**BAKKEGAARD, RIYONG** [S6-P25]

*Measuring the contribution of forests in household surveys: A case from Indonesia*
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The important role of forests and environmental products in rural livelihoods was highlighted in a recent global comparative study that showed how forest and environmental income accounts for 28.5% of total household income, close to that of crop income. Given the importance of forest resources to the well-being of rural populations in many countries, it is a major shortcoming that such household level data is not currently being collected in nationally representative surveys. There is a clear need, therefore, to develop appropriate survey instruments that can be used for the systematic capture of data on forest and wild product use amongst populations so that welfare contributions from these sources are adequately represented in GDP and poverty measurements, and to provide data to inform how decisions and policies are made.

The Living Standards Measurement Survey (LSMS) provides an obvious entry point to systematizing the capture of such data, and as a result a consortium of forest research organizations* has initiated the development of a specialized forestry module that is designed to be used in conjunction with the World Bank LSMS surveys or as a basic stand-alone survey to measure the contribution of forests and wild products, as well as the associated ecosystem service benefits and adaptation benefits of foreststo household welfare.

The specialized forestry module was pilot tested as a stand-alone survey in February 2015 in 120 households from four villages along a development and forest-use gradient on a river in the Indonesian province of West Kalimantan. A five-level Likert scale was used by the enumerators to systematically record their observations and impressions about the individual survey questions, with the results used to quantitatively evaluate the structure and flow of the interview, the time taken to complete individual survey modules (and total interview length), to identify questions that were problematic for the enumerators to deliver or for the respondents to understand.

Results

During the pilot testing, we simultaneously applied a rigorous assessment of the survey instrument to help pin-point problems with the survey. Often, the sequence of questions, which attempted to maximize the flow of the interview through connecting different sections, were instead found to hamper the interview process. Most questions were readily understood, however some of the questions involving complex concepts such as ecosystem services and climate change were difficult and time consuming to deliver. Often, The concept of 'ecosystem services' and related terms were new for the majority of the respondents, and even after being carefully explained, comprehension was still lacking. Such issues found during the pilot test are not uncommon to household surveys in general, yet given the breadth of aspects that need to be considered in when measuring contributions of forest and wild product use in the household, alternative innovative methods to improve surveys or to better collect data on complex issues needs to be explored, and could improve the way that nationally representative surveys are implemented, and the quality of the data they provide.

* FAO, PROFOR, CIFOR, IFRI and the World Bank LSMS-ISA team.