshop 2 for model lessons	3/13 14:00~17:00 (16 persons)	3/14 16:00~18:00 (4 persons)	3/13 10:00~13:00 (5 persons)
	4) Research Lessons of "Life-Safety Education"	3/15 9:30~10:30 (Evaluation meeting after the lesson) (13 persons)	3/19 10:15~11:40 (Evaluation meeting after the lesson) (4 persons)	3/18 12:20~14:00 (Evaluation meeting after the lesson) (8 persons)

-	No. 244 Kindergarten	No. 13 School	No. 42 School
	rto. 2 i i randorganton	(primary)	(lower-secondary)
Seminars			
Workshops	NOSCOPYION COPPORT OF THE PROPERTY OF THE PROP	C SAURI C SAUR	
Lesoons			

Additionally, in September 2019, the training program for "Life-Safety Education Program" will be conducted in the MECSS regular in-service training by Institute of Teacher's Professional Development (ITPD) using the developed "Guidebook" for the Program.

Activity 3.2.1 To develop comprehensive work plan for disaster risk reduction education and raising awareness at national and local levels

<Webpage for sharing the DRR training schedule>

The website development was completed in January 2019 with the creation of manual*. On 31 January, a meeting to explain the system was conducted for the persons concerned in the NEMA meeting room. 21 persons from NEMA, EMDC, UNDP, Save the Children, World Vison, Mongolian Red Cross, and other donor organizations were attended the meeting. Further on-line briefing session was provided for the 57 persons in charge in 21 NEMA district offices.

(*refer to http://ontsgoisur.gov.mn/pages/taylan-4w-programm-khangamzhiyn-taniltsuulga-garyn-avlaga)

The website (http://4w.ontsgoisur.gov.mn/) started trial operation from 1 February 2019 and modified and improved based on the comments and opinions by the users by the end of April 2019. No major modifications were proposed.



Top Page of Website for sharing the DRR training schedule



Meeting to explain the website system



On-line briefing to district offices

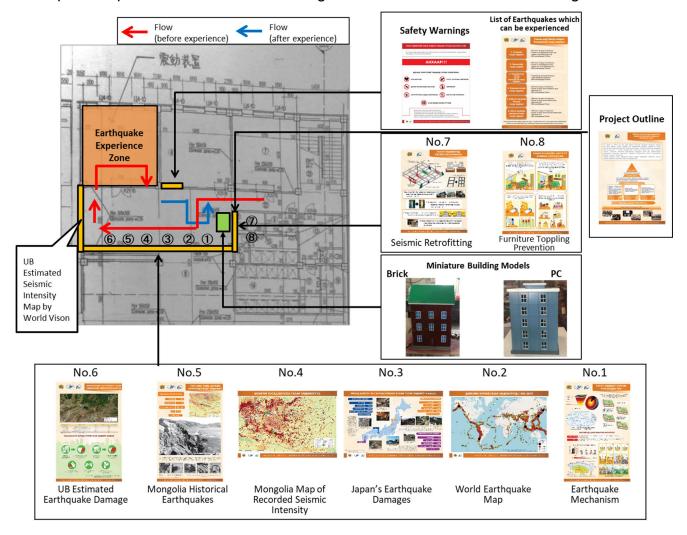
Activity 3.2.2 To develop materials for the training on disaster risk reduction education and raising awareness, and implement the training for the target groups in pilot areas

The activity was completed with the development of manual within the previous reporting period (http://ontsgoisur.gov.mn/pages/khen-ch-khezee-ch-khaana-ch-belen).

Activity 3.2.3 To develop and implement educational and training program for implementing disaster prevention and simulation program in Training Center

<Panels for the Earthquake Experience Room>

The panel development was completed in March 2019 and all the panels were exhibited together with the miniature building models for learning seismic retrofitting in the earthquake experience room of the Training Center as shown in the below image.



Further, the model to learn the relation of scale of Magnitude and its energy was developed and installed in the earthquake experience room.







Panels and Models Installed in the Earthquake Experience Room

<Educational material for Kids' Room>

As the Kids' Room educational material, a picture-story show (Kamishibai) for learning earthquake DRR was developed after discussion among working group members and

coordination with the World Vision's relevant activities. On 24 April 2019, using the developed picture-story show, a lesson for kindergarten pupils were conducted as a launching of the material. Beside the picture-story show with frame was installed in the Training Center, the printed materials were distributed to NEMA, EMDC, MECSS, Education Research Institute, ITPD, and the model schools of the WG3.1 activities.





Developed picture-story show for learning earthquake DRR

Lesson used the picture-story show

1-3 Achievement of Output

(1) Output1

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

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

Achievement in this term:

The WG1 has a plan to develop two (2) types of Earthquake Disaster Risk Assessment GLs, four (4) types of Earthquake Disaster Protection Planning GLs and one (1) Disaster Database GL.

Regarding Earthquake Disaster Risk Assessment GL, the WG1 members integrated the Comprehensive Earthquake Risk Assessment GL and Detailed Earthquake Risk Assessment GL. Technical GL for Earthquake Risk Assessment has been prepared by the WG1 members. Application software for simplified earthquake risk assessment was developed in the previous reporting period. The risk assessment method prescribes a method suitable for Mongolia so that governmental staffs who do not have expert knowledge about earthquake risk can evaluate.

Regarding Earthquake Disaster Protection Planning GLs, Aimag / Soum Level and Capital City / District Level have been developed. On the other hand, National Level and State Services Level are under development.

Regarding disaster database GL, the GL on Operation and Management of Spatial Information System for Disaster Risk Reduction (SISDRR) was approved as the order A/47 by the head of NEMA on 20 February 2019.

1.2 The number of the draft of agreement developed and participants who participated in the training programs on agreements

Achievement in this term:

Following four (4) fields of agreement were signed by this reporting period.

- Stable supply of foods and water to evacuation places and temporary housings: The agreement was signed on 16 October 2018 between NEMA and the MOFA.
- Stable supply of medicines during disaster: The agreements between MOH and three major pharmaceutical sales companies were signed on 7 November 2018.

- Spatial Database Exchange: the official greement between ALAGaC and NEMA was concluded in April 2018 as the first official agreement on cooperation and spatial data sharing.
- Spatial Database Exchange: the official agreement between NEMA and the Master Planning Agency of Capital City was concluded on 5 March 2019 after a series of discussions about both technical matters and administrative affairs.

Draft agreements are under discussion with following sectors.

- Supply of construction materials and temporary housings
- Stable transport and securing road transport during disaster
- Stable fuel supply during disaster
- Set up priority telephone lines on disaster
- Emergency water supply on disaster
- Usage of public buildings, especially schools as evacuation places
- Wastewater treatment at the evacuation place

In order to test the effectiveness of agreement for earthquake disaster response, and to demonstrate good practice of agreement to promote agreement in health sector to other sectors, a joint training was made on April 9, 2018 in UB City. A total of 38 participants from various sectors jointed the training.

1.3 White paper on disaster risk reduction

Achievement in this term:

The 2017 White Paper on Disaster Risk Reduction in Mongolia was published in both Mongolian and English version. The creation manual of the White Paper was prepared.

(2) Output2

The following two indicators are applied to evaluate the achievement of the Output 2 based on the PDM.

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

The achievement in this term:

<Guidelines>

The WG2 completed the four (4) types of GLs for seismic evaluation of buildings (RC, PC and Masonry) and infrastructures and lifelines. On 6 November 2018, the GLs for buildings were approved by No.185 Ministerial Order of MCUD. And on 28 December 2018, the GL for infra structures and lifeline structures was approved by No. 174/303 Joint Ministerial Order of MCUD and MRTD.

<Training Program>

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

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

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

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

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

The achievement in this term:

<Guidelines>

The WG2 members decided that seismic evaluation and seismic strengthening should be combined in one GL for each building structure except for Infrastructures and lifelines. As mentioned above, the WG2 completed the three (3) types of GLs for seismic evaluation including seismic strengthening of buildings (RC, PC and Masonry) and they were

approved by the minister of MCUD on November 6, 2018.

<Training Program>

On May 1 to 3m 2019, the planned training course on seismic strengthening was conducted, in which 65 trainees participated. It is noted that the number of participants was beyond the estimate.

(3) Output3

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

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

Achievement in this term:

The WG3 developed the GL in April 2018 and the Guidebook to teach "Life-Safety Education" in May 2019 (currently in the approved process) for DRR education and raising awareness, and it has not reached the stage of evaluation with quantitative indicators.

3.2 The number of visitors in Training Center

Achievement in this term:

The WG3 developed educational materials in March 2019 and is now improving training program for the Training Center in line with the "Life-Safety Education" Program for DRR education and raising awareness.

