Adaptive management is a broad approach designed to support programmes in complex or uncertain environments. It involves constant data collection and analysis in order to adapt and refine programmes on an ongoing basis. This means that a programme does not have to be designed in its entirety at the start. Adaptive management has important implications for how monitoring and evaluation is conducted.

Adaptive management — sometimes known as adaptive development or adaptive programming — is a broad approach designed to support programmes in complex or uncertain environments. It can be applied in both development and humanitarian work. It involves regular processes for the collection and analysis of information. This is then used to make changes to a programme throughout its lifetime, which means that the programme does not have to be designed in its entirety at the start.

Adaptive management is often explained in contrast to more traditional approaches to programme planning and implementation. In traditional approaches programmes are designed and planned at the start, and implementation is expected to adhere to those plans throughout the programme lifetime (Rogers 2017).

Adaptive management is not a single method or a set of tools. Instead, it is an approach which can include many different processes and initiatives that are commonly used within development interventions. These include participatory approaches to planning and design, organisational learning, research, beneficiary feedback mechanisms, and a variety of monitoring and evaluation (M&E) methodologies designed to deal with complexity. The key feature of adaptive management is not that programmes may change throughout their lifetime — all programmes do this to some degree — but that a flexible and exploratory approach to programming is used because it is accepted that solutions are not known beforehand. (BOND 2016).

There are two main types of adaptation (ibid). **Tactical adaptation** involves making minor alterations to programmes in response to feedback or routine monitoring information. (This is sometimes known as *single-loop learning*). Simple examples of tactical adaptation are changing the hours of community meetings to better suit beneficiaries, or altering the content of training sessions based on feedback. This kind of adaptation is (or should be) a routine part of most projects and programmes.

**Strategic adaptation** is more concerned with questioning the appropriateness of a development intervention, based on in-depth learning. (This is sometimes known as *double-loop learning*). Strategic adaptation addresses the question *‘are we doing the right things?’* It normally requires deeper and more comprehensive data collection, analysis and review processes. Completely changing the direction of a complex programme has more significant implications than making tactical adjustments. It therefore requires more robust evidence.

In reality, of course, many projects and programmes are adaptively managed. There is a spectrum that runs all the way from rigid adherence to plans whatever the situation at one extreme to fully applied adaptive management at the other. Projects and programmes may lie anywhere along this spectrum.

Some of the key characteristics of adaptive management compared to more traditional approaches to programme management are listed in the table below (adapted from ibid and Andrews et. al. 2012).

<table>
<thead>
<tr>
<th></th>
<th>Traditional approaches</th>
<th>Adaptive Management</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Plan</strong></td>
<td>Lots of advance design and planning; detailed plans and budgets developed for entire programme period.</td>
<td>Initial plans developed, based on assumption that they will evolve over time; design and planning is ongoing throughout a programme.</td>
</tr>
<tr>
<td><strong>Implement</strong></td>
<td>Implementation follows a pre-defined plan.</td>
<td>Course corrections are made throughout a programme.</td>
</tr>
<tr>
<td><strong>Manage</strong></td>
<td>Management is concerned with ensuring a programme stays on course.</td>
<td>Management task is to constantly adapt a programme in the light of evolving experience.</td>
</tr>
<tr>
<td><strong>Monitor</strong></td>
<td>Monitoring is based on pre-defined indicators, focusing mainly on activities and outputs.</td>
<td>Monitoring covers change at all levels from activities to impact; indicators and M&amp;E tools / methods are constantly being refined.</td>
</tr>
<tr>
<td><strong>Evaluate</strong></td>
<td>Evaluation is conducted at the mid-point or end of a programme, designed to assess performance at a point in time.</td>
<td>Evaluation is conducted throughout a programme, designed to enhance performance.</td>
</tr>
<tr>
<td><strong>Learn</strong></td>
<td>Learning is seen as an option, to be included where possible.</td>
<td>Learning is seen as an essential and integral part of a programme.</td>
</tr>
</tbody>
</table>

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When to apply adaptive management

Adaptive management is normally applied in complex or uncertain situations. The term *complex* has a distinctive meaning in social development, which is explained in the box below. Complex programmes are unpredictable and may be affected by many different influences over their lifetime. Similar programmes operating in different environments can generate widely different results, even though the plans developed and actions taken were the same. Consequently, adaptive management is needed to test, innovate, experiment and adapt, rather than follow a pre-defined plan.

