### **EwF country updates**

In this part of the newsletter, you will find updates from the country teams working in China, Kazakhstan and also Nepal / Bihar, India. The updates are for the first half of 2016.

# China update

EwF China has been focusing more on identifying pathways to increase resilience in rural China in 2016 where they are exposed to earthquakes and other types of natural disasters. Having signed a collaborative contract with a local NGO – Gender Development Solution – EwF has collaboratively conducted a baseline study and in-depth interview in Cheng Hou Village in Shaanxi on March and July 2016 respectively.

The Baseline study in Cheng Hou Village, Shaanxi was conducted in March 2016 with the objectives to assess the perception of risk of local people to different types of natural disasters and the level of disaster preparedness on individual, household and community levels in Cheng Hou Village. 230 villagers took part in the survey where 219 questionnaires were valid for analysis. Prof. Lena Dominelli and Dr. Timothy Sim assisted and empowered staff from Gender Development Solution to conduct 11 indicative in-depth interviews.

# Facilitating the spread of knowledge on earthquakes in China

Presentation at the 2016 Conference of Practice Research on Disaster Risk Reduction in Yingxiu, Sichuan Hong organized by the Kong Polytechnic University on the 8th Mav 2016, where Joce Lau, a research assistant of EwF. presented the result of the EwF preliminary baseline study and shared the experiences and knowledge gaps in the process of conducting the baseline study to local practitioners and social workers.

**Presentation on the Seventh Forum on National Disaster Risk Reduction and Sustainable Development** organized by the China National Commission for Disaster Reduction (NCDR) on the 10<sup>th</sup> May 2016, where the preliminary result of the EwF baseline study at Cheng Hou Village in Shaanxi was reported. Joce Lau also drew implications upon the existing Chinese policy on DRR and some reflections on the implementation of China DRR policies.

**Upcoming fieldwork trips and events** The Chinese publication of the Writeshop will be launched on 12th October 2016 – the International Day for Disaster Reduction. The cost of the publication is funded by the Shenzhen Charity Federation, which serves as a highlight of collaboration and partnership between EwF and other projects.

The team are planning to conduct another round of in-depth interview with other stakeholders in or around Cheng Hou Village by the end of 2016. The topics of interview are to be discussed and will be referenced from the analysis of the in-depth interview conducted in July 2016.

The analyses from both the baseline study and in-depth interview are expected not only to inform the team about the contemporary conditions of disaster resilience in rural China, but also to better identify pathways to disaster resilience in China. This information could also serve to guide us in exploring ideas and directions beyond EwF and roll to out intervention activities appropriate for Cheng Hou Village collaboratively with other projects. At the moment the team are brainstorming ideas and getting onto with analyzing the available data.

Links to EwF – China Social Sciences webpage by Hong Kong Polytechnic University: http://apss.polyu.edu.hk/events/earthqu akes-without-frontiers-ewfpartnership-increasing-resilienceseismic-hazards

# Kazakhstan and Kyrgyzstan update

Prof. Greg Bankoff and Dr Katie Oven have been continuing their collaboration with the Red Crescent Society on community-based earthquake risk reduction in rural communities in the South Kazakhstan oblast. A series of interviews and focus group discussions have been undertaken across three communities to explore how they are organised, and the presence and role of social networks and systems of reciprocity, with a view to understanding how disasters such as earthquakes could be better prepared for and responded to.

Bankoff and Oven are also collaborating with building engineers Taraz State University to at investigate the vulnerability of a of private houses sample and apartment blocks of different ages across Taraz City. The survey, which includes a visual assessment by and social engineers. а survev exploring householders' perceptions of earthquake risk and the decisions they have taken regarding their own properties, will cover approximately 400 houses and two apartment blocks and will be undertaken over the summer

#### Upcoming fieldwork trip

Bankoff and Oven will be working in the Talgar Valley over the final year of the project, while Oven and Dr Dave Milledge will be returning to the case study communities in South Kazakhstan in September 2016 to work with the Red Crescent, community leaders, women and youth to explore the potential role of science in disaster risk reduction.

