THEMATIC NOTE 4

Monitoring Agricultural Innovation System Interventions

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SYNOPSIS

This note deals with strategies for monitoring AIS interventions. Innovation system interventions make explicit assumptions about the nonlinearity of change and innovation in their design, and in doing so, they place specific demands on monitoring arrangements. These assumptions hinge on the recognition that innovation usually involves simultaneous technical adaptation and changes in the way things are done—in other words, institutional (and policy) adaptation—and that the final impacts will occur only when institutional adaptation has been achieved. Process-oriented monitoring methods that can cope with learning-based interventions have been around for some time; innovation system interventions should rediscover and adapt these methods rather than reinvent them. These types of monitoring methods include Outcome Mapping, Rapid Appraisal of Agricultural Knowledge Systems (RAAKS), the Most Significant Change (MSC) approach, and Participatory Impact Pathway Analysis.

BACKGROUND AND CONTEXT

In common with all interventions, good practice in agricultural innovation interventions requires effective performance management accompanied by reporting arrangements that ensure accountability. This thematic note deals with monitoring—the effective management of performance by implementers so that they can achieve desired outcomes and report their progress to investors. A separate thematic note (TN 5) deals with evaluation—the assessment of impacts and the generation of lessons for future interventions by investors and planners. Traditionally, monitoring systems in interventions have focused on tracking performance against a set of milestones agreed with the investor at the intervention's inception. In reality, agricultural development interventions—particularly those related to innovation systems—are rarely this simple, and the underlying assumptions often prove to be unrealistic. Monitoring practice has for some time recognized this nonlinearity of agricultural and other development interventions, accepting that outcomes and impacts are achieved following constant iterations of an approach based on experience emerging from the intervention itself. This awareness is evident in the range of learning-based interventions that have emerged in recent years, such as adaptive collaborative management techniques in natural resource management (Colfer 2005; Guijt 2007) or techniques such as project Outcome Mapping (described in box 7.12 later in this note).

Innovation system interventions make explicit assumptions about the nonlinearity of change and innovation in their design and, in doing so, place specific demands on monitoring arrangements. These assumptions hinge on the recognition that innovation usually involves simultaneous technical adaptation and changes in the way things are done—institutional (and policy) adaptation. A related assumption is that final impacts such as changes in yield, incomes, food availability, or environmental sustainability will occur only when institutional adaptation has been achieved. The intervention logic of innovation system interventions is that while technological adaptations have the potential for immediate impacts, institutional and policy adaptations strengthen capacities for innovation that remain and continue to develop beyond the life of an intervention. These capacities lay the foundation for future technical adaptations and lead to social and economic impacts.

This focus on institutional adaptation highlights the need for those implementing an intervention to monitor how effectively their actions stimulate new ways of doing things. Often this kind of change involves stimulating the adaptation of informal institutions—for example, by developing links between research, enterprise, development, and (sometimes) policy players and then finding ways in which

these networks can work effectively. Sometimes it involves stimulating changes in formal institutions, such as land tenure arrangements, regulatory regimes, pricing policies, or the roles of certain organizations. This process, in turn, requires interventions to facilitate negotiations about change between different stakeholders. Both types of institutional change need to be tracked.

Because the environments in which institutional changes must take place have highly specific features, the process of stimulating change can rarely follow a set plan. Instead an experimental approach is needed. This means that interventions must be learning based and reflexive, which is why monitoring is so critical: It assumes the role of helping to determine whether the intervention's chosen approach is resulting in desirable outcomes and whether the intervention needs to respond to other (often unexpected) changes in its environment.

Since the nature of institutional bottlenecks may become apparent only during the course of an intervention, indicators of performance will need to be developed on a case-by-case basis and constantly revised. Recording unexpected institutional changes is an additional way of alerting an intervention's investor that progress is being made.

Interventions also will need to monitor progress toward final social, economic, and environmental impacts. Such monitoring implies a set of assumptions about the relationship between these institutional outcomes and final impacts. Interventions need to test these assumptions by monitoring outcomes farther down the results chain toward final impact to verify whether the institutional changes that have been enacted are likely to lay the foundation for those final impacts. This monitoring provides information that can feed into adjustments in the intervention; it also acts as a means of reporting on progress and remaining accountable to investors.

The monitoring of innovation system interventions also emphasizes the need to make information accessible to all stakeholders involved. Information collection approaches will need to be inclusive and transparent, and information management systems must provide open access to all, not just those involved in designing monitoring arrangements.

