Supplementary Table 1. Summary of sampling frame methodologies.

#	Sampling Frame Method	Quality	Disadvantages
1.	Household Census: • Map and list every HH in selected area. • Select a simple random sample from HH list.	Gold Standard high quality data	Costly: in terms of time and personnel
2.	LandScan™ Population: • Use population counts and recent DHS to estimate # of HHs • Select grid based on estimated # of HHs	LandScan™ data is updated yearly and is available worldwide.	Does not address field level of how to select specific HHs. Produces 1 value per grid cell; survey team must still identify HHs and select.
3.	Digitization method: • Use high resolution imagery to manually digitize all structures (add a point) >3 m^2 • Use past surveys to estimate proportion of structures that are HHs. Use DHS to calculate population	Unknown – medium This is what is under evaluation for the future (to reduce cost and save time)	Requires imagery which has a cost to acquire. Requires advance time and training to digitize structures. If known, method assisted by % of structures that are HHs
4.	Census enumeration areas: • Total population, number of structures, and number of HHs per small area • Select EAs, then multiple ways to select HHs (census and simple random sample; skipping interval; segmentation)	Variable – reliability decreases with age of census. Error may be introduced by teams during HH selection. This is what most people do now.	Census enumeration area limits often available at a cost or not digitally. Relies often on data 10+ years old.