

Questions of Rural Development: thoughts on project monitoring and evaluation

Scientific Track: Rural Development

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Submitted: 05 Dec 2018; Accepted: 14 Dec 2018; Published: 29 Dec 2018

Abstract

Monitoring and evaluation (M&E) is an essential component of rural projects but for different reasons, depending on the stakeholders – whether funding agencies, project management, implementers or beneficiary communities. M&E methods can be used to: ensure correct project design, verify beneficiary benefits, identify and correct implementation procedures, monitor project expenditure and to evaluate the project on completion. Used sensibly, it can be of value in allaying political interference, in influencing policy and in guiding designs of future projects. However, M&E is time consuming and is often given low priority by project implementing teams.

This paper seeks to identify the relevance and appropriateness of the questions that are posed by M&E and how they can influence the effectiveness of rural development projects. Examples are drawn from personal experience and anecdotal evidence from projects around the world over the last 40 years. It will look at how the questions can produce anomalous results, influence social attitudes to monitoring, limit the value of M&E in conflict zones, affect the reliability of community monitoring or create time stress on interviewees. It will also examine the value of logical frameworks and evaluation frameworks. The paper will also look at new digital techniques to improve the efficiency of field surveys.

The paper is intended to be thought-provoking, rather than a detailed scientific treatise on monitoring and evaluation systems. How can questions affect outcomes?

Keywords: Rural Development, Monitoring, Evaluation, Project Design, Community Involvement

and, in parallel, I jointly set up a community-based rural tourism company in India, in partnership with village communities.

Introduction

In this paper, I intend to look at the questions that are posed during monitoring and evaluation (M&E) in the wider sense, how they impact on project design, outcomes and evaluations. This is not intended as an erudite treatise on M&E systems but a collection of observations accumulated over my career in rural development around the world. Hopefully, some topics will ring true and provoke a more critical view of the questions that are posed in project assessments.

But first, let me give you a brief history of my own career, which is basically divisible into three periods:

- Land resource planner (1960s & 70s) in Africa, Middle East and SE Asia;
- Technical assistance consultant (1980s & 90s), on rural development projects, mainly in India and Nepal, at a time when 'putting people first' concepts were being introduced, with communities featuring and in M&E surveys and social issues were competing with technical issues;
- My career diverged from 2002 onwards: I evaluated several donor-funded projects in India, Egypt, Nepal and Sri Lanka),

Therefore, let me turn to my own observations on how monitoring and evaluation processes have impacted on projects with which I have been involved.

M&E: Unpopular and Time-consuming

Several factors contribute to the unpopularity of M&E.

Low priority for monitoring

Generally, no one likes being 'monitored'. In most projects, M&E is given low priority by implementers despite pressure from funding agencies, who need to demonstrate success to their own bosses, politicians or their public. Invariably, at the project start, there are far too many pressing implementation activities: M&E takes a back seat. Baseline surveys are often delayed and routine monitoring is postponed, making effective evaluation at completion very difficult.

Reluctance to monitor

There is often reluctance by project staff to engage in monitoring. On the Doon Valley watershed management project (1992-2001) in north India, it was difficult to establish an internal monitoring cell because, because seconded government officers, on the team

were reluctant to record what could later be perceived as critical comments about their peers, and held against them. Moreover, they had become used to adverse criticism from government or outside agencies, which deterred self-criticism. We allayed this to some extent by encouraging a 'virtuous cycle' by giving praise for successes, where due, not just finding fault. This included a successful monthly newsletter that reported positive news from villagers, which was circulated widely and was read by senior officials and opinion-makers.

Time-consuming

A colleague who taught at Lucknow University cited the example of villagers faced with student groups seeking to undertake sample surveys. The villagers asked if they were BSc, MSc or PhD students? If BSc students, they were welcome but they did not have time for the questions that post-graduates would ask. Another colleague who is managing a forest conservation project in Liberia complains about the amount of monitoring data required by their funding agency. As the villagers were illiterate, she had to employ extra staff, to collect monitoring data to avoid implementation delays. A similar instance occurred while I was on the Western India Rainfed Farming Project, where the donor (DFID) sought copious monitoring data from farmers. As a key element of the project was training community members as *jhankars* ('barefoot extension staff'), the villagers appointed and paid 'monitoring *jhankars*' to handle all the monitoring questions. Thereby they could save their own time.