INVESTMENT NEEDED

Practitioners have become better equipped to manage the performance of learning-based, institutional adaptation processes and the complex impact chains that are likely to be encountered in innovation system interventions. The challenge of monitoring innovation system interventions is therefore to learn how current good practice and principles are best deployed to meet the demands of this type of intervention. Process-oriented monitoring methods have been around for some time, and innovation system interventions might need to rediscover and adapt those methods rather than reinvent them. Boxes 7.11 and 7.12 illustrate two such methods: Rapid Appraisal of Agricultural Knowledge Systems (RAAKS) and Outcome Mapping.

Principles for selecting monitoring methods

Several principles from good practice stand out and make a useful guide for selecting monitoring methods from among the many that are being adapted to the learning orientation of innovation system interventions. These principles are particularly useful at a time when experience of monitoring innovation system interventions remains limited. They include the following:

- ***Balance accountability and learning.*** Aside from collecting the data required for reporting to the investor, implementers will need to collect monitoring data that will help them manage the performance of their intervention. All of the methods summarized in table 7.8 support learning-based monitoring for interventions.
- ***Make assumptions explicit, and revisit theories of change.*** The greater learning orientation of monitoring implies a need to make assumptions about change processes explicit in planning interventions and a need to revisit and test those assumptions. Previously practitioners tended to regard such assumptions as a given. By exploring and responding to the validity of the assumptions on which an intervention is based, however, implementers can improve the intervention's effectiveness. All of the learning-based approaches in table 7.8 involve testing underlying assumptions. If an intervention's theory of change must be altered, it is important that the investor be made aware of the change in accountability reporting.
- ***Incorporate different stakeholders' perspectives.*** The shift to address the question of how things happened and to track unexpected outcomes requires a much stronger emphasis on widening the scope of participation in monitoring. Wider participation helps to capture the perspectives of the poor (and other stakeholders) on the actual effects of an intervention (social, economic, and institutional). It also makes it possible to develop a fuller understanding of the process through which those effects came about. Different stakeholders may have different interpretations of cause and effect. It is now good

Box 7.11 Rapid Appraisal of Agricultural Knowledge Systems

A Rapid Appraisal of Agricultural Knowledge Systems (RAAKS) focuses primarily on knowledge and information systems. The appraisal is a structured inquiry into the social organization of innovation, based on the inputs of those involved: the way the actors behave, how they interact and form networks, how they go about cooperating and communicating, what stimulates them to learn, and what blocks them from learning. Actors gain a shared understanding of their performance as innovators—their perceptions, judgments, understanding, and capacity to take decisions and act—and learn to contribute more effectively to innovation.

The main elements of RAAKS are as follows:

- ***Strategic diagnosis.*** Joint definition of useful strategies through an appraisal of opportunities and obstacles.
- ***Creative tension.*** Compare and contrast the multiple findings that represent the various analytical perspectives.
- ***Design of solutions.*** Participants are encouraged to analyze, interpret, and, based on these steps, design potentially useful solutions.

Strengths

- Provides insights into the social organization of innovation and people's values, motivations, and reactions.
- Improves the generation, exchange, and use of knowledge and information for innovation.
- Builds capacity among the actors involved by making them conscious of their performance as innovators.

Weaknesses

- A complex methodology with a series of steps, exercises, and tools to be implemented.
- A strong focus on rural activities; does not consider the wider setting of the innovation system (actors other than those involved in activities in the rural domain).

Best use or application

- Together, actors develop a common understanding of their performance as innovators.

Source: Kammili 2011; Salomon and Engel 1997.

practice in monitoring to recognize these divergent perceptions. This principle extends to the need to draw on perspectives from a wider range of stakeholders in developing the theory of change that will guide an intervention's implementation and learning. Box 7.13 illustrates one approach for widening participation in monitoring; others are included in table 7.8.

- ***Mixed methods.*** Expanding views of monitoring require quantitative methods (to measure outcomes) to be combined with qualitative methods (to understand and learn from institutional and process changes). To understand institutional and process changes, and to establish their causal links to outcomes and impact, monitoring will need to place much greater emphasis on qualitative methods such as Innovation and Institutional Histories (box 7.14) or Causal Process Tracing (table 7.8). Rather than measuring levels of income and social variables, it may be more appropriate to use proxy indicators of changes that will lead to these impacts in the future (for example, changes in yields or quantities of fertilizer sold), although these indicators contain their own assumptions about the causal chain to impact. Data collection techniques for tracking outcomes include small sample surveys, participatory appraisal techniques, and longitudinal household case studies. It is important to keep these activities in proportion to the task of managing the intervention, however. Costly and time-consuming baseline surveys do not lend themselves to learning-based interventions for the simple reason that they do not generate information quickly enough to inform how an intervention is managed (see the examples from IAPs 6 and 7).

