

PILOT PROJECT REPORT

INTERACTION: TOWARDS CREATING AWARENESS

1. Introduction

Two distinct sections appear in this report. In section one, minutes of meetings (MOM) are included. Section two contains baseline information.

Section one focus on creating awareness among the community members and other stakeholders on earthquake disaster mitigation. As the pilot project aims at creating awareness among community members and other stakeholders, within this project period, these institutions were involved on various activities. They were Kick-off-Meeting, Community Meeting in Nagbahal, Lalitpur Ward No. 16. PRA exercises were organized with the social workers and the children of Drop-in-Center of Bhimsensthan, KMC Ward No. 20, Community Watching in Ward 34 two DIGs each in Ward 20 and Ward 34 were also conducted with the local institution & community members of Ward 20, and 34 of KMC. Section two attempts to gather baseline information essential for disaster mitigation plan in the Nagbahal area. Ethnic composition, their settlement pattern, social institution such as family, religion & economy, community resources and hazards together with social organizations are described in section II.

In Baneswore, Ward 34 of KMC, Community Watching and 2 DIGs were organized. All of these meetings/ workshops have been minuted & presented in section 1.

2. Nagbahal, Ward No. 16, Lalitpur

Nagbahal of Ward 16, Lalitpur is typically a high caste Newarai traditional urban settlement. The settlement is highly clustered. Each cluster of houses has one or two narrow passages and some of such clusters have to pass through several narrow passages to reach the destination. There is an umbrella indigenous organization known as the Nagbaha Tole Sudhar Samiti (Nagbahal Neighborhood Improvement Committee). In the past, besides its role of maintaining community harmony and facilitating group cohesion, it also used to maintain law and order. It resolved family disputes. At present, the NTSS acts as a federation and under its general guidelines, there are numerous community based organizations in the Nagbahal area which are specialized for specific activities. Thus due to its unique features Nagbahal was selected for the study so that information collected could be used for future disaster mitigation plan.

Kick C	OFF MEETING: NAGBAHAL, LALITPUR, WARD NUMBER 16			
Date	02 August 2001, Saturday			
Time	6-9 PM			
Organizer	Nagbahal Tole Sudhar Samiti, Ward 16, Lalitpur			
Participants	NTSS Officials and members, CBO Representatives, Local Residents, Students, School Teachers, Business Men, JICA Study Team Member, and NSET-Representative See attached a list of participants			
Number of Participants	64			
Venue	Adarsha Secondary School, Nagbahal			
Program	Inauguration			
	Purpose (5 min) Dilip Joshi			
	Welcome Speech (10 min) Gyan Bahadur Shakya, Officiating Chair of NTSS			
	Procedure (5 min) Dilip Joshi			
	Remarks (25 min) JICA Team, Tomoko Shaw			
	Thanks (5 min) Secretary, NTSS, Bajra Bjracharya			
	Activity			
	Experience Sharing (100 min) All participants			
	Presentation			
	Video Show (30 minutes) JICA Team, Tomoko Shaw			
	Facilitator: KMC-Social Welfare Department and Ward Committee 20			
Contents Purpose of 'Kick Off Meeting				
	To share earthquake experience among one another.			
	Make an environment to form Disaster Management Committee			
	 Motivate the community to work together towards earthquake disaster mitigation activities. 			
	Earthquake Experience Sharing Altogether 45 persons shared their experience on earthquake.			
Output	Presentation of Participant's Experience			
Output	• In the 1934 earthquake, the Tower (Dharahara) at Sundhara broke into three pieces, many people got killed and they were given financial assistance by the Prime Minister Mr. Juddha Shamsher Rana.			
	 The defaulters fled to outside the valley The astrologers predicted that a big earthquake will occur in the year 1961 and during that time for a week many families slept in the tent outside the building, and there occurred the earthquake. 			

- The earthquake occurred in the morning with an unfamiliar sound, "Hununu Ghyakk". Numerous houses in Bhaktapur, Dharan, and other places got completely damaged.
- Japan has immense experience in earthquake disaster management and Nepal
 is also prone to such disaster so they expected guidance from the experts in
 this regard.
- In the year 1988, when the earthquake occurred early in the morning, due to the illness nothing could be done. Being an engineer myself we were not taught anything about earthquake so NSET is working with the Engineering College for developing suitable course in Earthquake.
- Last month on 16 July, earthquake occurred in the night and the house trembled. Everybody came out of the house.
- During the great earthquake of 1934, I was sitting in a tobacco shop in Bauddha, everything fell down on the ground. I did not know it was an earthquake and I also came out with others.
- During the recent earthquake I was sleeping and later, I came out with my mparents and sister.
- The 1990 earthquake epicenter was in Bajhang and Doti areas in the Far Western Region. Its effect was minimal in Kathmandu. I was in Bajhang with a one year baby. Even tall trees fell down near to the temple. Since most of the houses were single storied there was less damage and deaths.
- It was around 10 PM and I was watching TV. I thought I got a high blood pressure as the objects (wall hangs) began shaking, my father was looking through the window and we heard people crying so I holded my babies and ran down to take shelter in Nani downstairs.
- All cried, earth moved I came to Nani and was very scared. It has no solution; I just prayed God and waited.
- I was watching movie, no body guessed what had happened. I felt myself very weak, everybody said, "let us go down, let us go down" and I simply followed them.
- I woke up due to the earthquake of 1988, tried to lit the light, I felt helpless and could not even manage to open the door. Later I could get out of the home but that time it had already stopped.
- During the earthquake I felt as if I am being lifted from the ground, got very scared, I did not know what to do and tried to turn on the light.
- In 1934 earthquake I was simply 9 years old and that time I was going to Mangal Bazar with some friends. Some peculiar sound came like, hununu...hunu.., we saw dusts rising like cloud and the grown ups called the kids to come up and we were pulled on a temple. We saw every thing crumbling. We tried to go home but there was no way, the lanes were blocked by debris. But in the recent earthquake I did not go anywhere because every where there were tall buildings and I did not find safer place to shelter.
- Last time I was sleeping during the earthquake but in 1988 earthquake we came out. We do not know what else to do during the earthquake.
- During the last earthquake, one thing came to my mind whether houses made of traditional technology were better or those with RCC structure?
- In the last earthquake everybody went down and I also followed them after turning off the TV.
- I did not notice the last earthquake as I was walking on the street. I found that everybody at home was so afraid.
- I was sleeping during the last earthquake.
- I went to the roof during the last earthquake.
- In the 1961 earthquake, I was playing cards and the movement was so terrible

- that I thought the house would crumble and I got very scared. But in the last earthquake I was at home and I felt the house shaking a little bit and I thought it was due to children running.
- I was watching TV, my daughter got afraid and uncle suggested to go down but I did not.
- I was sitting on the bed and noticed the earthquake, I could not decide what to do?
- I was chanting religious songs during the last earthquake, while my friends stood up. I said during the earthquake one should not get up rather look at some objects hanging on wall to see if they are moving.
- I have my father who is 76 year old and he still has been carrying the psychic fear of the 1934 earthquake. My father says he had covered himself with a thick cotton blanket (*sirak*) and the wooden beam suddenly fell on it. It was the cotton blanket that he thinks saved him. So he is always very scared during any earthquake and I was very much worried about my father during the last earthquake.
- In 1980 earthquake I was teaching to a vocational class and I did not notice the
 disaster but people outside shouted then only I knew and everybody went out.
 Every body rushed and it became crowded in the school passage so I do not
 know what to do during such incident.
- During 1988 earthquake I was a boy so did not know much but last time I came to the ground floor and did not dare to get out of the house because I feared that other houses may bury me underneath.
- I was watching TV and I wanted to turn it off but the landlord was mad at me. I said we should turn off the light because during the earthquake, it could catch fire. What else we should know? I wish we were told some safety measures.
- During 1961 earthquake it was a fun to me to live in tents as I was a little boy but during the last earthquake, I was worried about my old house.
- I remember sleeping on the ground floor during the 1961 earthquake others had taken shelter in *Bahals*. I woke up by the earthquake and quickly put my son under the bed. Rest of us stood under the beam.
- I am always worried about school children as the doors are too small for disaster management and also it will be the children who will suffer most.
- It is better if we could identify some safer spots inside the house.
- I was chatting with my friend outside when there was an earthquake last time. Some one should teach us what we the young people should do as volunteers?
- In the 1962 earthquake, the birds flew and animals also cried. I still remember the peculiar sound, hununu...hununu...
- The settlements are too clustered and also of different quality so it is difficult for a common suggestion.
- I took hold of my son and took shelter in a safer place inside my home.
- In 1989, I saw maize plants shaking and last time I was in the third floor and when I knew I came out in an open space.
- I remember, everybody running to safer place during the 1989 earthquake but last time I took shelter under the staircase.

