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***GLOBAL RESPONSE, INNOVATIVE MODELS & IDEAS, RESCUE
MECHANISMS, RESEARCH & PROJECT DESIGNS, AND ACTION
PLANS
FOR
DISASTER MANAGEMENT & PREPAREDNESS***

**LOOKING BEYOND DISASTER:
UNESCO INTERNATIONAL YOUTH FORUM 2011
CHRISTCHURCH, NEW ZEALAND**



Farid Ullah Khan
MPP, MBA, BBA (Hons)
Endeavour Fellow, Government of Australia
Australian National University (ANU)
Executive Assistant
Prime Minister's Office, BoI, GoP
fariduk.anu@gmail.com

Farid's Light for Life (FLFL) Rescue Model

ABSTRACT : Farid's Light for Life (FLFL) Rescue Model was developed with the objective to facilitate rescue workers to save lives in those areas which are hit by disasters, and roads network and electricity or power infrastructure destroys or there is inaccessibility to far flung areas for heavy machinery to carry out rescue operations i.e. cranes, lifters etc. The Government of New Zealand along with partner organizations and UNESCO called for global response, innovative models & ideas, rescue mechanisms, research & project designs, and action plans for disaster management & preparedness. These project & research designs, ideas and action plans were called-in in order to be tested and adopted to deal with natural disasters, such as, the earthquake in Christchurch, New Zealand in 2011, and to mitigate its impact. FLFL Rescue Model was one of those action plans which were selected after global response poured in, and thoroughly scrutinized by experts. The first UNESCO Youth Forum: Looking Beyond Disaster, was held in December 2011 in Christchurch, New Zealand, with 100 participants from around the world. Youth developed 25 action plans to rebuild communities from disasters. These action plans were selected based on their

potential for implementation (NZNC UNESCO 2011).

The FLFL model was inspired from rescue operations held in Pakistan after massive earthquake hit this region on 8th October, 2005. The earthquake was a major earthquake centred in Pakistan's administered Kashmir known as Azad Kashmir, near the city of Muzaffarabad, affecting Gilgit-Baltistan and Khyber Pakhtunkhwa province of Pakistan. It occurred at 08:52:37 Pakistan Standard Time (03:52:37 GMT) on 8th October, 2005. The magnitude of the earthquake was recorded as 7.6 making it similar in size to the one that hit San Francisco in 1906. Other massive earthquakes with nearly same magnitude were recorded in 1935 in Quetta, Pakistan; in 2001 in Gujarat, India; and in 2009 in Sumatra, Indonesia (ERRA 2005).

KEYWORDS : Rescue Operations & Disaster Management; Project Management & Research Designs; Human Resource Management; UNESCO & Government of New Zealand Relief Call; Disaster Preparedness; Relief Policy & Public Response Mechanism

Table of Contents		
Serial No.	Title	Page No.
	<i>Abstract</i>	<i>02</i>
	<i>Table of Contents</i>	<i>03</i>
<i>01.</i>	<i>Invitation</i>	<i>04</i>
<i>02.</i>	<i>Introduction to the Forum</i>	<i>05</i>
<i>03.</i>	<i>Global response, innovative models & ideas, rescue mechanisms, research & project designs, and action plans</i>	<i>05</i>
<i>04.</i>	<i>Rescue Model Innovator</i>	<i>07</i>
<i>05.</i>	<i>Background of the Rescue Model</i>	<i>07</i>
<i>06.</i>	<i>FLFL Rescue Model</i>	<i>08</i>
<i>07.</i>	<i>Step-Wise Demonstration</i>	<i>10</i>
<i>08.</i>	<i>Unique Feature</i>	<i>11</i>
	<i>References</i>	<i>12</i>

