


**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

| Overall Goal  | Narrative Summary   | Objectively Verifiable Indicators   | Means of Verification | Important Assumption  | Achievement | Remarks |
|---|---|---|-----------------------|---|-------------|---------|
| <p>Seismic risk will be reduced.</p>  |   | <ol style="list-style-type: none"> <li>Number of the approved guideline, rules, provisions</li> <li>Number of white paper open to public</li> <li>Number of the executed seismic assessment</li> <li>Number of the seismic strengthened building</li> <li>Number of implemented activities on disaster risk reduction education</li> </ol>  | <p>Study by NEMA</p>  | <p>The policy on disaster risk reduction will not be changed in Mongolia.</p>   |             |         |
| <p><b>Project Purpose</b><br/>The Capacity of National Emergency Management Agency will be enhanced through the activities for strengthening the countermeasures for seismic risk.</p>  |   | <ol style="list-style-type: none"> <li>The number of the approved guidelines and agreement</li> <li>The number of the data on disaster risk reduction which newly established and improved</li> </ol>   | <p>Project report</p> | <p>NEMA expands the pilot activities in other aimags and sums.</p>  |             |         |
| <p><b>Outputs</b><br/>1. Capacity for data collection on disaster risk reduction and coordination among related organizations will be enhanced.<br/><br/>2. Capacity of public administration officer related with the seismic assessment and seismic strengthening for buildings will be enhanced.</p> |  | <ol style="list-style-type: none"> <li>1.1 The number of guidelines, operational rules, provisions which are developed.</li> <li>1.2 The number of the draft of agreement developed and participants who participated in the training programs on agreements</li> <li>1.3 White paper on disaster risk reduction</li> <li>2.1 Guideline for seismic assessment</li> <li>The number of the participants in the training program on seismic assessment</li> <li>2.2 Guideline for seismic strengthening</li> <li>The number of the training program on seismic strengthening</li> </ol> | <p>Project report</p> | <ol style="list-style-type: none"> <li>The counterparts from NEMA, the Ministry of Construction and Urban Development and the Ministry of Education continue to work in the same position.</li> <li>Participants in training programs continue to work in the same position.</li> <li>The relation among related organizations is maintained.</li> <li>Exchange information is maintained among the related organizations.</li> </ol> |             |         |

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|  |  | Ordinance of Ministry of Education, Culture and Science<br>Ordinance of NEMA |  |
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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 visitors in Training Center

| Activities  | Inputs   | Important Assumption   |
|---|--|--|
|   | <p><b>The Mongolian Side</b></p> <ul style="list-style-type: none"> <li>Assignment of counterparts</li> <li>- Project Director</li> <li>- Project Managers</li> <li>- Project Coordinator</li> <li>- Project Members</li> </ul> <p>For Output 1</p> <ul style="list-style-type: none"> <li>- Policy Coordination and Cooperation Department, NEMA</li> <li>- Disaster Operational Department, NEMA</li> <li>- Disaster Prevention Department, NEMA</li> <li>- Disaster Research Institute, NEMA</li> <li>- Emergency Management Department of Capital City (EMDC)</li> </ul>   | <p><b>The Japanese Side</b></p> <ul style="list-style-type: none"> <li>Dispatch of Experts</li> <li>- Leader</li> <li>- Disaster Risk Management</li> <li>- Disaster Risk Reduction Framework</li> <li>- Disaster Risk Reduction Information</li> <li>- Seismic Strengthening Assessment</li> <li>- Seismic Strengthening Method</li> <li>- Seismic Strengthening Design</li> <li>- Disaster Risk Reduction Education</li> <li>- Disaster Risk Reduction at Community Level</li> <li>- Educational Material Development</li> </ul><br><ul style="list-style-type: none"> <li>Provision of Equipment</li> <li>- Equipment for seismic assessment</li> <li>- Earthquake simulation experience equipment for Training Center such as shaking table</li> </ul> <p>Training in Japan and/or the third countries</p> |
| <p>3. Implementing plan on disaster risk reduction education and awareness raising activities will be developed and realized.</p> | <p>1.1.1 To identify problems and challenges on implementation of legal frameworks of disaster risk reduction</p> <p>1.1.2 To develop guidelines on improvement of legal frameworks and plans, assessment of disaster risk and database on disaster risk reduction</p> <p>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</p> <p>1.2.1 To develop the draft of the agreement (note 1-2)) which shows the coordination and cooperation among NEMA and related organizations</p> <p>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</p> <p>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))</p> <p>1.3.2 To revise these plans and make a manual for the revision of disaster protection plan</p> <p>1.3.3 To improve the present system (note 1-4)) which collect and analyze information on disaster risk reduction</p> |   |

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1.3.4 To develop 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 implement 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, kindergarten, 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


For Output 2

- Disaster Operational Department, NEMA
- Disaster Prevention Department, NEMA
- Ministry of Construction and Urban Development
- Master Planning Agency of Capital City
- General State Inspection Agency

Pre-Conditions



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| <p>3.1.1 To develop a guideline which shows contents, method and implementation way of disaster risk reduction education in kindergarten and schools based on Law of Disaster Protection</p> <p>3.1.2 To develop textbooks, supplementary readers and educational materials related with disaster risk reduction education in kindergarten and primary and secondary schools</p> <p>3.1.3 To implement training programs for the instructors (note 3-1)) 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</p> <p>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</p> <p>3.2.1 To develop comprehensive work plan (note 3-2)) for disaster risk reduction education and raising awareness at national and local levels</p> <p>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</p> <p>3.2.3 To develop and implement educational and training program for implementing disaster prevention and simulation program in Training Center</p> | <p>For Output 3</p> <ul style="list-style-type: none"> <li>- Disaster Prevention Department, NEMA</li> <li>- Ministry of Education, Culture and Science</li> <li>- Teacher Training Institute</li> <li>- Educational Research Institute</li> <li>- Emergency Management Department at aimag level</li> </ul> |  | <p>&lt;issues and countermeasures&gt;</p> |
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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..

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- 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 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, 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, Soms, and Districts (4) Heads of Bags and Khorroos, (5) Coordinators of civil activities in Provinces, Districts, and Khorroos 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.



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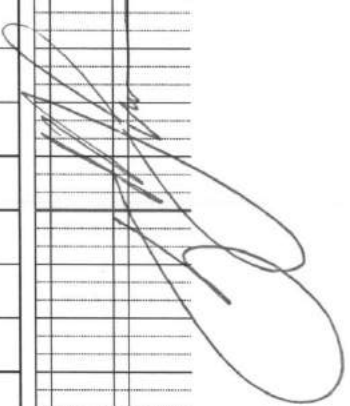
Project Monitoring Sheet II

Version 1  
Dated Dec. 7th, 2016

Project Title: The Project for Strengthening the National Capacity of Earthquake Disaster Protection and Prevention in Mongolia