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

As of end of May 2019, the number of visitors to DPTMC who participated in the training program for implementing earthquake disaster prevention from opening at the Earthquake Experience Room was about 7,400 persons collectively. The breakdown of visitors' number is shown in below,

Group of Visitors	N	lumber of Visitor	rs
Group of Visitors	March, 2019	April, 2019	May, 2019
Public Service	1,166	1,259	541
Private Firm	58	558	611
Residents	0	445	450
School Students including Kindergarten, Primary, Lower-Secondary, higher-Secondary	1,920	925	800
University & College Students	160	685	930
Teachers	127	83	68
Total	3,431	3,955	3,400

1-4 Achievement of the Project Purpose

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

1. The number of the approved guidelines and agreement

2. The number of the data on disaster risk reduction which newly established and improved

The achievement in this term:

Activities for developing GLs, agreements, and necessary materials have been continued at each WG. In order to ensure sustainability after the Project, each activity is planned and implemented so that GLs and other related outputs which will be developed in the Project are approved by NEMA, MCUD or MECSS through their standard procedures. The existing status of developing related documents are as below;

Doo	cuments Prepared in each Activity	Administrative Jurisdiction	Existing Status of Development
	National Earthquake Disaster Protection Planning GL	NEMA	Draft GL was completed. It will be finally compiled for the submission to the Executive Committee of NEMA
	State Earthquake Disaster Protection Service Planning GL	NEMA	Draft GL was completed. It will be finally compiled for the submission to the Executive Committee of NEMA
Output1	Aimag / Soum Level Earthquake Disaster Protection Planning GL	NEMA	Draft GL was completed. It will be updated or revised based on the feedbacks from pilot Aimags.
	Capital City / District Level Earthquake Disaster Protection Planning GL	EMDC	Draft GL was completed. It will be updated or revised based on the feedbacks from pilot Districts
	Earthquake Disaster Risk Assessment GL	NEMA	Draft GL for Comprehensive version was updated base on comments from the JET. Only the framework of draft

Doo	cuments Prepared in each Activity	Administrative Jurisdiction	Existing Status of Development
			GL for detailed version was confirmed.
	GL on Operation and Management of Spatial Information System for Disaster Risk Reduction (SISDRR)	NEMA	The GL was approved as the order A/47 by the head of NEMA on 20 February 2019.
	Agreements	NEMA or other related organizations	Four (4) fields of agreements were signed officially and seven (7) fields of agreements were drafted by this reporting period.
	White Paper	NEMA	"Mongolia Disaster Risk Reduction White Paper 2017" was completed
	Seismic Evaluation and Retrofitting Method of Existing Reinforced Concrete Buildings	MCUD	The GL was approved by the minister of MCUD on November 6, 2018.
Output2	Seismic Evaluation and Retrofitting Method of Existing Wall Type Precast Concrete Buildings	MCUD	The GL was approved by the minister of MCUD on November 6, 2018.
	Seismic Evaluation and Retrofitting Method of Existing Masonry Buildings	MCUD	The GL was approved by the minister of MCUD on November 6, 2018.
	Seismic Evaluation Method of Infrastructures and Pipelines	MCUD, MTRD	The GL was jointly approved by the ministers of MCUD and MTRD on December 28, 2018.
	Life Safety Education Program	MECSS	Approved on April 6, 2018
Output3	Guidebook for Life Safety Education	MECSS	Developed in May 2019 and currently in the official review process.
	Instructor's Manual (with DVD) for Community DRR Training	NEMA	Completed and printed 150 copies in August 2018.

1-5 Changes of Risks and Actions for Mitigation

(1) Output1

1) Delay of the compilation work of the GLs

The four (4) GLs are almost in the final compilation stage and are in preparation for submission to the Executive Committee of NEMA. However, the persons in charge in the WG1 were busy with preparation and implementation of the disaster protection training conducted in April 2019. They were hardly able to work for the Project during this period. Thus, the preparation work of GLs is delayed. It is ironic that our activities are delayed by disaster protection training that reflects our activities.

2) Recognize the need for effective investment

The WG members must recognize and understand the needs for the effective investment. In Mongolia, buildings, infrastructure and lifelines are the most vulnerable "residual risks". The "residual risk" is the disaster risk that remains even if effective disaster protection measures are taken. It should be recognized that most residual risk can be mitigated by investment.

In order to make an effective investment, it is necessary to look for the best combination of structural and non-structural measures, and should be prioritized in areas where there is a high potential for economic losses and urgent action is needed.

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

3) Preparation Work of the White Paper 2018

Although the working group for the White Paper 2018 has been established, the preparation work for 2018 version has not started yet. In order to issue the 2018 version at an appropriate time, the preparation work must start soon using the manual prepared by WG1. Since the 2018 version is issued during the Project period, JET must work on NEMA side so that better white paper can be created.

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

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

(2) Output2

1) Absence of Leader of Working Group

Due to the retirement of Mr. L. Bilegjargal, the previous leader of WG2, WG2 has to act without group leader. Since the activity of WG2 is now to conduct TOTs in some individual organizations including MACE, the strong leadership is still needed to promote disseminate the technology.

So, it is an urgent matter to have new leader assigned and to give him/her the knowledge and information up to present.

2) Amendment of Training Tools

Through training courses, it was seen that some items in training tools, such as calculation spread sheets, had better be amended, though the responsibility for results is not on the distributor but on the users.

So, WG2 will continue to find other reconcile items and amend them, so that the tools will be adequately used.

(3) Output3

1) Delay of Individual Editing Work

Due to the frequent mission travels to districts of WG members, some personal situation including their or family's health problems and others, the individual editing work for the Guidebook development by working group members had been delayed. MECSS included the work in the MECSS's official work plan of 2019 and finally the work was completed in May 2019.

1-6 Progress of Actions undertaken by JICA

Japanese side requested that Mongolian side shall implement essential countermeasures against further inundation at the DPTMC since the basement floor of the Center was intruded by ground water after heavy rain in early September 2018.

1-7 Progress of Actions undertaken by Gov. of Mongolia

Mongolian side has a duty to conduct waterproofing work of whole basement floor of DPTMC with adequate construction management from the end of March to May 2019. Furthermore, Mongolian side explained that the budget for this waterproofing work has already been secured by EMDC as a part of the budget for inspection and maintenance of DPTMC, and the detailed schedule and the constructor of this work will be decided by the end of March 2019.

1-8 Progress of Environmental and Social Considerations (if applicable)

N/A

1-9 Progress of Considerations on Gender/Peace Building/Poverty Reduction (if applicable)

N/A

1-10 Other remarkable/considerable issues related/affect to the project (such as other JICA's projects, activities of counterparts, other donors, private sectors, NGOs etc.)

N/A

- 2. Delay of Work Schedule and/or Problems (if any)
- 2-1 Detail

N/A

2-2 Cause

N/A

2-3 Action to be taken

N/A

2-4 Roles of Responsible Persons/Organization (JICA, Gov. of Mongolia, etc.)

N/A

3. Modification of the Project Implementation Plan

3-1 PO

N/A

3-2 Other modifications on detailed implementation plan

(Remarks: The amendment of R/D and PDM (title of the project, duration, project site(s), target group(s), implementation structure, overall goal, project purpose, outputs, activities, and input) should be authorized by JICA HDQs. If the project team deems it necessary to modify any part of R/D and PDM, the team may propose the draft.)

N/A

4. Preparation of Gov. of Mongolia toward after completion of the 37

Project

In this term, the specific policy and actions are not discussed yet.

II. Project Monitoring Sheet I & II as Attached

Project Monitoring Sheet I Ver. 6.0 (Term: December, 2018 - May, 2019)

Version 6 Dated June 24th, 2019

Project Title: Project for Strengthening the National Capacity of Earthquake Disaster Protection and Prevention in Mongolia implementing Agency. National Emergency Management Agency (NEMA)

Target Group: NEMA, Ministry of Construction and Urban Development, Ministry of Education, Culture and Science, General State Inspection Agency, Emergency Management Department of the Capital City (EMDC), Construction Quality and Safety Department, Master Planning Agency of Capital City

