

## **Supplementary material**

The main estimates in the report rely on within-subdistrict (uzla) estimates. An alternative strategy is to estimate household fixed effects models. Appendix A, table A.5 in the main text provides these estimates, which depend solely on the within-household difference across survey rounds. One motivation for not using the household fixed effects as a default is that, among less than 5 per cent of the sample, land use data are missing in one round, but not the other. It is possible that the missing land use data represent true zeros. If that is the case, differencing would exclude these households entirely and, hence, likely underestimate changes across rounds. The other extreme, assuming all missing data are true zeros, would likely overestimate changes across rounds if some data are truly missing at random. The aggregated within-subdistrict estimates in the main report provide a compromise approach, which is appropriate for the more likely case that only a minority share of the changes represent true changes. Furthermore, this solution also preserves power. However, given the small share of the sample affected by this issue, it is unsurprising that the changes make little substantive difference.