Tomoko Shaw's Remarks

- Got an opportunity to be a part of your earthquake experience.
- In Kobe earthquake, people could reduce the effect of disaster because they knew about mitigation. Community cooperated with each other.
- Many people die due to the debris and they can still be alive until 72 hours. So quick rescue also could reduce casualty.
- Narrow alleys are other dangers and community could help each other for

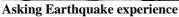
widening it.

- Representatives of all CBOs who are present here have expressed their willingness to help each other so I am hopeful for future cooperation.
- Nagbahal has an open space and a beautiful place, there is a water reserve also. So the community should also discuss about its maintenance and protection.
- Everybody should know that after the disaster we may have to cook less food items and there should be a community food for all the victims and eat together.
- We should also know about first aid for medical help to the injured.
- I came to know that you have a very cooperative attitude and I am very happy with it.
- · We will also conduct similar activities in August and September. .

Closing

At the end, Mr. Bjra Bjracharya, Secretary of the NTSS thanked everybody and closed the meeting.







Showing video of Kobe Earthquake

Сомми	UNITY MEETING/ORGANIZATIONAL ROLE, NAGBAHAL			
Date	23 August 2001, Thursday			
Time	18:30-20:30 PM			
Organizer	Nagbahal Tole Sudhar Samiti, Lalitpur (NTSS)			
Participants				
1 articipants	Community Members (ward no. 16) Chair, Other Officials, and Members of NTSS, JICA Team Members (Kaneko, Shaw) See attached a list of participants			
Number of Participants	30 (Those who signed a list of participants)			
Venue	Adarsha Saral High School			
Program	Inauguration			
	Welcome Speech (10 min)			
	Chair, NTSS			
	Mr. Prem Bahadur Shakya (for Mr. Gyan Bahadur Shakya)			
	Opening Remarks (5 min)			
	Ward No16, Ward Chairman			
	Mr. Bhaju Ratna Shakya			
	Activity			
	Community Autonomous Activities after the Kobe Earthquake in 1995 -Video Demonstration (45 min) JICA Team Ms Tomoko Shaw			
	Formation of Nagbahal Community Disaster Management Committee (45 min) All participants			
	Conclusion (15 min)			
	Facilitator: Lalitpur-Nagbahal Tole Sudhar Samiti, Ward Committee 20 16?			
Contents	Purpose of "Community Meeting"			
	• The main purpose of the Community Meeting was to find out the role of NTSS in order to find out the extent of services it could provide during great			
	earthquake disaster.			
	Also find out the role of various CBOs in such disasters in order to better			
	equip them with necessary information for earthquake mitigation plan.			
	Introduction of the Organization			
	• The NTSS was formed in the year 1976. Prior to this Taremam a socio-			
	religious organization was established in the year 1940. Taremam was			
	basically limited to mostly religious functions. But the NTSS is engaged in the limit of the lim			
	activities related to behavioral changes, legal, infrastructure development (v			
	improvement of roads and lanes), religious/cultural and health and sanitation • All residents living in the locality are members of this umbrella organization			
	All residents living in the locality are members of this umbrella organization There are nearly 251 families affiliated with it.			
	 There are nearly 251 families affiliated with it. There is no membership fee but members voluntarily contribute cash too in 			
	time of need.			
	• The NTSS has a written constitution and the Executive Committee is elected			
	in every two years. There is an advisory council to advise the committee.			

- In the past the NTSS was more engaged in activities related to sports, entertainment (music, dance etc), cleaning, worships/prayers and feasts.
- Before the introduction of parliamentary system (1991), the NTSS used to conduct legal inquiries and decisions.
- At present, the pressing problem as perceived by the older generation is the
 declining functions of the NTSS. But it is interpreted by the younger
 generation that other member CBOs are more active and gradually picking up
 several functions which used to be the activities of the NTSS before. So the
 NTSS has become more an umbrella type of organization which has more a
 coordinating role rather than getting involved in all the areas involved before.

Community Autonomous Activities (Video Show)

All the participants watched the show and Ms. Shaw explained the main points. This was translated into Newari.

Japanese houses were mostly made of wood and fire was the most dangerous disaster to deal with.

Local community voluntarily got organized and 300 families cooperated and extinguished fire.

Water was the biggest problem and it was in shortage.

In the narrow lanes where fire brigade could not go, community members helped themselves by 'bucket-relay'.

Since the Kobe earthquake occurred in the early morning, most of the people were at home, so that the inquiry after the safety of their families were expected to be less than the same one had happened in the daytime.

The factories in the community provided machines and other equipment such as the generators necessary for clearing the debris and launch rescue operation.

Networking and cooperation with association and private companies in the community were useful for such social services.

During the day men usually go to work and some community started to think that it is the women who need training for first aid and rescue operations this training was also given.

As an example of one community, general assembly made of local citizens first met and Disaster Management Committee was formed.

The Committee decided to conduct basic survey researching who possess resources and which family have elderly and physically disabled members.

Earthquake newsletters were distributes, drills were performed to train and get help.

Several activities were simultaneously launched such as the training on disaster management; networking of community, schools and factories.

It was greatly realized that assistance from the community was most important during such disasters.

Closing

- ☐ Mr. Asha Kaji Shakya (Nagbahal Community)
- ☐ After the video show, Mr. Ashakaji Shakya thanked the JICA Study Team for letting them share Kobe experience, which was very relevant and important.
- ☐ He said the NTSS was not yet involved with disaster management but hoped that now onwards it will be activated.
- ☐ And he hoped similar assistance from the Japanese friends in the future.

Ms. Tomoko Shaw (JICA Study Team, Public Awareness)

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	At the end Ms Shaw thanked all the participants for being there till late.		
Output	 Formation of Nag Bahal Community Disaster Management Committee A Community Disaster Management Committee was formed under the leadership of Mr. Dilip Joshi. Other members were, Bikas Dhakhwa, Prabeen Shakya, Shanti Bajracharya and Raja Bajracharya Its primary function was to take up earthquake disaster management planning and emergency response in Nagbahal area on behalf of the NTSS. 		
Photos	Ward No.16 Chairman, Lalitpur Mr. Bhaju Ratna Shakya Checking neighborhood in the map		

