

CASE STUDY

Navigating complexity: adaptive management and organizational learning in a development project in Northern Uganda

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Adaptive management is a management paradigm for intervening in complex, unpredictable systems where continual learning and adaptation is vital for success. This management approach requires a fundamentally different set of tools, processes, and most importantly, staff behaviors and organizational culture than ‘traditional’ management. A facilitative approach to development, where the goal is creating systemic change that spreads in networks of local businesses, government, and civil society organizations, necessitates an adaptive approach. Mercy Corps Uganda’s Northern Karamoja Growth, Health, and Governance Program (GHG) has been an ongoing experiment in applying the principles of adaptive management and facilitation. This article details two examples from GHG where adaptation has occurred, and provides an analysis of the tools, processes, and organizational culture that exists. Three salient takeaways for effective facilitation are elaborated on: the importance of staff behaviors and underlying beliefs, particularly with regards to ‘failure’, flexibility to experiment, dissent & debate, and curiosity with the subject matter of their work; importance of consistent messaging from senior management with regards to the same; and tools and processes playing a support function to these behaviours, rather than being their source. Lessons and implications are drawn out from the GHG experience for funders and implementing organizations wanting to apply adaptive management in the context of development programming. These include building flexibility into budgeting and contracts, rethinking the structure and content of reports, and utilizing alternative hiring criteria to attract senior managers who are more likely to succeed at adaptive management.

Keywords: adaptive management; development projects; organizational learning; international non-governmental organizations; Uganda

‘Adaptive management’ is a set of principles that originated in environmental science (since ecosystems are complex adaptive systems). Adaptive management is defined as:

a structured, iterative process of robust decision making in the face of uncertainty, with an aim to reducing uncertainty over time via system monitoring. Adaptive management is a tool which should be used not only to change a system, but also to learn about the system. (Holling 1978)

Two implications of managing adaptively are: (1) as there is imperfect and incomplete information on the system you are trying to influence, continuous intelligence gathering is a must; and (2) as complex adaptive systems tend to be unpredictable, there is no a clear path or ‘right answer’ that can be known ahead of time when planning towards an outcome. This has implications for organizational culture and processes of any team looking to intervene in such a system.

Human societies and economies are complex adaptive systems – a large number of interacting, interdependent agents that respond to internal and external events. With the rise of facilitative approaches and the growing role of interconnected markets in underdeveloped communities, a majority of initiatives undertaken by development practitioners are complex in nature because they rely heavily on local actors changing their behavior as a means to sustainable poverty reduction. In such programming, practitioners have a low degree of control and predictability as to the outcomes of their activities. Since local contexts and markets are affected in unexpected ways during (and due to) program activities, detailed long-term plans have limited utility. This is in tension with traditional management practices, which demand strict adherence to budgets, targets, and activity plans (EWB 2014). The need for new ways of organizing, measuring and managing complex development activities is dire. The shift in development approach calls for a shift in management approach; the principles of adaptive management hold promise for answering that call.

The Northern Karamoja Growth, Health, and Governance program (GHG) is a \$55-million, 5-year program funded by the US Agency for International Development (USAID). The program has been built to learn and adapt; plans and program strategies change continually in order for activities to remain relevant and impactful in a dynamic environment. While GHG works across a diverse number of sectors and employs a variety of development methodologies (some are short-term, direct-delivery; some are highly facilitative and light-touch), activities are knit tightly together around systems-change goals. This means that they aim to change the behaviors, relationships, and incentives in systems of local actors (businesses, government, and civil society), such that the poor have improved access to vital products and services in a sustained, commercially viable way. To operationalize the GHG program’s ambitious and ambiguous mandate, a radically different management paradigm

was needed. Applying adaptive management at GHG required a rethink of organizational structure, processes, and – most importantly – staff behavior and culture.

This paper details two case studies of ‘adaptation’ where the GHG team changed strategy in light of new information. Using these examples, we draw out key tenets of the organizational culture at GHG, followed by some management practices that have helped build it. Finally, based on lessons from GHG, implications are discussed for funders and practitioners who want to apply adaptive management to development programming.