Table of Figures		
Serial No.	Figure Title	Page No.
<i>Fig. 01</i>	<i>Epicentre of the 2005 Earthquake that hit South Asia and Pakistan with 7.6 magnitude</i>	<i>07</i>
<i>Fig. 02</i>	<i>The destroyed Road Networks & Terrains</i>	<i>09</i>
<i>Fig. 03</i>	<i>The Aerial view of Destroyed Buildings & Collapsed Roofs</i>	<i>09</i>
<i>Fig. 04</i>	<i>The Rescuer attempting to set-free the trapped body</i>	<i>09</i>
<i>Fig. 05</i>	<i>FLFL Rescue Model</i>	<i>10</i>
<i>Fig. 06</i>	<i>Circles Drawn on Chart Showing Path of Light and Free Passage beneath the Rubble</i>	<i>10</i>
<i>Fig. 07</i>	<i>Rabbit Digging to Identify Striking Point of Light on the Peripheral Surface of Collapsed Structure</i>	<i>11</i>
<i>Fig. 08</i>	<i>Collapsed Power/Electricity Infrastructure, Search Lights & Carbon Batteries</i>	<i>11</i>

1. Invitation



New Zealand National
Commission for UNESCO
Te Kōwhiri Matua o Aotearoa mō UNESCO

October 5 2011

Invitation to Farid Ullah KHAN for attendance at 'Looking Beyond Disaster: UNESCO Youth Forum', Christchurch, New Zealand, December 9 -12, 2011.

Dear Farid,

I am pleased to confirm your acceptance by the New Zealand National Commission as a participant in the 'Looking Beyond Disaster: UNESCO Youth Forum' to be held in Christchurch from 9 to 12 December 2011. The Forum is organised by the New Zealand National Commission for UNESCO in consultation with the UNESCO Regional Office in Bangkok and the UNESCO Office for the Pacific in Apia, Samoa.

The organisers undertake to meet your in-country costs for the duration of the meeting. You will be responsible for your own travel expenses and insurance.

We look forward to welcoming you to Christchurch in December.

Yours sincerely

Elizabeth Rose
Secretary General
New Zealand National Commission for UNESCO

NEW ZEALAND NATIONAL COMMISSION FOR UNESCO ■ PO BOX 1666 ■ WELLINGTON 6140 ■ NEW ZEALAND
LEVEL ONE ■ 44 THE TERRACE ■ WELLINGTON ■ TEL: 64 4 463 8600 ■ FAX: 64 4 463 8628 ■ WWW.UNESCO.ORG.NZ

2. Introduction to the Forum

The first UNESCO Youth Forum: Looking Beyond Disaster, was held in December 2011 in Christchurch, New Zealand, with 100 participants from around the world. Youth developed 25 action plans to rebuild communities from disasters. These action plans were selected based on their potential for implementation. Succeeding these action plans, many new participants with experiences from rebuilding communities joined the network in the Sendai, Japan meeting from other communities around the world. As key agents of promoting change, UNESCO gathered young community leaders in the Youth Looking Beyond Disaster programme for the second forum on Looking Beyond Disaster in Japan with the objective of shared learning from Tsunami incident (NZNC UNESCO 2011).

3. Global response, innovative models & ideas, rescue mechanisms, research & project designs, and action plans

Global response, innovative models & ideas, rescue mechanisms, research & project designs, and action plans of the First Youth Forum Looking Beyond Disaster, held in Christchurch, New Zealand, 9-12 December 2011:

1. Abbas Nazari, Stephen Lewis, Luigi Wewege (New Zealand), Qasim Aslam (Pakistan) – Disaster Maps
2. Adam Partridge, Sam Brustad, Amelia Leath, Jason Pemberton (New Zealand), Narieta Ralege (Fiji) – Ako Through Disasters
3. Alexander Lee, Morgan Watkins, Joshua Durrant (New Zealand) – Promoting Resilience Through the Built Environment
4. Alicia Palmer (Christchurch) – Disaster Risk Reduction through Storytelling on the Online
5. Ayano Yahara, Michiyo Fujimoto, Keiichi Kurosawa, Michiko Hirota (Japan) – Youth Leadership Forum on Disasters
6. BunRong Kouy (Cambodia) – Looking beyond Flooding in Cambodia
7. Catalina Guzman, Pablo Christiny (Chile) – Children’s Television Looking Beyond Disaster
8. Catalina Guzman, Pablo Christiny (Chile), Mark Letham (Christchurch) – Communicating Beyond Disaster

9. Emily Stevenson, Grace Elizabeth Morgan-Maxwell (Christchurch) – Moments of Joy
10. Erin Gough (Christchurch) – Looking Beyond Disaster: Experiences of Disabled Young People (blog)