### Simple, complicated and complex

A commonly-used framework developed by Snowden and Boone (2007) describes how decision-making can take place in different domains.

In the **simple** domain the relationship between cause and effect is well understood and is linear. For example, in an immunisation programme the procedures for immunising children are well known, and if the task is done properly then the results should be guaranteed.

In the **complicated** domain more work may be needed to establish cause and effect. For example, planning and building a new hydro-electric dam that provides irrigation and power to surrounding areas might be a very complicated task, requiring a great deal of expertise. Nevertheless, clear, linear rules can be established, and a plan can be developed that, if designed well and followed properly, should lead to the desired results.

By contrast, in the **complex** domain cause and effect are not always possible to establish in advance and are often more obvious in hindsight. Things are much more unpredictable, and relationships are non-linear. An example might be conducting mobilisation work in a set of communities. Different communities may vary enormously in their response to a programme, and may be exposed to many influences outside of the programme’s control. Therefore, similar interventions with different communities might lead to completely different, and unpredictable, results.

Adaptive management is more likely to be used when programmes:

- are focused on new or innovative areas of work;
- are operating in new geographic locations;
- involve multiple organisations;
- are focused on sectors such as governance or mobilisation rather than sectors such as health or water and sanitation where cause and effect can more easily be predicted;
- include significant elements of policy influencing and/or capacity development, rather than straightforward service delivery; or
- operate in highly uncertain environments such as those found after natural or man-made disasters.

Many of the current priorities in international development (e.g. combating climate change, working for gender equality, working on governance or conflict resolution) require coordinated action by multiple stakeholders in multiple locations, working towards long-term societal change across national and sector boundaries. It is in these situations that adaptive management is most needed (BOND 2016).

### Requirements for adaptive management

The use of ongoing learning to adapt and refine programmes is always an essential part of adaptive management. This has several implications for how complex programmes should be managed (see Giordano 2017, Rogers 2017, BOND 2016). Some of these are described below.

- In traditional approaches to management, design and planning is carried out at the beginning of a programme, and plans are assumed to be relevant throughout that programme, allowing for minor course corrections. Under adaptive management, flexible intervention plans are developed in the knowledge that they are likely to change. Design and planning therefore becomes more of an ongoing process, constantly reacting to emerging results and learning, as well as external changes and events.

- Adaptive management recognises the need to change programmes based on emerging evidence. But evidence in complex situations is often incomplete, contradictory or contested. Situations may look very different according to different stakeholder perspectives. Within adaptive management it is always important to ensure that different views are sought before making management decisions. The risk otherwise is that the most powerful (or loudest) can manipulate change processes.

- Because course corrections are the norm rather than the exception, there is little point in holding organisations implementing complex programmes accountable for pre-defined activities or outputs. Instead, accountability to donors or funders needs to focus on higher-level results (outcomes and/or impact) or on how well an organisation learns and adapts in pursuit of its goals.

- If programmes are to regularly and rapidly change direction, responsibility for decision-making increasingly needs to be delegated to staff and/or beneficiaries who are closest to the programme work, and therefore have the best knowledge of how a programme is evolving.

- Perhaps the most important implication for donors (including large International NGOs or multilateral agencies that work through partners) is the need for flexible budgets and results frameworks that allow complex programmes to be constantly reviewed and adapted. There is no point in spending time and resources learning that something needs to change if
an organisation is then unable to implement that change because the donor doesn’t allow it.

In summary, adaptive management requires rapid cycles of planning, learning, adapting and re-planning, all carried out within a wider system that encourages and validates continuous change. Conceptually, this is quite easy to understand. But in practice it is very difficult to do.

Implications for M&E

Clearly, adaptive management is not possible without a monitoring, evaluation and learning system that constantly provides information to decision-makers on how a programme is progressing. In theory this is how all M&E systems should operate. But in practice many M&E systems focus primarily on demonstrating accountability to donors for pre-defined results or generating stories for fundraising or marketing purposes. They fail on three counts, called ‘blind spots’ by Rogers (2017), which are all essential for adaptive management:

- they fail to capture results that are not predicted in logical frameworks or similar linear planning tools;
- they fail to recognise alternative contributions to change; and
- they fail to recognise the unique set of conditions and circumstances that lead to changes being realised.

If M&E is to help support the learning required to facilitate adaptive management a number of ingredients need to be in place.