Period of Project: December 2016 to November 2019 Project Site: Mongolia

Remarks		In order to ensure sustainability after the Project, each WG makes it a goal to get an approval of guidelines and other related outputs which will be developed in the Project from NEMA, MCUD or MECSS through their standard procedures.	1.1. The WG1 has a plan to prepare following GLs. Two (2) yyes of Earthquake Disaster Riak Assessment GL. 1. Comprehensive Earthquake Disaster Riak Assessment GL. 2. Throm of U.C. Comprehensive Earthquake Disaster Riak Assessment GL. 2. Throm of C.C. Comprehensive Earthquake Disaster Protection Planning GL. 2. State Earthquake Disaster Protection Planning GL. 3. State Earthquake Disaster Protection Planning GL. 3. State Earthquake Disaster Protection Planning GL. 4. Capital Ctty/ District Level Earthquake Disaster Protection Planning GL. Come (1) Statester databases GL. Come (1) Statester databases GL. Come (1) Castard databases GL. 1.2. Draft agreements are under discussion with following sectors. State protection materials and temporary housings Stable transport and securing road transport during disaster Stable transport and securing road transport during disaster Stable transport and securing road transport during disaster Stable transport and securing road disaster Emergency water supply of disaster Wastewater treatment at the evacuation places Wastewater treatment at the evacuation place	2.1 & 2.2: The WG2 has a plen to prepare following GLs. 1) Seismic Evaluation and Retrofitting Method of Existing Reinforced Concrete (RC) Buildings. 2) Seismic Evaluation and Retrofitting Method of Existing Wall Type Precast Concrete (PC) Buildings. (PC) Buildings. 3) Seismic Evaluation and Retrofitting Method of Existing Mesonry Buildings. 4) Seismic Evaluation Method of Infrastructures and Pipelines.	3.1: The GL for DRR education titled "The Program for Life Safety Education" was approved by MECSS on April 6th 2018. 3.2: The handing over ceremony of the equipment of earthquake simulation experience was conducted at the Earthquake Experience Room of the Disaster Protection Training and Methodology Center (DPTMC) on 20 March 2019.
Achievement		Activities for developing guidelines and related materials have been continued at each OUPUT activity. The latest status is as below. *Related to OUPUT: 3 (approved) / 9 (planned to be developed) *Related to OUPUT: 7 (approved) / 7 (planned to be developed) *Related to OUPUTS: 2 (approved) / 3 (planned to be developed)	1.1: Regarding Earthquake Disaster Risk Assessment (EDRA) GL, Detailed EDRA CL were inegated with Comprehensive EDRA GL. Technical GL for Earthquake Risk Assessment has been prepared be Responding Earthquake Desaster Protection Planning GLs, Alimag / Sourn Level and Capital City / District Level have been developed. On the other hand, National Level and State Services Level are under development. Regarding dissarte database GL, the CL on Operation and Management of Spatial Information System for Disaster Risk Reduction (SISDRR) was approved as the order A447 by the head of NEMA on 20 February 2019. 1.2: Following four (4) Fields of agreement were signed by this reporting period. States supply of needs and water to evacuation places and demonstray boards. Sable supply of needs and water to evacuation places and emprovary housings: The agreement was signed on 16 October 2018 between NEMA and the MOFA. Sable supply of needs and water to seaster The agreement between MOH and three major pharmaceutical sease companies were signed on? November 2018. Spatial Database Exchange: the official greement between ALAGaC and NEMA was concluded in AA12 1016. 1.3: The 2017 White Paper on Dissister Risk Reduction in Mongolis was published in prepared.	2.1.8.2.2: The WG22 completed the three (3) types of GLs for seismic evaluation and retrofitting method of buildings (RC, PC and Masonry) and the GL for sesmic evaluation method of infrastructure and filelines. One No evented 2018, the three GLs for buildings were approved by No. 185 Ministerial Order of MCUD. And on 28 December 2018, the GL for infrastructures and filelines was approved by No. 1474/303, John Ministerial Order of MCUD. and MRTD. Regading the training program, following programs have already been conducted. 198 retainess (New 12-13, 2018) -647-rainees (New 12-13, 2018) -211-rainees (May, 6-31, 2019) -211-rainees (May, 6-31, 2019)	3.1: The WG3 developed the GL in April 2018 and the Guidebook to teach "Life—Safety Education" in May 2019 (currently in the approved process) for DRR education and raising awareness, and it has not reached the stage of evaluation with quantitative indicators. 3.2: As of end of May 2019, the number of visitors to DPTMC who participated in the training program for implementing earthquake disaster prevention from opening at the Earthquake Experience Room was 5,800 persons collectively. The breakdown of visitors' number is shown in below.
Important Assumption	The policy on disaster risk reduction will not be changed in Mongdia.	NEMA expands the pilot activities in other aimags and sums.	1. The counterparts from NEMA, the Ministry of Corstruction and Urban Development and the Ministry of Declaration continue to work in the same position. 2. Pardicipants in training programs continue to work in the same position. 3. The relation among related organizations is maintained. 4. Exchange information is maintained among the related organizations.		
Means of Verification	Study by NEMA	Project report	Project report	Project report	Ordinance of Ministry of Education, Culture and Science Ordinance of NEMA
Objectively Verifiable Indicators	1. Number of the approved guideline, rules, provisions 2. Number of while paper open to public 3. Number of the executed seismic assessment 4. Number of the seismic strengthed building 5. Number of implemented activities on disaster risk reduction education	1. The number of the approved guidelines and agreement 2. The number of the data on disaster risk reduction which newly established and improved	1.1 The number of guidelines, operational rules, provisions which are developed. 1.2 The number of the draft of agreement developed and participants who participated in the training programs on agreements 1.3 White peper on disaster risk reduction	2.1 Guideline for seismic assessment. The number of the participants in the training program or seismic assessment. 2.2 Guideline for seismic strengthening strengthening strengthening.	3.1 The number of the cases of delivering classes on disaster risk reduction based on the activities of the Project 3.2 The number of visitos in Training Center
Narrative Summary	Overall Goal Seismic risk will be reduced.	Project Purpose The Capacity of National Emergency Management Agency will be enhanced through the activities for strengthening the countermeasures for seismic risk.	Outputs 1. Capacity for data collection on disaster risk reduction and coordination among related organizations will be enhanced.	2. Capacity of public administration officer related with the seismic assessment and seismic strengthening for buildings will be enhanced.	3. Implementing plan on disaster risk reduction advacation and awareness raising activities will be developed and realized.

