Extended data 2. Protected area as fraction of land area per GCAM land unit. The four land protection cases are a) current, b) uniform 30% by country, c) biodiversity conservation away from current land use, and d) minimum area to safeguard biodiversity.

Extended data 3. GCAM land availability as percent of convertible land per GCAM land unit. GCAM available land is the suitable, unprotected area of unmanaged forest, grassland, and shrubland. The four land protection cases are a) current, b) uniform 30% by country, c) biodiversity conservation away from current land use, d) minimum area to safeguard biodiversity.

Extended data 5. Protected land conversion pressure relative to unmanaged land for (b-d) reference and (f-h) low carbon transition scenarios across the four protection cases, normalized by the respective CURRENT case. These values are derived from those in Figure 4 by dividing each future protection case by the respective CURRENT case. Values represent individual land types within individual land units. The horizontal line is the median, the box represents the interquartile range, and the whiskers represent 1.5 times the interquartile range. The outliers are not shown.

Extended data 6. Percent of protected area lost when allowing protected area to be converted, by scenario.

Extended data 7. Relationship between protected land conversion pressure and suitable, protected area relative to managed area at the global level, for the low carbon transition BIODIV scenario (2015-2100).

Extended data 8. GCAM global land allocation for the low carbon transition scenarios with different land protections.