Case Study 1: Facilitating financial access

Systems change goal

Financial access is a crippling problem in Northern Karamoja, where the small number of commercial banks that do have branches are inaccessible – geographically and financially – to the common person. This results in lower levels of saving, food insecurity in the lean season, higher rates of business failure, and lower levels of investment. GHG’s Financial Access Team envisions a future where men and women in Northern Karamoja can access a range of financial products tailored to the personal and business needs of the region. They envision a wide network of sustainable financial access points, likely in the form of Savings and Credit Co-Operatives (SACCOs) that are backed by formal financial institutions.

What was planned

A core part of GHG’s financial services strategy intends to strengthen regulation and oversight of existing SACCOs by the national certification body, and facilitate a mindset and capacity shift within SACCO staff and leadership towards becoming financially viable entities. This includes better management practices, higher-quality service delivery to communities, and an expansion of SACCOs’ customer base. Eventually the team envisions SACCOs receiving wholesale financing from the formal banking sector. This is a slow process of behavior change, and an even slower process of SACCOs rebuilding trust with communities after years of poor service provision.

What happened

While working with seven self-selected SACCOs across three districts, the GHG team encountered a number of interlocked issues: (1) a temporary government subsidy, which was paying for some staff salaries in SACCOs, would be coming to an end in a few months; (2) until the SACCOs expanded their customer base, an outcome still many months away, their current business model would not provide enough revenue to remain operational in the interim; and (3) the GHG team noticed very low mobile banking coverage in Northern Karamoja (limited for the most part to three major towns) – a service that is otherwise

widespread in the rest of the country. Based on these insights the GHG team saw an opportunity to hit three birds with one stone.

How the team adapted/responded

The GHG team brokered a relationship between MTN, one of the major telecommunications providers in Uganda, and interested SACCOs. MTN and several SACCOs have already reached an agreement whereby SACCOs would become MTN mobile money agents, earning a commission on transactions and coupling a new service with their existing offering. The GHG team expects the effect to be threefold: (1) the additional revenue stream will contribute to lowering the SACCOs' upcoming income gap, keeping them solvent through a period of reorganization and change; (2) a trusted and well-known brand such as MTN partnering with SACCOs will help improve their image in the eyes of communities, and provide an avenue for SACCOs to rebuild that trust; and (3) in line with the team's mission to bring commercially-viable financial products closer to the poor, rural households will be able to save and transact using mobile phones as MTN expands into the region.

Case Study 2: Animal health services

Systems change goal

GHG's Animal Health Team envisions a future where high quality, up-to-date, affordable veterinary products and services are available to the poor from local businesses in Northern Karamoja. This is vital for Karamoja's largely pastoralist population, for whom cows and goats are the primary source of livelihood and a bulwark against food insecurity, and where disease is the leading factor that contributes to high animal mortality.

What was planned

One component of the team's strategy involves strengthening the distribution chain of quality animal health drugs, and working with local drug shops and veterinarians to enhance and expand service delivery. The team's initial systems analysis found an existing network of Community Animal Health Workers (CAHWs) in the region, who had previously received training by NGOs and government. It was found that financial access – particularly working capital – was a key constraint to CAHWs delivering services to animal owners. The GHG team decided to tackle this problem by searching out and convincing local credit unions to develop financial products tailored to CAHWs, and by working to strengthen the management capacity of the health workers.

What happened

The GHG team encountered hurdles in their work with CAHWs. In particular: (1) improving access to small-scale finance, particularly from the existing credit unions, was going to prove a challenge in the medium-term; (2) CAHWs were disparate, and not all of them were well-

trained; (3) the perceptions set by years of NGO-driven distribution of animal health services had created distrust and low willingness-to-pay between CAHWs and local communities. Concurrently, the team established relationships with two high-capacity, licensed local drug shops – one of them had spawned from an association of CAHWs. These drug shops were stable, managed by experienced veterinarians, and were eager to expand. The team began to see more traction working with the drug shops than with individual CAHWs.