| Inputs                            | Year           | 2016 |   |    |     | 2017 |   |    |     | 2018 |   |    |     | 2019 |   |    |     | 2020 |  |  |  | Remarks | Issue | Solution | Monitoring |  |  |  |
|-----------------------------------|----------------|------|---|----|-----|------|---|----|-----|------|---|----|-----|------|---|----|-----|------|--|--|--|---------|-------|----------|------------|--|--|--|
|                                   |                | IV   | I | II | III | IV   | I | II | III | IV   | I | II | III | IV   | I | II | III | IV   |  |  |  |         |       |          |            |  |  |  |
| Expert                            | Kiyotaka OWADA | Plan |   |    |     |      |   |    |     |      |   |    |     |      |   |    |     |      |  |  |  |         |       |          |            |  |  |  |
|                                   | Actual         |      |   |    |     |      |   |    |     |      |   |    |     |      |   |    |     |      |  |  |  |         |       |          |            |  |  |  |
| Akihiro FURUTA                    | Plan           |      |   |    |     |      |   |    |     |      |   |    |     |      |   |    |     |      |  |  |  |         |       |          |            |  |  |  |
|                                   | Actual         |      |   |    |     |      |   |    |     |      |   |    |     |      |   |    |     |      |  |  |  |         |       |          |            |  |  |  |
| Osamu NISHII                      | Plan           |      |   |    |     |      |   |    |     |      |   |    |     |      |   |    |     |      |  |  |  |         |       |          |            |  |  |  |
|                                   | Actual         |      |   |    |     |      |   |    |     |      |   |    |     |      |   |    |     |      |  |  |  |         |       |          |            |  |  |  |
| Kensuke ICHIKAWA                  | Plan           |      |   |    |     |      |   |    |     |      |   |    |     |      |   |    |     |      |  |  |  |         |       |          |            |  |  |  |
|                                   | Actual         |      |   |    |     |      |   |    |     |      |   |    |     |      |   |    |     |      |  |  |  |         |       |          |            |  |  |  |
| Shirou MAKITA                     | Plan           |      |   |    |     |      |   |    |     |      |   |    |     |      |   |    |     |      |  |  |  |         |       |          |            |  |  |  |
|                                   | Actual         |      |   |    |     |      |   |    |     |      |   |    |     |      |   |    |     |      |  |  |  |         |       |          |            |  |  |  |
| Yoshihiko YAMAZAKI                | Plan           |      |   |    |     |      |   |    |     |      |   |    |     |      |   |    |     |      |  |  |  |         |       |          |            |  |  |  |
|                                   | Actual         |      |   |    |     |      |   |    |     |      |   |    |     |      |   |    |     |      |  |  |  |         |       |          |            |  |  |  |
| Tadashi IBE                       | Plan           |      |   |    |     |      |   |    |     |      |   |    |     |      |   |    |     |      |  |  |  |         |       |          |            |  |  |  |
|                                   | Actual         |      |   |    |     |      |   |    |     |      |   |    |     |      |   |    |     |      |  |  |  |         |       |          |            |  |  |  |
| Seichiro FURUSHIMA                | Plan           |      |   |    |     |      |   |    |     |      |   |    |     |      |   |    |     |      |  |  |  |         |       |          |            |  |  |  |
|                                   | Actual         |      |   |    |     |      |   |    |     |      |   |    |     |      |   |    |     |      |  |  |  |         |       |          |            |  |  |  |
| Jun MATSUO                        | Plan           |      |   |    |     |      |   |    |     |      |   |    |     |      |   |    |     |      |  |  |  |         |       |          |            |  |  |  |
|                                   | Actual         |      |   |    |     |      |   |    |     |      |   |    |     |      |   |    |     |      |  |  |  |         |       |          |            |  |  |  |
| Masahide AOKI                     | Plan           |      |   |    |     |      |   |    |     |      |   |    |     |      |   |    |     |      |  |  |  |         |       |          |            |  |  |  |
|                                   | Actual         |      |   |    |     |      |   |    |     |      |   |    |     |      |   |    |     |      |  |  |  |         |       |          |            |  |  |  |
| Shigeki KITA                      | Plan           |      |   |    |     |      |   |    |     |      |   |    |     |      |   |    |     |      |  |  |  |         |       |          |            |  |  |  |
|                                   | Actual         |      |   |    |     |      |   |    |     |      |   |    |     |      |   |    |     |      |  |  |  |         |       |          |            |  |  |  |
| Hideo OMINO                       | Plan           |      |   |    |     |      |   |    |     |      |   |    |     |      |   |    |     |      |  |  |  |         |       |          |            |  |  |  |
|                                   | Actual         |      |   |    |     |      |   |    |     |      |   |    |     |      |   |    |     |      |  |  |  |         |       |          |            |  |  |  |
| Miki KODAMA                       | Plan           |      |   |    |     |      |   |    |     |      |   |    |     |      |   |    |     |      |  |  |  |         |       |          |            |  |  |  |
|                                   | Actual         |      |   |    |     |      |   |    |     |      |   |    |     |      |   |    |     |      |  |  |  |         |       |          |            |  |  |  |
| Yujiro OGWAWA                     | Plan           |      |   |    |     |      |   |    |     |      |   |    |     |      |   |    |     |      |  |  |  |         |       |          |            |  |  |  |
|                                   | Actual         |      |   |    |     |      |   |    |     |      |   |    |     |      |   |    |     |      |  |  |  |         |       |          |            |  |  |  |
| Toshihazu HIWAKI                  | Plan           |      |   |    |     |      |   |    |     |      |   |    |     |      |   |    |     |      |  |  |  |         |       |          |            |  |  |  |
|                                   | Actual         |      |   |    |     |      |   |    |     |      |   |    |     |      |   |    |     |      |  |  |  |         |       |          |            |  |  |  |
| Yoko OTA                          | Plan           |      |   |    |     |      |   |    |     |      |   |    |     |      |   |    |     |      |  |  |  |         |       |          |            |  |  |  |
|                                   | Actual         |      |   |    |     |      |   |    |     |      |   |    |     |      |   |    |     |      |  |  |  |         |       |          |            |  |  |  |
| Anandjargal NAYANBAATAR           | Plan           |      |   |    |     |      |   |    |     |      |   |    |     |      |   |    |     |      |  |  |  |         |       |          |            |  |  |  |
|                                   | Actual         |      |   |    |     |      |   |    |     |      |   |    |     |      |   |    |     |      |  |  |  |         |       |          |            |  |  |  |
| Equipment                         | Plan           |      |   |    |     |      |   |    |     |      |   |    |     |      |   |    |     |      |  |  |  |         |       |          |            |  |  |  |
|                                   | Actual         |      |   |    |     |      |   |    |     |      |   |    |     |      |   |    |     |      |  |  |  |         |       |          |            |  |  |  |
| Training in Japan                 | Plan           |      |   |    |     |      |   |    |     |      |   |    |     |      |   |    |     |      |  |  |  |         |       |          |            |  |  |  |
|                                   | Actual         |      |   |    |     |      |   |    |     |      |   |    |     |      |   |    |     |      |  |  |  |         |       |          |            |  |  |  |
| In-country/Third country Training | Plan           |      |   |    |     |      |   |    |     |      |   |    |     |      |   |    |     |      |  |  |  |         |       |          |            |  |  |  |
|                                   | Actual         |      |   |    |     |      |   |    |     |      |   |    |     |      |   |    |     |      |  |  |  |         |       |          |            |  |  |  |

| Activities     | Year   | 2016 |   |    |     | 2017 |   |    |     | 2018 |   |    |     | 2019 |   |    |     | 2020 |  |  |  | Responsible Organization | Achievements | Issue & Countermeasures |  |  |  |  |
|----------------|--------|------|---|----|-----|------|---|----|-----|------|---|----|-----|------|---|----|-----|------|--|--|--|--------------------------|--------------|-------------------------|--|--|--|--|
|                |        | IV   | I | II | III | IV   | I | II | III | IV   | I | II | III | IV   | I | II | III | IV   |  |  |  |                          |              |                         |  |  |  |  |
| Sub-Activities | Plan   |      |   |    |     |      |   |    |     |      |   |    |     |      |   |    |     |      |  |  |  |                          |              |                         |  |  |  |  |
|                | Actual |      |   |    |     |      |   |    |     |      |   |    |     |      |   |    |     |      |  |  |  |                          |              |                         |  |  |  |  |
| Output 1.1     | Plan   |      |   |    |     |      |   |    |     |      |   |    |     |      |   |    |     |      |  |  |  |                          |              |                         |  |  |  |  |
|                | Actual |      |   |    |     |      |   |    |     |      |   |    |     |      |   |    |     |      |  |  |  |                          |              |                         |  |  |  |  |
| Output 1.2     | Plan   |      |   |    |     |      |   |    |     |      |   |    |     |      |   |    |     |      |  |  |  |                          |              |                         |  |  |  |  |
|                | Actual |      |   |    |     |      |   |    |     |      |   |    |     |      |   |    |     |      |  |  |  |                          |              |                         |  |  |  |  |



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| Activity   | Start | End | Status | 1.1.3 To develop new regulation and the drafts of revised version of regulation on implementation of Law of disaster protection |        | 1.2.1 To develop the draft of the agreement which shows the coordination and cooperation among NEMA and related organizations |        | 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 |        | 1.3.1 To identify problems and challenge of monitoring, report, evaluation and disclosure of disaster protection plan at national and local levels |        | 1.3.2 To revise the plans made in 1.3.1 and make a manual for the revision of disaster protection plan |        | 1.3.3 To improve the present system which collect and analyze information on disaster risk reduction |        | 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 |        | 1.3.5 To improve the system of database on seismic strength of buildings, infrastructure and lifeline. |        |  |
|--|-------|-----|--------|---|--------|---|--------|---|--------|--|--------|--|--------|--|--------|---|--------|--|--------|--|
|  |       |     |        | Plan  | Actual | Plan  | Actual | Plan  | Actual | Plan   | Actual | Plan   | Actual | Plan   | Actual | Plan  | Actual | Plan   | Actual |  |
| 1.1.3 To develop new regulation and the drafts of revised version of regulation on implementation of Law of disaster protection  |       |     |        | ○   | ○      |   |        |   |        |  |        |  |        |  |        |   |        |  |        |  |
| 1.2.1 To develop the draft of the agreement which shows the coordination and cooperation among NEMA and related organizations  |       |     |        |   |        | ○   | ○      |   |        |  |        |  |        |  |        |   |        |  |        |  |
| 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  |       |     |        |   |        |   |        | ○   | ○      |  |        |  |        |  |        |   |        |  |        |  |
| 1.3.1 To identify problems and challenge of monitoring, report, evaluation and disclosure of disaster protection plan at national and local levels   |       |     |        |   |        |   |        |   |        | ○  | ○      |  |        |  |        |   |        |  |        |  |
| 1.3.2 To revise the plans made in 1.3.1 and make a manual for the revision of disaster protection plan   |       |     |        |   |        |   |        |   |        |  |        | ○  | ○      |  |        |   |        |  |        |  |
| 1.3.3 To improve the present system which collect and analyze information on disaster risk reduction   |       |     |        |   |        |   |        |   |        |  |        |  |        | ○  | ○      | ○   | ○      |  |        |  |
| 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                  |       |     |        |   |        |   |        |   |        |  |        |  |        |  |        |   |        |  |        |  |
| 1.3.5 To improve the system of database on seismic strength of buildings, infrastructure and lifeline.   |       |     |        |   |        |   |        |   |        |  |        |  |        |  |        |   |        |  |        |  |
| <b>Output 2:</b>   |       |     |        |   |        |   |        |   |        |  |        |  |        |  |        |   |        |  |        |  |
| 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  |       |     |        |   |        |   |        |   |        |  |        |  |        |  |        |   |        |  |        |  |
| 2.1.2 To develop guidelines-methodologies which show the method for implementing seismic assessment for buildings and lifelines, and how to use equipment  |       |     |        |   |        |   |        |   |        |  |        |  |        |  |        |   |        |  |        |  |
| 2.1.3 To implement training programs 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, kindergarten, schools, hospital, national buildings and design the reconstruction and seismic strengthening of each type of buildings a pilot |       |     |        |   |        |   |        |   |        |  |        |  |        |  |        |   |        |  |        |  |