Drill for School Children, Nagbahal				
Date	27 September 2001, Thursday			
Time	15:15-16:35 PM			
Organizer	Nagbahal Tole Sudhar Samiti, Lalitpur (NTSS)			
Participants	School Children (Class 7,8,9 10), Adarsha Saral High School, Nagbahal			
Number of	59 (including community members)			
Participants				
Venue	Adarsha Saral High School/ Nagbahal Open Space			
Program	INAUGURATION/INITIATION			
	Initiation			
	• Community people of Nagbahal and its surrounding areas were pre informed about the DRILL. Mahesh Nakarmi, Tomoko Shaw and Dilip Joshi after consulting with the head teacher and other schoolteachers gave basic orientations of DRILL to the schoolchildren.			
	Three teams of rescue, victim and volunteer were formed selecting students from each class.			
	 Necessary arrangements were set up with the help of community people. Stage, banners, temporary shelters, first aid center, advanced medical post were setup at the evacuation place. Other necessary materials such as strature, and first aid demonstration equipments were setup at the appropriate places. 			
	• Community people, journalists and other interested persons began to gather at the evacuation place, Nagbahal garden from around 3:00 PM. In addition, a number of community people were waiting to watch the program enthusiastically from their own home. They were using doors, windows, and housetops to watch the program. All together about 200-250 people were present there.			
	Beginning When a siren activates indicating the earthquake at 3:30 PM, the DRILL program started.			
	Activity			
	Evacuation (30 min) By Schoolchildren			
	First Aid Demonstration (45 min) By Nepal Red Cross Society and Student Participants			
	Conclusion (15 min) By Mahesh Nakarmi			
	Facilitator: NESET/ Nepal Red Cross Society, Lalitpur and Bhaktapu			
Contents	Purpose of "DRILL"			

- The main purpose of the DRILL was to make aware community people and to train schoolchildren about safe evacuation process and procedures during great earthquake disaster.
- To impart first aid knowledge to schoolchildren and community people in order to save lives and make them better equipped with necessary information during such disaster period.
- To encourage community people and school officials towards the preparedness for the possible future earthquake hazards

Introduction of Drill

Drill was a rehearsal activity or a drama on a mock earthquake in order to train and make aware the actors and the viewers about the evacuation and rescue operation during the period of earthquake and similar other disasters.

Evacuation Procedures and Process

1 Right after the occurrence of the earthquake, all the students putting their bags on their head gathered in an open space where all the necessary arrangements were setup.

They counted and called their classmates to know if anybody was missing. After that they came to know that eight friends were missing.

Rescue team then went to rescue the missing students with rescue equipments and other students called for help to Red Cross and some other arranged necessary materials for first aid treatment to the injured.

The rescue team then rescued their friends and brought them in evacuation place. One student was seriously injured and the rest had simple wounds in their hands and legs.

All the victims were painfully crying and calling for help! help!. Some were requesting community people and JICA Team to help for constructing a strong school building. The situation was really dramatic and impressive one.

The Red Cross volunteers provided treatment to the injured at the First-Aid Center and one victim who was serious was sent to an Advanced Medical Post located nearby the evacuation place.

Mahesh Nakarmi was urging community people to take the matter seriously and requesting them to learn from DRILL and to take part in the rescue activities if similar disaster happens in future.

Procedures and Process of First Aid Demonstration

A five member Red Cross Volunteers from Lalitpur and Bhaktapur Districts facilitated the Fist Aid Demonstration Program.

Manoj Thapa, a Red Cross volunteer from Bhaktapur district explained about the first aid and its importance during disaster period. He defined the first aid as the medical treatment carried out by the available resources in order to save lives and to take care the sick and casualties during the emergency period like the one which just happened. He also urged to community people to take part and use their skill to save lives during disaster time.

First, they demonstrated a first aid treatment for a burn student recently rescued from the school. The case was first-degree burn. They kept the burned part of the body into cold water for ten minutes and provided a simple triangular bandage and sent to health center.

The second demonstration was about a leg fracture. The fracture was open type and crack bone was visible. First they tried to stop bleeding and fixed the crack bone with the help of ring pad. Then, they provided a triangular bandage at the affected area. In order to fix the fractured leg, the leg was tied with a splint and then they demonstrated the proper way of keeping the sick person into the strature. Students of class ten were the participants and actors of this demonstration.

The third demonstration was about a hand fracture. They demonstrated the first aid of hand fracture using the locally available resources. A meter of clean cloth available in house was used for treatment purposes. The procedures were similar to that of the second demonstration. But they used a *jholungo* (swinging cloth rope) in order to keep hand fixed.

Fainted and bleeding patient and his first aid treatment was the forth demonstration. First they kept the patient in secured place and in an appropriate position. They treated for stop bleeding, Then, they opened all the tight things like, buttons, shoes, tie knot and fasten clothes. Then he was kept sleeping in a bed giving support under his legs so that the blood could easily circulate in brain.

In the mean time, Mahesh Nakarmi urged to students to comment, suggest and share experiences for future disaster mitigation. Sita Koirala, a student of class 8 stated that it was safe to stay under table, bed and doors. She also asserted that it was safe way to protect head injury by putting cloths, hands, and books over it during disaster time.

The fifth demonstration was to make strature with locally available materials and resources. They made a stracture with the help of a blanket and two bamboo poles and demonstrated its works by keeping a patient on it.

At the end of the demonstration session, the Red Cross team thanked the entire participants for their proper attention and wished for future success in similar event.

Finally, Tomoko Shaw appeared with a Japanese 'earthquake safety cap' and demonstrated how Japanese school children used the cap during the earthquake time. She also demonstrated a 'safety bag' having a number of items useful during earthquake time and suggested all community people to keep such bag in their house. The items were: emergency light, small radio, candle, lighter, pen torch, handyplast, water bottle, can and dry food, chocolate, biscuit, chowmin and important documents.

Closing

Mr. Dilip Joshi, on behalf of Nagbahal Tole Sudhar Samittee thanked all the

	participants, community people, guests and well wishers for their active involvement in the program. He also requested all community people to participate in the Building Seminar session.				
Output	Informed people about earthquake disaster and its effects Imparted first aid knowledge to students and community people Motivated to make ready for disaster preparedness Built confidence of community people for mitigating disaster				

3. Bhimsensthan: Ward No. 20, KMC

Ward 20, KMC, Bhimsenthan is one of the most disaster prone area in future as indicated by the JICA assisted Earthquake Disaster Study under the Earthquake Disaster Mitigation Project. This area is also one of the city core clusters. Awareness raising among various stakeholders in this area would be very useful in time of disasters as more people will know about resources, and hazards of their community and act for rescue and mitigation. So selecting this ward and working with the ward and the KMC would be helpful to institutional development leading toward disaster mitigation plan and its implementation.

PRA FOR SOCIAL WORKER/ RESOURCE AND HAZARD MAPPING/DROP-IN-CENTER, BHIMSENTHAN, (KMC WARD 20)				
Date 6 September 2001, Thursday				
Time	3:00-5:00 PM			
Organizer				
Participants	Social Welfare Department (SWD), KMC			
1 at ucipants	Social Workers of Drop-in-Centers (wards 2,5,20), Facilitators, Social Welfare Department (SWD), KMC, JICA Team (Kaneko, Shaw), NSET/SEEPORT			
Number of	See attached a list of participants 23			
Participants				
Venue	Drop-in-Center (DC), Bhimsenthan			
Program	Introduction			
	Opening Remarks and Welcome Speech (10 min) Ms. Hari Devi Ranjitkar, Social Welfare Dep., KMC			
	Objectives of PRA (10) Ms Tomoko Shaw, Public Awareness, JICA Study Team Mr. Bhattarai, PRA facilitator Orientation of the PRA Excercise / Formation of Groups (5) Mr. Hari Bhattarai, PRA facilitator Ms. Sulochana Shrestha, PRA facilitator Group Work (mapping of resources and hazards) All attendants / Social workers of Drop-in Centers Presentation Group Presentation Representatives of each group/ Social workers of Drop-in Centers Closing Ms. Hari Devi Ranjitkar, Social Welfare Dep., KMC			
	Facilitator: KMC, Social Welfare Department			
Background	e e e e e e e e e e e e e e e e e e e			
of Drop-in Center	• The DC is a joint venture program initiated by the KMC with TA assistance from the International Labor Organization (ILO).			
	 There are 3 such DCs in the KMC one each in Wards 2, 5, and 20. The DC gives non-formal education to the children who work in houses as domestic servants, in restaurants, hotels, and to some extent the orphans and the poor. It opens from 10 AM to 5PM during weekdays and children can drop in for two hours any time during the school hours. Informal education is for 9 months which is followed by vocational education for few more months. In the DC, Bhimsenthan there were 50 students admitted and there were 5 Social Workers to help them learn. There was a television set, carom board, maps and figures, colored pencils and drawing sheets and enough space to study and play indoor games. All social workers from three wards were invited to participate in the exercise. 			

