



The Numbers Game: When Data Ceases to be Helpful

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In the field of agricultural development, there was a time when implementers simply tracked the number of farmers trained over the life of a project, and inferred in their annual reports that increases in national sales were inextricably connected. Over the 30 years that Fintrac has been implementing programs, this thinking has fortunately progressed, with donors now expecting much more in terms of monitoring and evaluation. Indeed, USAID has added “learning” to the M&E nomenclature to underscore the importance of tracking more nuanced data.

This article is the first in a series of topic papers that are part of [Fintrac's Legacy Campaign](#), focused on sharing lessons learned and action recommendations with a new generation of development practitioners.

USAID has also developed – and continues to evolve - a set of standardized indicators as a major component of its Feed the Future (FTF) programming, and Monitoring, Evaluation & Learning (MEL) data is used by the Agency to report on FTF results. But USAID now has 53 FTF indicators, with most projects required to report on 30-40 of them, all with multiple disaggregates.

So we contend that a better balance and understanding is now needed between what data is required, how often, what is used and by whom, and the effort it takes to collect and maintain. “It would be good to have the numbers – just in case” is not an uncommon statement; however, this thinking rarely considers the time and cost of data collection, especially when data collected, cleaned, and analyzed is often not used or is oversimplified, as was the case in the 2020 FTF Progress Report, which presented data on only two of its 19 pages.

Client Impact

Fintrac has long been a proponent of MEL, and an acknowledged leader in the field. We have integrated M&E into all of our agriculture and nutrition assistance programs since 2000, when we designed the Client Impact and Results Information System (CIRIS). This proprietary software is a powerful in-country performance management tool for individual projects, enables macro company-wide analysis, and allows us to track donor-directed indicators.

As projects were required to increase the number of beneficiaries, technical areas, subcontracts, direct and indirect employees, and related indicators, data entry at field-level became a daily requirement for our staff. “If it’s not in CIRIS, it hasn’t been done,” became a standard refrain. But is there a point at which the sheer volume of information being collected obscures project successes and failures?

Some donor staff request three numbers; others require hundreds. USAID CORs might want all indicator data, while environmental and gender specialists want specific data and disaggregates but typically have little interest in how it integrates with other technical areas. The “M” winds up taking 80 percent of MEL efforts in the field; with luck “E” might take up 15 percent; and the remaining 5 percent is for the “L.”

Evaluating What's Meaningful

We posit that the overall picture is frequently lost when projects are reporting on 30 or more indicators. Cause and effect becomes secondary, and information of core importance is obscured by pages upon pages of indicators and data.

If poverty reduction is an overarching objective, for example, why do so few projects actually track household incomes? And while sales and crop yields are both common indicators, these are only part of the story. Producers might have increased productivity and be selling more, but what are their margins? It is obviously *net* income that contributes to household incomes, but that is rarely a prescribed indicator.

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Donors frequently want a project to impact hundreds of thousands of smallholder farmers in any given country, which often translates to one or two new services or products being provided to huge beneficiary populations. These can have impact, and sometimes shift incomes slightly above poverty line levels, which is often a goal. But a household need face just one problem, and it slips back below the poverty line. Meaningful sustainable reductions in household poverty and child malnutrition are rarely achieved with this approach.

In fact, in rural poverty reduction or food security programs, tracking beneficiary participation in training and technical assistance is of limited use altogether unless implementers are monitoring how many people have received *multiple* trainings, and related data is collected from crop plantings, animal production and other income, capital investments, technologies adopted, and finance obtained. This type of data allows for cause and effect determinations to be made.

Similarly, the number of technologies used or the number of hectares under technology, which might be of interest to USAID and other donors at a macro level, will not inform implementing partners if they are in line to enable income increases. Many agricultural technologies are complementary and need to be tracked as a package; for instance, there is little point in using high-cost, disease-resistant hybrid seeds if basic production practices are not followed. Indicators with targets based on percentage increase or decrease make sense to donors when considering millions of beneficiaries, but at the implementation level, they *must* to be translated into values. A 20 percent increase in household incomes might sound appropriate, except if the household baseline income is \$0.85/person/day, in which case a \$1.02/person/day result still leaves a household far below the poverty line. Delving deeper allows us all to implement better.

There are other data collection, reporting, and indicator inconsistencies that should be addressed, e.g. technologies typically increase productivity per land unit, but increased *area* is the standard FTF indicator; and while employment generation is a common target, use of technologies enables increased production and productivity with less labor.

Moving Forward

Our recommendation is that the number of indicators should be decreased, and more emphasis placed on the right ones. There should rarely be a need for more than 7-10 indicators, with more solid analyses required as to whether incomes have increased, and what did or did not facilitate the change. This should involve specific household income surveys at baseline, and at least twice annually thereafter.

High-level annual survey indicators and targets need to be linked to secondary ones (output indicators) that are more frequently tracked – by census on a monthly and quarterly basis – because implementation adjustments based on performance, trends, and projections cannot wait for annual survey data. For

example, these would likely underscore the need to improve household income distribution throughout the year via on-farm diversification and technology transfer (one crop, one harvest, one-time income per year from agriculture is not uncommon) and via off-farm income opportunities, thereby reducing client risk.

Household income targets should also be set *substantially* higher than the poverty line to enable more financial resilience.

The following is just basic math, and while details change and vary, the strategic thinking and implementation processes for integrating indicators across projects are similar, whether they be agriculture, nutrition, education, etc. Consider:

If a household has a baseline income of \$1.00/person/day and needs to increase to \$1.90/person/day, then each person will need an additional \$328/year. A five-person household will need to move from an annual income of \$1,825 to at least \$3,470/year, or an additional \$1,642/year. If this is to come from agricultural production, assuming a net profit of 25 percent, then just to reach the poverty line, the household needs total sales of almost \$14,000/year. This is with five members in the family – if they have eight members they will need \$22,290 in total annual sales with a 25 percent profit margin. Over 100,000 households, new net income needed would be \$164 million/year. If 50 percent of the production costs require loans, then \$520 million/year will be needed; if a minimum of \$500 of capital investment in equipment or infrastructure is needed per household, this would total \$50 million. If a minimum of 0.4 hectares of production are needed to generate these sales and income, then 40,000 hectares/year are required with multiple technologies.

Laptops, handheld devices, smartphones, internet access, customized relational database management systems, and dashboards provide the backbone to today's M&E systems with access to data in real time. So collection as a continual process or obtained at specific/multiple times throughout the year – particularly with fewer and more relevant indicators – is not a problem. That said, an MEL philosophy should be integrated into staff and team activities, with data collection shared among all technical staff and implementing partners, and with continual analysis undertaken by team members both in-country and in home offices. It is essential that data be *used* and not just presented.

Project Design

Targets and indicators are typically provided in RFPs, though baseline surveys are usually done after projects are awarded, with external evaluations set up after implementation has begun, almost as an add-on and not an integral part of project implementation.

Design needs to be more nuanced and thoughtful, and while there is certainly room for “mega projects” that reach half a million in-country farmers and inject much needed dollars into rural economies, we urge USAID and other donors to recognize the value of smaller activities that feature more in-depth training and technical assistance. Access to good agricultural practices and integrated technology packages exponentially expands client farmers' knowledge base and leadership acumen, and translates into more sustainable income gains, and resiliency to climate change, financial fluctuations, changing market dynamics, and crop diseases.

We urge donors to recognize the value of smaller activities that prioritize recurrent, in-depth training and technical assistance.

And if there is any doubt – monitor, evaluate, and learn from the data.