



Final Report 2019

Introducing Bosai Culture
to Strengthen Resilience
of Communities

Lalitpur, Nepal





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Overview

In April 2015 Nepal suffered a deadly earthquake (**Gorkha Earthquake**) measuring magnitude 7.8 on Richter scale with the epicenter located around 80km northwest of Kathmandu. Due to the epicenter being shallow at a depth of less than 10km, the shock waves resulted in more than 9,000 casualties and caused damages to structures in a wide area including in densely populated Kathmandu valley.

The earthquake triggered rumors and unscientific discussions among the public causing more anxiety and panic for those who are still trying to recover from the loss. As proper disaster prevention education localized into Nepalese context was almost non-existent at the time, people scrambled to learn more about the earthquakes from any source available and in particular about how their homes and buildings could be protected from future earthquakes without understanding the specific relation of the disaster to the Nepal.

New laws and regulations were introduced in particular for structures but contents for disaster education for schools were difficult to be developed as there was no particular specialized institution or organization having experience in producing the educational material within Nepal.

In response to the request from CITYNET members in Nepal after the earthquake in 2015, CITYNET Yokohama Project Office applied for a grant with **Toshiba International Foundation** to train local teachers to develop disaster education material. **The content development was supported by Plus Arts, an NPO based in Kobe, Japan which has vast experience developing disaster education material** in Japan and has disseminated the skills to 21 countries globally. The locally developed material was highly appreciated by the schools and the municipal authorities and in 2017 with the support of JICA, the material was transformed into official products of disaster education in the participating schools.

To take this initiative to the next level, CityNet Yokohama Project Office applied for a new grant from Toshiba International Foundation **to promote Japanese disaster prevention “Bosai” practices in Nepal**. In collaboration with Plus Arts, CityNet Yokohama Project Office is setting up a Disaster Risk Reduction Learning Center in Nepal, **the first of its kind** in the country to be opened within 2019. Various Japanese technical and non-technical skills are being used to prepare the center which will act as the learning center for school children as well as a training venue for teachers and public officials on disaster prevention strategies and activities.

Objective:

To enhance and improve disaster prevention education through Japanese “Bosai” culture for the establishment of **Nepal’s first disaster learning** center based on Japanese disaster learning centers:

1. Introduction of **Self-Help, Mutual-Help, and Public-Help** culture from Japan.
2. Establishment of practical learning center based on Japanese disaster prevention learning centers.
3. To integrate Japanese carpentry, architectural, technical and design skills for retrofitting the building and developing the exhibit section on disaster prevention.
4. To develop disaster prevention games and techniques from the experiences in Japan and based on Japanese inventions but localized to Nepalese context.
5. To share experiences from Japan’s disasters and develop localized practices for before during and after disasters.

Project activities:

Disaster education in Nepal is still at an infancy stage compared to Japan particularly due to the lack of education experts and research conducted at school levels. In order to strengthen the capacity of the existing school teachers and to build upon the current practices, the process of training the school teachers on disaster education has been ongoing since 2015 when Toshiba International Foundation first funded the training of the teachers from two municipalities. Since then, the project has expanded to include teachers from **five municipalities** (Kathmandu, Lalitpur, Bhaktapur, Shankharapur, Chandragiri) and now being supported by JICA. In order to take this further the 2019 grant from Toshiba International Foundation enabled the development of games and educational material that the school teachers are now using in their regular activities of the Disaster Education Clubs established in the schools

This project had two components. One is the capacity building of the educators to disseminate Japanese disaster prevention practices to the school children and to the communities. The other was the actual development of the infrastructure to establish a disaster risk reduction learning center where school children and the public will be able to learn various disaster prevention techniques as well as understand more about the disaster itself.

i. Capacity building

Several consultations and practical training on tool development has been ongoing which has been supported by **Plus Arts, a Japanese NPO based in Kobe which specializes in disaster education**. Plus Arts has been a partner since 2015 when CityNet Yokohama Project Office first launched the teacher training in Nepal through the grant from Toshiba International Foundation.

Currently more than **10 different games and material have been developed** as a part of the disaster education kit and have been officially made into products which are being used in the target schools in the 5 municipalities. Further development of the tools is ongoing through the current project as well.



Teachers test the originally made DRR education material among students before finalizing for production.



The localized DRR education kit contains various games including card games as well as a manual.



The original games are in both Nepalese and English and can be played by students of all ages.

DRR Education Games:

1. Bed sheet stretcher
2. Emergency bag (Go Bag)
3. Picture story show
4. Shuffle game
5. Disaster life cycle
6. Snake and ladder
7. Earthquake awareness
8. Disaster Exercise
9. First aid
10. Paper dishes



Teachers have been participating in a series of training workshops and also have worked at home to develop localized games.

The capacity building of the teachers does not limit to educational tool development only but also includes facilitation and teaching skills in and out of classrooms. As disaster related topics can be technical and sometimes difficult to understand, proper utilization of tools and facilitation skills are essential for disseminating accurate information on the matter being shared.