Constraints in Conflict Zones

Project M&E can be seriously constrained by security-related issues in conflict areas. Extra sensitivity is required. In Zimbabwe, I recall the sociologist assessing potential beneficiaries for a new irrigation project. The questionnaire included: "Do you have a sofa?" This resulted in consternation from one interviewee, who said that he had spent three years in the forest during the civil war – no one had food, let alone sofas!

On projects in the conflict areas of Sri Lanka, M&E was necessarily low-key: sending surveyors with cli boards into contested areas would have been inviting trouble. In reality, however, the experience of project teams in Sri Lankan conflict areas was that they worked harder and more conscientiously because they were constantly 'monitored' by each side in the conflict. Moreover, as politicians were scared to visit, there was rarely any political interference.

Questions of Monitoring and Evaluation

M&E tools, used sensitively, can answer important questions on:

- Are the project designs correct?
- How do beneficiary communities actually benefit?
- Was a project successful on completion?

Moreover, a well-monitored project with transparent reporting can reduce political concerns and interference. I propose to discuss each of the above questions in turn, drawing on my own project experience.

Are Project Designs Correct: asking the right questions?

To me, a classic example of how a simple question influenced project design occurred in Kenya, where I was involved on an EU-funded soil and water conservation project in the Aberdare Mountains. Run-off from this 3,000m range flows into the reservoir of the Masinga Dam, which supplies much of Nairobi's water and hydro-electric power. One day in the late 1970s, the President drove along the

foothills and saw mud flats at the upper end of the reservoir, where fast-flowing, silt-laden water discharged into the still water at the head of the lake. Not being a hydrologist, he wrongly assumed that the reservoir was almost full of sediment. He asked his aides: "Why is the lake full of sediment?" and instructed them to set up a project to stop the sedimentation. The project was duly prepared and funded. During 1983-84 we developed much-needed plans for farmer-led soil and water conservation on the intensively cultivated hill slopes but our limnologist calculated the remaining life of the reservoir to be about 100 years!

Another instance of misunderstanding occurred to me in China in 1979. We had been mobilised to prepare an irrigation and drainage project. Soon after arrival it became apparent that something was amiss: in fact the client wanted a Mink Farming Project! As good consultants, we provided mink farm designs.

However, an example of a logical project design change occurred on the Western India Rainfed Farming Project. Phase I had focussed on farmers in this semi-arid area. During evaluation it was realised that some 50% of them migrated annually to the cities for employment. The plans for Phase II (1999-06), with which I was involved, logically included a 'Migrant Support' component, which successfully alleviated the stress of migrants and their families. Sadly, due to policy changes of the donor, systematic post-project evaluations were not undertaken: successful innovative approaches (migrant support, water harvesting, participatory crop breeding and village cooperative management), which could have been applicable to other projects, were not publicised.

During a mid-term review of the EU-funded Al Bustan Irrigation project in Egypt in 1999, we noted the lack of formal involvement by women in decision-making. It was gratifying to return for the final evaluation four years later to discover that women's groups had been established and were participating fully in the project.

Another simple example of a wrong answer occurred on the Western India Rainfed Farming Project. We were evaluating the needs of villages. When asked their priority, they replied: "A Honda pump". In fact, they were alluding to a 'lack of water': a pump was just one of several possible solutions to bringing water, such as a dam, pipe supply or stream diversion.

How Do Beneficiary Communities Actually Benefit?

In the early days, M&E focussed on collection of factual input data and subsequent number crunching (initially with the aid of only pocket calculators and Facit machines!). Computers and spread-sheets later speeded up analysis but also increased the thirst for 'data'. During the mid-1990s there was a shift towards Participatory Monitoring and Evaluation (PMAE), using Participatory Rural Appraisal (PRA) methods and 'softer' qualitative data that reflected the beneficiary communities' perceptions of attitudinal and behavioural changes and impacts. Two examples are discussed below in this context.