Firstly, CSOs applying adaptive management need to adopt planning and M&E processes that can handle complexity. These can include methodologies (e.g. the Most Significant Change technique or contribution analysis), different types of evaluation (e.g. developmental or real-time evaluations), or complexity-oriented planning tools (e.g. scenario planning or Outcome Mapping). And it is likely that further examples of complexity-oriented processes will be developed in the future.

Secondly, M&E within adaptive management is not just about collecting and analysing new information. It is also concerned with analysing and using the informal information which is routinely generated by staff and managers as part of their day-to-day work. Many adaptations are based purely on sense-making. This involves encouraging different stakeholders from within complex programmes to come together to jointly process existing data and knowledge (see case study opposite).

Thirdly, if M&E is to help deliver the information needed for adaptive management it is important that the disciplines of design, planning, monitoring, evaluation and learning are all fully integrated. Most CSOs recognise that planning and M&E are mutually inter-dependent and need to be integrated. Equally there is increasing recognition of the need to integrate M&E and learning. (The acronyms for Planning, Monitoring and Evaluation (PME) and Monitoring, Evaluation and Learning (MEL) are widely used within social development). But adaptive management requires even greater integration.

For example, as stated in the previous section, strategic planning has often been carried out at the start of a programme, with M&E and learning implemented throughout. And there is a long history of CSOs developing and using a wide variety of design and planning processes such as political economy analysis, context analysis, scenario planning, participatory appraisal, power or gender analysis, etc. (see BOND 2016). But to achieve regular adaptation within programmes, these design and planning processes need to be seen as part of programme implementation, rather than separate exercises carried out before a programme starts. In some circumstances M&E findings might highlight an urgent need to undertake a new context analysis, focusing on a previously unexplored area, or revise an existing political economy analysis in the light of new information.

Fourthly, changing M&E systems to suit adaptive management results in a host of new practical challenges that need to be addressed (see Bowman 2016). These include:

- a requirement to build or enhance the analytical skills of programme staff at all levels;
- the need to enhance procedures for collecting, storing and using information to bring ongoing M&E more in line with existing ethical standards for evaluation and research; and
- the pursuit of information and communication technologies (ICTs) that can shorten the time loops between information collection, analysis and use.

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**Case study: Strategy Testing in the Asia Foundation**

Strategy Testing (ST) is a system developed by the Asia Foundation. It is designed for use in complex programmes. Because of the complex nature of the problems being addressed by the Asia Foundation, solutions are not always obvious or predictable when programmes are designed. ST is therefore designed to emphasise analysis, experimentation and adaptation through short feedback loops that link learning and action.

At the heart of ST is a series of periodic, structured breaks from day-to-day program implementation, where stakeholders can collectively reflect on what they have learned, and ask whether the assumptions underpinning their programme strategies, as outlined in their Theories of Change, are still valid in the light of new information, insights, and shifts in local context. Based on this reflection, programmes are adjusted as needed.

ST was initially conceived as a monitoring tool. However, programme staff see it as a programme development exercise rather than a monitoring exercise because it allows them to adapt programmes in the light of evidence and experience. This means a very close link between monitoring and programming, in contrast to more traditional monitoring approaches, which programme staff sometimes see as an ‘add-on’ for external audiences, that has little relevance for their own work.

The different way in which M&E is conducted within adaptive programming requires different personalities and competencies than for traditional M&E. Currently, many M&E staff are trained to work in a style that emphasises reporting against pre-defined indicators, using linear tools such as the logical framework. But for adaptive management the abilities to think strategically, identify emerging patterns, build relationships, communicate with different groups, and persuade others are likely to be more important than knowledge and experience of traditional M&E methods. Under adaptive management, many years of experience in traditional M&E may in fact be a hindrance rather than a help.

Finally, the changes to M&E practices described above mean that CSOs applying adaptive management need to think differently about how to fund planning, monitoring, evaluation, research and learning. Greater flexibility is needed in the way in which these processes are allocated resources. It does not necessarily mean that more money needs to be spent overall, but the money needs to be spent differently.

**Future trends**

Adaptive management is not a new concept – indeed it has been around for a very long time. However, it is being given increased prominence at the moment, and it is possible that it may become mainstream thinking for complex programmes in the future. The changes required for adaptive management to work are unlikely to make programme design, planning, monitoring, evaluation or learning any easier, but handled properly have the potential to make them better and more relevant.