11. Farid Ullah Khan (Pakistan) - Farid's Light for Life (FLFL) Rescue Model

12. Inangaro Vakaafi (Niue), Julian Tausia (Fiji), Polikalepo Moengangongo Kefu (Tonga), Harrison Seymour (Federated States of Micronesia), Verenah Pedro (Tokelau) – One Ocean, One People and One Voice / Increasing Participation in Disaster Management
13. Jazmine Maqueda, Benazir Kumar, Josiah Tualamali'I, Joshua Kurene, Alex Zorn (Christchurch) – Infinite International
14. Katherine Pearse, Anna Jarman, Holly Faulkner – St. Margaret's College Community Gardens
15. Margot Shanahan, Chloe Biddick, Finian Cresswell and Vincent Major (Christchurch) – Youth Venue
16. Min Zhang and Jing Xu (China) – Anti-Disaster Knowledge Sharing between China and New Zealand
17. Mohammad Ridwan , Fikriyah Taufik, Vicky Diaz Nevangga, Mustika Sari Virginia (Indonesia), Thinh Nguyen (Vietnam), Adnan Mohd Nazim (Malaysia), Kunal Kohli (New Zealand) –Disaster Resilience to Trade Aid
18. Rachael Hodge, Fatima Ali, Rosie Cann, Morgan Watkins (New Zealand) – Reel Life through a Lens: Sense of Hope
19. Rangga Rahadi Putra, Muthiah Muthe (Indonesia), Gendalin Amran (Micronesia), Katcha Rerngsamut, Siwakorn Pimpa (Thailand) – DAD (Disaster Awareness Days)
20. Riki Welsh, Bradley MacPherson, Marina Hetaraka (New Zealand) – Increasing Participation of Marginalised Communities in Disaster Management
21. Ruby Sands (New Zealand) – Girl Guide Badges
22. Sam Bowstead (Australia), Nicolas Valenzuela (Chile) – Future-Proofing Professionals
23. Shawn Moodie, Kieran Denton (New Zealand), Louis Go (New Zealand/the Philippines), Antoni Harbuz (South Africa), Krishna Chaitanya (India), Nofri Rahmadika (Indonesia) – “Art Therapy” for Trauma from Disaster”
24. Sulakshana Senanayake (Sri Lanka) – Volunteer Disaster Response Team Sri Lanka. Solar Power for Post Disaster
25. Tal Fitzpatrick, Salvador Cantellano, Owen Novello (Australia) – Looking Beyond Disasters: Young People Building Community Resilience (Documentary Series)

(EUBIOS 2011)

4. Rescue Model Innovator

Mr. Farid Ullah KHAN, belonging to Khyber Pakhtunkhwa (formerly known as NWFP) Province of Pakistan, received Duke of Edinburgh Award (Gold) from Edwardes College, Peshawar, Chapter of NAA – Pakistan in September 2009. In October 2010, he was appointed as a Global Coordinator, Peace & Conflict Issues, by TakingITGlobal (TIG), Canada. Farid became the first Pakistani to be appointed on such a key voluntary position in TIG when the country was in the midst of conflict. He was nominated as one of the Commonwealth Young Professionals for the year 2011 by the Commonwealth Secretariat, UK. Beside this, Farid has completed different courses from United States Institute of Peace (USIP), USAID, UNDG and has contributed to National Geographic, UNDP, International Rescue Committee and Peace Child International, UK. He has represented Pakistani and South Asian Youth in Qatar, Turkey, UK, UAE and Sri Lanka.

5. Background of the Rescue Model

The FLFL model was inspired from rescue operations held in Pakistan after massive earthquake hit this region on 8th October, 2005. The earthquake was a major earthquake centred in Pakistan-administered Kashmir known as Azad Kashmir, near the city of Muzaffarabad, affecting Gilgit-Baltistan and Khyber Pakhtunkhwa province of Pakistan. It occurred at 08:52:37 Pakistan Standard Time (03:52:37 GMT) on 8th October, 2005. The magnitude of the earthquake was recorded as 7.6 making it similar in size to the one that hit San Francisco in 1906 (ERRA 2005).



