**Appendix A: Modelling the spatial property distributions**

To allocate the land parcels to the agents, I first sample for each agent *m*  {1, …, *M*} a land parcel from the set *i*  {1, …, *N*} as their central property (“farmhouse”), indexed by *Im*, with coordinates (*xI*, *yI*). Then, I allocate the remaining land parcels to the agents so that land parcels close to the central land parcel of some agent are likely (but not certainly) in that agent’s ownership, while land parcels further away are less likely to be owned by the agent. To model this dependency, the probability of another land parcel *j* (not included in the set of central properties), belonging to some agent *m* is given by

 , (1)

where *d*(*j*, *Im*) is the Euclidean distance between land parcel *j* and central land parcel *Im*, and measures how fast the probability *pjm* declines with increasing distance *d*(*j*, *Im*).

After the *pjm* has been calculated for all pairs (*m*, *j*), they are, for each land parcel, normalised to a sum of one. From the distribution formed by these probabilities, for each land parcel, the ownership (*m*) is sampled. A large “landholding cohesion parameter” *a* implies a clustering of the land parcels around their respective central land parcel, while *a* = 0 implies that the ownership *Oi* of land parcel *i* is completely random in space. The outcomes of this procedure are these ownerships *Oi* (with *Oi*  {1, …, *M*}) for all land parcels *i*  {1, …, *N*}.

**Appendix B: Choice of model parameter values**

Given the normal distribution of the conservation costs (and identifying the conservation percentages 2.5%, 7%, 16%, 31%, and 50% considered in section 2.3 as quantiles), the associated payment levels are 1 – 2*s*, 1 – 1.5*s*, 1 – *s*, 1 – 0.5*s,* and 1.

The values of the other model parameters are chosen with the following arguments. As argued by Drechsler and Grimm (in press), the impact of the bonus *b* is proportional to the magnitude of the cost variation *s*, so that for *s* = 0.1 a bonus of size 0.05 has, ceteris paribus, the same effect as a bonus of 0.1 in the case of *s* = 0.2. Thus, for convenience and reasons of better comparability, I scale the bonus in units of *s*. As Drechsler and Grimm (in press) show, a bonus of size 0.5*s* generally leads to a rather high level of spatial agglomeration. In the present analysis, I consider the three levels given in Table 3.

**Appendix C: Results for N = 88 = 64 land parcels**

A graph of a number of lancing

Description automatically generated with medium confidenceFigure C1: Proportion *q* and spatial agglomeration *g* of conserved land parcels (panels a and b) and ecological benefit *V* (panel c) as functions of the number of model agents *M*, for a given conservation budget *B*. Shown for the five different budget levels of Table 2 (increasing from bottom to top). Model parameters as defined for the base scenario of Table 3, with a large bonus of *b* = 0.5*s*. The number of land parcels is *N* = 66 = 36.

A graph with lines and numbers

Description automatically generatedFigure C2: Relative influence r (eq. 8) of the number of landowners *M* on the proportion and spatial agglomeration *g* of conserved land parcels (panels a and b) and the ecological benefit *V* (cost-effectiveness, panel c) for five different scenarios. Since the dependence of *r* on the budget *B* differs between scenarios (and no unique pattern can be detected such that *r* always increases or decreases with increasing B) the mean (solid line) and the “range” (mean plus/minus one standard deviation: dashed lines) of *r* over the five budget levels is shown.

A graph with red and green lines

Description automatically generated

Figure C3: Ecological benefit *V* (level of cost-effectiveness) as a function of the number of landowners *M*. The colours represent the bonus level *b*. The three panels show, from left to right, the results for the smallest, medium, and largest budgets, i.e., levels 1, 3, and 5 of Table 2. The model parameters *s*, *l*, *a,* and *b* are set at their baseline values (Scenario 1 in Table 3).