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| 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  | Plan |  | Actual |  | Plan |  | Actual |  | Plan |  | Actual |  | Plan |  | Actual |  | Plan |  | Actual |  |  |  |
|---|------|--|--------|--|------|--|--------|--|------|--|--------|--|------|--|--------|--|------|--|--------|--|--|--|
|   |      |  |        |  |      |  |        |  |      |  |        |  |      |  |        |  |      |  |        |  |  |  |
| <b>Output 3:</b>  |      |  |        |  |      |  |        |  |      |  |        |  |      |  |        |  |      |  |        |  |  |  |
| 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               |      |  |        |  |      |  |        |  |      |  |        |  |      |  |        |  |      |  |        |  |  |  |
| 3.1.2 To develop educational materials such as textbooks and supplementary readers for DRR education in kindergarten and primary and secondary schools  |      |  |        |  |      |  |        |  |      |  |        |  |      |  |        |  |      |  |        |  |  |  |
| 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 |      |  |        |  |      |  |        |  |      |  |        |  |      |  |        |  |      |  |        |  |  |  |
| 3.1.4 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 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 in pilot areas   |      |  |        |  |      |  |        |  |      |  |        |  |      |  |        |  |      |  |        |  |  |  |
| 3.2.3 To develop and implement educational and training program for implementing disaster prevention and simulation program in Training Center  |      |  |        |  |      |  |        |  |      |  |        |  |      |  |        |  |      |  |        |  |  |  |

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| Duration / Phasing                    | Plan<br>Actual | Year | 2017 |    |     |    | 2018 |    |     |    | 2019 |    |     |    | 2020 |    |     |    | Remarks | Issue | Solution |
|---------------------------------------|----------------|------|------|----|-----|----|------|----|-----|----|------|----|-----|----|------|----|-----|----|---------|-------|----------|
|                                       |                |      | I    | II | III | IV | I    | II | III | IV | I    | II | III | IV | I    | II | III | IV |         |       |          |
| <b>Monitoring</b>                     |                |      |      |    |     |    |      |    |     |    |      |    |     |    |      |    |     |    |         |       |          |
| Joint Coordinating Committee          | Plan           |      |      |    |     |    |      |    |     |    |      |    |     |    |      |    |     |    |         |       |          |
| Set-up the Detailed Plan of Operation | Actual         |      |      |    |     |    |      |    |     |    |      |    |     |    |      |    |     |    |         |       |          |
| Submission of Monitoring Sheet        | Plan           |      |      |    |     |    |      |    |     |    |      |    |     |    |      |    |     |    |         |       |          |
| Monitoring Mission from Japan         | Actual         |      |      |    |     |    |      |    |     |    |      |    |     |    |      |    |     |    |         |       |          |
| Joint Monitoring                      | Plan           |      |      |    |     |    |      |    |     |    |      |    |     |    |      |    |     |    |         |       |          |
| Post Monitoring                       | Actual         |      |      |    |     |    |      |    |     |    |      |    |     |    |      |    |     |    |         |       |          |
| <b>Reports/Documents</b>              |                |      |      |    |     |    |      |    |     |    |      |    |     |    |      |    |     |    |         |       |          |
| Project Completion Report             | Plan           |      |      |    |     |    |      |    |     |    |      |    |     |    |      |    |     |    |         |       |          |
| Public Relations                      | Actual         |      |      |    |     |    |      |    |     |    |      |    |     |    |      |    |     |    |         |       |          |
|                                       | Plan           |      |      |    |     |    |      |    |     |    |      |    |     |    |      |    |     |    |         |       |          |
|                                       | Actual         |      |      |    |     |    |      |    |     |    |      |    |     |    |      |    |     |    |         |       |          |

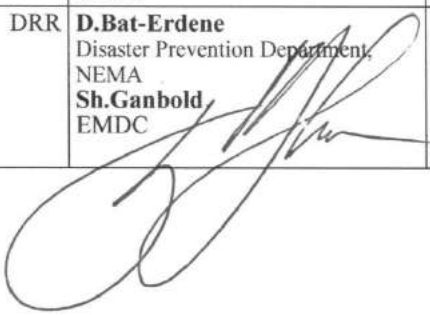
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Annex 6: Working Group Member List

**Working Groups**

| Working Group (WG) |  | Sub-WG  | Member  |  |
|--------------------|--|---|---|--|
|                    |  |   | Mongolian Side  | Japanese Side  |
| WG1                | <b>Disaster Management Plan</b><br><br>WG1 Coordinator:<br><b>D.Bazarragchaa</b><br>Policy Coordination and Cooperation Department, NEMA         | Risk Assessment Guideline   | <b>D.Serjmyadag</b><br>Law Enforcement University of Mongolia<br><b>P.Amarzaya</b><br>Disaster Research Institute, NEMA   | <b>Osamu NISHII</b>  |
|                    |  | Disaster Management Planning Guideline, Preparedness Planning Guideline and Risk Management Guideline | <b>Ts.Turmandakh</b><br>Disaster Operation Department, NEMA<br><b>B.Bayanmunkh</b><br>Policy Coordination and Cooperation Department, NEMA<br><b>B.Batsaikhan</b><br>Disaster Prevention Department, NEMA<br><b>B.Khishigbaatar</b><br>EMDC   | <b>Osamu NISHII</b><br><b>Kensuke ICHIKAWA</b>   |
|                    |  | Database Guideline  | <b>B.Purevnyam</b><br>Disaster Operation Department, NEMA<br><b>D.Badamsuren</b><br>Disaster Research Institute, NEMA<br><b>Sodnomragchaa</b><br>Disaster Research Institute, NEMA  | <b>Tadashi ISE</b><br><b>Akihiro FURUTA</b>  |
|                    |  | Agreements & White papers   | <b>E.Altankhishig</b><br>Policy Coordination And Cooperation Department, NEMA<br><b>D.Erdenebat</b><br>Administrative Management Department, NEMA   | <b>Osamu NISHII</b><br><b>Kensuke ICHIKAWA</b><br><b>Yoshitaka YAMAZAKI</b><br><b>Shiro MAKITA</b>                       |
| WG2                | <b>Seismic Resistance</b><br><br>WG2 Coordinators:<br><b>D.Zanabazar</b><br>MCUD<br><br><b>Z.Battulga</b><br>Disaster Operation Department, NEMA | Seismic Diagnosis of Buildings  | <b>D.Zanabazar</b><br>MCUD<br><b>A.Ankhtuya</b><br>MCUD<br><b>Sh.Uranchimeg</b><br>Inspection Agency<br><b>B.Tsend-Ayush</b><br>Master Planning Agency of Capital City, Construction Quality and Safety Department<br><b>G.Saruultuya</b><br>Construction Development Center<br><b>T.Galbadrakh</b><br>Finance and Logistics Department, NEMA | <b>Seiichiro FUKUSHIMA</b><br><b>Masahide AOKI</b><br><b>Shigeki KITA</b>  |
|                    |  | Seismic Diagnosis of Infrastructures and Lifelines  | <i>Same as Seismic Diagnosis of Buildings</i>   | <b>Jun MATSUO</b><br><b>Seiichiro FUKUSHIMA</b>  |
|                    |  | Design for Seismic Strengthening  | <i>Same as Seismic Diagnosis of Buildings</i>   | <b>Seiichiro FUKUSHIMA</b><br><b>Hideto OMINE</b>  |
| WG3                | <b>DRR Education</b><br><br>WG3 Coordinator:<br><b>D.Munkhbat</b><br>Disaster Prevention Department, NEMA  | School DRR Education  | <b>Ch.Gantsetseg</b><br>MECSS<br><b>D.Munkhbat</b><br>Disaster Prevention Department, NEMA  | <b>Miki KODAMA</b><br><b>Yujiro OGAWA</b><br><b>Yoko OTA</b><br><b>Amarjargal NAYANBAATAR</b>                            |
|                    |  | Community Education DRR   | <b>D.Bat-Erdene</b><br>Disaster Prevention Department, NEMA<br><b>Sh.Ganbold</b><br>EMDC  | <b>Miki KODAMA</b><br><b>Yujiro OGAWA</b><br><b>Toshikazu HIWAKI</b><br><b>Yoko OTA</b><br><b>Amarjargal NAYANBAATAR</b> |

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**MINUTES OF MEETINGS  
BETWEEN  
JAPAN INTERNATIONAL COOPERATION AGENCY  
AND  
NATIONAL EMERGENCY MANAGEMENT AGENCY  
FOR AMENDMENT OF THE RECORD OF DISCUSSIONS  
ON  
PROJECT FOR STRENGTHENING THE NATIONAL CAPACITY OF EARTHQUAKE  
DISASTER PROTECTION AND PREVENTION IN MONGOLIA**

The Japan International Cooperation Agency (hereinafter referred to as "JICA") and the National Emergency Management Agency (hereinafter referred to as "NEMA") hereby agree that the Record of Discussions on Project for Strengthening the National Capacity of Earthquake Disaster Protection and Prevention in Mongolia signed on July 8, 2016 will be amended as follows;

1. Appendix 1: Project Description, II. Outline of the Project, 2. Implementation Structure (2) Administration of authorities concerned of Mongolia, (a) Project Director

| Before  | Amended Version  |
|---|--|
| Deputy Chief of NEMA will be responsible for overall administration and implementation of the Project   | Director of Disaster Operation Department of NEMA will be responsible for overall administration and implementation of the Project |
| Reason: Since Disaster Operation Department is responsible for basic functions of earthquake disaster prevention, elimination of damage, disaster management and coordination, Project Director is to be changed from Deputy Chief of NEMA to Director of Disaster Operation Department under the order of the Chief of NEMA. |  |

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This amendment will become effective as of December 14, 2016.