How the team adapted/responded

After six months of attempting to work with CAHWs, the team decided to eliminate that component from their strategy. GHG no longer works with CAHWs. Instead, the team reoriented their strategy to focus on licensed drug shops that would be able to employ the network of CAHWs over time. The team saw in these drug shops the opportunity for higher leverage and scale. Not only would the shops be able to provide CAHWs with support (technical and credit), but quality of services would be higher under the oversight of licensed veterinarians. Instead of being bound to the performance indicators in their original plan (e.g., ‘average working capital received by CAHWs’ and ‘quantity of supplies delivered by drug suppliers to CAHWs’), they chose to pursue a more impactful strategy that would still accomplish the overarching goal of improving access to animal health products and services (an subsequently revised the indicators as well; one on the revised plan reads ‘% of CAHWs receiving embedded services from local drug shops’). Since then, the team has facilitated a relationship such that Norbrook, a world-class supplier of animal health drugs, has begun distributing in the region through a high-performing drug shop. This nascent commercial link, the first of its kind in Karamoja, resulted in an overnight drop of drug prices by 20-30%.

Building a culture of learning and adaptation

The ability for the program to adapt and change strategies, as described briefly in cases 1 and 2, is primarily enabled by a strong organizational culture. Two salient aspects of this culture are highlighted below: high levels of curiosity, and peer review and debate. Building this culture is a management feat; some of the management strategies employed at GHG are described.

Vigilant monitoring and curiosity

Staff on the GHG program are continually observing and generating intelligence on the changing context in which they are working. They have genuine curiosity and vested interest in their work. This exhibits itself in many ways: staff receiving and making phone calls to check in on key individuals in local communities; going out and observing the behavior of (for example) livestock markets and taking a pulse of livestock prices; taking initiative – even during non-work hours – to seek answers to issues that are nagging at them (for example, a staff member working on the financial access team from Case Study 1 visited credit unions in

the capital city while on vacation to learn about share price rules). Spontaneous ‘what if’ and ‘how might we’ conversations are the norm at GHG, with staff crowded around whiteboards in the office or informally at social gatherings on a Friday night discussing their work.

Without real-time insight on what is occurring in the program area, there would be no way of justifying a shift in strategy. Further to this, when staff are engaged and curious, they are able to identify and pursue new opportunities to further programmatic goals such as identifying a new partner or champion (e.g., mobile money as described in Case Study 1), or coming up with new ideas to test. Thus, a culture of curiosity and genuine engagement is fundamental to adaptive management.

Peer review and constructive tension

The assumption in adaptive management is that strategies cannot be determined based on ‘what has worked before,’ but instead must be discovered through experimentation. In order to do this, a culture of peer review, respectful dissent, and creative tension must be fostered. This makes strategy the product of many minds, perspectives, and action-learning at all levels of hierarchy. When the animal health team was debating their switch in strategy as described in Case 2, they did not do it in isolation. The proposed change in strategy was debated and discussed with senior management, and the case for the change critiqued by other teams at GHG. This is just one example of many; at GHG, strategic decisions are almost never made by management alone. They involve a session of constructive criticism and respectful dissent with senior management, team leaders, and officers all participating on an equal setting. There is an understanding between all staff – and a comfort – that constructive dissent and tension is a good thing for new ideas and smarter interventions to emerge. This is enabled by mutual respect and trust. There is a shared belief that everyone is on the same team and believes in the same mission, even if they disagree on ‘how’ to get there. Respectful dissent and peer-review occurs both formally (in strategic review meetings, team leader meetings, and when the learning officer periodically sits with each team to ask probing questions) as well as informally where staff ask each other for feedback on ideas on-the-fly. This culture reinforces itself, particularly when management encourages it, and when interventions begin to bear fruit.

Messaging by senior management

In any organization, staff are sensitive to signals, particularly from management, whether they be intended or unintended. A passing comment by a manager may be taken as mantra by a field officer. For example, a reference to performance evaluations may be interpreted as a threat and thus lower openness in communication. Consistent, intentional messaging has been a keystone in building GHG’s organizational culture. Management plays two roles in this regard: first, as a sender of signals; second, just as importantly, as an arbitrator that amplifies or dampens signals being sent by others, internal and external. Within the GHG program messaging has been meticulously managed, particularly in Year One. It has been managed

along three prominent lines, each discussed in turn below: mission, flexibility, and respectful dissent.