*Fig. 01: Epicentre of the 2005 Earthquake that hit South Asia and Pakistan with 7.6 magnitude
Credit: Earthquake Reconstruction & Rehabilitation Agency (ERRA), Government of Pakistan 2005*

6. FLFL Rescue Model

The acronym FLFL stands for “Farid’s Light for Life” Rescue Model

6.1. Main Objective

FLFL Rescue Model was developed with the objective to facilitate rescue workers to save lives in those areas which are hit by disasters, and roads network and electricity or power infrastructure destroys or there is inaccessibility to far flung areas for heavy machinery to carry out rescue operations i.e. cranes, lifters etc.

6.2. Effectiveness

This model is majorly effective at night time; however, it is equally effective in day time as well.

6.3. Requirements

- Search Light or Emergency Light.
- Plain chart with white background (to be used at night time).
- Plain chart with black background (to be used at day time).

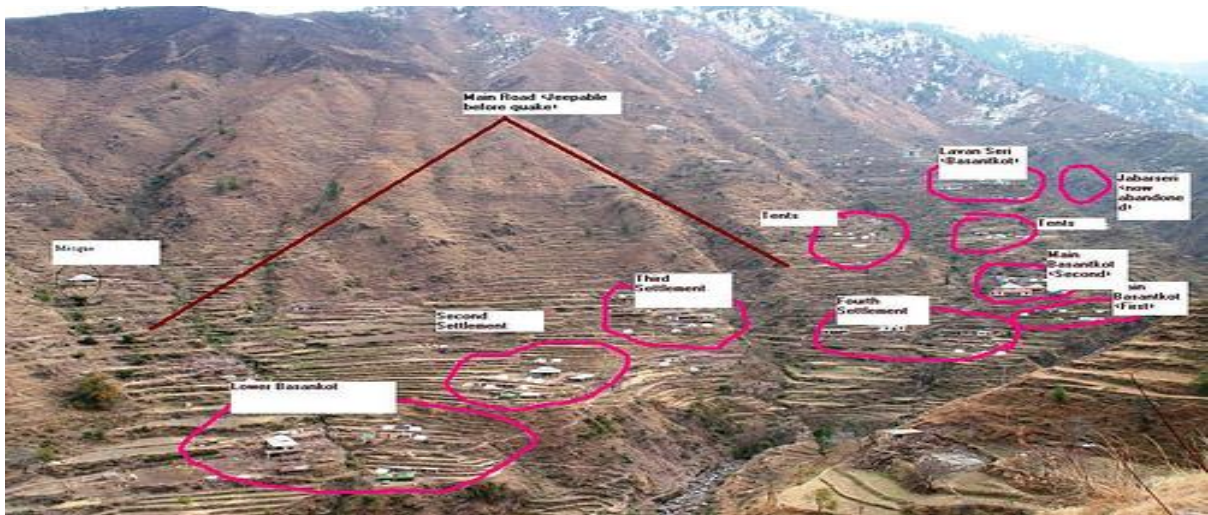


Fig. 02: The destroyed Road Networks & Terrains
 Credit: Earthquake Reconstruction & Rehabilitation Agency (ERRA), Government of Pakistan 2005



Fig. 03: The Aerial view of Destroyed Buildings & Collapsed Roofs
 Credit: Associated Press (AP) 2005



Fig. 04: The Rescuer attempting to set-free the trapped body
 Credit: Earthquake Reconstruction & Rehabilitation Agency (ERRA), Government of Pakistan 2005

