Supplementary Materials

**Table 1**

Corrected 2000 carbon densities for each land use/cover type used in the InVEST model.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Land use/cover types | Regional carbon density (Mg/ha) | | | |
| Aboveground carbon density | Belowground carbon density | Soil organic carbon density | Dead organic matter carbon density |
| Cropland | 1.13 | 80.70 | 68.68 | 0 |
| Woodland | 8.43 | 115.90 | 88.73 | 7.8 |
| Grassland | 7.46 | 86.50 | 76.04 | 0 |
| Water | 0 | 0 | 11.46 | 0 |
| Built-up land | 0.50 | 0 | 63.85 | 0 |
| Unused land | 0.26 | 0 | 25.70 | 0 |

**Table 2**

Corrected 2010 carbon densities for each land use/cover type used in the InVEST model.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Land use/cover types | Regional carbon density (Mg/ha) | | | |
| Aboveground carbon density | Belowground carbon density | Soil organic carbon density | Dead organic matter carbon density |
| Cropland | 1.43 | 80.70 | 71.11 | 0 |
| Woodland | 10.60 | 115.90 | 91.88 | 7.8 |
| Grassland | 9.38 | 86.50 | 78.74 | 0 |
| Water | 0.00 | 0.00 | 11.87 | 0 |
| Built-up land | 0.63 | 0.00 | 66.11 | 0 |
| Unused land | 0.33 | 0.00 | 26.62 | 0 |

**Table 3**

Corrected 2020 carbon densities for each land use/cover type used in the InVEST model.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Land use/cover types | Regional carbon density (Mg/ha) | | | |
| Aboveground carbon density | Belowground carbon density | Soil organic carbon density | Dead organic matter carbon density |
| Cropland | 1.95 | 80.70 | 74.00 | 0 |
| Woodland | 14.51 | 115.90 | 95.61 | 7.8 |
| Grassland | 12.83 | 86.50 | 81.94 | 0 |
| Water | 0.00 | 0.00 | 12.35 | 0 |
| Built-up land | 0.86 | 0.00 | 68.80 | 0 |
| Unused land | 0.45 | 0.00 | 27.70 | 0 |

**Table 4**

Attributes of threat data.

|  |  |  |  |
| --- | --- | --- | --- |
| Threats | Maximum effective distance(km) | Weight | Decay types |
| Non-irrigated arable land | 6 | 0.6 | linear |
| Urban land use | 10 | 1 | exponential |
| Rural settlements | 5 | 0.8 | exponential |
| Other construction land | 1 | 0.5 | exponential |
| Sandy land | 10 | 0.3 | exponential |

**Table 5**

Sensitivity of different land use/cover types to different threat factors.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Land use/cover types | Habitat | Threats | | | | |
| Non-irrigated arable land | Urban land use | Rural settlements | Other construction land | Sandy land |
| Cropland | 0.4 | 0 | 0.8 | 0.7 | 0.7 | 0.4 |
| Woodland | 0.8 | 0.5 | 0.8 | 0.6 | 0.7 | 0.1 |
| Grass land | 0.6 | 0.4 | 0.5 | 0.4 | 0.4 | 0.4 |
| Water | 0.9 | 0.5 | 0.6 | 0.4 | 0.6 | 0.8 |
| Built-up land | 0 | 0 | 0 | 0 | 0 | 0 |
| Unused land | 0 | 0 | 0 | 0 | 0 | 0 |