Messaging on mission

Adaptation and creativity can only emerge if there is a specific goal, a well-understood mission, around which staff can adapt activities. Program quality hinges on what that mission is and how much it enables flexibility and creativity. For example, is the mission to meet a target of 10,000 households accessing animal health services? Or is it to invisibly facilitate a market system in which local providers are permanently offering animal health services on a commercially viable basis? The former induces an anxiety that can lead to staff wanting to exert more control over the intervention, and the space to experiment and adapt shrinks. This is often true when an output target is the ‘mission’. For this reason, the detailed, high-level systemic changes in teams’ results chains serve as their ‘mission’ (as described in the first part of each case study). These are phrased carefully; messages such as ‘none of us know how to solve poverty so let’s learn and try different things,’ and ‘we are not permanent actors’ are front and center. There has been an emphasis on the program’s role as a facilitator and on the goal being system-wide change that serves the poor as opposed to helping individual partners or beneficiaries. This allows a team such as the Animal Health team in Case Study 2 to forsake a performance indicator, as long as the change in strategy is still aligned with the broader mission the team is pursuing.

Messaging on flexibility

Staff have to be reminded continually that they are allowed to try new things, and that failed initiatives are okay as long as they are learned from, and as long as the failure was not due to negligence. Staff are encouraged to bring new ideas and questions up in conversation with management, and a high level of autonomy and latitude is given for staff to experiment. Staff on the program feel comfortable sharing ideas, even incomplete ideas, with management and each other, knowing they will receive engagement not ridicule from their peers. Multiple staff members have voiced appreciation for this flexibility: “We have bosses that are flexible in their minds as well. You can explain things and they will understand.”

Messaging on respectful dissent and creative tension

Because of its unorthodoxy, constructive dissent and debate cannot be merely suggested; it must be demanded from employees. The Chief-of-Party at GHG does that from the very moment an employee is hired by warning them: “I want you to argue with me. I am not always right.” This message is reinforced, over and over again, when arguments do happen and the experience of debate is talked about favorably: “That was a great conversation.”

Consistency is the unsung hero of effective messaging. Because staff are sensitive to signals, organizational culture can be quickly damaged by a misaligned message. This occurs most commonly at GHG with regards to contractual requirements, monitoring & evaluation targets,

and donor visits. While each of those serve important functions, care must be taken not to let them disrupt consistent messaging. There should be flexibility on how best to meet contractual requirements. M & E targets should never become the mission. Senior management plays a key role in insulating and sheltering staff from conflicting goals and messages.

Role modeling by senior management

Messaging is important, but not adequate on its own. A critical mass of people within the organization – especially senior management – need to ‘walk the talk.’ Management needs to role model great behavior, and publicly promote/recognize staff that are doing the same. Two key areas in which this has been done at GHG are discussed below: admitting failure, and critical thinking and engagement.

Role modeling ‘admitting failure’

Ubiquitously, the word ‘failure’ carries the connotations of ‘inherently bad’ and ‘to be avoided.’ This mental model needs to be overturned if adaptive management and learning is to occur. Human behavior does not naturally lend itself to violating its built-up beliefs, and thus admitting failure is one of the most difficult things to learn. One of the best things a manager can do is role model this behavior because it counters the norms of ‘failure is bad’ and ‘manager is right.’ Because a manager is the natural role model, the gate-keeper to accepted behavior in the organization, a manager admitting failure regularly and frankly to his/her staff reduces the barriers to staff doing the same. This has been an important culture-setter at GHG (though it does not occur as much as it could). The Chief-of-Party publicly states his mistakes, and what he learned from them, in situations where (for example) assumptions behind program strategies are proven false or where specific tactical decisions cause a partnership to go awry.

Role modeling critical thinking and engagement

Critical thinking and engagement includes behaviors such as reading new literature, asking questions of weekly reports, revisiting program strategy and questioning the underlying hypotheses, and sanctioning new studies. With a large program, this is a challenging behavior for management and staff alike to keep up. It is vital, however, because otherwise the program would become static. A continual churn of information and analysis, characterized by new discussions and debates – in email chains, in one on one conversation, and in formal meetings – provide the fodder for adaptation. Managers engaging with the day-to-day activities of staff from a place of learning and interest (rather than one of micromanaging) is deeply motivating for staff and pushes them to do the same with their peers. In practice, this means managers asking questions, exploring issues together with staff, and not providing answers or playing an accountability role unnecessarily.

