



Disaster Management Course

General Field Work Report – Fellows’ Project

May 2016

Jericho Palestine

Abstract:

We the Fellows of the Jericho Project submit this report on May 26th, 2016 to the Jericho Municipality, an-Najah University, and the ICfC. We report our efforts to assess vulnerabilities in 10 zones of Jericho, including the adjacent refugee camps under the authority of UNWRA. We examined several specific vulnerabilities and dimensions of our research:

- the specific dangers of geological structures and seismic propensities, as measured by GIS scanning;
- the special dangers from flash floods that occur annually as well as the mud- and boulder-slides that are a specific threat to the peripheral areas of Jericho and refugee camps;
- the residual and structural damage caused by past disasters to homes, roadways, and public buildings that have not been constructed nor repaired to the standards of enforceable codes and that afford special dangers to the residents;
- the recovery of past memories of disasters that Jericho citizens endured and assessing current vulnerabilities, including the impact of trauma on the abilities of people to organize effective preparedness and socioeconomic factors that contribute to leadership and resourcefulness;
- the manner in which these vulnerabilities and our efforts to organize preparedness match or exceed the standards established by the Sendai Framework for Disaster Risk Reduction adopted by the United Nations (UNISDR);
- the manner in which the Jericho project can contribute to sustainable development.

Our classroom studies and fieldwork throughout the different zones of Jericho and the access to the many different types of people who live in Jericho give us a better sense of the needs for leadership training and the potential for sustainable development.

Introduction:

Disasters may occur at any time, especially in areas that are tectonically active like Jericho. This area is also prone to flash flooding and many events happened in the past causing damages to the city and casualties. Therefore, it is essential to be prepared to face such natural disaster at any time in order to minimize losses and maximize the efficiency of the city in times of distress.

The aim:

The aim of this field research firstly is to locate any potential weak building that may be prone to destruction or damage in case of medium-high earthquakes and flash floods. Secondly it is to collect data from people living in the area through interviews about past events of natural disasters, their memories of them, their preparedness at that time and so on. Thirdly, to identify any potential official Monitor in case of disasters to act as charismatic leader and reference in case of emergencies. Fourthly, it is to point out possible locations that may serve as relief areas for field hospitals or for receiving refugees during emergencies.

Procedure:

The field work started in the allocated area, composed of housing buildings, Ministries, shops, A school, Charitable societies, Mosques, Parking area for public transport.

The Course team was divided into smaller groups for efficiency in covering the most area in the shortest time. The groups covered the areas allocated to them by the Municipality in each neighborhood. The minutes of each interview were recorded and some pictures were taken for some places for record.

The areas targeted were Bayader neighborhood, Al Arab Neighborhood, the City Center area, part of Kitef al Wad, Akbet Jaber Refugee camp, Due'k Area and the Khedewi neighborhood.

The Interviews:**1- Fawaz el Maghari - Khedewi Neighborhood**

Mr. Fawaz remembers the 1987 flooding, where a large amount of water filled the Teisun tributary. He said that the water flooded the streets and reached the height of one meter in his neighbors house since their house was in low land. He remembers seeing the carcasses of animals and chicken floating in the stream, trees being torn and even the electricity pole fell from the water pressure causing much damage to the nearby properties. He assures that the community was very helpful and all the neighbors helped in solving the problems caused by the flooding. If he faces a hazard he knows how to act during it due to previous experience.

2- Yussef Al Dabsheh - Akbet Jaber Refugee Camp

Mrs. Wasifeh was living with her family and mother in law in a tent due to their bad economical situation, she was in her last month of pregnancy during the storm in October 1997, the storm was strong and rain so heavy that it caused her to have an early pregnancy from the stress. She gave birth in the tent that was blowing away from the strength of the wind, when it was totally ripped off from over her head. Her mother in law heated an old scissor over fire to disinfect it and cut of the umbilical cord of the child in the middle of the storm. The family then moved and took shelter in the neighbors house for the next few days and on the fourth day Mrs. Wasifeh went back to the location of the destroyed tent and left her newborn child on the side to collect

what was remaining of her possessions, but after few minutes she noticed that a stray camel carried the child away with its mouth and ran off with it. The woman was so shocked and started screaming for some help, some neighbors heard her and finally could free the child from the animals grasp. This women and her family suffered immeasurably during and after the event. Since then, her children started having involuntary urination and nightmares from the shock. She also suffered from discoloring of the skin and early white hair knowing that she was only 28 years old at that time. Her husband fought hard to obtain some help from the local Authorities and finally an organization from Jerusalem offered them some funds to build a small house. This event was very traumatic for the whole family and left them with a lot of emotional scars.

