

Figure S1: The differences between a simulation run with the baffle opening in 3500s (left) vs. an opening time of 3000s (right). The larger volume coupled with the shorter opening time does not lead to a significantly different simulation result (see orange circles). Both simulation results are depicted in ParaView 5.8.1.

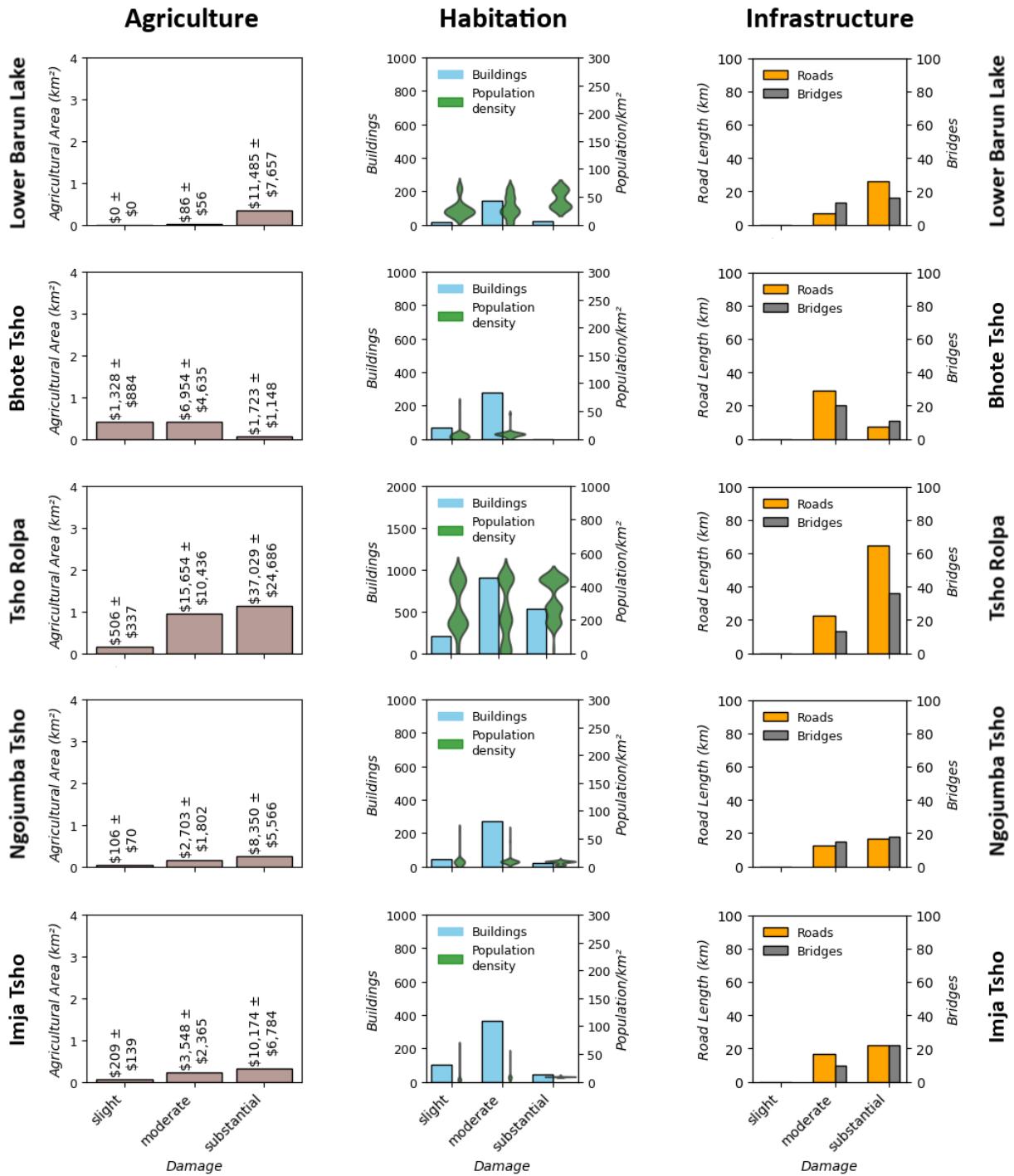


Figure S2: Downstream impact of a low-magnitude GLOF in 2040 under the SSP2 scenario. The potential damage is based on depth-damage curves (Huizinga et al., 2017; Chen et al., 2022), the financial impact is based on lower and upper cost per m² of agricultural land in this region (Huizinga et al., 2017), and the population forecasts are provided by Wang et al. (2024). Note the different scale of the Y-axes in the habitation plot for Tsho Rolpa.