The role of tools and processes

The foundational culture – of investigation, debate, and experimentation – has been supported by a broad set of tools and processes. Management of messaging and role modeling, and hiring the correct staff, build the culture; the tools support it at every level of programming: conceptual to tactical. Tools such as weekly reports and after-action reviews enable reflection and learning in staff's day-to-day, simple forms that ask staff questions such as 'what was intended' and 'what happened, and why.' Other tools, such as results chains and strategic reviews, support reflection on the underlying hypotheses in the program's theory of change (see Figure 1). As much as possible, prescription is kept to a minimum to ensure staff are using the tools and processes to genuinely adapt, rather than using them because 'they are a requirement.'

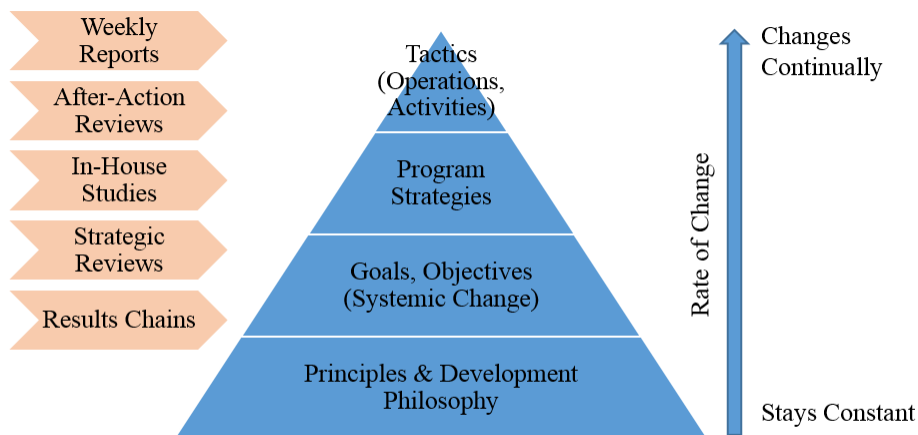


Figure 1 - Tools and processes must support reflection and learning at all levels of the program: from day-to-day operations to higher-level theories-of-change

Conclusions: implications for funders and practitioners

Below are some lessons and ideas to prompt further discussion amongst practitioners and funders who want to operationalize adaptive management in development programs.

Hiring the 'right' senior managers

Adaptive management calls for a shift in how managers and leaders behave (particularly in messaging and role modeling key behaviors), which must be hired for. Traditional management roles such as performance management and work planning must be balanced with trust, empathy, and flexibility. Command and control, which is effective at managing large activities with set tasks, must be forsaken in adaptive management. Employees must feel comfortable sharing failures with management. This calls for a different set of attitudes and personality types in management roles than would traditionally be hired for. This means changing the hiring criteria, experience requirements, and interview process for senior

managers of complex programming. Management, emotional intelligence, and soft, staff-coaching skills must be valued above technical and donor experience. Attracting managers from fields such as complexity science and environmental management, and from the innovation/start-up sector holds promise as well.

Planning for changes to the plan

Unpredictable changes in the environment and activities means detailed budgets and work plans cannot be locked down for the program duration, or even for one year. Activities will evolve, and so will spend-rates. Program logics and budgets should be designed in a way that allows for change. Larger (and fewer) budget lines that are defined at the outcome level (as opposed to activity level) create the space for adaptation as program activities change. Space must be created within the program (through practices such as strategic reviews) to make changes to the work plan. While flexibility is risky from a fiduciary responsibility perspective, a middle ground must be struck in the negotiation between funders and implementing organizations that would allow practitioners to change work plans in a timely and responsive manner.