7. Step-wise Demonstration

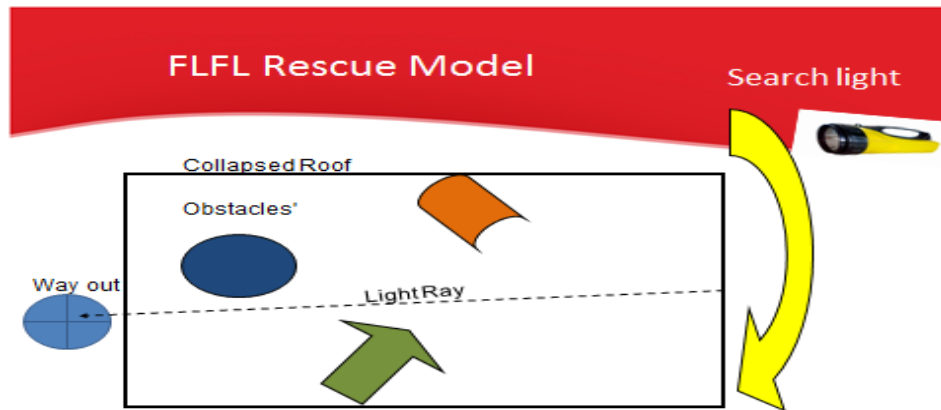


Fig 05: FLFL Rescue Model
Credit: Author

Step 1

Move the search light to-and-fro on one side of the building and identify the escaping light on the other end and mark them on plain chart (*Refer to the yellow arrow on the FLFL Model*). You will get different points (*Refer to the blue circle*) where the light escapes the rubble beneath the collapsed roof (*Refer to the dotted black line [...] on the Rescue Model*).

Step 2

Different light routes will be identified. Draw circles on plain chart and select that circle which is of maximum radius. It means that the rescuers have selected a path of minimum obstruction (*Refer to the purple, orange and green drawings in the model*) to perform rescue operation.

i.e. In this hypothetical case, **circle 3** will be selected .

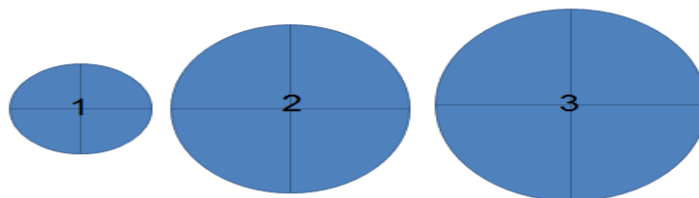


Fig. 06: Circles Drawn on Chart Showing Path of Light and Free Passage beneath the Rubble
Credit: Author

It is an inverse equation – more light across the collapsed building means less obstruction beneath the roof. Once the maximum escape path of light is identified, the rescuer can creep through that path, and can perform his/her rescue operation with ease as compared to the other paths.

Step 3

What if the building is concrete? One simple method to perform the rescue operation is the ‘rabbit digging’ (*Refer to red arrow below*). Using ‘rabbit digging’ the rescuer will try to reach the periphery of collapsed structure (*Refer to the blue line below*). Once rescuer enters at one side of the building/collapsed roof and notices that the light has penetrated enough till this point, he/she can go further with rescue operation under the concrete structure.

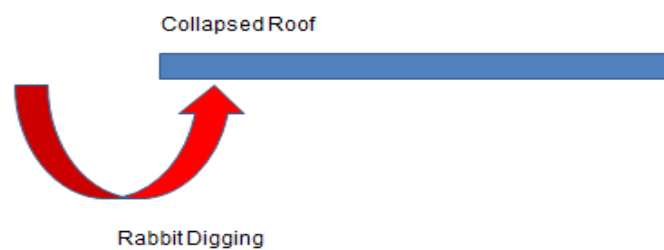


Fig. 07: Rabbit Digging to Identify Striking Point of Light on the Peripheral Surface of Collapsed Structure

Credit: Author

8. Unique Feature

Sometimes it becomes really difficult to perform rescue operation due to the fact that the electricity power cables and towers along with supportive infrastructure collapse. However, this model shares this unique feature that it can be implemented and uninterrupted rescue operations can be performed using search-lights loaded with charged batteries, carbon batteries or operations can be performed using solar search-lights.



Fig. 08: Collapsed Power/Electricity Infrastructure, Search Lights & Carbon Batteries

Credit: Author

REFERENCES

Earthquake Reconstruction & Rehabilitation Agency (ERRA), Government of Pakistan 2005 cited online 29th December, 2005
<http://www.erra.gov.pk/eq2005.asp>

EUBIOS Ethics Institute – Communiqué 2011 cited online 21st December, 2011
https://www.eubios.info/yahoo_site_admin/assets/docs/LBD1ChristchurchCommunique%CC%81.271183140.pdf

EUBIOS Ethics Institute – List of Action Plans, Project Designs, Ideas, Research Parameters, and Innovative Rescue Models 2011 cited online 24th December, 2011
https://www.eubios.info/youth_looking_beyond_disaster_lbd/lbd1_christchurch

New Zealand National Commission for UNESCO (NZNC UNESCO) 2011 cited online 20th December, 2011
<https://unesco.org.nz/looking-beyond-disaster-unesco-international-youth-forum-2011/>