# An Overview of Monitoring and Evaluation for Adaptive Management

Patricia Rogers and Alice Macfarlan
BetterEvaluation

# About

This paper is part of the BetterEvaluation **Monitoring and Evaluation for Adaptive Management** working paper series. It focuses on using monitoring and evaluation to support adaptive management.

The series can be accessed at www.betterevaluation.org/monitoring_and_evaluation_for_adaptive_management_series

While focused especially on international development, this paper is relevant to wider areas of public good activity, especially in a time of global pandemic, uncertainty and an increasing need for adaptive management.

# What is adaptive management?

As with many terms, there are different understandings of the term 'adaptive management'. These understandings differ in terms of the level of adaptation involved, reflecting the different sectors and contexts in which the term has been used.

From its initial origins in adaptive management of natural resources and agile software development, the term and concept of adaptive management is now being used more widely. In public good organisations, especially in international development, there is increasingly an expectation that management will be responsive, flexible and adaptive where appropriate in response to changing circumstances and new evidence. This can be at the activity/output level or, where the operating context changes significantly, the goals/outcome level.

To some extent, all management needs to be adaptive – meaning that implementation does not simply involve enacting plans but also modifying them in response to changes in circumstances or understanding. This is not the focus of this paper or the others in the series.

This paper focuses on the implications of a 'adaptive management' which goes beyond usual levels of adaptation to be more of a paradigm shift in response to uncertainty and complexity. This way of thinking about 'adaptive management' focuses on what the GLAM initiative (Global Learning on Adaptive Management) has referred to as "complex problems that will always demand contextual learning, and to problems where the challenges faced and/or the interventions are novel and untested, and where there is little evidence for what will work in a particular context" (Ramalingam, Wild & Buffardi, 2019).

This type of adaptive management might be centrally important for some interventions, which are operating in conditions of uncertainty or with novel interventions, and of marginal relevance to others, which are implementing proven programs in stable circumstances. In the current context of rapid, unpredictable change during a global pandemic, this is likely to be more relevant to more organisations and interventions.

This type of adaptive management involves a management approach that is explicitly prepared to be adaptive in situations of ongoing uncertainty, where there is not sufficient knowledge to inform all decisions, and where it is recognised that initial planning will need to be reviewed and either elaborated or revised in response to new information or changes in circumstances.

It might be that, after a period of adaptive management and increasing knowledge and learning, there is less uncertainty and more traditional approaches to planning, management, monitoring and evaluation can be used. Or it might be that ongoing changes in circumstances mean that it is never possible to be sure 'what works' and ongoing adaptive management will be needed, at least for some elements of the intervention.

> The second paper in this series **'What is adaptive management and how does it work?'** provides more detail on the history of adaptive management, the different ways that the term has been understood and the implications of these.

Adaptive management is different to usual 'good management', which uses information to inform decisions and take actions.

It should also not be used as a way of excusing inadequate planning where available evidence has not been used and plans need to be adjusted later.

Adaptive management involves **deliberately taking actions in order to learn and adapt** as needed under conditions of ongoing uncertainty.

# How does adaptive management work?

In international development, various forms of adaptive management have been promoted as an alternative to linear approaches to planning and management, including Problem Driven Iterative Adaptation (PDIA), Doing Development Differently (DDD), Thinking and Working Politically (TWP) and Collaborating, Learning and Adapting (CLA)[1].

While there are differences between these, all of them involve an ongoing process of working collaboratively to make decisions and change actions on the basis of new information, with varying ways of attending to local adaptation and political influences, framing work around problem solving, and adaptation to both local conditions and local ownership and to changing conditions and new information.

Adaptive management involves two key behaviours:

- **effective collaboration**, including identifying, engaging and effectively working with the right people

- **effective learning processes**, including identifying and testing assumptions and understandings, making sense of new information and planning actions

These need to be supported by:

- **capacities** – human capital in the form of **knowledge** and skills (such as entrepreneurial attitude to problem-solving, ability to engender trust in complex environments, and cross-cultural awareness), social capital in the form of supportive networks and norms of trust, and organisational capital such as access to timely 'good enough' data and technology for analysing it

- **incentives** – rewards and sanctions which encourage change and sharing of, and learning from, mistakes and failures

- **opportunities** – including devolved decision-making and ability to revise plans, budgets and agreements.