Available monitoring methods

Table 7.8 presents the strengths and weaknesses of a range of monitoring methods that have relevance to innovation system interventions. These methods have a number of

Box 7.12 Outcome Mapping

Outcome Mapping reflects the idea that development is done by and for people. The central concept of Outcome Mapping is that development is achieved through changes in the behavior, actions, relationships, and activities of people, groups, and organizations with which an intervention works directly (the "boundary partners"). The originality of this approach stems from the fact that there is a clear shift from measuring the outputs of an intervention (poverty alleviation, reduced conflict, and so forth) toward trying to assess changes in behaviors, relationships, and actions of the people and the organizations directly involved. By emphasizing behavioral change, Outcome Mapping aims to assess "contributions" to impacts rather than claim "attribution" for impacts.

The boundary partners are identified, as are strategies for equipping them with tools and resources so that they can contribute to the development process. An intervention thus facilitates changes but does not cause or control them directly. Outcome Mapping maps how an intervention influences the roles partners play in development through a set of graduated indicators of changed behavior. It monitors and evaluates three elements of the intervention: behavioral changes, the strategies used by the intervention to stimulate change among the partners, and how the intervention functions as an organizational unit. Through these three elements, Outcome Mapping unites process and outcome monitoring and evaluation.

Strengths

- A robust methodology that can be adapted to a wide range of contexts. Outcome Mapping's very flexible approach allows it to be used as a planning or replanning tool and at the beginning or midway through an intervention. Outcome Mapping can also be used as a monitoring approach throughout an intervention or as a framework for evaluation.
- It complements standard approaches and thus can be used in combination with other methodologies.
- It unites process and outcome evaluation.
- Monitoring provides the space for critical self-reflection and learning.

Weaknesses

- Most assessment data are generated by the intervention, raising the question of whether the data are objective (for example, failures may be whitewashed).
- Uncertainties about combining Outcome Mapping data with more quantitative data.
- Lack of clarity about how to deal with and integrate new boundary partners.

Best use or application

- Satisfies the need for accountability as well as learning about the change process.

Source: Kammili 2011; Earl, Carden, and Smutylo 2001.

characteristics, discussed below, that make them different from conventional milestone-based monitoring techniques. The discussion provides a flavor of the new approaches to monitoring that will be seen in the coming years in innovation system interventions.

The value added by the new monitoring techniques reviewed in table 7.8, compared to conventional milestone-based techniques, may be summarized as follows:

1. ***Explanatory***. A focus on reconstructing events in an attempt to understand why a particular course of action led to the outcomes observed or failed to achieve expected outcomes. This understanding is important for innovation system interventions, in which experimentation and action learning are the main routes to success.
2. ***Inquisitive.*** Recognition of the importance of unexpected outcomes and the need to record and learn from them. This perspective is particularly useful in innovation system interventions, because their process-driven nature can lead to unanticipated outcomes that have significance.
3. ***Communicative and accessible.*** Monitoring approaches as ways of sharing results and lessons and building a joint understanding of events that have taken place. Making information accessible to all stakeholders is important in innovation systems, because it is a way that organizations learn and improve their performance.

Table 7.8 Overview of Methods for Monitoring AIS Interventions

Method	Purpose/use	Strengths	Weaknesses	Major references
Innovation and Institutional Histories	– Understand past innovation processes and identify institutional factors that foster or hinder innovation. – Forge a shared vision of the future among stakeholders.	– Fosters discussion among stakeholders and leads to reflection and learning. – Helps build a shared vision of the future.	– Written accounts are based on recollections and could be biased. – Need skilled facilitators to help collect and analyze the information. – Usually takes a very long time for significant lessons to emerge.	Douthwaite and Ashby (2005); Shambu Prasad, Hall, and Thummuru (2006)
Participatory Impact Pathway Analysis	– Guide project management, especially in complex situations where innovation is seen as emerging from a network.	– Involves staff and key stakeholders of an intervention in constructing impact pathways. – Includes both (1) causal chain of activities, outputs, and outcomes that shed light on how an intervention achieves its goals and (2) network maps that show evolving relationships between participants. – Underlines the fact that innovations emerge from a network and not a linear "pipeline." – Promotes reflection, self-evaluation, and learning. – Provides a framework for carrying out action-research.	– A relatively new approach that needs to be further implemented to gauge its weaknesses.	Douthwaite et al. (2003)
Causal Process Tracing	– Well suited for complex and long-term interventions with systems learning goals.	– Places data and theory in close proximity. One quickly sees what works and what does not in an intervention's lifetime.	– Regarded as not very strong for wider generalization but more suited to narrow specification of the reach of causal propositions. – Takes a great deal of time. – Not conducive to parsimonious theory and leads to partial, middle-range theory. It is easy to miss causal complexity. – Easy to lose sight of the broader context.	George and Bennett (2005); CoS-SIS (2009); Walters and Vayda (2009)
Reflexive Monitoring in Action	– Best suited for long-term interventions with systems learning built into their mandates.	– Mechanisms built into the intervention permit all participants to contribute to learning by reflecting on the relationships between key aspects and ambitions of the intervention as well as the practices and institutions in which they are embedded. – Monitoring is integral to the intervention, so insights gained are built into and experimented with in new activities. – Encourages investigators to look for creative solutions. – Reflexive monitoring in an intervention ensures that those involved develop new ways of working to keep up with changes in the intervention's institutional context.	– Works in theory for long-term interventions oriented to systems learning, but most development interventions do not have the luxury of long-term learning as the sole goal and need to demonstrate (developmental) impacts throughout the life of the intervention. – A coherent set of tools and principles, but in essence the approach is still being developed and not in widespread use, so experiences from the field are few.	van Mierlo et al. (2010)