Objectives of PRA Contents Purpose Socially weaker groups are more susceptible to disaster with less access of information. It is a small step towards awareness raising on earthquake disaster for the children at the Drop-in-Center. The purpose is to know the hazards, vulnerability, and resources in their neighborhood, and Motivate the Social Workers (in disaster management) who look after the children to feel about disaster and begin thinking about getting prepared for disaster. • Familiarize them with PRA map so as to make them be helpful to assist children in the future. **Orientation of the PRA Excercise** · Hari Bhattarai together with Sulochana Shrestha explained the purpose and tried to get feed back from the social workers if they had prior information on earthquake. • All had experienced earthquakes and some remembered the earthquake of 1988 and 15 July, 2001. They said they may try to pinpoint resources such as open space and water resources, roads, police stations and health clinics on the map. They also said they have noted cracked buildings, and narrow lanes which were dangerous during disaster. **Formation of Groups** All the social workers were divided into three groups according to the Drop-in-Centers they came from. Then they were asked to draw resources and hazards of the surrounding areas of their Centers. **Output Group Work (mapping of resources and hazards)** Three groups prepared three maps. In the maps, resources such as schools and temples with open space, public facilities such as ward Office, water resources such as wells and hittis, and hazards such as cracked buildings, narrow lanes, electric transformer, and gas depots were located and colored with proper legends. **Group Presentation** • Each group chose its leader and each leader from the group presented the map locating all resources and the hazards as mentioned above. They identified and made appropriate colorings with proper legends. Following were the resources/hazards mentioned on the PRA maps: Resources: -Large open spaces along the river bank (Bishnumati River), smaller open spaces near the bridge, the Ward Office (ward 20) and in front of Paropkar School. -Four Hitis around viz.; Gahiti, Maruhiti, Luhiti, and Kohiti. -There were five schools with open compound. -There were two temples: Bhimsen Temple and the Maru Ganesh temple with open -There were few hotels in Lajimpat area which were important as they had open -There were two clinics: one was near the Ward Office and another was the Paropkar Clinic.

-Some wide roads.

Hazards:

- There were two transformers.
- Old and hazardous houses were all clustered near to the Ward Office and the Dropin Center (Bhimsenthan).

□ Closing

Ms Ranjitkar, Dep. head of Social Welfare, KMC

- ☐ Ms Ranjitkar, giving her remarks mentioned that this PRA exercise was very useful and important and it was first of its kind in creating awareness among the helpless and the poor.
- □ Everybody would be concerned about one's own safety and the helpless child would not know out the mitigation measures. When the Social Worker knew about this, it will be disseminated to other children.
- ☐ Ms. Ranjitkar also promised that gradually she would extend such information to other areas also via such PRA exercises.
- □ She also thanked the JICA Team for helping this PRA organized.

Ms Shaw, JICA Study Team

☐ Ms Shaw also thanked the participants and suggested that children 's concern and point of view should be respected. Since they are shorter in height and naturally their level of eyes are lower. Thus their criteria of size in terms of open space will be different from grown-ups. Even though children says certain open space are big while grown-ups think it small, try to locate it in the map as a big open space.

Finally the exercise was concluded.



Social workers in ward 20



Map of resources and hazards

DROP-IN- CENTER, BHIMSENTHAN/ PRA FOR CHILDREN				
RESOURCE AND HAZARD MAPPING				
Date	6 September 2001, Thursday			
Time	1:00-3:00 PM			
Organizer	Social Welfare Department (SWD), KMC			
Participants	Children of Drop-in Center, Social Workers, SWD, JICA Team (Kaneko, Shaw), NSET/SEEPORT			
Number of Participants	See attached a list of participants 41			
Venue	Drop-in-Center (DC), Bhimsenthan			
Program	Introduction			
	Introduction (10 min) Hari Bhattarai			
	Activity			
	PRA Mapping (75 min)			
	School Children			
	Group Presentation (30 min) All participants			
	Simulation of Earthquake Disaster (5 min) All Children (facilitation by Hari Bhattarai)			
	Facilitator: KMC, Social Welfare Department			
Contents Purpose of "PRA for Children" Socially weaker groups are more susceptible to disaster with less access of It is a small step towards awareness raising on earthquake disaster for the the Drop-in-Center.				
	The purpose is to know the hazards, vulnerability, and resources in their neighborhood, and			
	Motivate the children to feel about disaster and begin thinking about getting prepared for disaster.			
	Introduction of the Organization			
	 The DC is a joint venture program initiated by the KMC with TA assistance from the International Labor Organization (ILO). There are 3 such DCs in the KMC one each in Wards 2, 5, and 20. The DC gives non-formal education to the children who work in houses as domestic servants, in restaurants, hotels, and to some extent the orphans and the poor. It opens from 10 AM to 5PM during weekdays and children can drop in for two hours any time during the school hours. Informal education is for 9 months which is followed by vocational education for few more months. In the DC, Bhimsenthan there were 50 students admitted and there were 5 Social Workers to help them learn. There was a television set, carom board, Maps and Figures, Colored Pencils and Drawing Sheets and enough space to study and play indoor games. Orientation of the PRA Excercise 			

- Hari Bhattarai together with Sulochana Shrestha explained the purpose and tried to get feed back from the children if they had prior information on earthquake.
- Several of the children had experienced earthquake and some even remembered the earthquake of 15 July, 2001.
- The children also said they could even pinpoint resources such as open space and water resources, roads, police stations and health clinics.
- They also said they have noted cracked buildings, and narrow lanes which were dangerous during disaster.

Formation of Groups

- All the children were categorized into three groups according to the locality they came from. Each group was assisted by one Social worker.
- The children were asked to draw resources and hazards. Social workers motivated them to do so.

Output

Group Work (mapping of resources and hazards)

□ Three groups prepared three maps. In the maps, resources such as schools and temples with open space, public facilities such as ward Office, wells and *hittis*, and hazards such as cracked buildings, narrow lanes, electric transformer, and gas depots were located and colored with proper legends.

□ Group Presentation

□ Each group chose its leader and each leader from the group presented the map locating all resources and the hazards as mentioned above.

□ Recapitulation

- □ Using participatory learning techniques, when children were asked to mention what they learnt from the exercise they said they should quickly find shelter in open space or seek space under a table or a bed.
- ☐ They also mentioned gas cylinders as dangerous because it could blast during earthquake and if such things happened they should seek help of their neighbor
- ☐ They also suggested that the narrow lanes should be widened for passage to vehicles in emergency
- ☐ Similarly the old houses should be repaired

□ Closing

- ☐ Ms Shaw appreciated the children for preparing the map and participating in the exercise.
- ☐ Mr. Kaneko said if earthquake of big magnitude occurred (such as the one in 1934), nearly 250 persons may die from this Ward. So dissemination of knowledge on such disaster among other community members may reduce the death toll.
- ☐ Finally the exercise was concluded.