The 2nd paper in the series **'What is adaptive management and how does it work?'** expands on what supports and hinders adaptative management.

Adaptive management is evidence-informed, not in a 'what works' way, where findings are universally applied, but in a process of ongoing learning and adaption of knowledge to new contexts.

# How can monitoring and evaluation better support adaptive management?

Adaptive management approaches to development have significant implications for monitoring and evaluation.

Monitoring and evaluation products (reports, data) and processes are likely to involve a combination of the following intended uses:

- **Inform investment** (whether to start or continue) and to demonstrate the value of the investment

- **Improve implementation** – whether during the current cycle of implementation or in subsequent cycles

- **Guide scaling up** – inform extrapolation of findings to new times or places or scale

- **(Process use) Ensure accountability** – relating to the changes in behaviour due to being aware of likely scrutiny, in addition to the actual use of findings to inform decisions and actions

- **(Process use) Strengthen local capacity** - to effectively implement and/or manage the intervention or to contribute to local development

These different intended uses will have implications for the methods and processes that will be useful and appropriate in a particular situation.

For informing investment decisions, it will be important to provide information that can be used in conditions of uncertainty, where outcomes might not be achieved. For improving implementation, it will be important to have methods and processes that provide rapid feedback and ways of understanding the meaning of the data. For scaling up it will be important to understand how the intervention is working, and how to support its implementation in different contexts or at different scales.

Accountability requirements need to be addressed carefully to ensure that both learning and compliance aspects are supported. Inappropriate accountability systems that simply check compliance with plans and targets risk discouraging necessary adaptation and learning. Instead smart accountability processes and structures are likely to be needed to ensure that learning is documented and there is appropriate accountability for the use of resources. These include "demonstrating responsible, informed management, including appropriate risk management such as cautious trials of difficult or new approaches, and a commitment to identify and learn from both successes and mistakes. The incentive system for accountability needs to reward intelligent failure (competent implementation of something that has since been found not to work), discourage setting easy targets, discourage simply reporting compliance with processes or targets, and encourage seeking out tough criticism" (Rogers, 2002).

Attention should also be paid to how monitoring and evaluation can support the intended process use of supporting local capacity – both through strengthening skills and knowledge of local communities and implementors, and also through ensuring the monitoring and evaluation supports their information needs.

Monitoring and evaluation needs to be done in ways which support the essential behaviours of adaptive management:

- **effective collaboration** – potentially engaging with a wider range of monitoring and evaluation stakeholders than is usual

- **effective learning processes** – especially supporting diverse users (including potentially different languages and levels of literacy and numeracy) to understand diverse data and its implications for how they understand what is happening and what might be done.

The implications for monitoring and evaluation do not only relate to data collection, but to the full range of activities involved in monitoring and evaluation – managing the monitoring and evaluation function; identifying and engaging relevant stakeholders; developing coherent and plausible situation analyses and theories of change; identifying and prioritising monitoring and evaluation needs; gathering and analysing data; and reporting findings and supporting use.

The following section discussed briefly the methods and processes that have been identified as being useful, or potentially useful, to support adaptive management across all these activities.

## Managing the monitoring and evaluation function

From the experiences and examples in international development reviewed for this paper, it seems the more dynamic concept of monitoring and evaluation which is needed for adaptive management can be difficult to implement in practice, even when this is intended. Given the long tradition within international development of evaluation focused on compliance and upwards accountability, the types of monitoring and evaluation expertise that have been previously prioritised, and the current structures and incentives in place for individuals and organisations, it can be practically difficult to engage in the sorts of open learning from success and failure that adaptive management requires.