Annex: Record of Discussions (signed on July 8, 2016)

Ulaanbaatar, December 14, 2016

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Mr. Mutsumi Sato  
Chief Representative  
Mongolia Office  
Japan International Cooperation Agency  
Japan

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

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Mr. Gantulga Badamkhatan  
Director General  
Development Financing and Debt  
Management Department  
Ministry of Finance  
Mongolia



## Annex 8: Question and Answer in the JCC meeting

### **Question: Mr. Jargalsaikhan Yo., Senior officer of National Security Council:**

- 1) Equipment for Training Center;
  - 2) Equipment for seismic diagnosis;
  - 3) Five kinds of public buildings for strengthening (School, Kindergarten, Hospital etc.).
- Please let me know if any changes for above items.

### **Answer 1: Mr. Hosokawa Y., JICA:**

For question one, more technical discussion on the equipment and its detail technical specifications will be issued in Output 3 Working Group (WG). As several participants of Mongolian side verified in Japan in February, 2016, the equipment with high cost for operation and maintenance should be considered. As described in 5. (3) of the Attached Document in the Minutes of Meetings signed by JICA and NEMA on June 3, 2016 NEMA will submit JICA the letter with the approved annual budget plan for promising these cost of the equipment as precondition of the procurement procedure.

### **Answer 2: Mr. Owada K., JICA Expert Team:**

For question two, Output 2 WG will select the type of equipment for seismic diagnosis and JICA Expert Team now considering on quick arrangement to provide appropriate equipment to Mongolian side as soon as possible.

### **Answer 3: Mr. Fukushima S., JICA study team:**

For question three, 5 public facilities for reinforcement: We have a plan to discuss more detail on WG. Trial design of reinforcement will be considered and detailed in WG of Output 2.

### **Comment: Ms. Sayanaa L, Advisor in charge of emergency management of Deputy Prime Minister:**

Deputy Prime Minister of Mongolia had a speech in the national seminar held yesterday, as a leader of the Earthquake Disaster Protection Standing Committee in Mongolia. Deputy Prime Minister announced disaster protection motion in nationwide and directed several goals. These are;

- 1) Seismic assessment of buildings: at first, public facilities in Ulaanbaatar, Darkhan cites were considered, while in near future to implement and assessment in nationwide
- 2) Disaster risk reduction (DRR) education and improvement of citizen's perspective: Covering private entities and all levels of organizations as well as citizens. In other word, it is very important to raise awareness about "Self-help" and "Mutual-help" from disaster.

Above mentioned goals are directly linked project activities in Output 3. I would like to ask Ms. Kodama to collaborate with the goals that were proposed by Deputy Prime Minister of Mongolia. Hope that soon it will be merged and going with one direction for the goals "to protect people from disaster and improve the current knowledge to provide all people". Two weeks ago, name of Training Center was changed from Training Center of protect citizens of Ulaanbaatar from disaster to Training Center for Public Disaster Protection. The main reason of changing the name of Training Center is that Training Center is not only for citizens of Ulaanbaatar but also for the nationwide people. For the disaster protection, there are a lot of reliable experiences in Japan, and it should be provided to Mongolian side through the project activities in Output 3.

Asian Ministerial Conference on Disaster Risk Reduction will be held in Mongolia in 2018. This conference is biggest opportunity for the Mongolian side to introduce national disaster protection activities and it is important to connect JICA's project activities on conference and show it to

others as showcase. It is not enough to show it as appearance, most important point is strengthening disaster protection capacity.

**Question:** While above mentioned Training Center newly established in Ulaanbaatar city, according to the direction of Deputy Prime Minister of Mongolia, main goals of Training Center will provide a service for DRR education in nationwide. Due to this, each district and province should build a Training Center. Is there any opportunity to cooperate with JICA project on above mentioned activities?

**Answer: Mr. Hosokawa Y., JICA:**

"The Project for Strengthening the National Capacity of Earthquake Disaster Protection and Prevention in Mongolia" is covering not only Ulaanbaatar city but whole country. JICA Expert Team is planning to support Training Center for Public Disaster Protection in Ulaanbaatar city, and JICA expects the specific know-how will be disseminated in rural area through the center.

**Question: Ms. Jargal D, Director of Infrastructure and State Inspection Department, General State Inspection Agency:**

In the past and last week, we met with the Expert team and discussed that the time of procurement of the seismic diagnosis equipment is late. How long does it take to provide?

**Answer: Mr. Owada K., JICA Expert Team:**

During the previous research, we had talked about seismic diagnosis equipment. This time, experts in charge of seismic diagnosis are supposed to consult the equipment in WG. I think the fastest period may be August or September, 2017, but, we have to consider about methodology for seismic diagnosis, after that we need to choose the appropriate equipment.

**Comment: Mr. Zanabazar D, Director of Department, MCUD:**

As the Ministry of Construction and Urban Development (MCUD), we would like to be involved at Output 2. I would like to inform that Output 2 WG would be led by me. As a result of Output 2 WG, it is scheduled to develop three committees; Committee for Seismic Diagnosis of Buildings, Committee for Seismic Diagnosis of Infrastructures and Lifeline, Committee for Seismic Strengthening Design of Buildings and to approve as a construction code in 2017. The MCUD has agreed to include Norma and Normative documents fund budget in 2017.

It is very important to approve and follow Norma as legal document. Based on the direction of the Deputy Prime Minister, to measure the earthquake reliability for the public buildings is priority.

On the Output 2, we will found a Study committee and to coordinate with WG activities. The Study committee will be budgeted from fund as above mentioned. This is very important to approve GLs to be developed during this Project as a construction norm.

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

- 1) It seems that the topic of the equipment for Training Center become very unclear time by time. It's taking too long time.
- 2) The amount of budget for the Project should be cleared participating with NEMA officials. And if not so, it might be influenced to the project progress.

Is the training on Disaster Management Plan (Output 1) for strengthening capacity of coordination among related organizations different from the training for Disaster Preparedness



Plan? As the department in charge of planning in NEMA, we want to implement training & information sharing with other countries.

Comment 1): For the training of reinforcement, we need to make clear who will attend to the training.

Comment 2): For community-based DRR education, we need to include the staff of NEMA.

Comment 3): For developing education materials, whether there are some video materials or not.

The Project should be carried out with responsibility. We need to speed up the activities because the project period is not so long.

Monitoring sheet & Flowchart must be printed out bigger and installed in project team office.

For the schedule of next JCC meeting, I would like to hear expert team's opinion.

**Answer: Mr.Owada K., JICA Expert Team:**

JCC meeting will be held once in every quarter, while training in Japan is scheduled in March 2017. I would like to propose next JCC meeting in April 2017, so that we can discuss about outcomes of training in Japan.

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

We accept your opinion. We have in a good condition of communication, therefore it is possible to discuss about schedule timely, considering the Project progress.

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

All the counterparts, related authorities and expert team should carry out duties responsibly. I was entrusted as the Project Director and as a member of Earthquake Disaster Protection Standing Committee, it is possible to cooperate with the Standing Committee as well as Members of the Committee.




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


Joint Coordinating Committee (hereinafter referred to as "JCC") for the Project for Strengthening the National Capacity of Earthquake Disaster Protection and Prevention in Mongolia (hereinafter referred to as "the Project") held its second meeting on April 14, 2017 from 9:00 to 10:15, at Conference Room of National Emergency Management Agency (hereinafter referred to as "NEMA"), Ulaanbaatar, Mongolia, chaired by Mr. Badral Tuvshin, Chief and Brigadier General, NEMA and supported by Mr. Kiyotaka Owada representing the Expert Team dispatched by the Japan International Cooperation Agency (hereinafter referred to as "JICA"). JCC members were invited and attended to the JCC. The list of the participants and agenda of the meeting are provided in Annex 1 and Annex 2, respectively.

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

Ulaanbaatar, April 14, 2016

  
\_\_\_\_\_  
Mr. Mutsumi Sato  
Chief Representative  
Mongolia Office  
Japan International Cooperation Agency  
Japan

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

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



ATTACHED DOCUMENT

1. Nominating Officers for the Working Group Members

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

Mongolian side submitted the member list of the C/P 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 new members of WG as shown in the Annex 3.

2. Amendment of the administration authorities concerned of Mongolia

The Mongolian side explained that the position of Project Director who was assigned in the first JCC on December 7, 2016 was changed to provide more effectively leadership of NEMA for the Project. For this reason, JCC requested the amendment of R/D as the draft Minutes of Meeting shown in Annex 4.

3. Procuring equipment

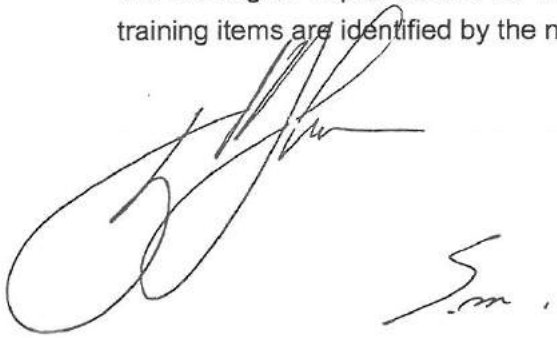
The Mongolian side explained the relevance and the position of the equipment to be procured and donated by JICA in the national policy and plan of Disaster Risk Reduction (hereinafter referred to as "DRR") in Mongolia, and proposed the Operation and Maintenance (hereinafter referred to as "O&M") plans of introductions of the instruments for seismic diagnosis and the equipment for DRR awareness-raising that is supposed to be installed in the facility tentatively named as Training Center for Public Disaster Protection as shown in the Annex 5.