Doon Valley Watershed Management Project (1992-2001)

On this participatory watershed project in north India, we initially adopted standard factual, output-based M&E (how many trees planted, check dams built, village groups established etc). Later, we incorporated PMAE methods to better understand the perceptions of beneficiary village communities [1]. This raised two key questions: a) for whom are we evaluating? and b) who should participate?

a) For whom are we evaluating?

We needed to evaluate impact and sustainability in the villages. However, some of the indicators proposed by the project team proved to be inconsistent with what the villagers perceived to be important. The divergence was either in terms of topics to be evaluated (as interventions were based on participatory planning, project activities differed between villages), or of the indicators to be used. This highlighted the fact that communities and projects have different needs, which demand compromises in methods and approaches. In the end, we adopted two approaches:

- External M&E to meet the needs of donors and government. The studies enabled comparison across all villages in relation to project objectives. They were conducted in a participatory fashion but the questions and outputs reflected external needs rather than community needs.
- Internal monitoring, managed by villagers themselves, to help them learn from and improve their contributions to project activities. The approach was participatory and the topics to be assessed and the indicators to be used could vary between communities. Although such an approach is valuable for the communities themselves (in terms of organizational learning and systems development), the results may be neither statistically analysable nor relate directly to a project's objectives. As a compromise, village criteria were combined with the standard, externally-designed criteria. Using a simple weighting system for scoring a village, 80% of marks were assigned to the standard project criteria and 20% to criteria proposed by the individual village. This enabled evaluations of 'success' to include factors that were perceived as important by the communities, whilst retaining a sufficient level of comparability between villages, to suit project requirements.

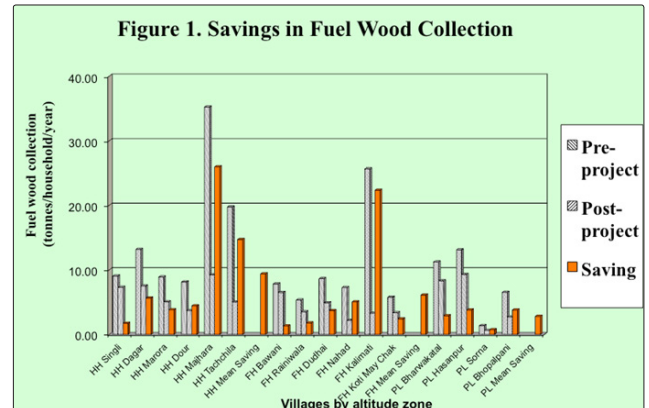
b) Who should participate?

'Participation' in evaluations can be used simply to transfer the burden to the communities. This might be acceptable if they were to set the criteria but, as noted above, projects have their own evaluation needs. On this project three types of 'participatory evaluation' were adopted, each involving different types of participant.

- **Attitude Survey:** This involved focus groups of women to determine their attitude to project needs. This found that although they understood the need, for example, to conserve forests by planting fodder trees around the villages, they were still going out to lop forest trees (demonstrated by piles of branches around the houses). The women's attitude had changed but not their behaviour: they now felt guilty when lopping trees!
- **Quantified Participatory Assessment (QPA):** The QPA surveys aimed to assess community perceptions of qualitative and quantitative project impacts and to convert these into numbers, to provide quick and cost-effective estimates of change, based on the principle of 'acceptable imprecision' [2]. It involved community groups, men and women, giving a consensus score for questions of project impact, both pre-project and post-project. Topics included environmental impacts (fuel wood collection, fodder collection, agricultural production etc) and socio-economic impacts (time spent collecting fuel wood and fodder, awareness & confidence among women etc).

In the case of fuel wood collection, the group was asked to estimate pre- and post-project parameters:

- Days spent collecting fuel wood by the household
 - Number of family members collecting per day
 - The amount of fuel wood collected by each person
- From these data, the amount collected was estimated and changes determined (Figure 1).



The QPA surveys provided a fairly simple, rapid and cost-effective means for collecting quantitative and qualitative information, based on user perceptions. They enabled collection of pre- and post-project information in the absence of baseline data, to determine impact. Moreover, it monitored 'outputs' (such as reduction in fuel wood consumption) rather than the conventional focus on 'input' accounting (such as how many trees planted). A disadvantage was that impacts attributable to non-project activities could not be distinguished.