To support adaptive management, monitoring and evaluation needs to be clear about its intended uses and how these might need to be met in different ways.

Monitoring and evaluation needs to be iteratively connected to planning and implementation, rather than being a linear series of discrete activities undertaken by different people.

Organisationally this means that monitoring and evaluation needs to be seen as a central implementation and management function, rather than something done by a sub-set of staff, or which is separated from core functions.

## Identifying and engaging stakeholders

Specific methods and processes can be used to identify, analyse and represent stakeholders, including mapping them over time.

*These include: collaboration mapping and social network analysis.*

Monitoring and evaluation also needs to be done in ways which are accessible to diverse stakeholders and which support collaboration, build, maintain and rebuild trust – including finding ways to recognise and learn from failure, and address power issues.

*This might involve methods and processes such as: active listening, Collaboration, Learning and Action (CLA) plans, co-location, informal opportunities for sharing, structured communicative techniques, and using a Ways of Working approach.*

## Developing coherent and plausible situation analyses and theories of change

Adaptive management has implications for how theories of change are developed and used. An important aspect of adaptive management, as originally conceptualised in natural resources management, is that adaptive management does not just involve learning from action, but deliberately taking action in order to learn under conditions of ongoing uncertainty. Actions are taken purposefully to test theories about how things work, what the causes of problems are, and what might be effective in producing change. This requires a good quality theory of change which is based on a mix of relevant theory and evidence, including research-based evidence and theories of transformation.

When developing theories of change, in addition to drawing on the usual mix of sources, from mental models, research evidence, and generic change theories, it will be important to explicitly identify alternative change theories that might be activated, including negative program theories, and to identify contexts that might influence which change theories and action theories might be expected to be effective or not.

The actual change theories might be expected to have both complicated and complex aspects, draw more on agent-based change theories, involving diverse actors, and layers of interventions, rather than simple, linear causal chains.

Theories of change are likely to be used differently in situations where adaptive management is needed. In stable contexts with well understood policy initiatives or intervention designs, a theory of change might provide a model with predictable outcomes and levels of performance that lend themselves to setting targets and monitoring for compliance. By contrast, in a situation where adaptive management is needed, theories of change are more likely to be useful for making explicit and reviewing implicit mental models and values, for developing testable predictions of what might happen if certain things are done, and for identifying and making sense of data - especially those that do not fit the model.

*Relevant methods and processes for developing a theory of change include a combination of: conducting a country situation overview, drawing out the mental models of those involved, using a drivers of change approach, identifying game changers and planning scenarios, identifying the big 'T' theories, political economy analysis, systems analysis and systems thinking, theories of transformation, triple A change space analysis, review of pilot and evidence synthesis from previous research and evaluations.*

*Relevant methods and processes for representing theories of change include adaptive logframes, nested logframes, principles-based theories of change.*

## Identifying and prioritising monitoring and evaluation needs

Traditionally monitoring and evaluation needs have been identified at the beginning of the process, and then used to develop a monitoring and evaluation plan, which is then implemented. For adaptive management there needs to be a systematic and iterative process for identifying the diverse needs of the different stakeholders, negotiating what will be prioritised, and then revisiting these agreed priorities as progress is made and as needs change.

*Options include: flexible and adaptive M&E plans, and explicit learning plans.*

## Gathering and analysing data

It is helpful to consider separately the implications for answering descriptive, causal, and evaluative questions.

Descriptive questions describe the way things are and how they have changed. One of the main implications of adaptive management is the need for data which provides timely feedback on the situation and progress but which can also be readily developed to investigate new issues as they emerge, and which is accessible to the diverse users. Detailed theories of change might assist in identifying lead indicators or indicators of earlier outcomes.

*Descriptive methods that have been used include: capturing the story, case studies, journals or impact logs, market price monitoring, social media analysis, stories of change/no change.*

Causal questions ask about what has caused or contributed to observed changes (or lack of changes). For causal questions, traditional counterfactual designs might not be suitable given the rapidly changing strategies being used and the likelihood that the program involves systemic interventions where a credible counterfactual cannot be identified or constructed.