The Japanese side 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 they plan to send the official letter to request additional contents identified in the O&M plans.

4. Training in Japan or third country

JCC members agreed to implement the second training in Japan until November, 2017.

The Japanese side requested that obtained knowledge and experiences through the training in Japan should be reflected in the WG activities firstly. And detailed training items are identified by the next JCC.



5. Third JCC meeting

JCC members agreed that the next JCC meeting will be tentatively scheduled in the last week of June, 2017 in Ulaanbaatar.

6. Question and Answer on the JCC

JICA and JICA Expert Team responded to the questions of JCC members as shown in Annex 6.

Annex 1: List of Participants

Annex 2: Agenda of the JCC Meeting

Annex 3: Working Group Member List

Annex 4: Draft Minutes of Meeting for Amendment of R/D

Annex 5: O&M Plans

Annex 6: Question and Answer in the JCC Meeting


Annex 1: List of Participants

The Project for Strengthening the National Capacity  
of Earthquake Disaster Protection and Prevention in Mongolia

Date: 2017/4/14

Place: NEMA Conference Room (1st Floor)

Title of Meeting: 2nd Joint Coordination Committee (2nd JCC)

| Name              | Department, Organization   | E-mail/ Tel              | Signature         |
|-------------------|--|--------------------------|-------------------|
| T. Badral         | Chief of NEMA  |                          |                   |
| L. Sayana         | Advisor in charge of Emergency Management of Deputy Prime Minister   |                          |                   |
| S. Magnaisuren    | State Secretary of Ministry of Construction and Urban Development  | magnaisuren@mcud.gov.mn  |                   |
| B. Uuganbayar     | Director of Disaster Prevention Department, NEMA   |                          |                   |
| Yo. Jargalsaikhan | Referent of National Security Council  | jargalsaikhan@nsc.gov.mn |                   |
| L. Ulziibayar     | Director of Policy Coordination and Cooperation Department, NEMA   | 991055714                |                   |
| D. Jargal         | Director of infrastructure and State Inspection Department, General State Inspection Agency                  |                          |                   |
| Z. Munkh-Orgil    | Officer of Aid Policy Division, Development Financing and Debt Management Department, Ministry of Finance    |                          |                   |
| J. Myagmar        | Director, Division of Preprimary and Primary Education of Ministry of Education, Culture, Science and Sports | jmyagmar@mcsc.gov.mn     |                   |
| P. Bayarkhuu      | Vice Mayor of the Capital City in charge of Urban Development  | P.bayarkhuu@ykhoo.com    |                   |
| N. Ulambayar      | Director of Emergency Management Department of the Capital City (EMDC)                                       |                          |                   |
| G. Enkhtuya       | Director of Construction Quality and Safety Division, Master Planning Agency of Capital City                 | enkhetsen@ykhoo.com      |                   |
| Mutsumi Sato      | Chief Representative of JICA Mongolian office  | - a -                    | Sato Mutsumi      |
| Hiromi Sawada     | Senior Representative of JICA Mongolian office   | Absent                   |                   |
| Yukinari Hosokawa | Officer in charge of the Project of JICA   | ✓                        | Yukinari Hosokawa |
| Kiyotaka Uchida   | JICA EXPERT TEAM   |                          |                   |
| Akihiko Iwata     |  |                          |                   |
| B. Damuyale       |  | 262840                   |                   |
| D. Murun          | JET  | 99057365                 |                   |
|                   |  |                          |                   |
|                   |  |                          |                   |
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**The Project for Strengthening the National Capacity  
of Earthquake Disaster Protection and Prevention in Mongolia**

Date: 2017/4/14

Place: NEMA Conference Room (1st Floor)

Title of Meeting: 2nd Joint Coordination Committee (2nd JCC)

|                  |                          |                              |  |
|------------------|--------------------------|------------------------------|--|
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| Т. Ганзориг      | ОБЕС ХТХ-У МАТРАХИЙН     | Gabaa-81@yaho.com            |  |
| М. Мөнхноров     | JICA. programme officer. |                              |  |
| Yoshino Satomi   | JICA. program officer.   |                              |  |
| Баянбаяр         |                          |                              |  |
| Д. Идэр          | NEMA                     |                              |  |
| Х. Энхжаргал     | гооногын зохиогч         |                              |  |
| Хироюки          | JET                      | shiro-makita@ff-jp.jp        |  |
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| Osamu NISHII     | JET                      | nishii@exointer.com          |  |
| Seiichi Inokubo  | JET                      | fuksushima.seiichi@jmail.com |  |
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| М. Мөнх-Оюун     | JET                      |                              |  |
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| Б. Тугуйсүрэн    | JICA Project Team        | tumengerelb@gmail.com        |  |
| С. Бэндэев       | JET                      | ezor1500@yahoo.com           |  |

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Annex 2: Agenda of the JCC Meeting



**“THE PROJECT FOR STRENGTHENING THE NATIONAL CAPACITY  
OF EARTHQUAKE DISASTER PROTECTION AND PREVENTION IN MONGOLIA”  
Agenda for 2nd Joint Coordination Committee (2nd JCC)**

**Date:** April 14<sup>th</sup>, 2017

**Time:** 09:00~10:15

**Venue:** NEMA Conference Room

| No. | Time        | Agenda  | Presenter   |
|-----|-------------|---|---|
|     | 08:30-9:00  | Registration  |   |
| 1   | 09:00-9:05  | Opening remarks from NEMA   | <i>Mr. Badral Tuvshin<br/>Chief, Brigadier general, NEMA</i>                                  |
| 2   | 09:05-9:10  | Opening remarks from JICA   | <i>Mr. Mutsumi Sato<br/>Chief Representative, Mongolia Office, JICA</i>                       |
| 3   | 09:10-9:15  | Overview of project activity and schedule   | <i>Kiyotaka Owada<br/>Team Leader, JICA Expert Team</i>                                       |
| 4   | 9:15-9:25   | Lesson learned from the training in Japan   | <i>Mr. G. Bat-Erdene<br/>Policy Coordination and Cooperation<br/>Department, NEMA</i>         |
| 6   | 9:25-9:35   | Progress of WG1 Activity  | <i>Ms. B. Duvshin<br/>Disaster Risk Management Department,<br/>NEMA</i>                       |
| 7   | 9:35-9:45   | Progress of WG2 Activity  | <i>Mr. D. Zanabazar<br/>Director of Policy Department, MCUD</i>                               |
| 8   | 9:45-9:55   | Progress of WG3 Activity  | <i>Ms. Myagmar.J<br/>Director, Division of Preprimary and<br/>Primary Education of M ECSS</i> |
| 10  | 9:55-10:10  | Discussion and confirmation on:<br>- Revision of WG member<br>- Amendment of R/D<br>- Procuring equipment<br>- Training in Japan or third countries | <i>Project Coordinator, NEMA<br/>Discussion with All Participants</i>                         |
| 11  | 10:10-10:15 | Closing remarks   | <i>Mr. B. Uuganbayar<br/>Director of Disaster Prevention<br/>Department, NEMA</i>             |

Annex 3: Working Group Member List

**Working Groups**

| Working Group (WG) |  | Sub-WG  | Member  |
|--------------------|--|---|---|
| WG1                | <b>Disaster Management Plan</b><br><br>WG1 Coordinator:<br><b>D.Bazarragchaa</b><br>Disaster Risk Management Department, NEMA                    | Risk Assessment Guideline   | <b>D.Serjmyadag</b><br>Law Enforcement University of Mongolia<br><b>P.Amarzaya</b><br>Disaster Research Institute, NEMA<br><b>D.Bazarragchaa</b><br>Disaster Risk Management Department, NEMA<br><b>B.Batbayar</b><br>Disaster Risk Management Department, NEMA   |
|                    |  | Disaster Management Planning Guideline, Preparedness Planning Guideline and Risk Management Guideline | <b>B.Bayanmunkh</b><br>Policy Coordination and Cooperation Department, NEMA<br><b>B.Myagmardorj</b><br>Disaster Operation Department, NEMA<br><b>Ch.Otgontugs</b><br>Fire Department, NEMA<br><b>B.Khishighbaatar</b><br>Disaster Operation Department, NEMA<br><b>E.Batbayar</b><br>EMDC   |
|                    |  | Database Guideline  | <b>B.Purevnyam</b><br>Public Announcement and Emergency Administration Center, NEMA<br><b>D.Badamsuren</b><br>Disaster Research Institute, NEMA<br><b>Sodnomragchaa</b><br>Disaster Research Institute, NEMA<br><b>B.Boldkhuu</b><br>Public Announcement and Emergency Administration Center, NEMA  |
|                    |  | Agreements & White papers   | <b>E.Altankhishig</b><br>Policy Coordination And Cooperation Department, NEMA<br><b>B.Duvshin</b><br>Disaster Risk Management Department, NEMA  |
| WG2                | <b>Seismic Resistance</b><br><br>WG2 Coordinators:<br><b>D.Zanabazar</b><br>MCUD<br><br><b>Z.Battulga</b><br>Disaster Operation Department, NEMA | Seismic Diagnosis of Buildings  | <b>D.Zanabazar</b><br>MCUD<br><b>Z.Battulga</b><br>Disaster Operation Department, NEMA<br><b>Sh.Uranchimeg</b><br>General Agency for Specialized Inspection<br><b>B.Tsend-Ayush</b><br>Master Planning Agency of Capital City, Construction Quality and Safety Department<br><b>G.Saruultuya</b><br>Construction Development Center<br><b>T.Galbadrakh</b><br>Finance and Logistics Department, NEMA<br><b>G.Erkhembayar</b><br>MCUD<br><b>B.Gantulga</b><br>Land Management, Geodesy and Cartography Agency, MCUD<br><b>M.Oyunchimeg</b><br>Mongolian University of Science and Technology |
|                    |  | Seismic Diagnosis of Infrastructures and Lifelines  | <b>D.Zanabazar</b><br>MCUD<br><b>Z.Battulga</b><br>Disaster Operation Department, NEMA<br><b>Sh.Uranchimeg</b><br>General Agency for Specialized Inspection<br><b>B.Munkhsaikhan</b><br>General Agency for Specialized Inspection<br><b>G.Erkhembayar</b><br>MCUD<br><b>B.Gantulga</b><br>Land Management, Geodesy and Cartography Agency,  |