Three periods of fieldwork were undertaken in late June 2016, with another two planned in July and August. The June trips involved:

(1) A follow-up visit to the 1990 Suusamyr earthquake ruptures in Kyrgyzstan. We have reassessed the reported ground ruptures, showing that surface displacements were generally smaller than thought, as the ruptures are superimposed on pre-existing scarps. We have also found evidence for surface ruptures in two prehistoric events, allowing us to estimate recurrence intervals and a Holocene average slip-rate.

(2) Austin Elliott and Ramon

Arrowsmith (University of Arizona) undertook a reconnaissance trip in the high mountains in the epicentral region of the 1889 Chilik earthquake. Despite difficult access, they were successful in visiting a few of the potential ruptures from the 1889 that we have identified event previously from satellite imagery. They surveyed the scarps in order to determine the magnitude of slip, and collected samples in order to confirm whether the scarps formed in 1889.

(3) Christoph Gruetzner, Richard Walker and John Elliott performed a reconnaissance along the Zailisky Mountain range-front upon which the city of Almaty sits. The trip had a dual purpose of planning sites for a short excursion for Kazakh students in September 2016, and also for finding suitable field sites for future studies of past earthquakes and fault slip on this major active structure. From the samples that we collected we hope to have the first slip-rate estimate from this fault, and have a number of sites that we wish to revisit in future years.

#### Upcoming fieldwork trip

Christoph Gruetzner will return to Kazakhstan in July and August to continue his research into the major strike-slip faults of the northern Tien Shan.

## Nepal update

Dr Katie Oven, Ajoy Datta, Dr Sam Jones and Prof Alex Densmore, in collaboration with the Dr Shailendra Sigdel and Shubheksha Rana from the Foundation for Development Management, have been **engaged in a review of Nepal's** <u>9 Minimum</u> <u>Characteristics of a Disaster-</u>

**Resilient Community'.** The review is being undertaken at the request of the Nepal Risk Reduction Consortium (NRRC), the Ministry of Federal Affairs and Local Development, and non-government the donors and organisations (NGOs) engaged in community-based disaster risk (CBDRR) reduction initiatives in Nepal. Funded by the UK's Department for International Development through the South Asia Research Hub, the review is aimed at understanding the effectiveness of the 9 Minimum Characteristics - a major initiative in CBDRR in Nepal - in supporting communities to become more resilient. The review will inform future policy and practice in Nepal, beginning with the future shape and focus of the NRRC. The field work for the review is completed and the final report is due in August 2016.

Initial findings from the review have been shared with the Ministry and with NGO partners. By looking across a range of projects, hazards. organisations, and physiographic settings, it has been possible for the review to draw some wider lessons about the effectiveness of the 9 Minimum Characteristics. In particular. sustained activity and resilience building has occurred where communities have identified and focused on a well-defined hazard. where there is substantial community ownership of the issue, where interventions have accounted for livelihood concerns. and where communities are supported by VDC and district-level government.

Densmore continued to monitor landsliding in Sindhupalchok district **after the Gorkha earthquake**, funded by additional money from DFID through the Science for Humanitarian Emergencies And Resilience (SHEAR) programme. This led to advice to DFID Nepal on landslide hazards in the upcoming 2016 monsoon season (see:

http://ewf.nerc.ac.uk/2016/06/15/landsl ides-following-2015-gorkhaearthquake-monsoon-2016/).

Densmore also contributed to a science case for targeted investment in disaster risk reduction by DFID over the next 3-5 years, and to the science case for investment in reconstruction following the 2015 Gorkha earthquake.

In May, Prof Alex Densmore, Dr Katie Oven, Dr Amod Mani Dixit, Gopi Krishna Basyal and Sumit Maskey worked with district, VDC, and wardlevel groups in Dhankuta and Terathum districts, eastern Nepal, on DRR capacity and hazard assessment around landsliding. This included field work in Chhintang VDC, during which we helped the local community disaster management committee to set up an innovative community-led landslide monitoring network.