3- Plant Shop - Kitif Al Wad area

The owner of the shop was forcefully moved recently by the Municipality to relocate his shop on the side the stream after living 40 years in a different area. During heavy events the shop suffers from heavy damage due to soil erosion, flooding and theft that reached the value of 30 thousand shekels. He pleaded with the municipality to relocate him but he has no response from them to this matter.

4- Mohamad Balo - Arab Neighborhood

The wife of Mohammad Balo doesn't remember much about the flood that occurred in 1998 due to the fact she was only in second grade at that time but she did hear about trees being ripped out of the ground and fences being demolished by the flood, she also mentioned that in case of something like this occurring the civil defense will be the first to come to the aid.

We came across a zinko cover on the door that has flower pots hanging from it with old wires which is unstable and can fall in case of an Earthquake which can cause physical damage especially that this woman has children.

5- Eid Balo - Arab Neighborhood

Mr. Balo is a man in the late 50s of his age we came across him in the street and we talked to him, he doesn't live in the Arab neighborhood, he mentioned that the Arab neighborhood is a low land and that why it's a great target for floods occurring there, and as he says the Arab bank area use to be a Valley called Sebseban Valley and that's why that area is a target for floods and he says that he remembers the flood of 1998 very well, it was a very rainy winter and the water has reached 30cm at Yafa street as he witnessed this event where people helped get rid of the water with simple house tools. He was asked who are the first people to come to you if something like this occurred and he answered the civil defense are the first and then the neighbors, so he sees that it is only fit that each neighborhood has trained personal to deal with these kind of situations and moreover he demands that a dams should be constructed near mount Corontol due to the fact that it's a high land and water comes from there.

6- Talal Qattan -

A large sand storm happened in 2002 destroyed the governorates bridge and destroyed many farms. It uprooted large trees that fell on electricity lines and cause immense damage.

7 - Fatima Al Ostah - Khedewe Neighborhood

The old house build since 1948, has suffered much damage from flooding. One main flooding coming from Al Corontol Mountain was especially destructive, affecting many houses and the school in that area. Some of the students lost their lives by drowning in the floods stream.

The local community was very helpful and supportive in refunding some families for their damaged goods. The house is very week and can be completely destroyed in the next disaster.

8- Muhamad Abu Rahmeh - Akbet Jaber Refugee Camp

The old house is made half in concrete and half from mud bricks as in figure (1) and wooden roof as in figure (2). It is very week to earthquakes and suffers from damage every winter. No authority provides support in case of damage.

Three or four members of the family have taken first aid course (mainly the children in the house). During the 1983 earthquake, the mother left her newborn child in the house and escaped at first, but after calming down she went to get her child back.

The family members from the old lady to her children have shown willingness to support their community in case of emergency. However under real stress they are prone to panic.



Figure (1): Traditional construction in Jericho of mud-brick building.



Figure (2): Weak wooden roof, prone to leaking of water during rainfall.

9- Hassan Deheni - Akbet Jaber Refugee Camp

Their mud brick house has collapsed in the past due to a tree falling from being hit by lightning. At that time the Municipality helped with a \$500 repair fund. Their house was rebuilt from donation of the community. They rebuild it using concrete and more solid foundation. During the time needed to rebuild the house, the family lived in a tent; it was a psychologically hard period for them. The community and local charitable society helped them with food and meals. Their house currently doesn't have any first aid kit or prep.

On a Second disaster, a flooding damaged the new house but the neighbors help with assistance. They had to destroy the wall (fence) between them and the neighbors because it was trapping the water on one side.

Since 2000 the family has been living on social aid since the husband has chronic diseases and cannot work -the children were young at that time.

Also the family recalls the earthquake that happened 8 years ago. The father and the children were home, when the quake struck, the family immediately escaped outside, however in the panic, the husband left his mother in the house. He then later went to retrieve her.

10- Um Khalil -Akbet Jaber Refugee Camp

The 75-year-old women lives alone in the house after her husband died, her son was killed by the occupation and other child immigrated outside.

During a big flooding her house, which was made of mud bricks completely collapsed. At that time she was rearing 64 cattle, and most of the sheep drowned. She escaped from the flooding and was traumatized by it. She couldn't return home anymore and sleep in the house, she had been living in that house since 1967. Since the old lady is alone, only neighbors provide help in cases of emergency.

11- Abu Ezat -Akbet Jaber Refugee Camp

He is a construction worker, when the earthquake happened; he was at work hanged up on a level. He directly stepped off it and moved to safety. After the first wave he went home to check on his family.

His mother, an old lady of 90 years remembers that there were many flooding in the camp and that everyone worked together in times of distress and helped each other.