Getting Perception of Eq. Disaster



Guiding how to make maps



Preparing a Hazard Map



Presentation



Presenting a Hazard Map



Social workers and Children



Asking Questions how to react at the Earthquakes



Attentive Children and Staffs of Social Welfare Dep., KMC

Date 25 August 2001, Saturday Time 11:30-14:30 PM Organizer Social Welfare Department, KMC Participants Community Members (ward no. 20) Ward chair, Ward Members, Social Welfare Department Chief, Department Heads of Public Work, Public Health and Revenue and other KMC Officials, Social Workers, President and Members of Nhu Pucha, J.B. Club, Nepal Paramparagat Cultural Sangh, Journalist, Metror F.M. Reporter, JICA Team Members (Egawa, Kaneko, Shaw, Komura,), and Okamura, UNICEF See attached a list of participants Venue Paropkar Adasha High School, Bhimsenthan Program Inauguration Opening Remarks (10 min) Ward Chair, Ward Number 20 Mr. Bijaya Krishan Shrestha Welcome Speech (15 min) Social Welfare Department, KMC Ms. Hari Devi Ranjitkar Earthquake Senario of KMV (15 min) JICA Team Mr. Funio Kaneko Procedure of Disaster Imagination Game (DIG) (10 min) JICA Study Team Member Mr. Takashi Komura Activity Disaster Imagination Game (100 min) All participants Presentation Group Presentations (20 min) Representatives of each group Closing (10 min) Mr. Takashi Komura JICA Study Team, DIG facilitator Ward Chair, Ward Number 20 Mr. Bijaya Krishna Shrestha KMC Social Welfare Department, Disaster Management Section Mr. Rajiu Shrestha Facilitator: KMC-Social Welfare Department and Ward Committee 20 Purpose of 'Disaster Imagination Game The main purpose of the DIG is to sensitize and familiarize the participants	DISASTER IMAGINATION GAME: KMC, WARD NUMBER 20				
Time 11:30-14:30 PM	DISAS1.	er imagination game. Rivic, ward number 20			
Organizer Social Welfare Department, KMC	Date	25 August 2001, Saturday			
Participants Community Members (ward no. 20) Ward chair, Ward Members, Social Welfare Department Chief, Department Heads of Public Work, Public Health and Revenue and other KMC Officials, Social Workers, President and Members of Nhu Pucha, J.B. Club, Nepal Paramparagat Cultural Sangh, Journalist, Metro F.M. Reporter, JICA Team Members (Egawa, Kaneko, Shaw, Komura,), and Okamura, UNICEF See attached a list of participants Venue Paropkar Adasha High School, Bhimsenthan Program Opening Remarks (10 min) Ward Chair, Ward Number 20 Mr. Bijaya Krishna Shrestha Welcome Speech (15 min) Social Welfare Department, KMC Ms. Hari Devi Ranjitkar Earthquake Senario of KMV (15 min) JICA Study Team Member Mr. Tawashi Komura Activity Disaster Imagination Game (DIG) (10 min) JICA Study Team Member Mr. Takashi Komura Activity Disaster Imagination Game (100 min) All participants Producing Resource Maps Presentation Group Presentations (20 min) Representatives of each group Closing (10 min) Mr. Takashi Komura JICA Study Team, DIG facilitator Ward Chair, Ward Number 20 Mr. Bijaya Krishna Shrestha KMC Social Welfare Department, Disaster Management Section Mr. Raju Shrestha KMC Social Welfare Department, Disaster Management Section Mr. Raju Shrestha Facilitator: KMC-Social Welfare Department and Ward Committee 20 Contents Purpose of 'Disaster Imagination Game	Time	11:30-14:30 PM			
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Mr. Raju Shrestha Facilitator: KMC-Social Welfare Department and Ward Committee 20 Contents Purpose of 'Disaster Imagination Game					
Contents Purpose of 'Disaster Imagination Game					
•					
	Contents				

- with the consequences of possible great earthquake disaster.
- Help them identify hazards, and resources in their community in order to better equip them with necessary information for earthquake mitigation plan.

Introduction of the Organization

- KMC, Ward Number 20 had been undertaking similar activities under the guidance of the Department of Social Welfare, KMC. In the past, there had been few studies, preparation of GIS maps, and poster competition.
- But for the last 2 years, it had been idle
- Six months ago JICA motivated the KMC to take its activities upto the community level. Though earthquake is unpredictable, but the disaster can be reduced if awareness can be raised and managed properly.
- Wards are mostly engaged in waste disposal. There was a lack of awareness on earthquake disaster. Rush to participate in the training program related to waste management can be seen but people have shown least interest in training related to earthquake (disaster management). This was all due to the lack of awareness. This can be raised by involving local community in developing community resource map and locating hazards. They may be equally capable of suggesting mitigation measures.

Procedure of Disaster Management Game

- All participants were divided into three smaller groups and each group was supplied with a copy of the Ward map and marker of different colors.
- Each group was requested to work together to identify community resources, and hazards. They gradually began identifying and coloring wide and narrow roads, bridges, health clinics, temples, schools, water sources (hiti), open space/parks, government offices. They also identified some hazards such as the electric transformers, gas depot and the likes.
- Then each member was asked what would they think of one most important action, which needs to be taken for mitigation plan. Each member in his/her group was supposed to write one point on a separate piece of paper and post it on the board. Each group thus came up with suggestions.
- Then the groups were requested to prioritize the suggestions and write them down in the A1 size paper to present.

Output

Findings of the Participants

One representative from each group presented the group's priority activities and following were the main points.

Group-1

- □ Store enough preserved and dry food, medicine, and clothes
- □ Prepare and organize voluntary groups
- □ Launch social awareness training/dissemination of information, activate *Guthi*
- ☐ Improve communication and coordination
- □ Undertake retrofitting
- □ Rebuild bridges, and
- □ Preserve open space

Group-2

- Open space
- □ Safe electrification
- □ Train volunteers and first aid
- □ Retrofitting
- □ Widen the streets
- ☐ Create awareness on earthquake disaster

- □ Build alternate bridges, and
- □ Prepare fire brigade and ambulance

Group-3

- □ Preparatory planning: first aid, fire extinguisher, preservation of open space
- □ Safe electrification
- □ Retrofitting the passages
- □ Water reservoirs in places where fire brigade can not go
- □ Ambulance and health clinics
- □ Prepare tents
- ☐ Drinking water and dry food (store these items)

□ Closing

Mr. Komura (DIG Facilitator / JICA Study Team)

- ☐ After the presentation, Mr. Komura thanked all the participants for cooperation
- ☐ He asked the group to think about something to be done in the future
- ☐ He opined that the responsibility of the Ward did not come in the presentation and the priorities should be more narrowed down with role functions of each stakeholders
- ☐ He also hoped that henceforth, the community members could run the DIG by themselves
- Ward Chair
- ☐ The ward chair thanked all the participants and the JICA Team again for attending the meeting even on the holiday. Then the meeting was adjorned.
- □ KMC Social Welfare Dep.
- ☐ Mr. Raju Shrestha thanked all the participants for attending the meeting and informed them of the 2nd DIG meeting and asked further cooperation.