INTRAC believes that to make all this work, profound shifts in capacities and thinking will be required. Some of these shifts are outlined in the previous section and are well covered in existing literature. Some possible further implications are suggested below. At present, these are mainly the views of the author of this paper.

- In simple projects and programmes the divisions between monitoring, review, evaluation and research are relatively clear. Under adaptive management, however, programmes may need to approach problems from another angle. For example, a programme might decide that it needs to perform some analysis across several case studies around an issue or theme. It will then need to work out the best way to develop the case studies – whether to use internal or external staff, how much money and time to spend, what questions to address, what tools to use, etc. Whether this study is then called impact monitoring, evaluation, review, research or simply ‘a study’ is almost irrelevant. The important thing is knowing what information is needed and how to generate it – not what the study should be called.
- This may have major implications for how evaluations on adaptive programmes are conducted in the future. More flexible M&E and learning may require very short and focused studies, rapidly designed to address key issues. There may be more need for long-term relationships to be built between evaluators and programme teams. And there may be more need for complex programmes to develop internal (or mixed) teams that can provide many of the functions of evaluation, but on an ongoing and flexible basis.
- As a result, ongoing monitoring may be seen as a much more vital exercise, designed to facilitate rapid feedback loops, and will no longer be seen as the ‘poor relation’ of evaluation (see Pratt and Boyden 1985, Simister 2000). An enhanced focus on internal M&E capacity will mean that CSOs pursuing adaptive management may need to improve their recruitment, management and nurturing of internal talent. Individuals and teams will need to have, or develop, the ability to handle M&E within complex programmes without so much reliance on external expertise.
- The other side of the coin is that adaptive programmes may simply become too complex to evaluate by people who have not been involved in those programmes throughout the process (see cartoon on following page). Formal evaluations required by donors for accountability purposes might need to be re-designed. It may become common practice to have internal M&E teams lead evaluations, with external evaluators acting as sounding boards or quality assurance. The job of the external evaluator may then be less to come to an objective assessment of change, and more to hold internal M&E staff to account for the quality of the work they have carried out.
- Another important issue that will need to be addressed is the balance between needing timely information for course corrections and the requirement to wait until all the evidence is available. Some social development objectives can take a very long time to be achieved, and if there is pressure to make course corrections too soon it may lead to a perverse incentive to act before there is sufficient evidence. For example, it could be premature to make course corrections for a programme based on capacity development or policy influencing before long-term results are observed.
- Another trade-off is likely to concern the time and expense required to generate findings against the degree of uncertainty of the findings. Linear planning tools such as the logical framework, and approaches such as Results Based Management, have encouraged a ‘black and white’ assessment of change to ensure reporting against milestones and targets – results have either happened or they haven’t. However, in complex programmes at outcome and impact level almost all M&E findings come with some level of uncertainty. This is not so important when using M&E solely for accountability purposes. But if CSOs wish to take management decisions based on M&E information they need to know what level of uncertainty is acceptable. Is it ok to make a timely management decision based on information that is likely to be accurate? Or should a CSO spend more time and resources to increase the certainty of findings, with the associated danger that course corrections might be too late?
In general, INTRAC is supportive of the drive towards adaptive management and feels it is long overdue. But if it is to be pursued properly by CSOs it will require deep and sustained shifts in thinking, capacities and working patterns – not just within the CSOs pursuing adaptive management, but within other stakeholders and the wider aid system as well. The difficulties of bringing about these shifts should not be under estimated.

Further reading and resources

The M&E Universe contains several different papers that cover tools and approaches used in complex programmes. Links to these papers can be found below.

- Developmental evaluation
- Real-time evaluation
- Realist evaluation
- Outcome Mapping
- Contribution analysis
- Most Significant Change
- Scenario planning
- Theory of Change

The paper “Adaptive management: What it means for CSOs”, produced by BOND (2016) and written by Michael O’Donnell, is currently the best resource for CSOs wishing to look further into adaptive management. This was produced in collaboration with many UK-based NGOs, and provides a detailed explanation of what adaptive management means in the current context.
References


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INTRAC is a not-for-profit organisation that builds the skills and knowledge of civil society organisations to be more effective in addressing poverty and inequality. Since 1992 INTRAC has provided specialist support in monitoring and evaluation, working with people to develop their own M&E approaches and tools, based on their needs. We encourage appropriate and practical M&E, based on understanding what works in different contexts.