Kathmandu-Kyirong highway, forced to bear recurrent mass failures, is currently the most important Sino-Nepal land route that built in difficult terrain of high tectonic belt, and extreme weather and climate system. Besides, young and weak geological settings and ongoing developmental activities further increase the frequency of landslide hazard. This route is also under the plan of upgrading not only as a high grade highway but also a strategic transboundary railway line. We mapped mass failure events of fifteen years (2004 to 2018) using multi-temporal high resolution satellite images and field investigation to analyze characteristics of landslides. Key informant interview (40), focus group discussion (5) and questionnaire survey (296) were done amongst residents of 8 on-road towns for the societal impact assessment. Four thousands five hundred and seventy seven landslides (31.68 km²) were mapped within the transportation corridor of 1682.5 km². Mass failures of continuous activation for different time periods were of 6.3 km² area. The density of landslides is high in late Paleozoic and pre-Cambrian lithological formations. Landslide occurrences were increased with incremental slope and relative relief. In steep slopes rock falls were dominant. Southern slopes that receive more solar radiation and rainfall have more mass failures. Most of the landslide events occurred in grassland, bushes and barren land. The runout that reached to the river system was 0.5% of the total failures. Stream proximity has shown reverse relation with land sliding, whereas distance from road has positive relation. It happened because most of the roads are in urban and sub-urban areas of flat landscape with few connections to mountainous belt. The epicenter proximity has also shown negative relationship with slope failures. Pre and post-quake events were increased with annual normal rainfall amount up to 3,000mm. Then slope failure started decreasing. In case of co-seismic landslides of 2015 Gorkha Nepal earthquake, the rainfall has negative influence because the earthquake event itself had occurred before the monsoon begun. Six major sectors – mobility of people, transportation of goods, health and education facilities, price hike and shortage of goods, tourism or other business loss, and agriculture production and market access were identified as the most influenced sectors when road blocked by mass failures. Effect on agriculture production and market access is major in Ramche, Grang-Mulkharka and Mahadevbensi and
reduction of tourists flow is dominant in Dhunche and Syabrubensi towns. Responders considered the constantly road blocking landslides in the past, co-seismic mass failures of 2015 tremor and landslides of 2018 while evaluating the impacts. Because of annual cycle of concentrated landslide incidences, town dwellers have developed a coping mechanism for road blockage time which includes operation of one way vehicles to avoid damaged area, carry goods by foot from nearby markets, mentally prepare themselves for daily mobility by walking, keep stock of goods, and proper savings for buying expensive stuffs in local shops during road blockage.