

Increasing Resilience to Environmental Hazards in Border Conflict Zones:

Leh Workshop Summary Report

9 – 11 July 2017

Leh, Ladakh

9 July 2017 – Safer Schools and Safer Healthcare Working Group

Welcome and Introduction: Professor Peter Sammonds

Presentations

Field report of schools and healthcare facilities – Dr. Alejandra Albuerne Rodriguez

- Variability in building condition and construction quality, Absence of blueprints and any evidence of enforcement.
- Significant hazards: building location, non-structural elements like falling objects, few escape routes.
- Community outreach, education, investment, and understanding the importance of properly engineered construction.

Safer Communities through Safer Healthcare – Dr. Patty Kostkova

- Many avenues: community participatory surveillance, engage with informative media sources, potential early warning.
- Healthcare is integrated into schools, healthcare workers schedule monthly visits to schools.
- Schools are valuable platforms for education about hazards, personal hygiene.

Hazard summary - Professor Bindra Thusu and Dr. Naveen Hakhoo

- Hazards are rockfalls, landslides, earthquakes, flooding, snowfall and water damage.

Discussion of Present Local Situation and Context - Chair: Professor Renu Nanda

- Students are eager, most teachers are as well. Psychosocial impacts effects school performance.
- Schools supported by army, NGOs, community.
- Technology is present in schools, but power and technical support is a major barrier.

Next Steps Discussion – Chair: Professor Peter Sammonds

- Return to discuss school assessment results with community, short and long term solutions.

10 July 2017 – Increasing Resilience to Environmental Hazards in Border Conflict Zones

Welcome and Overview: Professor Peter Sammonds, Professor Ghulam Bhat, Professor Bindra Thusu

Opening Address: Professor R D Sharma, Vice Chancellor of Jammu University

- This collaborative research project on resilience will help mankind living in conflict zones and aim for a methodology to build resilience in complex situations by executing impactful research.

Field Reports - Chairs: Professor Juergen Thurow and Dr. Sundeep Pandita

Geohazards in the Leh area and Implications for Rural and Urban Populations and Infrastructure – Dr. Gareth Hearn

- Fieldwork aim: ground truth the remote sensing desk study of slope and drainage hazards.
- Main findings: desk study is accurate in identifying rock fall, rock slide, debris flow, flood, and sediment hazards.
- Moving forward: update terrain classification and geohazard map, integrate geohazard assessment into planning strategies and the district disaster management plan.

Natural Hazards and their Impacts in the Shyok-Nubra Valley – Professor Ghulam Bhat

Geology and Hazards Shyok-Nubra Valley, Ladakh Himalaya – Dr. Naveen Hakhoo

- Fieldwork aim: Identify geological drivers of hazards in the valley.
- Main findings: 5 faults divide the region into 3 main blocks, each with a different dominant hazard. Evidence of local compressional tectonic forces, mixed fans, mass movements, paleolakes, earthquakes.
- Moving forward: Additional mapping is needed.

Turtuk Forensic Workshop on Disaster Management – Dr. Bayes Ahmed and Dr. Virginie Le Masson

- Fieldwork aim: Understand the community's perception of the risks around them.
- Main findings: Community identified falling rocks, flash flooding, hostilities and invasion, tourism, loss of homes and agricultural land, and changing social fabric as hazards and risks. Identified vulnerabilities were lack of space and safe locations for homes and critical infrastructure, limited family planning, and inappropriate building techniques and construction materials. Solidarity, significance of land management, local health services, and army presence identified as community capacities.
- Moving forward: Additional community based vulnerability and capacity mapping, a DRR plan to combine scientific expertise with local knowledge, and a proactive disaster plan and initiatives.

Safer Schools and Safer Healthcare – Dr. Alejandra Albuerno Rodriguez and Sonja Mueller

- Fieldwork aim: Investigate the structure and conditions of local schools.
- Main findings: Many buildings are confined masonry with reinforced concrete frames. Variability in construction quality. Many hazardous non-structural elements and building locations.
- Moving forward: Create a representative example of a typical school building for modelling hazard impact and advise community of short and long-term actions for safer schools and safer healthcare facilities.

Keynote Lecture – Resilience Education and Emergency Planning for Schools In Shyok-Nubra Valley - Professor Renu Nanda

- Schools are a community resource, providing ICDS services and food, monthly health services
- Need more training in teaching and practicing disaster management, first aid, and how to spend Red Cross funds.
- Following recent disasters, little support for students and teachers. No psychosocial support or remedial study.

Ladakh Cultural Fieldwork Report - History, Culture, and Religion - Professor Kavita Suri

- Fieldwork aim: Investigate and record local culture, history, and experience.
- Main findings: Religion plays an important role in perception of and recovery from disasters. There is a long history of floods, likely GLOFs, in the valley. Communities are tightly bound and well aware of hazards.
- Moving forward: Indigenous knowledge must be utilized and preserved.