The Mongolian Side gioment of counterparts older blasser Risk Management older Dispatch of Experts older Dispatch older Dispatc	Activities		Innuite	montant Accumution
A kasignment of counterparts - Regided Managers - Project Director - Project Managers -		The Mongolian Side		
Training in State Pervention Department, or Capital City (EMC). In State Planning Agency of Capital City (EMC). In State Planning Institute NEMA. In State Inspection Agency of Capital City (EMC). In State Planning Institute and Science Science Agency of Capital City (EMC). In State Planning Institute and Science Science Agency of Capital City (EMC). In State Planning Institute and Science Agency of Capital City (EMC). In State Planning Institute and Science Agency of Capital City (EMC). In State Planning Institute and Science Agency of Capital City (EMC). In State Planning Institute and Science Agency Amanagement Department, at aimag level	1.1.1 To identity problems and challenges on implementation of legal frameworks of disaster risk reduction	Assignment of counterparts		
Project Coordinator - Disaster Risk Reduction Information - Project Coordinator - Disaster Risk Reduction Information - Disaster Risk Reduction Information - Disaster Contul II - Disaster Pevention Department, - Disaster Pevention Depart	1.1.2 To develop guidelines on improvement of legal frameworks and plans, assessment of disaster risk and database on disaster risk reduction		Leader Disaster Risk Management	Pre-Conditions
For Output 7 Per Output 2 MEMA Disaster Pevention Department, Department, Capital City (EMDC) Disaster Pevention Department, Disaster Per Research Institute NEMA - Disaster Pevention Department, Disaster Per Research Institute NEMA - Disaster Pevention Department, Disaster Per Research Institute NEMA - Disaster Pevention Department, Disaster Per Research Institute NEMA - Disaster Pevention Department, Disaster Per Research Institute NEMA - Disaster Pevention Department, Disaster Per Research Institute NEMA - Nema Per Provision of Capital City (EMDC) - Disaster Pevention Department, Disaster Per Per Per Per Per Per Per Per Per P	1.1.3 To develop new regulation and the drafts(note 1-1)) of revised version of regulation on implementation		Disaster Risk Reduction Framework Disaster Risk Reduction Information	
For Output 1 For Output 2 Policy Coordination and Cooperation Dependment, NEMA Dependment, NEMA Dependment, NEMA Desemble of Cooperation De	of Law of disaster protection		Seismic Strengthening Assessment	\
- Disaster Operational Department, - Disaster Prevention Department, - Disaster Parenting Agency of Capital - Disaster Parenting Agency of Capital - Disaster Parenting Department, - Market Planning Agency of Capital - General State Inspection Agency - General State Inspection Department - Encacatory Management Department - Educational Research Institute - Encacatory Management Department - Encacatory Management Department - Encacatory Management Department - Encacatory Parenting Department - Encacatory Management Departm	1.2.1 To develop the draft of the agreement (note 1-2)) which shows the coordination and cooperation	For Output 1	Seismic Strengthening Method	
- Disaster Operational Department Disaster Research Institute, NEMA - Disaster Research Institute, NEMA - Disaster Research Institute, NEMA - Emergency Management Department Educational Research Institute Department of Capital City (EMDC) - Disaster Prevention Department Emergency Management Department Capital City (EMDC) - Disaster Prevention Department Ministry of Construction and Urban - Ministry of Construction and Urban - Development - Maristry of Cacutation, Culture and Development - City - City - Ministry of Education, Culture and City - City - Capital City (EMDC) - Disaster Prevention Department, - Ministry of Education, Culture and City - Cit	among NEMA and related organizations	- Policy Coordination and Cooperation	Seismic Strengthening Design Disaster Risk Reduction Education	<pre>< ssues and countermesures></pre>
NEMA - Disaster Prevention Department, - Disaster Research Institute, NEMA - Educational Material Development - Capital City (EMDC) - Disaster Research Institute, NEMA - Capital City (EMDC) - Disaster Prevention Department, - Ministry of Couput 2 - Disaster Prevention Department, - Ministry of Couput 3 - Ministry of Co	1.2.2 To realize training programs for disseminating the agreement menttioned in 1.2.1 and strengthening	- Disaster Operational Department	Disaster Risk Reduction at Committy Level	1) Output1 Delay of the compilation work of the GLs: The four (4) GLs are almost in
- Disaster Prevention Department, NEMA - Disaster Research Institute. NEMA - Emergency Management Department - Equipment for staint assessment - Equipment for Training Center such as straining Center of Capital Center of Center	the coordination structure among organizations related with disaster risk reduction	NEMA	Educational Material Development	the final compilation stage and are in preparation for submission to the Executive
Pleaster Research Institute, NEMA - Disaster Research Institute, NEMA - Emergency Management Department - Emergency Management Department - Earthquades simulation experience equipment for Training Center such as shaking table - Capital City (EMDC) - Earthquades simulation experience equipment for Training Center such as shaking table - Capital City (EMDC) - Disaster Poperational Department, - Master Parning Agency of Capital - Master Planning Agency of Capital - Master Planning Agency of Capital - General State Inspection Agency - Ministry of Education, Culture and - Science - Teacher Training Institute - Education Research Institute - Education Research Institute - Education Research Institute - Education Research Institute - Emergency Management Department at aimag level	1.3.1 To identify problems and challenge of monitoring, report, evaluation and disclosure of disaster	- Disaster Prevention Department,		Committee of NEWA. However, the persons in charge in the WG1 were busy with preparation and implementation of the disaster protection training conducted in April 2019.
- Emergency Management Department - Equipment for seismic assessment of Capital City (EMDC) - Earthquake simulation experience equipment for Training Center such as shaking table and of the third countries shaking table - Disaster Operational Department. - Disaster Prevention Department. - Missign of Construction and Urban Development - Master Planning Agency of Capital City - Ceneral State Inspection Agency of Capital City - Couput 3 - Encyclopment - Master Prevention Department, a Ministry of Education, Culture and Science - General State Inspection Agency of Education, Culture and Science - Emergency Management Department at aimag level	protection plan at national and local levels (note 1-3))	ter Research Institute NFMA	Provision of Equipment	They were hardly able to work for the Project during this period. Thus, the preparation
of Capital City (EMDC) - Earthquake simulation experience equipment for Training Center such as shaking table Training in Japan and/or the third countries - Disaster Prevention Department, NEMA - Ministry of Construction and Urban Development - Master Planning Agency of Capital City - General State Inspection Agency - General State Inspection Agency - General State Inspection Agency - Educational Research Institute - Educational Research Institute - Emergency Management Department at aimag level	1.3.2 To revise these plans and make a manual for the revision of disaster protection plan	nent Department	Equipment for seismic assessment	work of GLs is delayed. It is fronic that our activities are delayed by disaster protection training that reflects our activities.
Training in Japan and/or the third countries NEMA - Misster Prevention Department, - Ministry of Capital - General State Inspection Agency of Capital - General State Inspection Agency - Caneral State Inspection Agency - Carriania Institute - Educational Research Institute - Educational Research Institute - Emergency Management Department at aimag level	1.3.3 To improve the present system (note 1-4)) which collect and analyze information on disaster risk		Earthquake simulation experience equipment for Training Center such as	2) Output1 Recognize the need for effective investment: The WG members must
Training in Japan and/or the third countries Training in Japan and/or the third countries To Output 2 - Disaster Prevention Department, - Missing of Construction and Urban Development - Master Planning Agency of Capital City - Disaster Prevention Department, - Master Planning Agency of Capital City - Couput 3 - Concaral State Inspection Agency - Caneral State Inspection Agency - Carrian State Institute - Educational Research Institute - Educational Research Institute - Educational Research Institute - Emergency Management Department at aimag level	reduction		snaking table	recognize and understand the needs for the effective investment. In Mongolia, buildings, infrastructure and lifelines are the most vulnerable "residual risks". The "residual risk" is the
For Output 2 - Disaster Operational Department, - Disaster Prevention Department, - Disaster Prevention Department, - Ministry of Construction and Urban - Davelopment - Ministry of Construction Agency of Capital - Charles Planning Agency of Capital - City - General State Inspection Agency - General State Inspe	1.3.4 To develope white paper on disaster risk reduction which let the Mongolian people know the progress		raining in Japan and/or the third countries	disaster risk that remains even if effective disaster protection measures are taken. It should
1 Disaster Operational Department Disaster Prevention Department, - Disaster Prevention Department, - Nisaster Prevention Department, - Maristry of Construction and Urban - Master Planning Agency of Capital - City - Master Planning Agency of Capital - City - Couput 3 - Disaster Prevention Department, - Nerwa - Ministry of Education, Culture and - Salaster Prevention Department, - Educational Research Institute - Educational Research Department - Educational Research Institute	on implementation, monitoring, evaluation of disaster risk reduction plan at national and local levels through The activities of 1.3.1 to 1.3.3			be recognized that most residual risk can be mitigated by investment. In order to make an effective investment, it is necessary to look for the best combination of structural and non-
For Output 2 - Disaster Operational Department. - Disaster Prevention Department, NEMA - Ministry of Construction and Urban Development - Master Planning Agency of Capital City For Output 3 - Disaster Prevention Department, NEMA - Ministry of Education, Culture and Salate Inspection Agency - Educational Research Institute - Educational Research Institute - Educational Research Institute - Educational Research Institute - Emergency Management Department at aimag level				structural measures, and should be prioritized in areas where there is a high potential for
An instance of a contract of a	1.3.5 To improve the system of database on seismic strength of buildings, infrastructure and lifeline (note 1-			economic losses and urgent action is needed. And especially, it is necessary to make the
NEWA - Disaster Prevention Department, NEMA - Disaster Prevention Department, NEMA - Ministry of Construction and Urban Development - General State Inspection Agency of Capital City - General State Inspection Agency NEWA - Ministry of Education, Culture and Scheroe - Teacher Training Institute - Educational Research Institute - Educational Research Institute - Emergency Management Department at aimag level	2.1.1 To analyze the manual of seismic assessment of buildings and lifeline (note 2-1)) based on the context as the last of project was a Ricardon Branching and development of project was a second was a second with the second was a second	ш.		pian by recognizing the implementation schedule of structural measures that take time to complete.
- Disaster Prevention Department Disaster Prevention Department Master Planning Agency of Capital - General State Inspection Agency - Ge	of the Law of Disaster indecedual and develop the diatron levised vession. 10 the Law of Disaster indecedual and develop the diatron levised vession. 2.1.2.7 to Assalon anidelines, mathodologies foots.	- Disastel Operational Department.		3) Output1 Preparation Work of the White Paper 2018: Although the working group for
NEWA Ministry of Construction and Urban Development Master Planning Agency of Capital City Gity For Outbut 3 - Desater Prevention Department, NEWA Ministry of Education, Culture and Signere - Teacher Training Institute - Educational Research Institute - Educational Res	assessment for buildings and lifelines, and how to use equipment	- Disaster Prevention Department		the White Paper 2018 has been established, the preparation work for 2018 version has no
- Ministry of Construction and Urban Development - Master Planning Agency of Capital City - General State Inspection Agency - General State Inspection Agency - Disaster Prevention Department, NEMA - Ministry of Education, Culture and Science - Educational Research Institute - Educational Research Institute - Energency Management Department at aimag level	2.1.3 To implemnt training programs (note 2-3)) for enhancing the knowledge and capacity of experts who	NEMA		started yet. In order to issue the 2018 version at an appropriate time, the preparation work
Development - Master Planning Agency of Capital City - General State Inspection Agency - General State Inspection Agency - General State Inspection Agency - Disaster Prevention Department - Ministry of Education, Culture and Science - Tacacher Training Institute - Educational Research Institute - Educational Research Institute - Emergency Management Department at aimag level	assess the seismic strength of buildings and lifeline	- Ministry of Construction and Urban		must start soon using the mandar prepared by worm Since the 2010 version is issued during the Project period, JET must work on NEMA side so that better white paper can be
City General State Inspection Agency General State Inspection Agency General State Inspection Agency General State Inspection Agency General State Inspection Department NEMA NEMA Thinisty of Education, Culture and Science Teacher Training Institute	2.2.1 To develop guidelines-methodologies on seismic strengthening and reconstruction of buildings	Development		created.
City - General State Inspection Agency - General State Inspection Agency - Disaster Prevention Department - Disaster Prevention Culture and - Ministry of Education, Culture and - Ministry of Education Culture and - Traning Institute - Educational Research Institute - Educational Research Institute - Energency Management Department att aimag level	2.2.2 To support the introduction and dissemination of seismic strengthening techniques for reconstructing	 Master Planning Agency of Capital 		4) Output1 Make Redundancy of System Administration for SISDRR O&M: There are
- General State Inspection Agency For Outbut 3 - Disaster Prevention Department, - Ministry of Education, Culture and Science - Training Research Institute - Educational Research Institute - Energency Management Department at aimag level	collective housing, kindergarden, schools, hospital, national buildings and design the reconstruction and	City		some challenges regarding a shortage of human resources for system administration for SISDIDD 0.8M. The Spatial Information and Tachhology Division has a responsibility of
For Output 3 - Disaster Prevention Department, NEMA NEMA In missty of Education, Culture and Science - Teacher Training Institute - Educational Research Institute - Emergency Management Department at aimag level	seismic strengthening of each type of buildings a pilot	 General State Inspection Agency 		operation and management of SISDRR but there is only four staffs including division chief
- Drasster Prevention Department. NEMA - Ministry of Education, Culture and Solence - Teacher Training Institute - Educational Research Institute - Emcrainonal Resea	2.2.3. To realize training programs with the participation of NEMA for enhancing knowledge and capacity of			And the focal system engineer is only one staff as of now. If the key person leaves for the
For Output 3 - Disaster Prevention Department, - Ministry of Education, Culture and Science - Teacher Training Institute - Educational Research Institute - Emergency Management Department at aimag level	z.z.z. to regize training programs with the participation of buildings. The experts who implement seismic strengthening of buildings			division, it is difficult to keep a stable operation and management of SISDRR. It is serious
Pro Output 3 - Disaster Prevention Department, NEMA in the Mark of Education, Culture and Science and Science and Science and Research Institute actuations Research Institute at aimag level				risk and the JET requests to NEMA side to assign a few additional system engineers in the
NEMA - Ministry of Education, Culture and Science - Teacher Training Institute - Educational Research Institute - Emergency Management Department at aimag level	3.1.1 To develop a guideline which shows contents, method and implementation way of disaster risk	For Output 3		division to share the task of SISDRK Own. 5) Output? Absence of Leader of Working Group: Due to the retirement of Mr. I
Ministry of Education, Culture and Science - Science - Teacher Training Institute - Educational Research Institute - Emergency Management Department at aimag level	reduction education in Kindergaten and schools based on Law of Disaster Protection	- Disaster Prevention Department,		Bilegiardal, the previous leader of WG2. WG2 has to act without group leader. Since the
Science / Science / Leacher Training Institute - Educationa Research Institute - Energency Management Department at aimag level	3.1.2 To develop textbooks, supplementary readers and eduational materials related with disaster risk	- Ministry of Education. Culture and		activity of WG2 is now to conduct TOTs in some individual organizations including MACE,
- Teacher Training Institute - Educational Research Institute - Emergency Management Department at aimag level	reduction education in kindergarten and primary and secondary schools	Science		the strong leadership is still needed to promote disseminate the technology.
- Endeadory Management Department at aimag level at aimag level	3.1.3 To implement training programs for the instructors (note 3-1)) of Teacher Traininig Institutes and	- Teacher Training Institute		and information up to present.
at aimag level	experts of educational department in local governments, using the guideline and materials developed in	- Educational Research Institutie		6) Output2 Amendment of Training Tools: Through training courses, it was seen that
	o. i. alid o. i. z respectively	at aimag level		some items in training toots, such as calculation spread sneets, had better be amended, though the responsibility for results is not on the distributor but on the users. So, WG2 will
D	3.1.4 To implement the training program for teachers by the instructors and experts who received the)		continue to find other reconcile items and amend them, so that the tools will adequately
D	uanning programs menuored in 3.1.3 3.2.1 To develop comprehensive work plan (note 3-2)) for disaster risk reduction education and raising			usea. 7) Output3 Delav of Individual Editing Work: Due to the frequent mission travels to
P	awareness at national and local levels			districts of WG members, some personal situation including their or family's health
the Praining thre target groups (note 3-3) in pilot areas o develop around in the present of the target groups of the staget groups from for implementing disaster prevention and too program in Training Center.	3.2.2 To develop materials for the training on disaster risk reduction education and raising awareness, and			problems and others, the individual editing work for the Guidebook development by
o develop allu impelinent concatoria and tanining program for imperinenting disaster prevention and top program in Training Center	implement the training for the target groups (note 3-3)) in pilot areas			working group members had been delayed. MECSS included the work in the MECSS's official work plan of 2010 and finally the work was completed in May 2010.
	5.2.5 To develop and implement educational and daming program of implementing disaster prevention and samulation program in Training Center.			official work plan of 2010 and intany are work was compressed in really 2010.
	Notes			

