

Social science methods and tools for working with communities: Household Surveys

Craig Leisher, Central Science

30 November 2011

Why do a household survey? It is both quantitative and authoritative. For measuring the impacts on a community from a conservation initiative this is the premier tool.

When should I not do a household survey? If you need results in weeks, don't do a household survey because it takes several months. If the population size in the area of interest is under 100 households, it is faster and cheaper to use focus group discussions and key informant interviews to collect information. If there has recently been a household survey in the area of interest, don't do another household survey or it will suffer from local survey fatigue.

How do I select the survey sample size? Generally, one needs between 300 and 500 households in the survey. To determine exactly how many are needed, calculate the "anticipated prevalence rate". Ask me (cleisher@tnc.org) for the Excel file and an explanation of this. A survey needs to be a random sample to be valid (or cover all the households). If household lists are available, update them and use a random number chart to pick the survey households. If lists are not available, a random sample can also be done geographically.

What should I compare in the survey? The gold standard is BACI: Before, After, Control, Impact. This compares before and after as well as impact areas with control areas. It gives both changes over time (before-after) and changes at the same point in time (control-impact). If there are no baseline data, then before-after comparisons has to rely on local people's recall which can be fickle. The control-impact comparison depends on the choice of control sites.

How should I choose control sites? Controls need to be matched using key criteria. The matching criteria need to be localized to fit the expected drivers of changes but generally include ecological criteria (e.g., rainfall, elevation, and soil types) and socioeconomic criteria (e.g., governance structure, distance to nearest major market, and income levels). The matching should be done using data from *before* the impact being measured. In practice, there are rarely perfectly matched control groups, so controls are more accurately "pseudo controls". Find the best match based on the normative criteria. Pay particular attention to activities by other organizations in control sites. These can skew the results dramatically.

How should I design the survey questionnaire? Don't start with a blank sheet of paper. Look at other surveys and borrow questions from them. Questions that are already tested save much time. If you want to measure large-scale changes, yes-no-don't know answers to questions are fine. If you want to measure smaller-scale changes, use five gradations anchored by "strongly agree" and "strongly disagree" (Likert style). Questionnaires should be pre-tested twice with at least a dozen households in the impact area. Limit yourself to what you need to know. Questionnaires easily become very long if you include what might be interesting to know as well. Include a reminder on the questionnaire for enumerators to explain how the data will be used, that the data are anonymous and confidential, and how long the interview will take before asking for a participant's consent to be interviewed.

How big should the survey team be? One enumerator can survey an average of five households a day with an 45-minute questionnaire if the households are reasonably close together. A team of four to six

enumerators is ideal. Most household surveys take two to three weeks to conduct. Have a full-time study supervisor and data entry person on the team. The supervisor solves problems as they arise and does spot quality checks. The data entry person inputs the completed questionnaires after each day of surveying to identify data collection problems quickly.

What does a household survey cost? The survey itself cost from \$20,000 to \$60,000, with transport and enumerators being the biggest expenses. Data analysis is a specialized skill and costs between \$5,000 and \$20,000 for the expert's time depending on the amount of the data, how much data cleaning is needed, and what kind of comparisons are requested.

Resources

BEST SINGLE SOURCE >>> Angelsen A, Larsen HO, Lund JF, Smith-Hall C, & Wunder S (eds.) (2011) Measuring livelihoods and environmental dependence: Methods for research and fieldwork. Earthscan Edinburgh, UK 240p

Creswell, JW (2008) Research design: Qualitative, quantitative, and mixed approaches. Sage, Thousand Oaks, CA. 3rd ed.296p.

Magnani R (1997) Sampling guide. Food and Nutrition Technical Assistance Project, cooperative agreement no .HRN-A-00-98-00046 Academy for Educational Development, Washington, D.C., USA.
<http://www.ais.up.ac.za/health/blocks/tnm800/EssentialTNM800/DayThree/ExtraSampling/SamplingGuide.pdf>

Underwood AJ(1994) On beyond BACI: sampling designs that might reliably detect environmental disturbances. Ecological Applications 4:3–15.
http://people.stfx.ca/rscrosat/biology384/Underwood_94.pdf

Vaccaro, SmithEA, Aswani S (eds) (2010) Environmental Social Sciences: Methods and Research Design. Cambridge University Press, UK 396p.