The teachers also formed a DRR Teacher's Club (Disaster Risk Reduction Teacher's Club) which acts as the basis for sustaining the DRR club activities at schools. The teachers of the DRR teacher's club can also train and facilitate other teachers or people in the communities to conduct DRR education programs at schools and communities.

The final DRR education products were officially launched by Hon. Mr. Chiribabu Maharjan, Mayor of Lalitpur Metropolitan City along with the Chief Representative of JICA Nepal Office Ms. Yumiko Asakuma. The products were made into a set containing 10 games including a manual which were handed over to each school and representatives of the disaster department of the participating municipalities.

The games are now being used in the participating schools through a **DRR club** which was also established by the concerned teachers. The objective of the DRR clubs is to raise awareness among all students of the school through club activities conducted regularly at respective schools as well as to demonstrate the games during community events and school events when the guardians of the students visit the school.

ii. Designing the Disaster Risk Reduction Learning Center

In preparation for Nepal's first disaster risk reduction learning center based on Japanese learning centers, a former school building was retrofitted to convert its ground floor into a learning center where schools can bring their students as a part of school visits for the students to learn about disasters, preventive measures and about the Japanese disaster prevention techniques "Bosai".



Former school building before retrofitting work.



School building when the retrofitting started.



MDRRLC occupies the ground floor of the newly renovated and retrofitted building. The building also is equipped with an accessible slope with Japanese standards to make it an universally accessible building,

The interior of the center was prepared with the grant support from Toshiba International Foundation where a Japanese architect supported the capacity building of the Nepali carpenters in order to produce the display material using Japanese carpentry skills and design concepts. It was the first time in Nepal where local carpenters gained simple but effective skills in producing wooden furniture which have multiple uses when assembled in a different way.

The four-room center has an office where the center manager will conduct day-to-day operations along with an Orientation Room, Disaster History Room and a DRR Exhibit. The core conceptual design is being replicated from similar centers produced by Plus Arts in Kobe as well as overseas.

The center was named **Mitra Disaster Risk Reduction Learning Center (MDRRLC)** taking the name from the school that used occupy the building which also became the name of the road where the building stands. 'Mitra' in Nepalese language means 'friends'. **MDRRLC was officially inaugurated on December 1, 2019** by H.E. Masamichi Saigo, Ambassador of Japan to Nepal with Hon. Mr. Chiribabu Maharjan, Mayor of Lalitpur Metropolitan City, Hon. Ms. Gita Satyal, Deputy Mayor of Lalitpur Metropolitan City, Ms. Yumiko Asakuma, Chief Representative of JICA, Mr. Hirokazu Nagata, Chairman of Plus Arts and Mr. Kendra Hirata, Director of CityNet Yokohama Project Office.

In his inaugural speech, Ambassador Saigo expressed hope that MDRRLC will serve as the important base for people in Lalitpur and in Nepal not just to learn about disaster risk reduction but also inspire people to develop useful educational tools as well as products which would create a new culture of disaster prevention similarly to Bosai practices in Japan. Mayor Maharjan also expressed his support to the center stating that his administration is fully prepared to support the initiative in a sustainable way so that people will raise their awareness as well as gain knowledge on creative products particularly developed in Japan.



H.E. Masamichi Saigo, Ambassador of Japan (4th from left) to Nepal inaugurates Nepal's first Disaster Risk Reduction Learning Center along with Hon. Chiribabu Maharjan, Mayor of Lalitpur (Second from right) and other dignitaries.

iii. Interior of MDRRLC

Orientation room



Nepalese school teachers are shown a video on Bosai practices in Japan and explained the concept of self-help, mutual-help and public-help. This is the first room where all visitors to the center gets oriented.

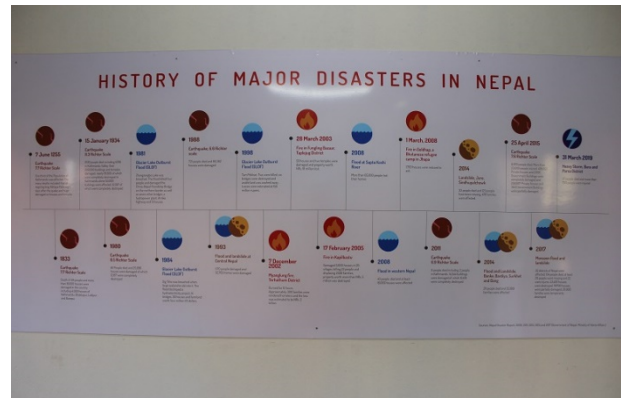
This is the first room that visitors will enter to get a basic understanding of the concept behind **Bosai – Self-Help, Mutual-Help, Public-Help**. Visitors are introduced to the concept through videos and which shows how it is actually practiced in Japan. While in the room, the visitors are also briefed on the objectives of the center and each of the rooms that have been carefully designed to make the experience more educational.

