

Active tectonics and paleoseismology of the Himalayan front in the Kangra–Dharmshala area

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Along the Himalayan front in India, the giant earthquakes from the plate-boundary megathrust and the hanging-wall intra-plate earthquakes just north of the boundary are significant threat to the great population and industries. Recent economic growth of India has raised the vulnerability of the region much higher, but there is not enough information to prepare for earthquake hazards. It is due to the lack of historic and geologic information on past earthquakes. In order to improve the preparedness and to reduce hazards from the earthquakes along the Himalayan front, we have been collecting information on past earthquakes in the region. In 2010–2015, the research is carried out within a research project of the SATREPS: Science and Technology Research Partnership for Sustainable Development by the Japan Science and Technology Agency (JST) and the Japan International Cooperation Agency (JICA). The project titled "Information Network for Natural Disaster Mitigation and Recovery" aims at better preparedness and emergency response for severe natural hazards in India. Indian Institute of Technology at Kanpur, Tokyo University, and Hiroshima University jointly carried out the study on active tectonics and paleoseismology of the region. In 2010 and 2011 we conducted survey in Kangra–Dharmshala area, Pinjaur area, Hajipur area, and Ramnagar area. In the Kangra–Dharmshala area, a newly found active fault, Kangra Valley fault was surveyed into details using RTK-GPS and GPR. The results will be reported together with the results from trenching in March, 2012.

Keywords: paleoseismology, active fault, India, Himalay, trenching