**S3** **Table. Summary of variables used in risk analysis**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  Variable |  Coverage of original data | Format of original data  | Interpretation of original data values  | Resolution of original data | Data (reformatted) | Source |
| Chicken density (extensive farms) |  World |  Raster | Birds per km2 | 1km  | Continuous | **[1]** |
| Chicken density (intensive farms) |  World |  Raster | Birds per km2 | 1km  | Continuous | **[1]** |
| Human population density |  China |  Raster | Average/ ambient human population distribution | 30 arc-seconds (~ 1km)  | Continuous | **LandScan (2014)™** |
| SDM 3-4 | China | Raster | Probability of H5N1 or H7N9 presence | 30 arc-seconds (~ 1km)  | Continuous | Created in this study |

1. Robinson TP, Wint GR, Conchedda G, Van Boeckel TP, Ercoli V, Palamara E, et al. (2014) Mapping the global distribution of livestock. PLoS One 9: e96084.