At the same time, we **completed a major baseline survey of risk perception and willingness to engage in DRR across multiple districts** along a transect in eastern Nepal and Bihar – the first time that these data have been systematically collected. The data collection, coordinated by Richa Lamichhane (NSET) and Vishal Vasvani (BSDMA), included resurveys before and after the 2015 Gorkha earthquake to see how perceptions have changed. The data analysis is being led by Dr Sam Jones.

EwF has continued to support earthquake scenario development for use in contingency planning by Humanitarian Country the Team (major UN organisations and major NGOs) and by the US and Nepali armies (Exercise Tempest Express in April 2016). Densmore is cosupervising scenario development by Dr Tom Robinson (Durham University Junior Research Fellow), in conjunction with Dr Nick Rosser (Durham University).

Finally, following the 2015 training on green social work interventions to the Nepal School of Social Work (NSSW) during the EwF Meeting Lena Dominelli supported NSSW during its 2015 (April Nepal and May) earthquakes through the Nepal Earthquake Virtual Helpline. This included training social work students humanitarian and staff in aid interventions through the Earthquake Manual and Ethical Guidelines, raising funds for NSSW's response to the disaster, linking up with staff from the TATA Institute of Social Sciences who supported NSSW on the ground, to deliver water, food, tents, blankets and clothing, to the earthquake victim survivors during the immediate relief and recovery phase of the disaster.

This work has now moved to its second phase of income generation projects aimed at facilitating and empowering women in devastated Himalayan communities. This phase includes the establishment of internships and the Centre for Risk, Recovery and Research at NSSW with financial support from IHRR.

# Bihar, India update

During early 2016, Dr. Sam Jones visited Bihar State in India and, with a member of the Bihar State Disaster Management Authority, conducted **research on constraints to the implementation of the Bihar Building Byelaws** (2014), focusing on seismic-resistant construction and the national building code.

They visited 3 major urban centres (municipal corporations) in the north of Bihar plus two other urban areas (municipal councils) and one rural area (all in seismic risk zones IV and V) and conducted 36 in-depth interviews with key stakeholders from government, the private sector and civil society.

Some factors which have been noted in the literature on building code enforcement as important constraints faced in other countries, such as the cost of earthquake resistant measures; political interests; corrupt practices; and lack of government capacity (trained personnel and expertise) were also found to be important in Bihar.

Additional factors that are rarely mentioned in the literature on building code enforcement were also revealed by the research. These included: a lack of awareness among the public about who is a 'technical expert' in building design; a lack of scrutinv of building plans and construction monitoring by personnel qualified seismic-resistant in construction; extremely and an significant proportion of unauthorised

construction taking place without any penalty being executed for violation of bye laws.

The paper in progress (Jones and Vasvani) explores constraints and challenges to the implementation of building codes/byelaws in the context ('roll-back' and 'roll-out') of neoliberalism in Bihar, as some of the factors noted above are exacerbated by neoliberal climate of urban the governance and an only partially formed market-oriented alternative to state regulation of building construction.

#### **Blog posts**

- Landslides following the 2015 Gorkha earthquake: Monsoon 2016
- <u>New paper on earthquake</u> <u>science in DRR policy and</u> <u>practice</u>

#### Academic papers and reports

- Oven, K.J., Milledge, D.G., Densmore, A.L., Jones, H., Sargeant, S. & Datta, A. (2016) Earthquake science in DRR policy and practice in Nepal. ODI Working Paper. London: Overseas Development Institute.
- Jones, S., Oven, K.J. & Wisner, B. (2016) <u>A comparison of the</u> <u>governance landscape of</u> <u>earthquake risk reduction in</u> <u>Nepal and the Indian State of</u> <u>Bihar</u>. *International Journal of Disaster Risk Reduction*, 15:29-42.
- Rigg, J. & Oven, K. (2015) Building liberal resilience? A critical review from developing rural Asia. Global

*Environmental Change*, 32:175-186.

• Oven, K.J & Rigg, J.D. (2015) <u>The best of intentions?</u> <u>Managing disasters and</u> <u>constructions of risk and</u> <u>vulnerability in Asia.</u> Asian Journal of Social Science, 43:685-712.