Keynote Lecture – Ladakh Disaster Management Plan – Mr. Moses Kunzang and Professor Tashi Ldawa

- Request for recommendations and guidance on the proposed revisions of the District Disaster Management Plan (DDMP).
- Aiming for proactive strategies to integrate disaster risk reduction across Ladakh Autonomous Hill Development Council
- Aiming to create a replicable model of civil defense organizations and community based disaster risk management (CBDRM) implementation strategies

Hazards and Resilience panel discussion – Chair: Professor Peter Sammonds

Panelists: Mr. Moses Kunzang, Professor Ghulam Bhat, Dr. Virginie Le Masson, Dr. Gareth Hearn

- DDMP highlights motivation and willingness to engage with disaster risk reduction and disaster management
- DDMP needs allocation of responsibility for preparedness and protection, including implementation and enforcement
- Identify highest risk areas with local knowledge and expert judgement, use local resources including people
- Overall cultural shift from short term economic decisions towards long term safety decisions in rebuilding and planning
- The fan is active and changing, so need periodic investigation of hazard

11 July 2017 – Increasing Resilience to Environmental Hazards in Border Conflict Zones

Keynote Lectures - Chair: Professor Ghulam Bhat

Geological Hazard Drivers in the Himalayas – Professor Juergen Thurow

- Himalayas are tectonically very active, producing the hazards. Ladakh is typical case.
- Climate change intensifies and amplifies certain hazards.
- Geo-heritage is under threat from tourism, development, and natural processes

Mountain Hazard Challenges and Human Dimensions across HKH – Dr. Ashutosh Mohanty

- Hindu Kush Himalaya region feeds the 10 largest river systems in Asia, supplying water to 1.3 billion people
- Water resource challenges: political tensions and imbalances, conflict and instability, economics, and management
- Next steps: share best practices, vulnerability profiles, closer links between institutions and governments, funding research

Presentations

Earthquake Magnitudes in the HKH– Dr. Katerina Stavrianaki

- Several proposed clustering, temporal, spatial, and magnitude
- Must be interpreted with caution

Repercussions of Climatic Change in Jammu and Kashmir – Dr. Suheel Kasool Mir

- Climate change impacts agro-ecosystems, forests, water resources, health, floods
- Advocate for informed action, proper resource management, and sustainability based on sound research

Keynote Lectures – Chair: Professor Renu Nanda

Disaster Diplomacy for Kashmir - Dr. Ilan Kelman

Disaster at the Crossroads – Dr. Jessica Field

- Records and oral histories highlight every day disasters among the large-scale disasters
- Existing systems do not encourage bottom up preparedness strategies, results in reactive and relief oriented attitude
- Question: Does the current DMP support the institutionalized status quo? Answer: Yes, reinforces existing procedures

History of Disaster – Dr. Kuenga Wangmo

- Context and cultural details can help place hazard events.
- Local knowledge may exist in traditional practices, such as construction, even if the reason is lost.
- People will resist if their own beliefs and sentiments are not considered in disaster preparedness practices

Disaster Management System and Border Conflicts Related Environmental Hazards in Bangladesh - Professor Maksud Kamal

- Border conflicts causing discrimination lead to poor environmental practices and damage to sociocultural environment
- Joint River Commission between India and Bangladesh functions badly, river disputes and enclaves leave people vulnerable

Building Social Resilience in Disaster Risk Reduction – Mr. Ray Kancharla

- Idea of everyday resilience, resilience is always context specific
- Goal: 0/0, no child casualties at school, no school days lost to disasters
- Advocate for a child centered disaster risk reduction in disasters, migration, and displacement

Vulnerability panel discussion – Chair: Dr. Virginie Le Masson

Panelists: Professor Kavita Suri, Professor Ghulam Bhat, Mr. Ray Kancharla, Dr. Patty Kostkova

- Highlight importance of social cohesion in community capacities, especially through religion and religious leaders.
- Highlight need for psychosocial support or counselling following disasters.
- Separation of families by the border is of extreme concern to communities.

- Conflict erodes trust among institutions and communities, reduces collaboration, increases fear.
- Sharing information and forging treaties to govern resources and DRR activities between countries in HKH.
- Q: should a resilience project advocate for peace? Generally yes, but must remain trusted, so likely neutral and impartial.
- Role of experts is to support communities through a resilience building process, toward sustainability.

Next Steps panel discussion – Chair: Professor Maksud Kamal

Panelists: Dr. Sundeep Pandita, Dr. Naomi Saville, Dr. Kuenga Wangmo, Dr. Jessica Field

- Religion can play a role in community engagement, comfort in post-disaster and psychosocial recovery
- Burden of care to Turtuk, return and explain the results of fieldwork, recommendations, and any future plans
- Careful of highly politicized data, careful to avoid taking responsibility and perpetuating disempowered victim mindset
- Measures toward institutionalizing resilience:
 - Integrated package of scientific and community understanding hazards, government commitment to community
 - Disaster preparedness should be a cross-cutting issue embedded in every day governance
 - Communication and sharing of information
 - Reducing the challenges of borders regarding migration, collaboration, travel, and information sharing.
- Each country needs to be approached differently, since different freedoms, procedures, cultures, expectations
- Next Steps:
 - People could use help navigating the government system
 - Identify people in a position to collaborate and provide funding within institutions
 - Combinations of top down and bottom up approaches
 - Within our research team, strengthen our communication and understanding as we work together
 - Holistic approach

Next Steps group discussion – Professor Peter Sammonds

- Detailed in steering committee discussion notes