Welcome speech KMC Dep. Social Welfare Ms. Ranjitkar



Earthquake Scenario of KMV DIG exercise
JICA Study Team Deputy Team Leader Ward 20 Chairman in center
Mr. Fumio Kaneko





DIG Exercise Group2

Presentation from each group DIG Exercise Group1

DISAST	ER IMAGINATION GAME-II: KMC, WARD NUMBER 20		
Date	8 September 2001, Saturday		
Time	1:30-4:30 PM		
Organizer	Social Welfare Department, KMC/Ward No.20		
Participants	Community Members (ward no. 20)		
Tartelpants	Ward Chair, Ward Members, Social Welfare Department Chief, Department Heads of Public Work, Communication and Information, Public Health and Revenue and other KMC Officials, Members of J.B. Club, School Teachers, Social Workers, President and Members of Nhu Pucha, J.B. Club, Cultural Sangh, NSET, Paropkar, Journalist, Metro F.M. Reporter, and JICA Team Members (Kagawa, Kaneko, Shaw, Komura,).		
Number of	46		
Participants X	Darankar Adasha High Sahaal Dhimsanthan		
Venue Program	Paropkar Adasha High School, Bhimsenthan Inauguration		
	Opening Remarks (5 min) Ward Chair, Ward Number 20 Mr. Bijaya Krishna Shrestha Welcome Speech (15 min) Social Welfare Department, KMC Ms. Hari Devi Ranjitkar Introduction to DIG-II (5 min) JICA Team Mr. Komura Follow up of Last DIG (15 min) KMC Social Welfare Department Raju Shrestha DIG-II Process (10 min)		
	Activity Disaster Imagination Game (130 min)		
	All participants		
	Presentation		
	Group Work (Detail Plotting of Resources, Identification of most critical question, Needs, and Prioritization) (90 min)		
	Group Presentations (30 min)		
	Closing (10 min)		
	Facilitator: KMC-Social Welfare Department and Ward Committee		

Contents

Purpose of 'Disaster Imagination Game

- The purpose of the DIG-II is to further elaborate /add resources (roads, water supply, health clinics, open space (including resources outside the community), and other facilities on the map prepared earlier in the DIG-I, conducted on 25 August, 2001
- Condition them/participants imagine biggest problem one might face in case a great earthquake occurs and one survives
- · Help them identify important needs, and prioritize, and
- Help them identify the roles of different stakeholders to fulfill those needs

• Procedure of Disaster Imagination Game

- All participants were divided into three smaller groups and each group was supplied with a copy of the Ward Map and marker of different colors.
- Each group was requested to work together to identify and plot additional community resources. They gradually began identifying and coloring wide and narrow roads, bridges, health clinics, water sources (*hiti*), open space/parks, and other important facilities.
- Then each participant was requested to imagine that a great earthquake has
 occurred and he/she has survived. In this situation what would be the first
 difficult thing one has to face. Each participant was requested to write one
 difficult thing on a separate piece of paper.
- Then each of them was requested to write three different items as his needs to solve that problem/difficulty identified earlier.
- Each group was then requested to put all the needs suggested by individual group members together and then prioritize them.
- Then the groups were requested to identify the roles of different stakeholders to take up those needs.

Output

Findings of the Participants

One representative from each group presented the group's priority activities and following were the main points.

Group-1

Presenter: Rajesh Bania

The group needed the following:

- Clearing the debris to rescue the injured
- Rescuing the injured
- Rescuing the family members
- Saving the children and the old
- Managing the dead body and
- Rehabilitate the survivors

Its priority list and the responsible stakeholders were as follows:

Priority		Needs	Responsible Organization
•	Communication	I	Self
•	Call Social Workers	II	Clubs/CBOs
•	Ambulance/Fire	III	KMC/Govt/Pvt Firms
	brigade		
•	Rescue Teams	IV	Volunteers

Food and Water	V	Self/KMC/Govt/Pvt
Crane/Bulldozer	VI	KMC/Govt/Pvt
Blankets and Tents	VII	Self/Donors
Dead Body Lifting	VIII	KMC/Gvt/CBOs
Help of Government	IX	Govt
(police and army)		

Group-II

Presenter: Bijaya Krishna Shrestha, Ward Chair

The group needed the following:

- To serve spouse and children
- Saving the children
- Rehabilitation
- Organizing rescue work
- Save oneself and the neighborhood

Its priority list and the responsible stakeholders were as follows:

Needs	Priority	Responsible Organization
• Shelter	I	Govt, AID
Torch/Shovel/Ladder	II	KMC, Ward
Hand Mike, Friend and		
Family Messenger		
First Aid	III	KMC
Water	IV	Local Source
Food, Milk, Utensil	V	Govt, AID
Fuel, Lighter/Matchstick		Govt, AID, Community
Telephone, Volunteer	VI	Govt, Ward
• Clothes	VII	Govt, AID

Group III

Presenter: Bijay Kumar Ranjit

The group needed the following:

- Clearing the debris to rescue survivors
- Rescue the survivors
- Rescue family members
- Save the children and family members
- Organize rescue works

Its priority list and the responsible stakeholders were as follows:

Needs	Priority	Responsible Organization
Search the victims	I	Self
Digging tools	II	Self
Water	III	Self
First Aid	IV	Self
Stretcher	V	Govt
Communication	VI	Self
Light	VII	Self
Ladder, Rope, Cutter	VIII	Govt, Self

•	Ambulance, Fire brigade	IX	Govt
•	Food, Shelter, Blanket	X	Govt

Closing

Mr. Komura

- After the presentation, Mr. Komura thanked all the participants for cooperation
- He said priorities differed from group to group and it happens so
- DIG-II was a follow up of DIG I. Now that people have participated, they should be able to conduct such exercises in other areas too with the help of the KMC, Social Welfare Department and the Ward Office

Ward Chair

- He thanked the participants and the JICA Team for attending and assisting the DIG
- Promised that with the assistance and cooperation from the KMC, Social Welfare Department, they would do such activities by themselves in the future
- Preparedness is an urgent activity to consider so they have to work hard towards such planning
- Since CBO and NGO representation was also there, he hoped to get cooperation in the future
- At the end, the Ward Chair adjourned the workshop.



Opening Session Ward Chairman



Mr. Ranjit kar Social Welfare Dep. Head DIG Facilitator



Mr. Komura



Discussion among groups



KJ method, Writing Ideas on cards



Putting Group's idea



Presentation



Presentation KMC's Past activities on Wall Mr. Komura & Ward Chairman

4. Baneswore: Ward No. 34, KMC

Ward 34, Baneshwore, KMC was unique in the sense that it represented the new development area. Moreover, there was a local level (Ward Level) disaster management committee known as the Ward 34 DMC, which has been working since three years and it active in awareness raising and training in disaster management. It has been able to draw resource persons and seek their help in conducting workshop training in the past. Since this area is not homogeneous in terms of population distribution and most of the residents are recent migrants (living since one generation), the locality does not witness any existing traditional social organization (s) to work with. In such situation, newly formed organizations such as the Ward 34 DMC and local clubs become more important and useful when they can be made more functional. Hence the DMC was involved in Ward 34 activities in this pilot project.

Date	25 August 2001, Saturday	
Time	8:00-11:00 AM	
Organizer	Disaster Management Committee Ward number 34	
Participants	Community members (ward no. 34) Disaster Management Committee (DMC) representatives Community Development Society representatives Miteri Marga Tole Sudhar Samiti representatives JICA Team Members (Kaneko, Kagawa, Shaw)	See attached a list of participar
Number of Participants	25	
Venue	Ratna Rajya Laxmi High School, Baneswore	
Program	Inauguration Opening Remarks (5 min) The Community Development Society (CDS)	
	Purpose of 'Community Watching' (5 min) Disaster Management Committee (DMC), Ward No.34 Mr. Murari Pokharel	
	Introduction of the Organization (5 min) Deputy chairperson of the CDS Mr. Rajendra Mainali	
	Self introduction (10 min)	
	Procedure of Community Watching (5 min) JICA Study Team Member Ms. Tomoko Shaw	
	Introduction of Japanese Structural Engineer(1 min) JICA Study Team Member Mr. Hideo Kagawa	
	Activity	
	'Community Watching' Tour (120 min) All participants	
	Presentation	
	Findings of the Participants(20 min) Representatives of the Participants (Group 1, 2, 3) Resources & Hazards	
	Building Vulnerability (5 min) Mr. Hideo Kagawa	
	Comment on the Findings and Countermeasures (5 min) Ms. Tomoko SHAW	
	Closing Remarks (3 min) Mr. Murari Pokharel	