His father talked about the flooding that happened in 1995, which flooded the cemetery and caused soil erosion. During that flooding a lot of fences (walls) were swept away by the water and the flood seeped into the houses. The old man said that there was a lot of help coming from

the community to help the most damaged houses and that there were lots of donations from the people themselves to rebuild the most damaged houses in the camp. The community also provided the people of damaged property with emotional support.

12- Old lady Mariam -Akbat Jaber

She remembers many flooding including last year's where the water seeped into the house from every direction. She also talked about the big flooding in 1997 where the surface runoff carried many boulders and stones. It even swept away a young man, but the people helped him by extending a tube to him to grasp on. Fortunately he survived.

There was no formal body that helped them. The community helped itself at that time. She also doesn't remember any increase in violence or riots acts. In addition, she talked about the violence against women in the community and how her own husband sometimes treated her violently.

Although she is a refugee, she doesn't own a refugee card from the UNRWA and no one provided them with any service. She also added that no one in her family or neighbor knows any first aid.

13- A (Um Hassan) -Bayader Neighborhood

The house visited is 27 years old, it is made of mud bricks and zinko roof. The house is weak and prone to destruction in case of earthquakes, strong winds, or floods.

Um Hassan narrated her experience during the 1998 flood of Jericho. She used to work in a factory and was away from her house when the flooding happened. The elevation of the flood was about a 1 meter high. She did not use to live in her current house at that time. The event was not very traumatic for her but left an impression.

Her house suffered damage few years back when there was a storm accompanied by very strong winds. The wall of her living room, which is made of mud, fell and had to be rebuilt. She said that the municipality helps her a lot and assisted her financially for rebuilding her house with 1500 shekels.

She has a first aid kit prepared in her house in addition to candles and flashlights.

She is a very energetic housewife, who displayed a great spirit and willingness to help her neighborhood. Mrs. Fadiyah Sardih would be a good local monitor.

14- Anonymous - Akbat Jaber Refugee Camp

Seven years ago there was a great flooding, it was very strong and caused much damage. The stream was so strong that it swept away some cattle owned by an old lady. The women jumped into the stream to pull the sheep from it but the current was too strong and it pulled her in too. She tried desperately to grasp onto anything on the way like rock and branches but she kept sliding. After much struggle she finally could grasp onto something and survived miraculously.

15- Ammar Muhammed Abed Al Razik Al Ghrouf -Bayader Neighborhood

This house is build directly on the streams way as in figure (3), the land has been licensed by the Municipality although it is very clear that its location is very dangerous in case of flash floods. The house is quit new 6-7 years old, however it doesn't have any earthquake proof design in its building. The furniture of the house is secured well to the walls.

There was no damage from previous floods, but they suffer from the lack of pavement on the leading street of the house. The street is still very rough with no asphalt, causing huge damage in

wintertime when there is precipitation. Many requests have been sent to the municipality but the response never came.

Mr. Ammar is very energetic and showed good spirit and willingness to help. He would be a good candidate for monitor if trained.

In proximity to this house there are few houses made of mud bricks that are loosely made and prone to complete destruction in case of a natural disaster.



Figure (3): Outer garden wall of the house directly on the edge of the Wadi.

16-Hussein Grouf - Bayader Neighborhood

In the floods of 1998 the owner's house was completely destroyed since it was made of mud bricks with a zinc roof. The 40 year old man had to move to a new house in front of the old one that is now about 70 year old building. He complained about how hard it was to divide inherited land and how expensive it was to complete the proper procedure of the authorities.

In proximity to this house, there is an old abandoned building that is very dangerous and prone to complete destruction in case of earthquakes. The municipality should readily demolish these types of buildings because they become the playground of children and may cause serious injuries if they fall down suddenly.

17- Abu Dahuk - Akbet Jaber Refugee Camp

He witnessed the flood destroying the small bridges, the old houses and the walls of the fence. And the water ran to the lower land. The houses affected were mostly uninhabited as shown in figure (4), however the children panicked to the sight. This episode happened in the 70s. Mr. Abu Dahuk has helped many during flooding disasters.



Figure (4): we structures that are easily affected by natural disasters.

Monitor Candidates:

List of Names and Contact information for candidates to be monitors on every street and vulnerability zone in Jericho is confidential.

Suggested Areas of Relief:

1-School playground; JWCS, Terra Santa, Rahbat Al Wardiyah

2-Old Mosque city center

The Mosque has been recently rebuilt according to the standards of safety. Since it was rebuilt, it has not suffered from flooding or earthquakes.

It would be an ideal location for a field hospital or for receiving refugees as in figure (5).