1-1) Amended Law of Disaster Protection "8.2 Rules of risk evaluation", "9.3 Guidelines and methodologies to develop disaster management plan", "12.1 Guidelines for preparation system", and "13.2 Rules and regulations of disaster management", and etc... (2.1 Contracts, cooperation plan and MoL are equivalent to agreement mentioned in the PDM
1-3) National level, UB cly and with op provinces are the fatest areas
1-4) Improvement of existing "Disaster Information Sharing System"
1-5) Improve existing database for sharing with related agentices (Components of the database system of UB city are under investigation)
2-1) Buildings: Buildings Robas and Bridge — Lifelies Viam water pipeline, Water supply and sewerage, electric transmission and distribution facilities
2-2) Guidelines are regarded as operational guidelines by Resolution of Minister

2-3) Target: Ministry of Construction and Urban Development, Ministry of Education, Culture and Science, UB city, General State Inspection Agency, province level officers in change of buildings, infrastructure and lifeline, association of architects, association of accidence, UB city, General State Inspection Agency, province level of infrastructure and lifeline, association of architects, association of design engineers etc. 3-1) Instructors of Institute of Teacher's Professional Development, experts of training departments of provinces and cities, and certificated teacher's instructors

3-2) A document to clarify the targets, implementars and instructors of public education and training and the contents of required education and training activities for the purpose of ensuring of restounders implementation of education and training program to all the necessary target stakeholders

3-3) Traget groups: (1) Staff of NEMA Disaster Prevention Department, Emergency Operation Department, Training Center, and Emergency Management Departments of Cities, Provinces, and Districts, (2) Members in charge of disaster prevention in Disaster Protection Services at National, Province and City levels. (3) Heads of governor's offices of Provinces, Soums, and Districts (4) Heads of Bags and Khoroos, (5) Coordinators of civil activities and Khoroos and (6') Volunteers ("only in pilot areas)
3-4) The failulty that the EMDC is constructing and preparing for providing DRR training and education to the citizens in Khan Uul district in UB city.

	Project	Project Monitoring Sheet II (Revison of Plan of Operation)	> 0	Version 6 Dated May 31, 2018	
Project Title: The Project for Strengthening the	National Capacity of Earthq	aster Protection and Prevention in Mongolia		Monitoring	
Inputs		Year 2016 2017 2018 2019 2020 The control of the control	Remarks	Issue	Solution
Expert					
Kiyotaka OWADA		Plan			
Akihiro FURUTA		Plan			
Osamu NISHII		Plan Artusi			
AMA NILOI ON THE					
Shirou MAKITA		Actual Pun			
Yoshitaka YAMZAKI		Plan Artust			
Tadashi ISE		Plan			
Seichiro FUKUSHIMA		Plan			
Jun MATSUO		Plan			
Masahide AOKI		Plan			
Shigeki KITA		Plan			
Hideto OMINE		Plan			
Miki KODAMA		Plan			
Yujiro OGAWA		Plan			
Seiji SUEA		Plan			
TAXABLE CONTRACTOR		Actual Plan			
I OSTIKAZU TIVVAKI		Actual			
Yooko OTA		Actual			
Amarjargal NAYANBAATAR		Plan			
Equipment			Ė	The procurement procedure has been carried forward by JICA Mongolia office and five (5) F	Following handover of the equipment, the WG2 conducted 2-day
Equipment for seismic diagnosis		Plan Link to Activity 2.1.3 Actual	8		training votuse regarding to the equipment unitzation on two ventions 12 to 13, 2018.
Earthquake simulation experience equipment for DRR Training Centre		Plum		The styment of the equipment was anived on October 20, 2018 in UB Chy. Supporte set of the control of the undergound foot of the centre.	Before instaling the equipment, Morgollan side has a duty by improve the said of settingular operations of the control of ground where indegrated from the entirest of ground where the setting as budget for water protection countermeasures.
Training in Japan Comprehensive disaster risk reduction					
		venual in the state of the stat			
Activities Activities	C A M Y C C A M Y C C A M Y C C C C C C C C C C C C C C C C C C	N A A Year 2017 2018 2020	Responsible Organization		
 ⊦∢	Y -	R	Japan GOM	Achievements	Issue & Countermeasures
Output 1:	of local fermounder of discontact				
11.1.1 to identity problems and challenges on implementation of legal transworks of disaster risk reduction	n of legal frameworks of disaster risk				
works	0	Pin	? ? \$ ₽ ₽	-	sno further activities>
1.1.1.2 To summarize the problems and challenges	0	Plun	, ,	 Completed> -Completed>	<no activities="" further=""></no>