	Facilitator: Disaster Management Committee of Ward No. 34 (DMC)
Contents	Purpose of 'Community Watching'
	• The main purpose of community watching is to make the local residents aware of earthquake disaster by arranging a walk- through along the designated route together in the group with experts.
	This is base in the belief that community members are better able to identify the disaster prone spots and community resources such as open space and water resources which may be urgently needed at the time of disaster.
	Introduction of the Organization
	• The Community Development Society (CDS) was more involved with
	sanitation, garbage disposal and fixation of street light activities. • The society collected Rs 3,000 from each house and also motivated the
	residents voluntarily contribute 3' wide land strip from their boundary to
	expand the existing road. This was successfully done.
	• The society was involved in the rehabilitation assistance of 1993 flood victims
	Self-Introduction among Participants
	• Participants were among the relatively more conscious community members,
	executives of CDS and Mitery Samiti, government officials, teachers of
	schools and colleges, and employees of private organizations but all were the
	residents of Ward 34 and had interest in social works such as the disaster
	mitigation activities.
	Procedure of Community Watching
	• All participants were divided into three smaller groups and each group was supplied with a copy of the Ward map and marker of different colors.
	 One camera to each group was also given to take photos of spots and objects
	which were perceived by the community watchers to be of relevance (from
	disaster management point of view).
	They were instructed to record each object perceived important in relation to
	earthquake disaster such as the hazards (electric transformer, gas depot, cracked building) and/or the community resources, i.e.; open space and/or
	water resources on the map. As a preparation of the 'Community Watching'
	tour, the participants drew the route plan.The group members were also introduced with the Japanese Structural
	Engineer and one of the JICA Study Team Members who was available
	throughout the community watching for any expert advise on the condition of buildings.
	The participants were suggested to reassemble at the DMC office and each
	group was required to give a brief impressionistic presentation after the walk
	through.
	'Community Watching' Tour
	• After this briefing, the groups walked separately through the designated route.
	• They stopped at several places, made note of various objects, consulted among their own group members, and took photographs.

Output

Findings of the Participants (At DMC office)

A representative from each group presented the group's observations and following were the main points.

Hazards

- Transformers in Electric Poles were noted as hazards as poles at Milan Chowk (square) had bent too. The group suggested underground electrification.
- At the same square, a five storied RBC building was noted as structurally faulty. The RCC pillar was not erect and it could fall during earthquake so it was perceived by the groups as hazardous.
- The lanes that were connected with the main roads were very narrow (less that 3 feet wide). During disaster, the debris would block such lanes. Moreover, it was not possible for the injured person to carry on stature to rush to the hospitals.
- One of the houses was 4 storied and from the first floor to the fourth floor cantilevers were used to increase the size of the rooms. It was noted as a risky design during disaster.
- On the roof of some buildings, earthen flower vase were placed and the groups felt that it was dangerous during the earthquake as these vase could fall and hit to anyone walking on the lane.
- Boundary wall of buildings were either too tall along the narrow lanes or were
 poorly built. Poorly built walls could fall and injure the pedestrians during
 disaster. Tall walls will check outsiders and refrain the residents from being
 noted in case the residents needed any kind of assistance for rescue while
 entrapped.
 - Some boundary walls also had nails on the top which could injure the residents in case they wanted to climb and jump outside to reach the open space.

Resources

- Stone Water Spout (*Dhunge Dhara*) was noted as one of the most important resources.
- One at the beginning of road head near the R.R.School, Baneswore had some open space on its north and it was suggested that a Reservoir would save water in disaster time. It also needed repair and maintenance.
- Stone Water Spout at Katyayani Temple also needed maintenance.
- There were few wells, which needed to be preserved and maintained.
- The lanes, which were followed, did not have any open space.

Comment on Building Vulnerabilities

Mr. Kagawa expressed his comments on buildings and civic structures.

- Buildings in ward 34 are generally 3 storied with some compounds around /open space. The situation is comparatively better than the city core area, where one would see much higher storied buildings in the closed area.
- The narrow lanes known as *Gall* have higher possibility of brick walls to fall down. This will end in blockage of evacuation routes and rescue services.
- In some houses, he pointed out that due to the inadequate size of the roof, the drain of the rainwater had washed away the mortar of the bricks as a result bricks had even tilted.
- He proposed 2 ways of repairing tilted electric transformers. One is to drive in a stake to anchor the tilting poles, the other is to put up a new post to sustain the upper part of the heavy transformer so that it can be stronger in case the

cables connecting the pillar were tugged.

Comment on the Findings and Countermeasures

Ms Tomoko Shaw expressed her impressions and commented on the presentations of the participants.

- Tall boundary walls may be hazardous during disaster. Natural fence such as tree plantation may be one possible alternative to boundary wall.
- In responding to the opinion of laying cables under the ground, she mentioned that in Japan underground electrification is usually prioritized in the commercial area or city center, where a large number of visitors outside gather, since open space is really very scarce and costly.
- She also suggested that after identifying the problems through such activities as 'Community Watching', it is important to think about the countermeasures and take actions.
- Resource maps will be completed by plotting resources and hazards, and putting photos just taken that day and with proper labeling of each photo for future planning.
- Resources and assistance from the Ward Office could be sought by the DMC for the maintenance of the dug wells.



Briefing



Small passage known as Galli



Electricity Transformer



Swampy land



Community Watching Tour



Presentation at DMC office

Digastr	ER IMAGINATION GAME I: KMC, WARD NUMBER 34		
DISAST	ER IMAGINATION GAME I. MIMO, WARD NUMBER 34		
Date	15 September 2001, Saturday		
Time	8-12 AM		
Organizer	Disaster Management Committee, Ward 34, KMC		
Participants	Community Members (ward no. 34) Ward Chair, Ward Members, KMC Social Welfare Department Official, Social Workers, President and Members of Local Clubs and NGOs,, High School Teacher, Nippon Koi Company, Ktm, JICA Team Members (Kaneko, Shaw, Komura,), and NSET See attached a list of participan		
Number of Participants	25		
Venue	Siddheswore High School, Min Bhaban		
Program	Inauguration		
	Opening Remarks (5 min) Ward Chair, Ward Number 34 Mr. Bidur Bikram Shah Purpose (10 min) JICA Study Team Ms. Tomoko SHAW Procedure of Disaster Imagination Game (DIG) (10 min) JICA Study Team Member Mr. Takashi Komura Earthquake Senario of KMV (15 min) JICA Team Mr. Fumio Kaneko Thanks (5 min) SWD, KMC Raju Shrestha Activity Disaster Imagination Game (100 min)		
	All participants Producing Resource Maps		
	Presentation		
	Thanks (2 min) Raju Shrestha SWD, KMC		
	Summary/Closing (15 min) Mr. Takashi Komura JICA Study Team, DIG facilitator		
	Discussion/Question and Answer (15 min) Closing (1 min) Raju Shrestha SWD, KMC		