- **Village Self-Monitoring:** This involved mobilising villagers to undertake monitoring. A tree planting exercise was launched over several villages. Each village was later asked to monitor the results in the other villages, especially on tree survival rates. The village that achieved the highest survival rate qualified for a prize. The evaluation was transparent and fair but on deeper probing and questioning (Box 1), it turned out that the villagers had under-reported the number of trees that they had originally planted and consequently the percentage survival was exaggerated! Even villagers can manipulate results in their favour.

Box 1. Community views of evaluation criteria

It was observed that the total number of trees planted by communities during the 1999 *shramadhan* decreased to 69,900 from 105,500 in 1998, despite increases in participating villages (from 59 to 82), erosion-prone areas treated (from 61 to 92) and number of volunteers (from 1,800 to 2,900). When the reason for the low quantitative performance in 1999 was explored, it transpired that the communities had laid emphasis on the quality of work and thus had reduced the quantity planted.

When the issue was further explored, the winning members of the winning village confided that they had knowingly under-reported the quantity of material planted to make allowance for future mortality and thereby to show greater survival percentages, when the evaluation exercise was carried out by their neighbours. In this way, they hoped to gain the coveted prize for best performance.

Monitoring Benefits from Rural Tourism, Village Ways (2006 on-going)

In 2005, I jointly in set up a company in India, Village Ways Pvt Ltd (<https://www.villageways.com>), to promote responsible tourism in villages, with communities as our partners.

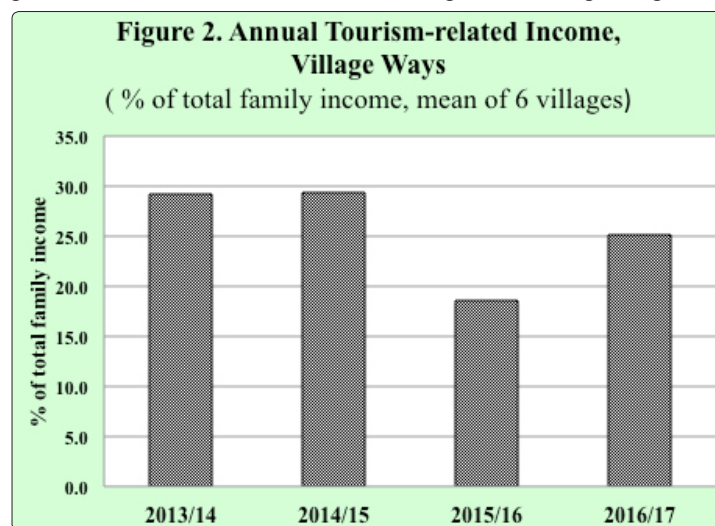
As a key objective was to bring supplementary income to relatively poor villagers through hosting guests in community-owned guesthouses, we therefore developed a transparent financial monitoring system. In this, the incomes of all participating members of the concerned communities were tracked annually to determine their financial benefits from tourism [3]. The results for six villages in the Binsar area were analysed and presented graphically to show impacts under five categories (Box 2).

Box 2. Categories of tourism-related income of Village Ways families

- Village Ways families as percentage of total villagers.
- Mean income per Village Ways family.
- Income as percentage of total family Income sources.
- Percentage of Village Ways families 'Below Poverty Line'.
- Percentage of tourism-related income paid to females in participating families.

These all showed positive impacts, although variations occurred due to changes in the number of families involved and annual fluctuations in the number of guests. Figure 2 illustrates changes in tourism-related Income of Village Ways families, as a percentage of their total family Income, showing that 20-30% of income related to tourism.

In parallel, anecdotal qualitative assessments were made of the benefits in terms of human, physical, social and natural capital, as well as in terms of pride and respect, exposure, access to information, cultural, optimism and participation.



Was a Project Successful on Completion? - Project Evaluation Design & Monitoring Frameworks

Most people do not like DMFs or Logical Frameworks but they form the key tool for evaluating a project. The DMF should succinctly summarise the how the inputs and activities of a project feed into outputs and then outcomes, which contribute to overall goals or impacts. Targets, indicators, means of verification and risks are included. DMFs should be dynamic – requiring updating as the project progresses. Table 1 illustrates how a DMF is used in evaluation, comparing targets at design with achievements on completion.

