Researchers propose better way to invest in the SDGs

July 9 2015

The Agroforestry and Forestry in Sulawesi (AgFor Sulawesi) project aims to improve rural livelihoods by raising on-farm productivity, encouraging better environmental management, and improving governance. The initial focus has been on South and Southeast Sulawesi, two provinces which suffer from high levels of poverty and still possess significant tracts of natural forest. So far, several thousand people have benefited from training sessions on marketing, establishing demonstration trials, participatory governance and development of land-use models. Credit: Yusuf Ahmad/ICRAF

In a recent article in *Nature*, Keith Shepherd and the Land Health Decisions team at the World Agroforestry Centre (ICRAF), together with their external partners, propose a radically new method to the SDG community that would answer these questions. They call on the United Nations and private sector to dispense with the highly criticized target setting approach and adopt the new method of decision analysis.

The target setting approach is widely seen as ineffective or counter-productive. Targeting emphasizes meeting a 'target' rather than learning how to improve performance and solve a problem. For example, 50% of women may be members of parliament but only a handful speak at meetings.

Target setting can incentivize mis-reporting information in order to meet the target. For example, incidents of crime may go unreported if the goal is to reduce crime incidents. And last but not least, it's an incredibly expensive endeavor to monitor and collect data.

An alternative to target setting

In an effort to avoid spending precious funds on another round of target setting and monitoring for the SDGs, Shepherd and team propose a new solution: decision analysis concepts and tools.

"In a way it's like putting up a whole new learning system rather then setting up a group of targets," says Shepherd. "Using decision analysis is about supporting people to make better decisions and better choices. We need to work on gathering the right information needed to improve decision making on the ground. We have the tools to do that now."

Decision analysis is not a new concept for everyone. It turns out that we

humans aren't as good as we thought at choosing indicators that can actually improve decisions. A number of sectors have already caught on and have been using decision analysis for decades, including mining, oil, insurance, and cybersecurity, according to Shepherd.

"An analysis of more than 80 models from a variety of decisions and industries reveals that managers tend to choose to measure variables that are unlikely to improve decisions while ignoring more useful ones."

So how do we identify the more useful indicators? The premise rests on pinpointing critical uncertainties in the real decisions facing stakeholders and working to reduce these uncertainties.

In the *Nature* article, Shepherd and colleagues propose five key principles towards implementing a decision analysis approach:

1. Replace targets with measures of return on investment

With limited development dollars, decision makers should understand how to maximize the impact of investments. We should be asking and answering questions such as, "were the environmental benefits and reduction of poverty enough to justify the allocation of limited funds?"

Decision makers should be using economic models that project long-term costs, benefits and risks of intervention options and help choose the best combination of interventions for achieving the desired set of development goals.

2. Model intervention decisions

According to an ICRAF study conducted in 2013, only 15% of stakeholders in African agriculture surveyed "were able to articulate how acquiring data would reduce a critical uncertainty to enable a decision."

Gathering data for the sake of data will be of little use in achieving the SDGs. Instead of creating indicators first, the SDG community should define which policies, programs or actions it is considering and then use decision analysis to identify what additional data will be useful to improve choices and track outcomes, quite similar to quantifying a theory of change in terms of expected impacts.

3. Integrate expert knowledge

Expert knowledge can help fill gaps where data is sparse. Experts often have a sound understanding of the realistic ranges that certain variables, such as the risk of drought or the future price of carbon, can take on. They also have a good feeling for how interventions work on the ground.

Research in support of development should make use of this vast source of knowledge, rather than restricting itself to new data that rarely allow much insight into cause-and-effect scenarios or provide much support for intervention decisions.

4. Include uncertainty in modeling activities

Anyone who follows climate conversations will be familiar with the concept of modeling future climate scenarios based on a number of factors including carbon emissions. Models are used to predict many other changes including crop growth, disease spread, and others. However, what they aren't very good at is including social and behavioral factors, and representing the levels of uncertainty of current knowledge, which decision analysis tools such as Monte Carlo simulations or Bayesian network models, can offer.

5. Measure the most informative factors

Decision analysis uses "value-of-information" analyses that determine

how much decision-makers should be willing to pay for additional knowledge on a certain variable before making a decision. Areas that have high information value should be measured.

Will the funders take the leap?

"The whole process is a learning system", explains Shepherd, "we project impacts based on current understanding, measure where it will help improve our choices, monitor where things are most likely to go wrong, and continually update our projections and choices based on what we actually observe."

Shepherd and team have a very specific request: the UN, donors and private sector should fund a decision analysis task force. The task force will help clarify key decisions about development interventions, create methods for analyzing choices and tradeoffs, and design a capacity development program in decision analysis.

"I think this will need steering, piloting and proof of application because it is an entirely different approach to what many know in development. It will take quite a bit of work to enact change, however we have seen this transition happen in other fields" says Shepherd.

Is the development community ready to take a leap? To explore new ways of learning and embrace strategic guidance that could lead us closer to achieving the next set of development goals?

 More information: Policy: Development goals should enable decision-making: www.nature.com/news/policy-dev … ision-making-1.17915

Provided by World Agroforestry Centre (ICRAF)