	Facilitator: KMC-Social Welfare Department and Ward Committee 20
Contents	 Purpose of 'Disaster Imagination Game The main purpose of the DIG is to sensitize and familiarize the participants with the consequences of possible great earthquake disaster. Help them identify hazards, and resources in their community in order to better equip them with necessary information for earthquake mitigation plan.
	 Introduction of the Organization KMC, Ward Number 34, DMC The DMC was formed in 1998 and the Executive Committee is made of 15 persons It also has a council of Advisors for periodical guidance. Main objectives are to create awareness, prepare volunteers for rescue work, prepare maps of the Ward with resources and hazards, prepare for risk prevention and help the Ward develop mitigation plan. In the past it has conducted series of disaster awareness sessions with school children, conducted training and workshops in the same subject with other NGOs and government officials.
	 Earthquake Senario of KMV If earthquake similar to 1934 occurred, KMC will suffer from 128,952 buildings damaged and a casualty of 17,695 persons. In Ward 34, 500 to 1,000 persons will be injured and nearly 64 will be killed Bagmati Bridge on Araniko Highway which also near Min Bhavan will also be damaged.
	 Procedure of Disaster Management Game All participants were divided into two smaller groups and each group was supplied with a copy of the Ward Map and marker of different colors. Each group was requested to work together to identify community resources, and hazards. They gradually began identifying and coloring roads and narrow alleys, bridges, river, health clinics, temples, schools, water sources (hiti), open space/parks, government offices. They also identified some hazards such as vulnerable infrastructures, viz.; the electric transformers, faulty buildings gas depot and unplanned settlements. Then each member was asked what would they think of one most important action, which needs to be taken for mitigation plan. Each member in his/her group was supposed to write one point on a separate piece of paper and post it on the board. Each group thus came up with suggestions. Then both the groups were requested to display their suggestions on the paper posted on the wall.
Output	Findings of the Participants Following were the list of suggestions made by each group. Group-1 Create awareness about earthquake disaster among community members.
	Assess buildings of the ward in terms of vulnerability. Launch a Model Earthquake Resistance Demonstration Project. Facilitate retrofitting of vulnerable buildings. Increase the networking of Ward 34 DMC with other disaster management related organizations and NGOs. Organize talk programs and discussion on earthquake disaster.

Group-2

- · Retrofitting of houses.
- · Training of masons.
- Training on earthquake disaster preparedness to school children.
- · Facilitate the construction of earthquake resistance houses.
- Involve all stakeholders such as the civil society, local and central governments and the NGOs in earthquake disaster management.
- · Create awareness on earthquake disaster
- · Identify open space around the houses and protect it.
- · Obey the head of the household.
- Stay together during the earthquake
- · Communicate quickly with others.

Summarization:

Mr. Komuro summarized the findings and commented that one group limited within its ward boundary and another group went beyond i identifying various resources.

In case of emergency, one needs help from elsewhere also so while preparing resource map, identification of resources beyond one's own ward is important.

Though it was difficult to iamgine what will happen after the disaster, some of the items mentioned were under vulnerability and they were:

- -damage of houses and casuality,
- -failure of electricity,
- -water supply system,
- -communication system,
- -destruction of bridges and the likes.

Group Discussion

Concern was expressed about the possible break down of Bagmati bridge and it was suggested that alternate route should be identified and constructed.

Skill from Calcutta on temporary bridge construction should be borrowed as the Bangalis make bamboo bridges.

It was proposed by the participants that Siddheswore School where the DIG was held could be an ideal structure for retrofitting as it would also have a demonstration effect.

It was also mentioned that in this ward there were 48 schools and 4 colleges and should do retrofitting.

Concern was also expressed on the role of SWD, Ward and the DMC. There was a need for identifying more specific role of each stakeholder.

The central government was obviously powerful but the local government such as the Ward is at the grass root level and is directly involved with the people so will be very useful for activities related to disaster management in time of disasters.

Closing

At the end Raju Shrestha thanked all and adjourned the workshop.

Photos



Explaining Hazard Maps and Damage



Analysis Bagmati Bridge on Araniko Highway

Mr. Kaneko, Seismologist of JICA Study Team near Min Bhavan is estimated to be damaged



Resource and Hazard Map Out put of DIG



Suggested counter-measures by the participants



Discussion Session Mr. Murari Pokharel, DMC 34



Discussion session

Date	22 September 2001, Saturday
Time	8:30-11:30 PM
Organizer	Social Welfare Department, KMC/Ward No.34
Participants	Community Members (ward no. 20) Ward Members, Representatives of Social Welfare Department Chief, School Teachers Social Workers, President and Members of local Clubs, and societies, NSET, Journalis Metro F.M. Reporter, and JICA Team Members (Kaneko, Shaw, Komura). See attached a list of participal.
Number of Participants	47
Venue	EP School, Min Bhavan, Baneswore
Program	Inauguration Welcome Speech (5 min)
	Ward 34 DMC Secretary Mr. Murari Binod Pokharel
	Introduction to the Program(5 min)
	JICA Team Ms. Tomoko
	Earthquake Senario (20 min)
	JICA Team
	Mr. Kaneko
	Review of Community Watching Ward 34(10 min) JICA Team M. Tamada
	Ms Tomoko Follow up of Last DIG and DIG-II Process (20 min)
	JICA Team Komura
	Activity
	Disaster Imagination Game (60 min) All participants
	Presentation
	Group Presentations (45 min)
	Closing Remark(10 min) JICA Team Kaneko
	Closing (5 min)
	Murari Binod Pokhael

Contents

Purpose of 'Disaster Imagination Game

- The purpose of the DIG-II is to further elaborate /add resources (roads, water supply, health clinics, open space (including resources outside the community), and other facilities on the map prepared earlier in the DIG-I, conducted on 15 September, 2001
- Condition them/participants imagine biggest problem one might face in case a great earthquake occurs and one survives
- Pick up one of the most important problems identified in the last DIG (in this case poor building structure) and identify the possible reasons for this and
- Suggest possible solutions

• Procedure of Disaster Imagination Game

- All participants were divided into two smaller groups and each group was supplied with a copy of the Ward Map and marker of different colors
- Each group was requested to work together to identify and plot additional community resources. They gradually began identifying and coloring wide and narrow roads, bridges, health clinics, water sources (*hiti*), open space/parks, and other important facilities.
- Then each participant was requested to write on separate sheets of paper possible reasons for poor quality buildings (one reason on each paper but one could write more than one reason also on several cards)
- Then the group posted all cards on a large sheet of paper according to the types of the problems.
- Then they were requested to summarize the findings and write them down on a paper
- They were requested to present their findings.
- Then the group worked on solutions. Each participant also wrote solutions and posted it on the board.

Output

Findings of the Participants

One representative from each group presented the group's finding and following were the main points.

Group-1

Presenter: Dr. Devendra P. Chapagain

Technical Problem

- Non enforcement of building code
- Technicians not properly trained
- Lack of strict supervision
- Multi phase construction

Lack of Awareness

Lack of hazard awareness

Construction Materials

• Use of poor quality construction materials/sub standard materials

Government/Municipality

- Lack of monitoring by municipality
- Town development board not effective
- Lack of inter-agency coordination

Economic Factor

- Poverty/low budget for construction
- Construction for renting purpose

Land Use Planning

• Absence of Zoning/Lack of policy

Group-II

Presenter: Dinesh Upadhya

- Lack of Awareness
- Poor Economic Conditions
- Lack of Technical Know How
- Absence of Law Enforcement
- Sub Standard Construction Materials
- Lack of Trained Masons
- No Good Vision of Planning
- Absence of Counseling Agency

Suggestions for Solution of Poor Building Quality

Group I.

- We should be united
- We have e resources but not utilized properly
- Building code should be enforced
- Raise awareness
- Community resource mobilization
- Quality Control
- Realization of individual's responsibility
- Retrofitting
- Set up awareness group

Group II.

- People should be encouraged to follow guidelines
- Retrofitting
- Empower local government
- Delegate authority to local government
- Training to masons
- Run awareness sessions to school children

Closing Remark

JICA Team

Mr. Kaneko

Interaction at the community level is very important

There are various stake holders at different levels vz; NPC,MOHA and MLDP at the central level

DDC/DRC/KMC etc at the district level

DMC, Tole, CBO, Private Sector etc at the Ward level

Family and Household at the Household level

It is the family and individuals who are affected most

He also mentioned that these organizations at various levels are not connected so a separate organogram, which linked disaster management committees at the grass root levels with all levels was explained.

He also expressed his highest satisfaction with this DIG exercise and the level of discussion.

Closing

Ward 34 DMC

Murari Binod Pokharel

He thanked the JICA Team and all the participants and adjourned the meeting.