| Working Group (WG) |  | Sub-WG                           | Member   |
|--------------------|--|----------------------------------|--|
|                    |  |                                  | MCUD   |
|                    |  | Design for Seismic Strengthening | <b>D.Zanabazar</b><br>MCUD<br><b>Z.Battulga</b><br>Disaster Operation Department, NEMA<br><b>Sh.Uranchimeg</b><br>General Agency for Specialized Inspection<br><b>B.Tsend-Ayush</b><br>Master Planning Agency of Capital City, Construction Quality and Safety Department<br><b>G.Saruultuya</b><br>Construction Development Center<br><b>G.Erkhembayar</b><br>MCUD<br><b>B.Gantulga</b><br>Land Management, Geodesy and Cartography Agency, MCUD<br><b>M.Oyunchimeg</b><br>Mongolian University of Science and Technology |
| WG3                | <b>DRR Education</b><br><u>WG3 Coordinator:</u><br><b>D.Munkhbat</b><br>Disaster Prevention Department, NEMA | School DRR Education             | <b>J.Myagmar</b><br>MECSS<br><b>Ch.Gantsetseg</b><br>MECSS<br><b>P.Baljinnyam</b><br>MECSS<br><b>Ts.Chimedlkham</b><br>MECSS<br><b>G.Mongolkhatan</b><br>Education Research Institute, MECSS<br><b>B.Erdenechimeg</b><br>Education Research Institute, MECSS<br><b>A.Enkhtogtokh</b><br>Education Research Institute, MECSS<br><b>D.Munkhbat</b><br>Disaster Prevention Department, NEMA<br><b>O.Tsend-Ayush</b><br>Disaster Prevention Department, NEMA   |
|                    |  | Community DRR Education          | <b>D.Munkhbat</b><br>Disaster Prevention Department, NEMA<br><b>D.Bat-Erdene</b><br>Disaster Prevention Department, NEMA<br><b>B.Uuriingegee</b><br>EMDC<br><b>B.Unenbaatar</b><br>EMDC<br><b>D.Dulamsuren</b><br>Public Information Center, Disaster Prevention Department, NEMA<br><b>S.Amgalan</b><br>Administrative Management Department, NEMA<br><b>M.Amartungalag</b><br>MECSS  |



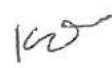
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**MINUTES OF MEETINGS  
BETWEEN  
JAPAN INTERNATIONAL COOPERATION AGENCY  
AND  
NATIONAL EMERGENCY MANAGEMENT AGENCY  
FOR AMENDMENT OF THE RECORD OF DISCUSSIONS  
ON  
PROJECT FOR STRENGTHENING THE NATIONAL CAPACITY OF EARTHQUAKE  
DISASTER PROTECTION AND PREVENTION IN MONGOLIA**

The Japan International Cooperation Agency (hereinafter referred to as "JICA") and the National Emergency Management Agency (hereinafter referred to as "NEMA") hereby agree that the Record of Discussions on Project for Strengthening the National Capacity of Earthquake Disaster Protection and Prevention in Mongolia signed on July 8, 2016 will be amended as follows;

1. Appendix 1: Project Description, II. Outline of the Project, 2. Implementation Structure (2) Administration of authorities concerned of Mongolia, (a) Project Director

|  |  |
|--|--|
| Original signed on July 8, 2016  | <u>Deputy Chief</u> of NEMA will be responsible for overall administration and implementation of the Project                               |
| Amended on December 14, 2016   | <u>Director of Disaster Operation Department</u> of NEMA will be responsible for overall administration and implementation of the Project  |
| Amended in this time   | <u>Director of Disaster Prevention Department</u> 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. |  |



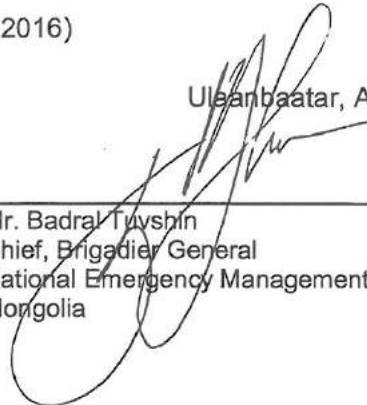
This amendment will become effective as of April 14, 2017.

Annex: Record of Discussions (signed on July 8, 2016)

Ulaanbaatar, April 14, 2017

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Mr. Mutsumi Sato  
Chief Representative  
Mongolia Office  
Japan International Cooperation Agency  
Japan



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Mr. Badral Tsuyshin  
Chief, Brigadier General  
National Emergency Management Agency  
Mongolia

---

Mr. Bolor Enkhbayar  
Head  
Aid Policy Division  
Development Financing Department  
Ministry of Finance  
Mongolia



Annex 5: O&M Plans

Seismic Diagnosis Equipment  
Operation and Maintenance plan

2017.2.21 NEMA

**1. Introduction**

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

**2. About procuring seismic diagnosis equipment**

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

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

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

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

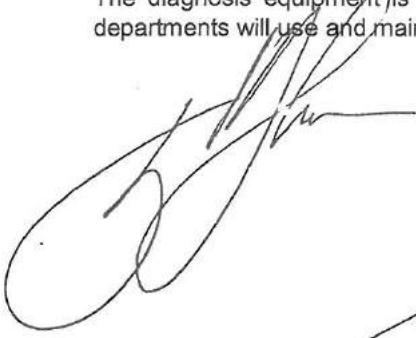

All equipment used on training shall be transferred to the Mongolian side at the completion of the project.

Table.1 Procuring seismic diagnosis equipment

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

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

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

kw

Table.2 End user authorities of diagnosis equipment

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

### 3. Survey related to the procuring of the evaluation tools

Examines whether the purchase tool meets the specification and needs.

Table3. Purchase list of assessment tool.

| Seismic Diagnosis Equipment            |  |  |   |      | Description        |
|--|--|--|---|------|--------------------|
| RC and PC                              | Tools Names  | Usage  | Price in Mongolia (USD)                                 |      | Result direct read |
|  | Surface strength measuring instruments   | Force from the rebound from the hit the concrete surface compression is considered strength                              | Original Schmidt Test Hammer N<br>[310-01- 001]1,010    | 1010 |                    |
| Ultrasonic-based measuring instruments | Concrete cracks depths and amount is determined through ultrasonic waves measuring the compressive strength and elasticity factors are calculated. | Pundit Lab+<br>[326-20- 001]   | 5600  |      |                    |
| Masonry                                | Corrosion measuring instruments  | In the concrete rebar & metal potential is calculated from the amount of corrosion                                       | Profometer Corrosion-Rod electrode<br>[392-50- 010]     | 754  |                    |
|  |  |  | Profometer Corrosion-1 wheel electrode<br>[330-01- 001] | 4740 |                    |
|  | Concrete covering thickness measuring instruments  | Measure the thickness of the concrete structural reinforcement.  | Profometer PM-630<br>[392-20- 001]                      | 7900 |                    |
|  | Brick Surface strength measuring instruments   | Brick masonry structure building and struck the surface from the estimated power of the compressive strength of rebound. | Original Schmidt Test Hammer L<br>[310-01- 002]         | 1915 |                    |

- Surface strength measuring instruments  
Force from the rebound from the hit the concrete surface compression is considered strength. Can be used in the countryside.
- Ultrasonic-based measuring instruments  
Concrete cracks depths and amount is determined through ultrasonic waves measuring the compressive strength and elasticity
- Corrosion measuring instruments

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

#### 4. Operation plan for use diagnosis tools

##### (1) Role sharing for instruction of diagnosis equipment

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

In introducing diagnosis equipment, as shown in Table 4

- Until completion of training

- 1) In the first period it will be used during training and NEMA will receive the equipment's, all end user authorities staff will listen user manual guidance.
- 2) During the training session the project team is responsible for the usage & storage.

- after completion of training

- 1) It'll be transferred to the end user authorities.
  - 2) End user authorities are responsible for parts, configuration and usage.
- Above item will be mentioned in the maintenance and operation letter and it will be handed over to the Japanese side from Mongolian side.

