**Overview**

Welcome to the latest in our series of quarterly newsletters for the Sajag-Nepal project. The purpose of these newsletters is to summarise the breadth and depth of research across the project, highlight outcomes and outputs that we want to share more widely, and draw attention to upcoming activities or milestones.

As we enter the second year of the project, it’s great to see the progress that is being made across a number of different areas. Most notably, with the gradual easing of travel restrictions in early 2022, I am delighted to say that we are finally able to move forward with some collaborative field work. Of course, the RAs have been deeply engaged with field work in their case-study palikas since the autumn, getting to know residents and local government officials and building relationships and awareness of what we are trying to do. This gives us an excellent base from which to build. Katie and Amy, along with other members of the WP1 team, have been working closely with the RAs, and there are plans for further collaborative visits this year in May and September. Alex Dunant and I will soon be travelling to Kathmandu to work with Prem, Sweata, Bronwyn, and Ragindra in discussing the earthquake and monsoon Emergency Response Preparedness Plans with the humanitarian clusters. We have planned a series of focus groups that should help us to better understand the information that the clusters use in contingency planning, as well as the decision-making that occurs before and after a major hazard event. Finally, Mark, Nick, and I have been discussing plans to install equipment to monitor rainfall, soil moisture, and slope stability at a number of sites across Nepal – both to supplement existing information collected by DHM, to feed into work that Sihan is doing on understanding runoff, and to help build a better understanding of the link between rainfall and landslide occurrence in different settings.

More widely, Tom has been working with colleagues at UNDP on the ECHO-funded SUPER project, using our existing earthquake scenario ensembles to help support planning for earthquake response in urban municipalities in western Nepal. As we expand and refine our scenario ensembles in WP2 and 3, it should be possible to feed directly into the work of the SUPER project.

I also want to use this opportunity to welcome two new colleagues to the project. Gopi Krishna Basyal is based at NSET and brings a wealth of expertise on local perspectives on landslide hazard and risk; we are very fortunate to be able to work with him. Dammar Singh Pujara also joins us from NSET, working as one of the RAs on multi-hazard inventory creation in WP1.

Finally, I want to draw everyone’s attention to some upcoming events. Remember that we have funds in the project for conference travel; if you have any questions about this, please let me know.

* The Asia-Pacific Ministerial Conference on Disaster Risk Reduction is happening in September 2022 in Brisbane, Australia. This year’s conference is particularly relevant because it coincides with the mid-term review of the Sendai Framework. Takeshi Komino has very helpfully highlighted some areas where Sajag-Nepal could make a contribution, and we will consider these at our next team meeting in April.
* Katie, Amy, Jonathan, Marcus, Mark, and Nick have organised a session at the Royal Geographical Society Annual Conference in Newcastle, also in September 2022, focusing on plural environments and the interdisciplinary study of disaster.
* Sara and Amy are planning a roundtable session at the upcoming Himalayan Studies Conference in Toronto in October 2022. It would be great to get involvement from team members across the project, especially those beyond WP1. The submission deadline is 10 April, so if you are interested in participating please contact Sara as soon as possible.

Alex Densmore

**Updates from the Work Packages**

**Work Package 1**

Katie and Amy have recently returned from Nepal. They were working with the Social Science Baha RAs on their next phase of fieldwork, which will continue up until mid-April. Sara and Amy are also planning follow-up work in May. The initial focus will be on the ethnographic work, and by August, Anudeep will be attending a workshop by Photocircle, who will provide training in visual methods which will be used in the roadshow and other engagement activities. It is anticipated that it will help us to build relationships by using a variety of communication methods.

WP1 will also be continuing to work with BBC Media Action and using the ethnographic work to develop stories that can inform the planned radio programming. There is a lot of interest amongst the team in bringing together palikas, political leaders, community members and academics, along with other interested parties. The aim on the wider work in WP1 is to Integrate knowledge of hazard and change by understanding the local knowledge and using 3D mapping to demonstrate this.

Concurrently, Mark has been working with the NSET RAs to develop automated techniques for hazard mapping. After reviewing and testing a number of existing approaches, they have developed a workflow using Google Earth Engine, and they’re in the process of developing a dataset to use for validation. They have also done a tremendous amount of work to compile 117 pre-existing landslide inventories – this alone is a really useful resource that can be made available to NDRRMA and the wider community. Finally, there is ongoing analysis of damaging landslides over the last few years, as well as development of a national-scale landslide susceptibility and risk model.