1.1.2 To develop guidelines on improvement of legal frameworks and plans, assessment of disaster risk and database on disaster risk reduction	frameworks and plans, assessmer	intof					 	 		
A A O A To describe the control of t										
risk assessment			Plan	 		 	 	 		
	0	7	Actual						 ,	
1.1.2.2 To develop the guideline of earthquake disaster protection plan			Plan					 		The WGT in meter ground four (if darth Garname), National Enthrauke Desseter Protection Then WGT in meter ground four (if darth Garname), National Enthrauke Desseter Protection Then WGT in meter ground (if darth Garname) and chandle for the Commission of the Commi
	0		Actual						7	 Modesch harming Carls and and find it the time compliants that again and are in properties to the compliant of the carls and the compliants of the carls and the carls and
1.1.2.3 To develop the guideline of the earthquake disaster preparedness	(Plan						,	Based on the result of discussion in Advivity 1.1.1, the WG1 decided that the Disaster Preparedness GL would not be prepared independently but the part of activities in
	0		Actual	 	 	 	 	 	 ,	preparedness phase would be included in the Disaster Protection Planning GL.
1.1.2.4 To develop the guideline of earthquake disaster management	(Plan	 			 	 	 ,	Based on the result of discussion in Adhinty 11.1.; the WG1 decided the GL for earthquake cno further activities> disaster management will not be prepared in the Project.
	0		Actual					 	 ,	
1.1.2.5 To develop the Guideline of Database	000000000000000000000000000000000000000		Plan				 	 	 ,	Through the Activity 13.3, the GL on Operation and Management of Spatial Information Information Information System No. 10 Control of the Control of t
)		Actual	 			 	 	 ,	
1.1.3 To develop new regulation and the drafts of revised version of regulation on implementation of the Law of Disaster Protection	vised version of regulation on imple	lementation		 			 	 		
1.1.3.1 To examine the contents of the Law of Disaster Protection and extract regulations to be newly established and/or to be revised.			Plan	 			 	 		It was confirmed that the necessity for establishment and revision of one (1) regulation which crop further activities—is corresponded to Resk Assessment GL and six (6) regulations which are corresponded to the Deseare Perindrian Perenne (1).
	0	,	Actual			 		 	 ,	7
1.1.3.2 To develop new regulations and revised regulations	(Plan				 	 	 ,	Regarding the seven (?) regulations confirmed in Activity 11.3.1, earthquake disaster part of The seven regulations for disaster species other than the the regulations is considered to develop in the Project. The prospects for the regulations is considered to develop in the Project.
	0		Actual				 	 	 ,	completion are not established. Therefore, the regulations shall be specialized for earthquake disastens.
S	nows the coordination and cooperal	ation among		 		 	 	 		
1.2.1.1 To extract items that need to conclude agreement to build cooperative system	(Plan	 		 	 	 		Finally, seven (7) felds were selected for establishing the agreement during the Project period as described in Activity 12.1.2.
between NEMA and related organizations	0		Actual			 	 	 	 ,	<i>y</i>
1,2.1.2 to oppsize the times be bedeepded in the agreement on the extracted activity ferms, coordinate with related organizations, prepare draft agreement			Plan			 	 			The VKST immbres appared the during representative following field and decussed the contents with ministries and agreement for a contents with ministries and agreement for a contents with ministries and agreement or account of page and representation places and represent ministries and services explicit the ministries and services and representation places and representation places and representation places and representation and representation materials and temporary broatings with the Ministry of Construction materials and representation materials and representation that the weight of construction materials and representation that the weight of construction materials and representation that the weight of construction materials and representations.
	0		Actual						7	Variable in supply disting disease "with the Mannal Resources and Petrobuum Agency Test to priority feedpoint integer of the State of the Mannal Mann
1.2.1.3 To conclude agreement	(Plan				 	 	 ,	Following appenents were noncluded. The agreement were noncluded. The agreement was advance to encuston places and temporary housings. The agreement was signed on 16 October 2018 between NEMA and the Ministry of Food and Allicitatives.
	0		Actual		 			 	 2	Yeshelds exployed modes during disease. The agreement between Ministry and another major pharmaceutical sales companies were spread on 7 Nemetres a companies were since the process of the agreement wave posted on the weep page of HEIAA.
1.2.2 To ealize training programs for disseminating the agreement mentioned in 1.2.1 and strengthening the coordination structure among organizations related with disaster risk reduction	the agreement mentioned in 1.2.1 a nizations related with disaster risk I	and		 			 	 		
1.2.2.1 To prepare training program on agreement between related organizations	C		Plan					 	 ,	<completed></completed>
		1	Actual	 			 	 		earnquave disasternor NEMA, Ministry or Heatin, 13 Ministries, Private Fearth Organization and Pharmaceutical Organizations.
1.2.2.2 To implement the training program	C		Plan	 			 	 	 ,	Completed April 9th in UB. A total of 38 participants from 16 sectors jointed
			Actual							

13.1 To identify problems and challenge of monitoring, report, evaluation and disclosure of disaster	osure of disaster							
protection practical at a factoring and a process of the protection of the protectio								1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1.3.1.1 To conduct workshop for identifying issues on the national and local level	Plan			 			<completed> The current National Disaster Protection Plan in Mongolia mainly describe the emergency</completed>	cno further activities>
earthquake disaster protection plan	Actual					,	response activities for each disaster and there are a few descriptions about disaster prevention and preparedness.	
1.3.1.2 To conduct workshop for revision of	i					 	<completed></completed>	<no activities="" further=""></no>
	Z E						The current Disaster Protection Plan in UB City mainly describe the emergency response activities for each disaster and there are a few descriptions about disaster menention and	
0	Actual			 		 ,	preparedness. Chingeltei District and Bayangol District were selected as pilot districts.	
1.3.1.3 To conduct workshop for revision of							<completed></completed>	sno further activities>
earthquake disaster protection plan for Aimag /	Plan					,	There is no Aimag/Soum level earthquake disaster protection plan. Darkhan-Uul and Ummuovi Aimass were selected as plot districts.	
	Actual			 				
1.3.2 To revise the disaster protection plans at national and local level, and make a revision of disaster protection plan	manual for the							
1.32.1 To revise the national earthquake	Plan		-				In the activity 1.1.2.2, WG1 members prepared National Earthquake Disaster Protection Planning G, and State Farthulike Disaster Protection Service Banning G.	Revision work of National Earthquake Disaster Protection Plan
0	Actual					,		
1.3.2.2 To revise earthquake disaster	Plan							The WG1 members will monitor the activities of the development
protection plan in UB City, Chingelitei and Bayangol District						>	Disaster Profection Planning GL. Based on the GL. pilot activities (workshops) were conducted in the pilot districts in January	of the protection plan by the end of 2019. Several workshops will be held by the WG1.
1323 To revise parthy de depeter	Actual						and May 2019. In the activity (11.2.2 WG) members memored dimen / Soum Lovel Earthounds Disseter	The WC1 mambare will monitor the activities of the develonment
protection plan in Darkhan-Uul and Umungovi Aimag	Plan	 					Protection Planning C. Harring Monthshop) were conducted in November 2018, January and Based on the GL, pilot activities (workshop) were conducted in November 2018, January and	of the professional by the end of 2019. Several workshops will be held by the WG1.
00	Actual					,	April 2019 at Darkhan-Ulu Ainag, November 2018, February 2019 in Omunuovi Ainag.	
13.3 To improve the present system which collect and analyze information on disaster reduction	ster risk							
1.33.1 To identify problems and scope of disaster information system	Plan						As cerise of discussions, the over-all framework of upgrading database for disaster related data and installing new information sharing system in NBMA was clarified in consideration of	The WG1 member explained necessity to enhance human capacity for operation and management of spatial database and to upgrade
0 0 0 0						 ,		hardware such as a server at the board meeting of NEMA.
	Actual					 	III NAVI GONIA.	
	Plan						The WG1 member confirmed their intent to develop a new spatial database of disaster events and deaster related information based on GIS for supporting DRR activities by NEMA as mission critical exclaim.	<no activities="" further=""></no>
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Actual					,	Theorem of the second of the s	
1.3.3.3 To prepare the database guideline							After the draffing work by the sub-WG members and new division staffs, and some	ono further activities>
based on the result in 1.3.3.2	Plan					3	modifications of the draft GL based on the suggestions from directors in NEMA headquarters, finally the GL on Operation and Management of Spatial Information System for Disaster Risk	
)	Actual						Reduction (SISDRR) was approved as the order A/47 by the head of NEMA on 20 February 2019.	
1.3.3.4 To improve the present system and system operation manual							The activity to improve the present system was almost finished. Now it is the stage of training for new system operation and management. For formulating new organization structure for	There are some challenges regarding a shortage of human resources for system administration for SISDRR O&M. The Spatial
4	Plan						operation and management of SISD/RR, assessment and development of human capacity for NE/NK hendquarters as well as EMDC and focal offices in 21 Aimags are one of the key actions. Therefore, the Sub-WG members and new division staffs are providing a series of	Information and Technology Division has a responsibility of operation and management of SISDRR, but there is only four staffs including division chief. And the focal system engineer is only one
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Actual					,	training for gaining basic browkedge and skill of SISDRR utilization targeted to central and regional offices of NEMA from March 2018.	staff as of now, It is serious risk and the LET requests to NEMA side to assign a few additional system engineers in the division to share the task of SISDRR O&M.
13.4 To elaborate white paper on disaster risk reductor which let the Mongolan people know the progress on implementation, monitoring, evaluation of disaster risk reduction plan at national and	eople know the							
local leves triough the activities of 1.5.1 and 1.5.2. 1.3.4.1 To conduct facussion on the contents and 4.1 notion of this owner.	Plan						Completed>	ono further activities>
	Actual					,	in the VO. I, a drait formation are write paper on disease intallinguishment in mortgone was reviewed by reference to the table of contents of the white paper on diseaster management in Japan.	
1.34.2 To prepare the white paper preparation plan	Plan					,	Completed> Based on the draft format, the WG has drawn up a work plan to prepare the white paper in	cno further activities>
	Actual			 			Mongolia and has obtained approval of this work plan from the head of NEMA.	
1.3.4.3 To develop white paper	Plan						The 2017 White Paper on Disaster Risk Reduction in Mongolia was published in both Mongolian and English version. The creation manual of the White Paper was prepared.	Although the working group for the White Paper 2018 has been established, the preparation work for 2018 version has not started wet in order to issue the 2018 version at an anarcoviriate fine the
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Actual					,		preparation work must start soon using the manual prepared by WG1.
13.5 To improve the system of database on seismic strength of buildings, infrastructure lifetine.	cture and							
	Plan						 Completed> Accompleted by A	<no activities="" further=""></no>
0	Actual					,	database for DRR related activities. The WG1 members decided to develop mew database emmangement system and make agreements for spatial database sharing between NEMA and related organizations.	
	Plan						As described in the Activity 1.3.3, the SISDRR is upgrading to manage spatial database for DRR including the result of station (dagnosis of buildings, infrastructures and firefines which will be evaluate by appropriate organizations.	Tirrough, a series of training for SISDRR O&M, it should be continued to cultivate end users who can register results of seismic evaluation of buildings, infrastructure and iffeline in the spatial
0	Actual					,	Based on the agreement for data exchange with the Master Planning Agency of Capital City, the environment to state the result of seismic diagnosis of buildings assessed by UB City with NEMA was developed.	database.
					-			