Table 4. Organize of conditions for procuring diagnosis equipment

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

**(2) Operation and Maintenance Plan**

- 1). When equipment's supplied to NEMA:  
All end user authorities shall hear the explanation of the usage.
- 2) During the implementation of the project:  
Project team will take responsibility for storage of equipment.
- 3). Delivery to the end user authorities  
During the operation and use of supplies, configuration and maintenance services outlined in charge of the contract. On that bases NEMA will hand it over to the end user authorities.
- 4). Parts, usage, repair service.  
End user authorities are responsible for the operation and maintenance, services, configuration, spare parts of the equipment's.

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

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

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

| Work item                       | 2017   |   |            |   | 2018 |   |            |   | 2019       |   |   |      |
|---------------------------------|--|---|------------|---|------|---|------------|---|------------|---|---|------|
|                                 | 1  | 2 | 3          | 4 | 1    | 2 | 3          | 4 | 1          | 2 | 3 | 4    |
| Japanese side assumed schedule  |  |   |            |   |      |   |            |   |            |   |   |      |
| Project team survey             |  |   |            |   |      |   |            |   |            |   |   |      |
| 1                               | Survey of the equipment                      | ■ |            |   |      |   |            |   |            |   |   |      |
| Japanese side procurement plan  |  |   |            |   |      |   |            |   |            |   |   |      |
| 2                               | Clarifying the equipment                     |   |            |   |      |   |            |   |            |   |   |      |
| 3                               | Procurement                                  |   |            |   |      |   |            |   |            |   |   |      |
| Mongolian side assumed schedule |  |   |            |   |      |   |            |   |            |   |   |      |
| Mongolian side procedure.       |  |   |            |   |      |   |            |   |            |   |   |      |
| 4                               | Operation, Maintenance letter                | ■ |            |   |      |   |            |   |            |   |   |      |
| 5                               | Instruction of use guideline                 |   | ■          |   |      |   |            |   |            |   |   |      |
| Use in during project           |  |   |            |   |      |   |            |   |            |   |   |      |
| 6                               | During the training of earthquake diagnosis. |   |            |   |      |   |            |   | ■■■■■■■■■■ |   |   |      |
| After completion of project     |  |   |            |   |      |   |            |   |            |   |   |      |
| 7                               | Start use of end user authorities            |   | ■■■■■■■■■■ |   |      |   | ■■■■■■■■■■ |   |            |   |   | ■■■■ |

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

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

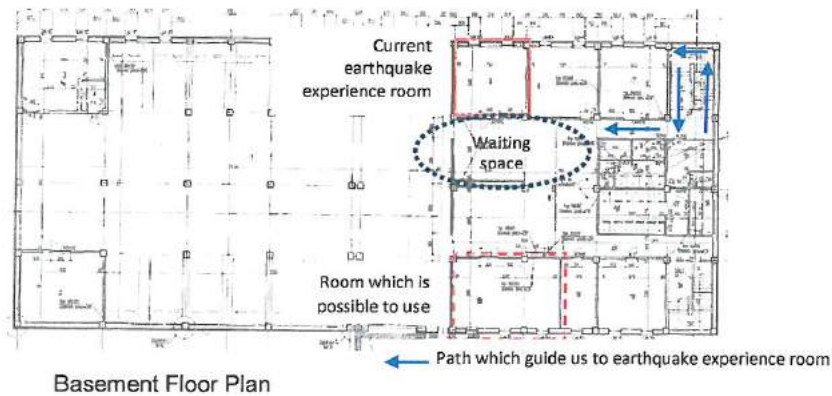
2017.02.24 NEMA

## 1. Introduction

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

## 2. Installation place

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



Basement Floor Plan



Front view of Center



Installation room



Current condition of installation room  
(Temporarily installed shaking table)

## 3. Organizing conditions related to equipment procuring

### 1) Carrying in route

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

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## 2) Matters regarding installation

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

## 3) Matters concerning operation maintenance

The operation status shall be 300 person /day, operating 200 days per year (4 days a week).

## 4. Consideration related to procurement of equipment

### 1) Propriety of earthquake experience room

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

#### ■ Indoor dimension

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

Depth (from wall to wall) 5900

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

Ceiling height 3400

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

#### ■ Floor slab strength

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

### 2) Consideration of earthquake experience equipment

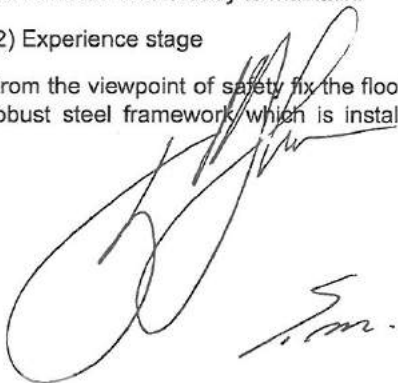
Consider the assumed equipment composition.

#### (1) Vibration exciter

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

#### (2) Experience stage

From the viewpoint of safety fix the floorboards and handrails of experiencing person free space as a robust steel framework which is installed on the vibration exciter. The handrail can withstand the





acceleration at the time of reproducing the earthquake motion with a margin. The furniture is a chair, table, and receives earthquake motions frequently, so it shall have appropriate strength.

(3) Operating equipment

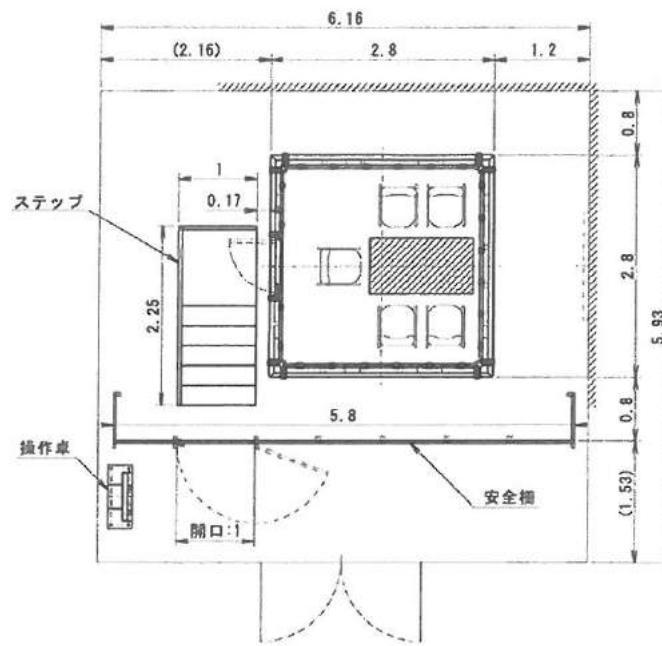
Considering the operation environment, the operation device is an operation console type, a touch panel type PC is embedded, and a key switch and an emergency stop switch are also embedded.

(4) Visual system

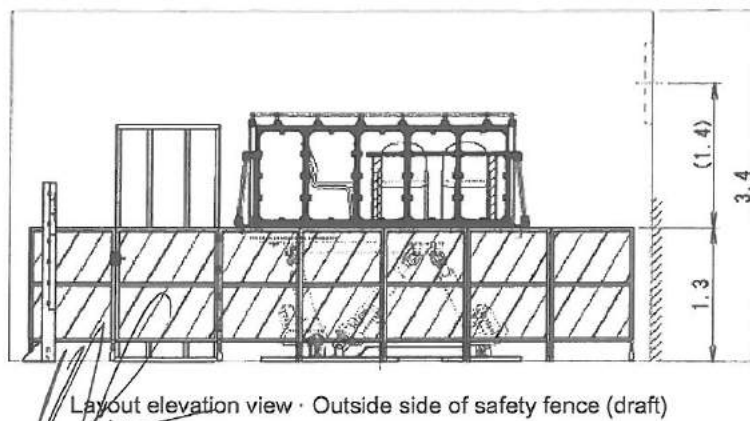
We set up display and narration on experience program reflecting the situation at the time of earthquake to feel more real things.

(5) Other

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



Layout plan (draft)



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

*[Handwritten signatures and initials]*

## 5. Summary of equipment procurement

### 1) Division of work related to equipment introduction

Table 1 Condition for introducing equipment

|                                | Mongolian side   | Japanese side                                      | Remarks   |
|--------------------------------|--|--|---|
| <b>Procurement preparation</b> |  |  |   |
| Survey                         | Discussion of introduction   | Introduction survey                                | This survey   |
| Request                        | Create O & M letter  |  |   |
| Procurement decision           |  | Content of procurement, decision of whether or not |   |
| <b>Procurement</b>             |  |  |   |
| 1. Advance preparation         | ①Renovation of installed slabs<br>② Installation of anchors<br>② Installation of switchboard |  |   |
| 2. Transportation of equipment | ①Receiving, transportation (including customs)   |  |   |
| 3. Installation                | ① implementation of the carry-in<br>② Installation and adjustment assistance                 | ① Installation and adjustment                      | It is assumed that according to installation date Japanese manufacturer will come in Mongolia               |
| 4. Control · Maintenance       | ① O & M<br>② Implementation of regular maintenance   | ① Field training for staff in charge               | Conducting training for the training center staff by the manufacturer company specialist after installation |