*Casual methods are likely to include: causal link monitoring, comparative case studies, contribution analysis, contribution tracing, episode studies, process tracing, qualitative impact assessment protocol, and strategy testing.*

Evaluative questions ask questions such as whether the situation has improved, whether an intervention has been implemented well, and what is the best option. Answering evaluative questions will require attention to identifying and negotiating evaluative criteria, standards and weighting, bearing in mind different and changing values among stakeholders.

*Methods might include: community scorecards, most significant change, participatory appraisal, rubrics.*

## Reporting findings and supporting use

Methods for reporting will need to meet the different information needs of diverse users, and support collaborative sensemaking and use, including appropriate extrapolation. This will require processes to develop answers to predictive questions – what is expected to happen in the future and/or in different sites? And it will need processes to answer action questions – given these findings and predictions, and ongoing uncertainty, what should we do?

*Methods might include: communication plans, concept note systems, dashboards, failure reports, formal reviews, knowledge management systems, learning events, records of decision making, regular informal communication, reporting on early wins and successes, and working groups.*

## Integrated approaches for monitoring and evaluation for adaptive management

There are several approaches which address a number of these aspects:

*after action reviews, developmental evaluation, outcome harvesting, outcome mapping, positive deviance, real-time evaluation, utilization-focused evaluation.*

> The 3rd paper in this series **'Monitoring and evaluation methods, processes and approaches for adaptive management'** provides more detail on the methods, processes and approaches that have been described above and that have been or could be used, to support adaptive management.

## DISCUSSION QUESTIONS

- Why is adaptive management seen as relevant and important in your context?

- What are the ways in which the term 'adaptive management' is being used by your partners and stakeholders? Is it consistent with the definition proposed here?

- Is it more useful in your context to think about adaptive management as a paradigm shift or as a continuum where there might be some more adaptive approaches within overall traditional management?

- Where are the areas where monitoring and evaluation, as it is currently done, does not adequately support adaptive management? What are the priorities for change?

# Cited References

Andrews, M., Pritchett, L., and Woolcock, M. (2017). Building State Capability: Evidence, Analysis, Action

DDD Manifesto Community. (2016, March 16, 2016). The Doing Development Differently (DDD) Manifesto.

Ramalingam, B., Wild, L., and Buffardi, A. (2019). *Making adaptive rigour work: Principles and practices for strengthening monitoring, evaluation and learning for adaptive management*. Briefing note, April.

Rogers, P. (2002) 'Accountability' in S. Mathison (ed). *Encyclopedia of Evaluation*, Sage Publications.

Thinking Working Politically Community of Practice (no date) What is Thinking Working Politically (TWP)?

USAID (2017). Collaborating, Learning, and Adapting (CLA): An analysis of what CLA looks like in development programming.

USAID (no date). CLA Toolkit. [Website].

The other papers in this series **'What is adaptive management and how does it work?'** and **'Monitoring and evaluation methods, processes and approaches for adaptive management'** provide further references and resources.

## [1] Forms of adaptive management

**Thinking and Working Politically (TWP)** originated from a Community of Practice formed in Delhi in 2013 that brings together a group of researchers and senior officials from leading development organisations with the aim of moving from simply 'thinking politically' to 'working politically'.

**Problem Driven Iterative Adaption (PDIA)** is an approach developed by the Building State Capability faculty at the Harvard Center for International Development which aims to facilitate the emergence of local solutions to local problems through a process of problem construction and deconstruction, experimentation and adaption.

**Collaboration, Learning and Adaption** is an approached introduced by USAID's Bureau for Policy, Planning and Learning (PPL) in 2012 to operationalize adaptive management throughout USAID's Program Cycle.

**Doing Development Differently** is a community built around the DDD Manifesto that arose from an initial meeting in 2014 that aimed to bring together practitioners who were engaged in development practices that were dynamic and appeared to have impact – the DDD manifesto has over 400 signatories from 60 countries.