In my experience, several common errors are made in the design and use of DMFs. They are often prepared hastily at the end of project preparation, rather than used to design a project logically, and may not be amended as a project evolves. Common errors occur in the design and understanding of DMFs, include:

- The impact/goal should relate to achievements beyond the

scope of the project itself, over a longer period, to which its outcomes contribute.

- There can be only one 'outcome' (purpose/objective).
- 'Training' is an activity not an output: the output is the 'number of qualified/trained staff operating'.
- Target dates are often missing for completion of activities and outputs.
- Sources of achievement information and changes in output targets need to be given in footnotes (eg: decisions made at mid-term reviews).

Donor Evaluation Frameworks

Donor agencies have a fairly standard framework for evaluating projects, whether at mid-term or on completion. The example in Table 2 is a précis of the Asian Development Bank format, which is used to rate the success of a project. Summing the scores under each category (out of 100) gives the overall indicator of success or otherwise of the project. This relies heavily on the analysis of achievements compared to design targets given in the DMF.

Table 1: DMF Evaluation Format (Example for a water supply & sanitation project)

Design Summary	Performance Targets	Actual Achievements (as of Project end)	Assumptions & Risks
Impact			
Improved health conditions in five districts by year xxxx (beyond project completion).	xx% decrease in infant mortality	For each target at evaluation. Changes in national percentages, and by each district, compared to baseline figures at start of project.	
	xx% decrease in incidence of waterborne diseases		
	xx% decrease in time spent collecting water		
Outcome			
Provision of safe drinking water and safe sanitation to people in project areas	xxx additional people have access to safe water and xxx people have access to safe sanitation, by project end (year)	xxx additional people (xx% of target) have access to safe water and xxx people (xx%) have access to safe sanitation.	A stable political environment and positive economic growth
Outputs			
1. Urban Component: List structures and capacities operating, by date	Targets set in project design for water connections, sanitation etc, with beneficiary numbers and dates	Actual achievements in physical terms and % of target beneficiaries served, by dates.	Timely provision of funds No delays in construction Beneficiaries willing to participate Enforcement of water sector regulations. Willingness to adopt reforms
2. Rural Component: list structures and community management operating, by date	Targets set in project design for water connections, sanitation etc, with beneficiary numbers and dates	Actual achievements in physical terms, community management and % of target beneficiaries served, by dates.	
3. Institutional Strengthening. List reforms effected, by date.	Targets set in project design for institutional strengthening.	Actual achievements by dates.	
Activities with Milestones			Inputs by Source
1. Urban Component			\$ million
List of activities required, with completion dates: include implementation units, baseline, water rights, training, tendering, construction, water connections			Source 1
			Source 2
			Source 3
2. Rural Component			Source 4
List of activities, with completion dates: include implementation units, NGO recruitment, baseline, community organisations, training, support for construction by communities.			Total Planned Input
			Actual Input
3. Institutional Strengthening Component			
List of activities, with completion dates: include implementation agency planning, financial management, action plan, training.			

Table 2: Project Evaluation Framework

Category	Assessments Required
Relevance (Rating, score out of 25)	Assess the relevance of project design at appraisal and completion, the appropriateness of the approach and the DMF1. Assess changes in the DMF, any significant cost-overrun or delay in completion due to weak design, innovative features and transformational effects of the project.
Effectiveness (Rating, score out of 25)	Assess the extent to which the project achieved its outcome, against DMF targets, with supplementary surveys if data unavailable. Assess output targets achieved to assess outcomes were attributable to the project's interventions. If the project did not achieve the outputs, give reasons for underachievement. If included, evaluate achievement in gender aspects
Efficiency (Rating, score out of 25)	Assess the efficiency of investment by recalculating the EIRR2and its sensitivity analysis or assess other cost-effectiveness measures (if EIRR not available). Compare recalculated EIRRs with those at Appraisal and analyse the reasons for any disparity. Assess process efficiency, including delay in completion or cost overrun.
Sustainability (Rating, score out of 25)	Assess the likelihood of financial sustainability of outcome if the project is generating revenues, the recalculated FIRRs3to be compared with those at Appraisal. Assess the likelihood of sustainability of project technically, institutionally, and environmentally. Review any remedial measures to improve sustainability and effects. If project is not likely to achieve targets in the future, describe the risks of non-achievements and propose remedial measures to improve sustainability.
Development Impact	Provide general assessment of significant poverty, institutional, economic, environmental, social and other impacts (positive and negative, intended or not) generated during project implementation. Assess project's benefits to stakeholders and attribution to the project and DMF impact indicators.
DMF = Design & Monitoring Framework (ie: Logical Framework); EIRR = Economic Internal Rate of Return; (3) FIRR = Financial Internal Rate of Return.	