### 2) Equipment introduction assumption procedure

| Work item                           | 2017   |   |   |   |   |   |   |   |   |    |    |    |
|-------------------------------------|--|---|---|---|---|---|---|---|---|----|----|----|
|                                     | 1  | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| Assumed schedule of Japanese side   |  |   |   |   |   |   |   |   |   |    |    |    |
| Review by the project team          |  |   |   |   |   |   |   |   |   |    |    |    |
| 1                                   | Consideration of equipment and installation method | ■ | ■ |   |   |   |   |   |   |    |    |    |
| Japanese side procurement procedure |  |   |   |   |   |   |   |   |   |    |    |    |
| 2                                   | Review of equipment content                        |   | ■ | ■ |   |   |   |   |   |    |    |    |
| 3                                   | Procurement  |   |   | ■ | ■ |   |   |   |   |    |    |    |
| 4                                   | Equipment production, adjustment (Maker)           |   |   |   |   | ■ | ■ | ■ |   |    |    |    |
| 5                                   | Unloading / sending                                |   |   |   |   |   |   |   | ■ |    |    |    |
| Assumed schedule of Mongolian side  |  |   |   |   |   |   |   |   |   |    |    |    |
| Mongolian side acceptance procedure |  |   |   |   |   |   |   |   |   |    |    |    |
| 6                                   | Create O & M letter                                |   | ■ |   |   |   |   |   |   |    |    |    |
| 7                                   | Advance preparation                                |   |   |   |   |   |   |   |   |    |    |    |
| 8                                   | Carry in / installation                            |   |   |   |   |   |   |   |   | ■  |    |    |
| 9                                   | Operation training                                 |   |   |   |   |   |   |   |   |    | ■  |    |
|                                     | Operation  |   |   |   |   |   |   |   |   |    | ■  | ■  |

3) Check items of Mongolian side regarding to introduce equipment

(1) Advance preparation

- Improvement of installed slab

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

- Installation of anchors

Establish an anchor corresponding to the specifications of earthquake experience equipment.

- Installation of distribution board

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

(2) Equipment transport

- Tax exemption procedure

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

- Receiving and transporting at customs

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

(3) Installation

- Input, installation

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

(4) Control Maintenance

- Control and maintenance system

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

- Measure relating on budget

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



## **Annex6: Question and Answer in the JCC meeting**

### **Comment: Mr. Badral Tuvshin, Chief, Brigadier General, NEMA:**

I learned from the lecture on Itabashi-ku as one of programs in the training in Japan that each city and ward in Japan has own budget for relevant disaster prevention and is managing it independently. From this experience, I want to provide the opportunity to learn knowledge of relevant actions of disaster prevention in Japan for ward mayors in Ulaanbaatar City and to request implementation of short-term training (2-3 days) in Japan before the summer holiday. Because implementers of outputs of the project activity which are formulated based on the governmental policy are lower-level administrative organizations such as cities or wards.

To avoid any disagreement between Japanese side and Mongolian side, we need to approve the working plan of the project activity on every JCC.

Japanese side need to pay their attention to the period of summer vacation from July to the end of August in Mongolia, and deeply collaborate with Mongolian counterparts (hereinafter referred to as "C/P") to make sure that everything is going well.

The project activities are going extremely well, I'm satisfied. Wish good luck to anyone to succeed work.

### **Comment: Mr. Mutsumi Sato, Chief Representative of JICA Mongolia Office:**

I understand that the training in Japan for ward mayors in Ulaanbaatar City is additional request from Mongolian side, because ward mayors is not Working Group (hereinafter referred to as "WG") member. We will consider needs and possibility of your request in terms of timing, budgeting and contents of additional training in Japan.

### **Comment: Mr. Yukinari Hosokawa, JICA:**

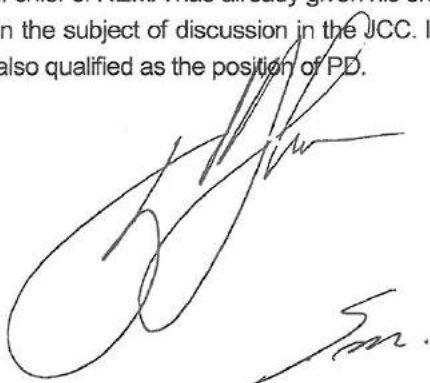
It is necessary to reflect lessons learned from the training in Japan held on March, 2017 in the WG activities firstly, and then to consider the next application and needs for the training in Japan.

### **Comment: Mr. Z. Battulga, NEMA:**

Regarding the amendment of R/D, based on the revision of Disaster Law, we have a plan to change the position of Project Director (hereinafter referred to as "PD") from Director of Disaster Operation Department to Director of Disaster Prevention Department.

### **Question: Ms. J. Myagmar, Director of Division of Preprimary and Primary Education, MECSS:**

If chief of NEMA has already given his order to change PD, I think we don't need to include this topic in the subject of discussion in the JCC. I wonder if Director of Disaster Operation Department was also qualified as the position of PD.



**Answer: Mr. Z. Battulga, NEMA:**

If main project documents will be amended, we need to discuss it in the JCC. Based on the revision of Disaster Law, we have put the more weight on disaster prevention than disaster operation in NEMA. Therefore, Chief of NEMA proposed to change the position of PD to Director of Disaster Prevention Department to provide more significant works of disaster risk reduction (hereinafter referred to as "DRR") including capacity enhancement of NEMA officers and implementation of DRR education and training for school and regional administrative officers

**Comment: Mr. Z. Battulga, NEMA:**

Regarding procuring equipment, we requested to donate instruments for seismic diagnosis and equipment for DRR Training Center by the official letter. JICA received the letter and they are implementing research and coordination for procuring equipment.

WG-2 activities include risk evaluation of facilities, seismic risk assessment and strengthening. We requested 5 kinds of equipment for DRR training center for training purposes.

There are Operation and Maintenance (hereinafter referred to as "O&M") Plans for diagnosis instruments and the equipment for DRR awareness-raising as handouts of the JCC meeting.

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

We have discussed the types of equipment procured from Japanese side in the WG activity. I want to request to add in the explanations for DRR strategic background to introduce such equipment in Mongolia and to clarify main bodies of O&M activities. JICA will send the official letter to request additional contents identified in the O&M plans. We should consider and clarify how to use procured equipment in the training program of the DRR training center.

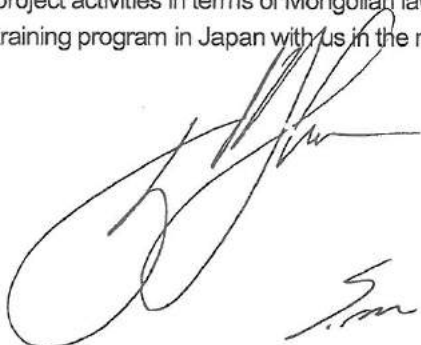
**Comment: Ms. J. Myagmar, Director of Division of Preprimary and Primary Education, MECSS:**

Seismic strengthening of school and kindergarten facilities in Ulaanbaatar City needs much money. Therefore I give support to participation of ward mayors in Ulaanbaatar City in next Japan training. Ministry of Finance can also take a part in this team. If the school buildings remain weak against seismic shaking, we have endless concern in spite of all our efforts for school DRR education.

I want to request more efficient proceeding of JCC meeting. The meeting should be more organized by scheduled time from next JCC.

**Answer: Mr. Yukinari Hosokawa, JICA:**

We will consider additional training. About participation of ward mayors in Ulaanbaatar City to the training in Japan, we want to ask the relevant WG(s) to clarify the position of ward mayors in the project activities in terms of Mongolian laws and to share the relevance and the specific needs for the training program in Japan with us in the next JCC meeting.



For

**Comment: Ms. G. Enkhtuya, Director of Construction Quality and Safety Division, Master Planning Agency of Capital City**

We used 4-5 years for risk evaluation of facilities and seismic risk assessment work. To make norms and rules, professional engineers' knowledge and experiences are required. As I suggested in the beginning of the project to project leader Mr. Owada, we can provide professional advisers. On the basis of this activity we can do more effective training in Ulaanbaatar City.

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

WG 2 will start the technical method of seismic diagnosis from next week. Basically Ms. Tsend-Ayush, who is member of WG2, is in charge to provide the engineering knowledge and experiences to prepare norms and rules as responsible person from Construction Quality and Safety Division, Master Planning Agency of Capital City. However it's possible that people which suggested by Ms. Enkhtuya will participate in the WG 2. Also I want to inform that we will hold the study meeting on the risk assessment implemented by previous project on April 18. I request Ms. Enkhtuya and her staffs to attend this meeting.

**Question: Mr. Yo. Jargalsaikhan, Senior officer of National Security Council:**

Regarding the model designs for seismic strengthening of public buildings such as school, Kindergarten, hospital, apartment, office building, Is it reflected in the working plan?

**Answer: Mr. Seiichiro Fukushima, JICA study team:**

The activity for design drawings for seismic strengthening is included in our activities. After approval of the norms and rules for seismic strengthening, the design drawings will be gone on to. We will not draw the whole building for seismic strengthening, we will do only draw model of frames. This is reflected in the plan.

**Closing remarks: Mr. B. Uuganbayar, Director of Disaster Prevention Department, NEMA:**

We are expecting to achieve results of activities for each WG. I already utilized knowledge which I learned in the training in Japan in the integrated exercise in rural area of Mongolia a few days ago. We have a plan to make documentary for the exercises based on the knowledge and experiences which we got through the training in Japan to distribute it in rural areas.

Japan has less experience on how to strengthen the Precast Concrete (hereinafter referred to as "PC") building. Therefore we need to consider own Mongolian condition and technical knowledge to create the guideline of seismic diagnosis for PC structure.

Mongolian and Japanese sides are going to discuss how to cooperate for international DRR conferences such as the Asian Ministerial Conference on Disaster Risk Reduction in 2018 continuously.

The next JCC meeting will be held at the last week of June, 2017. Project leader K. Owada will participate in Gobi Wolf international training, we hope that he will share own experiences.