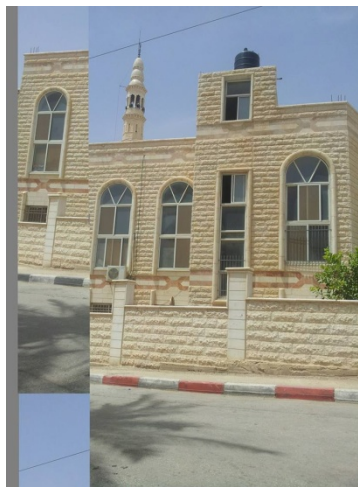


Figure (5): The Mosque's solid structure.

3-Abbasi Mosque Akbet Jaber

The old Mosque was demolished and a new one built in its place, which was completed in 2011. The new structure has incorporated anti earthquake precautions, and solid foundations. It is 3 floors with the largest being 500m² the other two are 300 m² and 400m². The pillar is 53 meters tall facing south. It has 11 bathrooms in total. The structure may be ideal as an emergency hall for a field hospital or refugee center in case of disaster. It is thought to resist medium to strong earthquake and its central position is easy to reach for the people of that area. The Mosque also

owns its private well that is 3x3m and fills three large tankers, so they may sustain themselves for some time in case help is delayed or fresh water pipes are broken.

4- New Mosque City Center (next to Terra Santa School)

5- Public Transport main parking lot

6- The Monastery large back yard

7- An empty plot of land behind "Al Waha" restaurant.

Conclusion:

The study made in the Jericho area revealed some serious issues in lack of knowledge and preparedness of the residence in cases of natural hazards. There are multiple houses in danger zones of flooding and many buildings are very weak and cannot resist earthquakes as in figures (6) and (7). There are several locations that can be fit as emergency ground for field hospitals or refugees reallocation like the Mosques, School playgrounds, the public transportation parking and the churches inner parks. A lot of people showed good will to help others in distress and several candidates for Monitor position have been pointed out. Serious planning has to be made in order to make this area ready for emergency situations starting with awareness campaigns.



Figure (6): Old buildings



figure (7): Low quality building

Recommendations:

1- Since multiple houses are located on the flank of the stream, it is recommended that the municipality, with the help of the people, build a retention wall on the flanks to minimize the damage caused by the floods on their house.

2- It is recommended to prepare brochures explaining the action plans in case of emergencies and distribute them on the houses with the help of trained volunteers that can explain the procedures as well. In addition to radio and TV programs to educate the people.

3- The paving of the dirt streets with aqueduct infrastructure to minimize runoff water and flooding of the houses.

- 4- The building of a new hospital in the northern part of the city that can serve the people in cases of emergency since the sole existing hospital in Jericho is geographically separated and hard to access during hazards.
- 5- It is also suggested to start planning on using the Mosque, Churches and large parking space as emergency fields in case of hazards.
- 6- It is also suggested to start planning on using the Abbasi Mosque in Aqbat Jaber refugee camp as emergency location in case of hazards.
- 7- Reconstruction (or renovation) of the bridge over the stream since it has been damaged by floods before and has quit week pillars against future floods as in figure (8).



Figure (8): The damaged pillars of the bridge.

- 9- Add stream conducts to the underground drainage system to lower the quantity of the surface runoff on the streets during heavy rain fall events.
- 10- Pruning tree branches before winter to prevent damage from falling branches.
- 11- Provide protection in case of emergency from trained professionals.
- 12- Allocating funds for rebuilding damaged properties.
- 13- Most of the people don't have first aid kits in their houses or emergency supplies. More awareness campaigns should be made in this sector to let people know what they should keep in cases of emergency.
- 14- Provide local emergency offices to reach easily during disasters.
- 15- Incorporating the necessity of emergency exit doors for all building.
- 16- Better planning the infrastructure and forcing all new building to use earthquake safety measures in their new structures.



In interviewing residents of different zones of vulnerability, the Fellows encouraged residents to discuss their memories of earlier disasters and the extent to which these memories, such as conflicts between families, clans and adjacent neighborhoods, recurred and influenced every day life. We sought to understand how these memories influenced the sense of community and the extent to which people remembering their losses and suffering sought basic remedies like first aid training and improvements of housing and public areas. Many of the reports indicated that improvements were inadequate. In this fieldwork, the Fellows and the staff sought to identify neighborhood leaders who could be trained as first responders to disasters, equipped with communication, first aid, and rescue equipment, and who could be organized as the local leaders of community preparedness. This report of the Fellows to the Mayor and leadership of Jericho has already received a positive response, and plans are underway to undertake a second phase for professionalizing the skills of the Fellows in community-based preparedness, as well as leadership training, equipment, and coordination of the new leaders selected for each neighborhood.