O WACEUVITIES A P D D	R S H M M M M M M M M M M M M M M M M M M	z < > < z	Year		2017	2018		2019	2020		Responsible Organization		
Sub-Activities	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	∢⊗ળ⊃≶⊲ ≅∢		H I	A	H	I I	H	H	ž E	Japan GOM	Achievements	Issue & Counternessures
Durput 2: 2.1.1 To analyze the manual of seismic assessment of buildings and lifeline based on the context of	of buildings and lifeline based of	n the context of	╁					-					
the Law of Disaster Protection and develop the draft	of revised version												
2.1.1.1 To identify problems of present specifications of seismic resistance	0 0 0	Plan	E								7	Completed> Completed> Completed> Completed the current situations and issues of each specifications, followed by the conventient that the current searchfoodbane are not not the calconing action and that the current searchfoodbane are not not the calconing action and the calconing action actions.	<no activities="" further=""></no>
		Act	Actual										
2.1.1.2 To revise the present specifications and to develop new code of seismic resistance		Plan	ue									Commistered WGZ discussed the current situations and issues of each specifications, followed by the combination that the issues will be stated and solved in the guidelines established in this	<no activities="" further=""></no>
	0 0 0	Act	Actual								,	project.	
2.1.2 To develop guidelines-methodologies which show the method for assessment for buildings and lifelines, and how to use equipment	w the method for implementing a equipment	seismic											
2.1.2.1 To consult the contents of Guideline regarding the seismic evaluations	(Plan	Ę									Completed> WG2 discussed on the structure of guidelines so that it was decided that guideline will be	cno further activities>
	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		Actual								7	established for each structures combining seismic evaluation and strengthening.	
2.1.2.2 To develop the seismic evaluation of RC and PC building	0	Plan	Plan								,	-completed- Guidelines were approved by the minister of MOJD on November 6, 2018.	cno further activities>
2.1.2.3 To develop the seismic evaluation of masonry building		Plan	£									Completed> Cuideline was approved by the minister of MCJD on November 6, 2018	cno further activities>
	0	Act	Actual								,		
2.1.2.4 To develop the seismic evaluation of infrastructure and lifeline	(Plan	E								,	cCompletered> Guideline was approved by ministers of MCUD and MRTD on December 28, 2018.	cno further activities>
)	Act	Actual										
2.1.3 To implemnt training programs for enhancing the assess the seismic strength of buildings and lifeline	knowledge and capacity of a	experts who					↓ Equipment for	↓ Equipment for seismic diagnosis					
2.1.3.1 To consult training program of the		Plan	ş									Completed> Completed> ACCOMPLETED And A complete Accomplete Accomp	on further activities>
70 moo 50	0 0 0	Act	Actual								,	v.Cz. deckacy to in periodic 101 to seasine evaluation to insinual organization; since the confents to be transferred will be different according the objectives of counterparts.	
2.1.3.2 To implement training for the evaluation of selsmic resistance		Plan	Ę									TOTs have been started for the WG2 members and for nominated TOT trainees. Training Detail manuals will be arranged through Tot of future for monoicy described in the first nominal manuals. The started manuals are set of the first nominal manuals.	Detailed and enough mumber of TOTs are necessary to transter the theorology to the trainess, since seismic evaluation is quite any consocials for the commission and an MAMA Co. it under the commission and any MAMA Co. it under the commission and any commission and any commission and commiss
	0 0 0	Act	Actual								,		reproduct a series of trainig course for several days.
2.2.1 To develop guidelines-methodologies on seismic buildings	c strengthening and reconstruction of	tion of											
2.2.1.1 To consult the contents of guidelines- methodologies		Plan	s									Completed completed continue of quidelines so that it was decided that quideline will be	cno further activities>
•	0	O Act	Actual								,		
2.2.1.2 To devekp the guidelines- methodologies		Plan	E								,	-completed> Guidelines were approved by the minister of MCUD on November 6, 2018.	cno further activities>
			Actual										
2.2.2 To support the introduction and dissemination of seismic strengthening techniques if reconstructing collective housing, kindergarden, schools, hospital, national buildings and reconstruction and seismic strengthening of each type of building as a pilot	f seismic strengthening technik ols, hospital, national buildings e of building as a pilot	ues for and design the											
2.2.2.1 To consult the target buildings for traial design	C		Plan								,	Completed> VG2 selected 5 buildings for trial design of seismic strengthening. These buildings were	cno further activities>
)		Actual								•		
2.2.2.2 To design of rebuilding and strengthening on target buildings	С	Plan	E								7	Completed> Neessary diagnosis and trial design were implemented followed by sample design drawings	sno further activities>
			Actual									Wiki will be used as traing material and as sampe drawing to reduce of all redus.	
2.2.3.10 resure training programs with the participation of NEWA for entral capacity of the experts who implement seismic strengthening of buildings.	515	neoge and											
2.2.3.1 To plan training progarm	0	Plan	Plan Actual								,	-Completto. -Comp	cno further activities>
2.2.3.2 To implemnt training progam		Plan	£									Training for seismic strengthening of buildings was conducted on May 1-3, 2019 at Training It is no Center and CDC meeting room, in which 65 officers and engineers participated.	necessary to transfer the tecnology of seismic strengthening only to WG2 members but also to engineers of private
	0	O	Actual								,		companies, since seismic strengthening requires technical backbone of seismic design. So, TOT collaborated with MACE will be planned and conducted.
			1		1			1			1	=	

