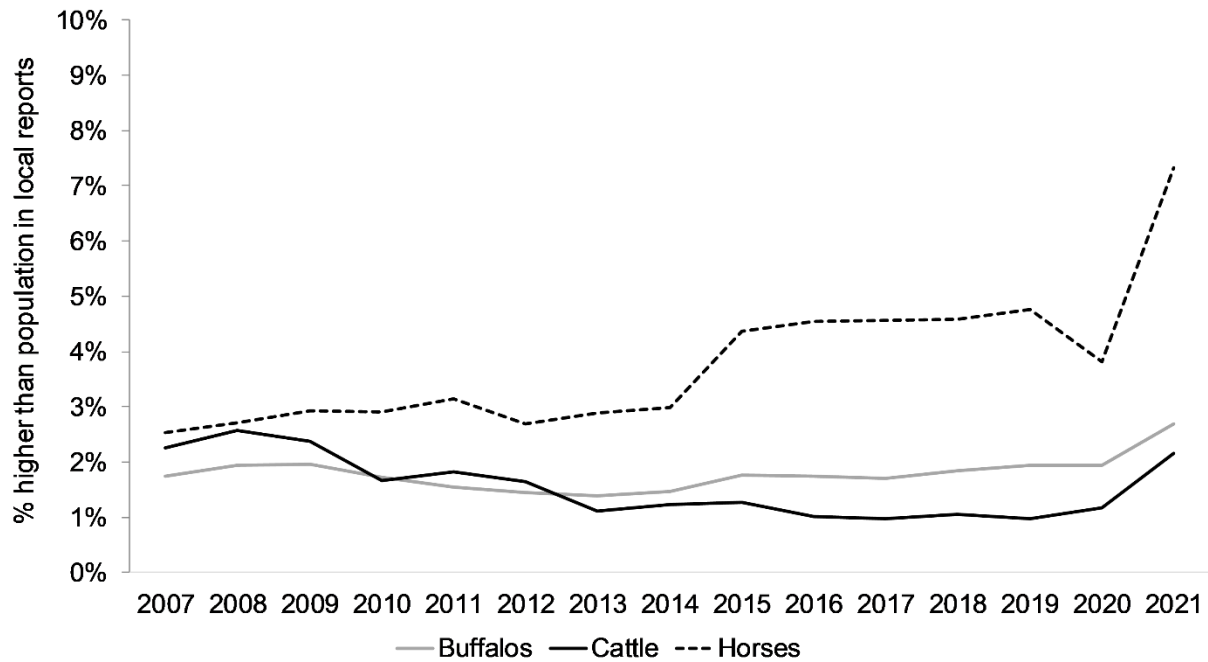
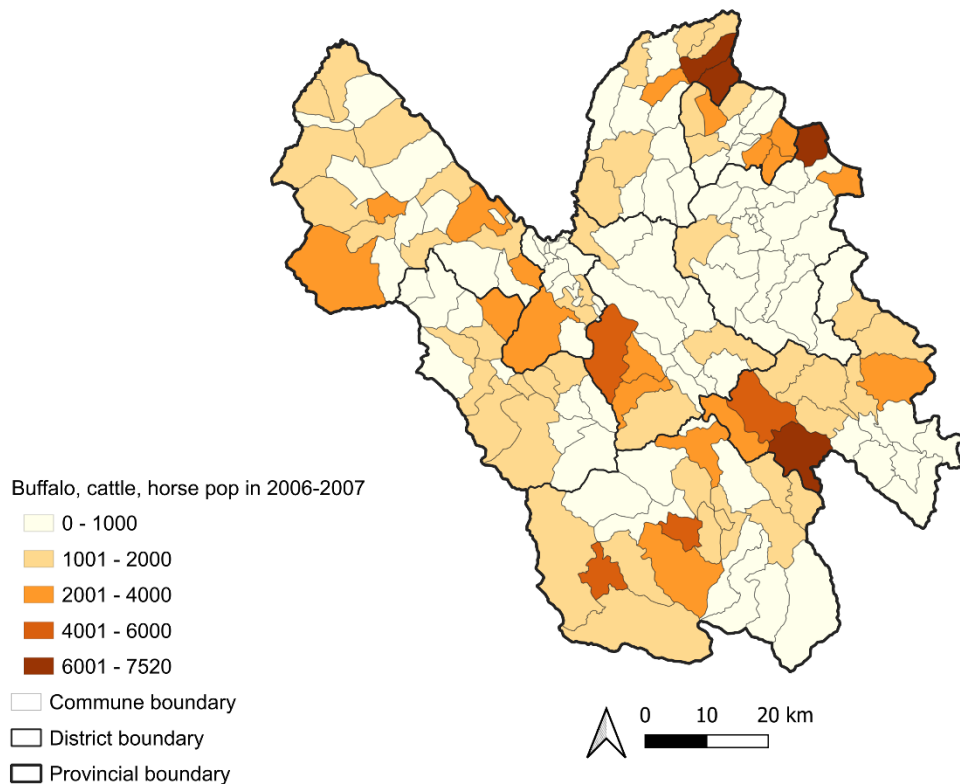


## Supplementary materials

### Spatial clusters of human and livestock anthrax urge local agencies to revisit high-risk areas in Lao Cai Province, Vietnam (1991-2022)



**Figure S1.** Difference between zonal estimated populations and local agencies' data (2007-2021) for Lao Cai Province, Vietnam. The percentage of difference indicates that populations estimated by zonal statistics are reasonably higher than in local reports.



**Figure S2.** Spatial distribution of the livestock population (buffalo, cattle, and horses) in Lao Cai Province, Vietnam in the median year (average of 2006 and 2007). The annual populations of each species were estimated by the Zonal statistic routine function of QGIS, using gridded cattle population count in 2006 (resolution one km<sup>2</sup> at the equator) from the Livestock Geo-Wiki website (<https://geo-wiki.org>) and the annual growth rates provided by the Provincial Sub-Department of Animal Health. The method for livestock population estimation is described in the Materials and Methods section of the paper.