The team on WP1 have planned outputs that cut across five themes: local knowledge & environment (considering locations of religious importance, which influences for example where we might seek to locate monitoring equipment), exposure & vulnerability, governance, geopolitics, and hydropower. Each RA will lead a paper on a theme that is emerging from their palika. The team have also been thinking about activities that cut across the work package based on key themes such as slope monitoring and equipment placement in time for this monsoon season.

**Work Packages 2 and 3**

Alex Dunant and Sweata have worked closely with Prem, Bronwyn, and Ragindra at the RCO to develop plans for a first round of workshops with the humanitarian clusters. These workshops will take place 11-13 April and are aimed at mapping out the processes and needs of each cluster in preparing their emergency plans, and to understand the decisions that are taken as the plans are developed. Alex Dunant will use this information to inform and tailor multi-hazard earthquake and monsoon scenario ensembles. Later in the year the team are planning further conversations over the ensembles and discussions around what clusters want and need to develop. Sweata has started to think about developing an output that is focused on the decisions that are made by clusters as part of the planning process

Alex Dunant has been attempting to replicate the 2015 Gorkha earthquake impacts in order to validate the multi-hazard model methodology. Current outputs show good predictability down to the individual building, and this will serve as the basis for an initial manuscript on multi-hazard modelling. The model is expected to contribute to preparedness planning by expanding on the existing earthquake ensemble to predict likely multi-hazard scenarios in response to different trigger events – but within the same common framework.

The team is also starting to examine the population and mobility data that are available through the Facebook Data for Good collaboration. An MSc student at Durham will be starting to explore the mobility data that are already available. There have been some initial discussions with colleagues on WP1 about how to add more nuance to the Facebook data, and this will become more clear once we have a better understanding of what those data can actually show us.

Finally, Sihan has been looking at landslides recorded in the Bipad portal and trying to link their occurrence with precipitation, soil moisture, and local factors such as topography, vegetation, and infrastructure. She has been able to showed that increased numbers of landslides since 2015 do not correlate with various metrics of precipitation. An important aspect of the precipitation patterns is that the 7 day running mean looks very much like the long-term (1981-2010) seasonal mean, in terms of spatial pattern. This means that small-scale variations in rainfall in individual storms are averaged out over time scales of a week or longer, which is really useful for thinking about the time scale at which we might anticipate landslide occurrence. She is also looking at what weather regimes lead to days with landsliding – noting that landslides in the Bipad dataset are concentrated on specific days/tend to co-occur with each other.

**Work Package 4**

We’ve temporarily paused work on WP4, which builds on the work from WP1-3. Elements of this work package will start to move forward later this year, in collaboration with the NDRRMA and IFRC.

**Research ethics**

The Sajag-Nepal project has undergone ethical review at Durham University and we have received approval to begin the research. A copy of the documentation (including a project risk assessment) is available via [OneDrive](https://durhamuniversity-my.sharepoint.com/:f:/r/personal/vqnv83_durham_ac_uk/Documents/Sajag-Nepal%20Project/Ethics/Ethics%20%E2%80%93%20Approved%20October%202021?csf=1&web=1&e=0CDhvh) for the team to access. As previously discussed, this is very much a live document and work package leads will be responsible for updating and resubmitting amendments as required, and as the research evolves. A big thank you to everyone who fed into this process. Any questions, please contact Katie: [katie.oven@northumbria.ac.uk](mailto:katie.oven@northumbria.ac.uk)

**Social media**

Sajag-Nepal is active on Twitter (@SajagNepal) and our project website ([www.sajag-nepal.org](http://www.sajag-nepal.org)) is currently in development. We also feature on the recently relaunched Radix website ([Radix: Radical Interpretations of Disasters](https://www.radixonline.org/news-and-events)), as an example of a project with its own ethical guidelines which build on the principles of the [Disaster Studies Manifesto: Power, Prestige and Forgotten Values](https://www.radixonline.org/manifesto-accord).

Alex Dunant has started a project Slack platform and several team members are active on Slack – if you are interested in exploring this as a way to communicate across the project, please contact Alex directly ([alexandre.dunant@dur.ac.uk](mailto:alexandre.dunant@dur.ac.uk)).

We are trialling a move from Google Drive to OneDrive for general project materials and information. We have started this with materials for our monthly team meetings, and if there are no access issues then we will extend this to other documents as well. Please contact Rachel if you have any questions or concerns.

Project communication guidelines have been developed with input from the WP leads, with guidance for good practice and things to consider when communicating about the project. This is available on the project OneDrive and Google Drive. We will continue to update and refine this, so please send any suggestions to Rachel.

**Recent publications**

If you have recently published a paper or other output that is relevant to Sajag-Nepal, please send the details to Rachel and we will list them here for the team to see. Please include the DOI and a link to any open-access version, if possible.