Measurement of landslide deformation velocity at Jure in Sunkoshi River Wateshed, Nepal using LiCSBAS

*Hiroshi, P. Sato¹

1. College of Humanities and Sciences, Nihon University

Jure landslide at the west side slope of Sunkoshi river occurred on 2 Aug 2014, 70 km E away from Kathmandu. And now the denuded slope surface appears on the ground. Ao et al. (2020) has already reported that deformation at the speed of -100 mm/yr along LoS in Jure landslide using time-series analysis on C-band Sentinel-1 SAR data. Anyway, Morishita et al. (2020) provided the free analysis tool of 100-m-resolution "LiCSBAS" using the Sentinel-1 SAR data. This study found the result of LoS change of -28 mm/yr at the source site (27.77128°N, 85.866°E) of the landslide using this tool, as analyzing the SAR data measured from 7 Oct 2017 to 8 Sep 2018.

Acknowledgement

This study was supported by KAKEN 18KK0027.

References

Ao et al., 2020: Characterizing the evolution life cycle of the Sunkoshi landslide in Nepal with multi-source SAR data. Nature Scientific Report, 10: 17988.

Morishita et al., 2020: LiCSBAS: An Open-source InSAR time series analysis package integrated with the LiCSAR Automated Sentinel-1 InSAR Processor. Remote Sensing, 12: 424.

Keywords: LiCSBAS, Sentinel-1, Nepal, landslide