Investing in intelligence

‘Situational awareness’ and socio-political intelligence gathering is vital to informing program activities. The ‘how’ matters as much as the ‘what,’ especially in complex programming. Detailed knowledge of the ever-changing power dynamics, market players, and politics of an area is incredibly valuable in informing the ‘how’. Making sure this nuanced information gets used to inform and change programmatic activity can mean the difference between success and failure. Firstly, staff should be encouraged to gather intelligence; one way to reinforce this is including it in performance evaluations. Another way is by ensuring staff time is not bogged down in activities. Secondly, higher levels of staff time (and hence, as a percentage, higher proportion of the budget) spent on intelligence gathering can have a disproportionately positive effect on the impact of activities. This calls into question the definition of ‘overheads’.

Balancing learning, acting, and reflecting

Managers must keep abreast of the ‘pulses’ of learning and action during implementation. Program strategies go through cycles of investigating/measuring, (re)strategizing, and implementing. While all three functions occur simultaneously to a degree, there are times when a team may be predominantly implementing, predominantly investigating, etc. It is important to manage for this by: (1) ensuring they don’t get stuck in any one mode for too long; and (2) the correct management support and tools/processes are available and being encouraged at each stage.

Reporting and donor engagement

The appropriate format and amount of reporting and donor engagement relates strongly to how a manager controls messaging and motivation for staff on an adaptive program. Ideally, regular program reporting should cover three areas: (1) what the program attempted in the reporting period and with what result, with specific attention to failures and unintended effects (or unanticipated behaviors); (2) what the program learned as a result of (1); and (3) what the program is doing or intends to do to incorporate learning from the period's activities. This would shift the focus of reporting from activities and simple outputs to learning, helping reinforce the importance of adaptation with program staff and keeping the donor's focus on the program's learning. It would also make it much easier for donors to differentiate between learning and non-learning programs – you can't fake adaptation.

Lastly, adaptive management requires a nuanced partnership between program managers and donor representatives that deserves consideration by all parties. In the current predominant paradigm of control, the space for adaptive management is unfortunately in the margins – adaptive managers too often focus on asking for forgiveness instead of permission, seeking to avoid heavy donor involvement, and risk alienating donor representatives who then justifiably accuse them of 'innovating in a vacuum.' For there to be adequate licit space for adaptive management, donors must reconsider the risk appetites and incentives for frontline staff, many of whom are institutionally motivated to be highly risk averse.

With a growing wealth gap worldwide and decreasing role of foreign aid in national budgets, the development community faces a huge challenge. For development programs to be effective at reducing poverty, aid needs to be spent strategically. The impact of every dollar needs to be multiplied exponentially if the poor are to benefit. 'Leveraging the private sector,' facilitative approaches, and systemic change are all examples of how the development community is attempting to do exactly that. These approaches, however, are fundamentally different from past paradigms: they involve development practitioners being catalyzers, standing behind local actors, as opposed to delivering services to the poor directly. This process is messy, unpredictable, and complex. Ultimately, however, systems change and facilitation is a better, more impactful, and sustainable use of development funding. And adaptive management – an uncomfortable, new management paradigm – is vital to its success.

References

- EWB Canada (2014). Briefing Paper: Shifting aid models to manage for systemic change. Engineers Without Borders Canada. Toronto. Online. Available: <http://tinyurl.com/pvmo2fj>
- Holling, C. S. (1978). Adaptive Environmental Assessment and Management. Wiley, London. Reprinted by Blackburn Press in 2005.

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Amir Allana is focused on applying the principles of complex adaptive systems, systems-thinking, and systems dynamics to large-scale multi-disciplinary societal problems. This involves: (i) strategic decision-making using a systems-change lens (e.g., in fields such as economic development, and public policy & planning); and (ii) management strategies for building learning and adaptability into organizational culture to enable such decision-making. Amir holds a degree in Energy Systems Engineering from the University of Toronto, and has worked on domestic & international issues in Ghana, Uganda, Kenya, and Canada over the past five years. These include partnerships with development programs taking a facilitative approach, such as the USAID Uganda LEAD project, USAID Uganda's Feed the Future Agriculture Inputs Activity, and two programs run by Mercy Corps in tough, post-conflict environments. Amir is currently working on long-term energy policy and planning in Ontario, Canada with the Independent Electricity System Operator (IESO).

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