Disaster History room

This is the second room visitors will enter to learn about historical disasters particularly in Nepal. A large horizontal poster illustrates various disasters that have happened in Nepal putting it in timeline which gives an overall context of how disasters are now new and happen regularly. The room also features three hanging posters that illustrate the **most common hazards in Nepal** – Earthquake, landslide, lightning, storm, flood, and fire. The posters illustrate actions that may be taken before, during and after the disasters.



Illustration of the Scale of Magnitude and the posters representing the most common hazards of Nepal are on display in the Disaster History room.



The timeline of the major disasters in Nepal show that the country is highly prone to all kinds of disasters and have happened regularly.

One unique feature of this room is also the illustration of different **magnitudes of earthquakes**. Notably, the Hanshin Awaji Earthquake, Gorkha Earthquake and Great East Japan Earthquake are illustrated on the wall according to the scale of magnitudes to show the difference in the energy released during the earthquakes.

Disaster Exhibit room

Passing through an opening of the Disaster History room, the visitors enter the final and the largest room



The largest of the three rooms at MDRRLC exhibits various locally developed DRR educational material as well as Japanese material which are also applicable in Nepal's context. Visitors can play various games in the room as well.



Disaster Exhibit room also includes items from Japan which may be applicable in Nepal's context such as packaged food for stockpiling as well as items to secure furniture.

which consists of various exhibit of DRR educational material as well as goods that are commonly used in Nepal and in Japan.

The first pair of tables in the exhibit section include the DRR education material that were developed by the local teachers as a part of the project. While the original ideas and designs came from Plus Arts, the content and modified designs were localized to fit the local context.

The second pair of tables show various goods that are commonly used in Japan for disaster prevention purposed. On display are Japanese instant food items commonly used for stockpiling as well as household items that ensure safety inside a room during earthquakes such as stoppers to prevent furniture for falling.

The tables on the side walls showcase additional card games that can be used both in Nepal and in Japan such as the first aid game. Another table consists of the items often packed I the emergency bag in Nepal also know as the 'go bag'. The items include food, first aid kit, flashlight, water, etc which can easily be carried out of the house when evacuating. The emergency bags are supposed to be kept near the exists and in a bag that can be carried easily.

Perhaps the key illustration in this room is the large logo of the DRR Club which was developed by Japanese designer which depict a one horned rhino, an endangered species in Nepal. The animal was voted as the most favorable choice by the teachers involved during the project.

Photo Gallery

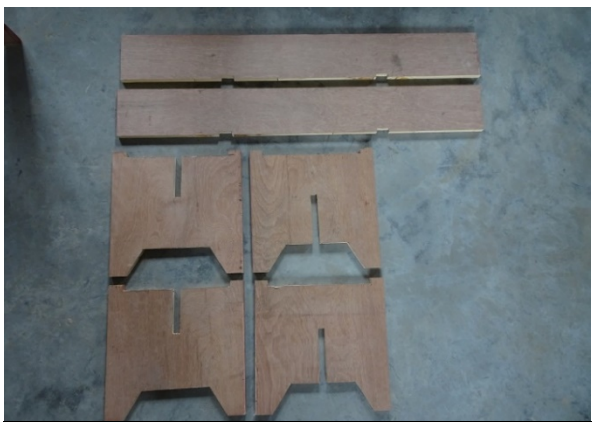
Training of local carpenters



Local carpenter try cutting ply wood using tools instead of the usual hand saws.



Japanese architect introduces techniques used in Japan through videos before practical training.



Various parts of the bench are cut according to specifications and ready for assembly.



The parts are assembled to make the bench and does not require nails.

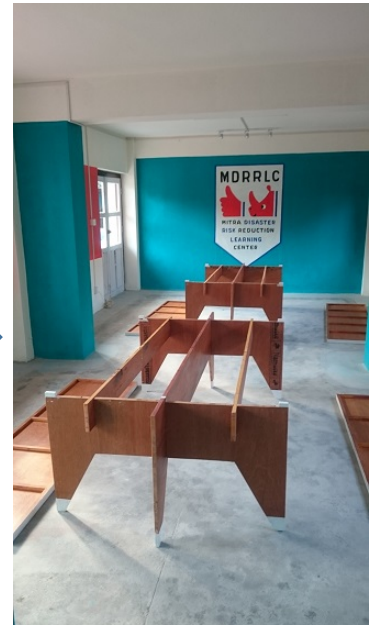
Assembly process of furniture



Complete set before assembly



First, the legs are assembled



Next, the supporting planks are fitted



Next, the first layer of table-top is set. At this stage it can be used as a meeting table



Finally, the top later of exhibit spaces are fitted. The room also contains other display boards.

Inauguration of Mitra Disaster Risk Reduction Learning Center



Ambassador Saigo of Japan to Nepal takes interest in educational tools made by local teachers.



Ambassador Saigo of Japan to Nepal and Mayor Maharjan of Lalitpur enjoy testing their DRR knowledge.



Kendra Hirata, Director of CityNet explains the common hazards found in Nepal to the dignitaries.



Nepalese teachers who developed a picture story show explain the lesson behind their story.



Japanese university students visit MDRRLC to learn about the initiative behind the project and to understand the local awareness on disaster education.