However, as in any such formalised exercise, anomalies occur that can distort the evaluation. Some examples from my work in Sri Lanka are given in Box 3.

Box 3: Examples of Anomalies in Project Completion Evaluations

- Upper Watersheds Project (1998-2005). During the project a reallocation of funds from the forestry to the agriculture component was agreed. The EIRR from short term agriculture interventions was greater than that long term forestry activities. Consequently, the EIRR at completion was inflated and increased the 'efficiency' score.
- Protected Areas Management and Wildlife Conservation Project (2001-07). A key indicator of success was the income from national park entry fees, following improvements in infrastructure. On completion, fee income had increased significantly, indicating success but much of this was attributable to a ceasefire in the conflicts that had formerly deterred people from visiting parks. The high 'efficiency' score was partly to the ceasefire.
- Aquatic Resources Development and Quality Improvement Project (2003-10). This project included a significant line of credit budget to support farm fish ponds and lake fishermen. In reality, the farmers failed to take up the credit because, as Buddhists, they were averse to killing fish that they had raised, whereas the lake fisheries were so successful that the fishing groups had little need for credit. The surplus funds were reallocated to a new coastal fish market. This was a failure in design, which resulted in a lower 'relevance' score.
- North East Community Restoration and Development Project (2002-12). This project illustrated the difficulties of operating under fluctuating conflict conditions. Some major infrastructure, such as hospitals, was built, destroyed and then rebuilt over the 10 year period, under a sequence of four separate projects. Such external factors distort the 'effectiveness' of the projects.

Are there Lessons for Future Project Designs?

An important element of project evaluation reports is to document lessons learned and recommend changes for future designs. A recurring recommendation is to improve the design of DMFs and for project to see them as a useful and dynamic monitoring tool that changes with evolving project focus. This would also make life easier for evaluators!

What New Techniques can be used for M&E Surveys?

The days of clip boards, frantic photocopying of questionnaires and interpretation of barely legible handwriting are being replaced by digital devices. Software packages like EpiCollect5 (<https://five.epicollect.net>), enable digital formats to be customised in the office, downloaded on to smart phones or tablets and used off-line in the field. The data can later be downloaded to a laptop for analysis. This frees field teams from paper and reduces errors but there is a risk that subtle nuances may be missed without the mental process of transferring responses to paper.

In future, facial recognition may have role in assessing well-being of people involved in a project. Before and after facial images from a mobile may be used to determine any changed sense of well-being.

A Word of Advice on Questions

When asking a question, make that you do not give the answer! 'Open' questions may seem a bit naïve and will require patient probing. For example, to find out why a smallholder farmer keeps cattle, simply ask an 'open question': "*Why do you keep cattle?*" Especially when asked via an interpreter, the question often becomes 'closed': "*Why do you keep cattle – for meat, milk?*" To which the farmer will invariably say "Yes" and 'meat and milk' are recorded. If the 'open question' is used, other reasons may be forthcoming,

such as for manure, ploughing, social status or as a store of wealth. Moreover, questions and answers often need to be analysed carefully. A colleague of mine worked on a donor-funded irrigation project in Indonesia. On completion, he was invited to evaluate the project. He had been closely involved with successful women's thrift & savings groups. He asked to meet them but was told they had all failed. Persevering, he visited one of the groups. He asked them: "*Why did your group fail?*" They replied: "*We did not fail*". He queried: "*Then why is the group inactive?*" "Because", they responded, "*the children left school*". Evidently, they had used their income for schooling costs. No one had explained the other benefits of a savings group.

Acknowledgements

I wish to acknowledge the numerous colleagues and villagers with whom I have worked on projects around the world, especially colleagues at ADB, and to the funding agencies who have made this possible.

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