Activities	O	A	Year		2017		2018		2019		2020	ž ō	Responsible Organization		
Sub-Activities		¥ - ∢ ⊗ ທ ⊃ ≩ ∢ ≅ ∢	144⊢4±	1	H	I A	H	I A	H	N I	H	E C	Japan GOM	Achievements	Issue & Countermeasures
Output 3: Out 17: To devolop a guideline wirlch shows contents, method and implementation way of diseaser risk reduction (To devolop a guideline wirlch shows contents, method and implementation way of diseaser risk reduction (To devolop a guideline wirlch shows contents).	, method and implements primary and secondary sc	ntion way of disaster shoots based on Law											\vdash		
3.1.1.1 To review current situation of DRR			Plan											Completed>	eno further activities>
education in kindergarten and primary and secondaty schools comparing with Japanese practices		0	Actual										,	The WG3-1 member studied Japanese practices and reviewed & analyzed current conferns of the DRR and safety related school education in the Course of Study (Standard) in Mongolia.	
3.1.1.2 To develop the guideline through the activities of the School DRR Education			Plan											-cCompleted> A draft DRR education guideline in school "Life Safety Education Program" was developed through the	cno further activities>
Working Group (WG)		0	Actual										,	WOS2 statifies, Accordination healing supply appets on DRR and obtaction in Mongolia was organized in Oct 2017. Mondification based on the expents connects and teaming from the Training in Japan was made in Jan and Feb. 2018. After having timal comments by the reviewers, the Program was finalized and approved by the Minister of Education on 6 April 2018.	
3.1.2 To develop educational materials such as textbooks and supplementary readers for DRR education in kindergarten and primary and secondary schools	tbooks and supplementar ry schools	y readers for DRR													
3.1.2.1 To collect and review existing educational materials through the WG		C	Plan										3	Completed> Based on the research results of the working group members from ERI and the translated	cno further activities>
activities 3.1.2.2 To establish Task Forces for the														reference materials of Japan, composition of the "Guidebook" for the "Life Safety Education Program" was discussed in the WG meetings. -Completed-	cno further activities>
development of the educational materials (one task force each for kindergarten, primary, and secondary schools)		0 0	Actual									-	,	The WG3-1 member decided to do the work by the group members (not by the Task Forces) and get technical advices from outside experts after the development of the draft.	
3.12.3 To organize workshops and discuss and decide the contents of educational materials to be developed														 Compileted> Based on the initial contents developed through the workshops in Feb. and Apr. and reference activities of the trial leaves on I May early working group member continued the development of this relationshop contents from the continued the development of this relationshop contents from the Apr. Americal Trial Apr. Apr. Apr. Apr. Apr. Apr. Apr. Apr.	cno further activities>
		0	Actual									-	,		
3.12.4 To develop and finalize the educational materials through the Task Force and the WG			Plan											The individual writing and editing work of the "Guidebook" by for teachers to implement lessons based on the "The Program of Life Safety Education" was completed in May 2019.	Printing and Distribution of the Guidebook will be started from June 2019.
activities		0	Actual										,		
3.1.3 To implement training programs for the instructors of Teacher Training Institutes and experts of educational department in local governments, using the guideline and materials developed in [3.1.1] and 3.1.2 resocitively.	ctors of Teacher Training ing the guideline and mat	Institutes and experts erials developed in													
3.13.1To formulate the training programs through workshops and the WG activities		C	Plan										;	Completed> Through the discussion in June and July, the implmentation plan of the training was.	cno further activities>
		0	Actual											confirmed. WG members finalized the training program in the workshop in Sep. 2018.	
3.1.3.2 To implement pilot training		C	Plan										,	Completed> WG members decided to have a pre-workshop for verifying the training program prior to the training groggrams. The pre-workshop was conducted on 11-13 Sep. 2018. Based on the result	cno further activities>
			Actual											of the pre-workshop, the fraining programs for instructions were conducted on 17-20 Sep (for Primary and Secondary Education) and 8-11 Oct (for Pre-school Education).	
3.1.3.3 To review the training and formulate training manuals		0 0	Plan										,	 -Completed and the training program was conducted in Oct. 2018. Questionnaire survey to the participants was compiled in Nov. 2018. Training materials were included in the 'Guidebook' further training. 	cno further activities>
3.1.4 To implement the training program for teachers by the instructors and experts who the training programs mentioned in 3.1.3	rs by the instructors and t	experts who received													
3.1.4.1 To support the training for teachers		0	Plan										,	Support were provided for the training programs conducted by UB City Education Dept and MECSS in the co. 2018 and Lan 2019. Nobel school activities were conducted to give good recarries for conducting Life-Safety Education* in Neuron 2019.	Support activities for the MECSS's in-service training will be done in Sep. 2019.
3.1.4.2 To review the result of the training of 3.1.3 and 3.1.4 through workshops and the													3	(will be started from June 2019)	Due to the delay of the development of Guidebook, the start of activities was extended.
WG activities and compile lessons learnt			Actual												
3.2.1 To develop comprenensive work plan for disa awareness at national and local levels	ster risk reduction education	tion and raising													
3.2.1.1 To interview related organizations about coordination and cooperation		0 0 4 4	Plan									-	,	 Completed> The WG3 member visited the relevant organizations and got their initial opinions for the effective coordination among stakeholders. 	cno further activities>
3.2.1.2 To examine framework for NEMA to conduct integrated management		C C C	Plan										,	-Completed> Through the WG meetings and discussion with stakeholders, "DRR Education Team" was established for the fellicies to coordination for the implementation of the community DRRA increasing an other continuous and continu	cno further activities>
		1	Actual											training and education. Aso, the tue for the I sem was studied and approved by the Nerwa Administrator. Frequent communication among members is realized through the mallinglist of the Team.	
3.2.1.3 To implement regular meetings		C C < <	Plan										,	-completed- The Team decided to organize regular meetings once three months. The first meeting was The Team decided to organize at Luck 2017, and the second meeting was convened on the occasion for	cno further activities>
A P. A. S. W		1	Actual											discussing events for international Day for Disaster Rex Reduction 2017. In December 2017 and March 2018, the meetings were held for the Team. The meeting for the introduction of the webstele in Jan. 2019.	
3.2.1.4.1 or constant as website for the coordination and share information among the relevant organizations		0 0 4 4	Plan										,	Accompleted The demplotement of the websile of the "Comprehensive Schedule" with the data entry system was completed in Jan. 2019. The websile was published on 1 Feb. 2019.	cno further activities>
			Motori									_			

32.2 To develop materials for the training on disaster risk reduction education and raising awareness, and implement the training for the target groups in pilot areas.	ducation and raising eas											
7 0000												
5.2.2.1 To review existing textbooks or DRR education for communities	- (Completed Annual Teaching materials in the Project was discussed in the WGS- The policy of activities to develop teaching materials in the Project was discussed in the WGS- The WG decided to develop training materials to committe the understanding of residents
	0 0 4 4	Actual									,	based on the UNDP's educational curriculum after clarifying a demarcation of works for development of teaching materials with World Vision Mongolia.
3.2.2.2 To discuss and develop training materials												- Comparation the review of the ToT and the workshops, the WGS-2 compared the Institution's Manual of TORE Experience program – Exercise and year and anywhere and maynetize and the Institution's Manual (includes site-by-velocing and institution and maynetize of the Institution's Manual (includes site-by-velocing and institution).
	0 0 4 4	O O Actual									,	each tention; The instanctor's Manual was printed and distributed to rime districts in 188 city and all aiming to persone irreparant. The soft copy of the manual are also available on the NEMA website.
3.2.2.3 To implement Training of Trainers workshop		Plan										Completed>
	0 4 4	Actual									,	SC
3.2.2.4 To implement workshops in the pilot area		Plan										Completed> cno further activities> The Tainess trained in the ToT with the help of the WG3.2 members propared for the implementation of the workshops in the pick areas in April 2018. The workshops were
	0	O									,	conducted on 12 May 2/18 in Otgan Soum and on 14 May 2/208 in Ulinsteil Soum. Also the workshops were conducted on 17 May 2/208 in Bayanzuld district and on 20 May 2/018 in Payanzuld riskrich in Ub day.
3.2.3 To develop and implement educational and training program for implementing disaster prevention and simulation program in Training Center	implementing disaster						1 Earth	Learthquake simulation experience	xperience equipment	TE .		
3.2.3.1 To examine and consider a study program for the training center		Plan										Completed cno further activities> The reference documents of Horio Bossikan and Kyolo DRR Training Center in Japan were
	0 0 4 4	Actual									,	introduced. The WGS members and the staff of the Training Center examined the current program of the training center and revised it.
3.2.3.2 To examine materials and equipment for improvement of training center	<	Plan									;	Completed> After an initial examination and studies of the current equipment and materials of the Training
)	Actual										Center, based on the learning through the training in Japan, the WG member discussed the plan for the improvement of the "Earthquake Program" and "Kds" Room Program".
3.2.3.3 To support procurement of equipment		Plan									,	Completed> The Shaking Table' equipment was successfully installed in Feb. 2019 and the opening
	0 0	Actual									,	ceremony of the renewed earthquake experience room was conducted on 20 March 2019.
3.2.3.4 To develop educational materials such as movie, exhibition, etc.		Plan										Completed> cno further activities> Based or the iteming in the training in Japan and discussion through the working group Based or the farithquake Experience Room, 2) Miniature Building Models for
	0 0 4	Actual									,	learing Selevinic Resistant Structure, and 3) Picture-skryyskow to learn earthquake DRR for Kdst Room were developed and installed in the Training Center by April 2019.
3.2.3.5 To operate training program	<	Plan									,	(will be started from June 2019) Due to the delay of the development of educational materials, the start of the activities were extended.
	1	Actual										
3.2.3.6 To examine expansion to other regions	0 4 4	Plan									,	(Will be conducted from June 2019)
Duration / Phasing		Plan Actual										
Monitoring Plan		Year	-	2017	-	2018	2019	6	2020	0	Remarks	lssue Solution
Monitoring Joint Coordinating Committee		Plan										
Set-up the Detailed Plan of Operation		Plan				T						
Submission of Monitoring Sheet		Plan										
Reports/Documents		Plan										
Project Completion Report		Actual										
Public Relations		Actual										
		Plan										
_		Plan Actual										