(*Table continues on the following page*)

Table 7.8 Overview of Methods for Monitoring AIS Interventions (continued)

Method	Purpose/use	Strengths	Weaknesses	Major references
Appreciative Inquiry	– Identify positive changes and look for unexpected outcomes.	– Fosters learning from past and contemporary situations. – Opens up the possibility of looking at different things in new places/ways. – Interviews allow for deep connections, unexpected learning, and a sense of empowerment.	– Like Innovation and Institutional Histories, this method can suffer from bias or incorrect reporting.	Biggs (2006); Acosta and Douthwaite (2005); Hall, Sulaiman, Bezkorowajnyj (2007)
Outcome Mapping	– Satisfy the need for accountability as well as learning about the process of change. – Especially useful for assessing what causes change in behavior, relationships, activities, or actions of the people, groups, and organizations with whom an intervention works directly. – Well suited for complex and long-term aspects of interventions with outcomes that are intertwined and difficult to segregate.	– A robust methodology that can be adapted to a wide range of contexts. Its flexible approach allows it to be used as a planning or replanning tool, at the beginning or midway through an intervention. It can also be used as a monitoring approach throughout an intervention or as a framework for evaluation. – It can complement standard approaches and can be used in combination with other methodologies. – Unites process and outcome evaluation. – Monitoring provides the required space for critical self-reflection and learning.	– Does not replace but complements ***logical framework analysis.*** – Most data is self-assessment data generated by the intervention, which raises the question of objectivity. – Unclear how to combine resulting information with more quantitative data and how to deal with and integrate new boundary partners.	Smutylo (2005); Earl, Carden, and Smutylo (2001); IDRC n.d.
Most Significant Change	– Make sense of an intervention's impact and foster learning. – With the help of all primary stakeholders, identify the most significant changes that have occurred as a result of an intervention.	– Enhances capacities of stakeholders (at the organizational and individual levels) and fosters learning. – Helps identify unexpected changes or outcomes. – Large amounts of information are processed, from which negative and positive changes are deduced. – More accessible than traditional M&E techniques; no specific skills required to participate.	– A subjective expression of the values and concerns of the stakeholders designated to select the stories.	ECDPM (2006); IFAD (2002); Davies (1996); Davies and Dart (2005)

Rapid Appraisal of Agricultural Knowledge Systems	– Help actors as a group to understand their performance as innovators.	– Provides insights into the social organization of innovation and people's values, motivations, and reactions. – Improves the generation, exchange, and utilization of knowledge and information for innovation. – Enhances capacity building of the actors involved by making them conscious of their performance as innovators.	– Complex methodology with a series of steps, exercises, and tools to implement. – Strong focus on rural activities does not consider the wider setting of the innovation system (actors other than those involved in activities in the rural domain).	Salomon and Engel (1997); ECDPM (2006)
Stories and Narratives	– Shed light on the changes that have occurred at the individual, organizational, or institutional level. – Uncover intangible factors (qualities, values, culture, and so forth) that determine the organization's character.	– Exchanging stories builds trust between participants; in some cases may lead to an environment conducive to learning and stimulate change. – An effective way to deal with passions and emotions of individuals involved. – Has the potential to stimulate change if told correctly. – Individual focus can translate into organizational development. – Not hierarchical.	– Biased; depends on the perspective of the person telling the story.	Asif (2005)
Performance Indicators	– Used to assess innovations for which cause and effect are known and can be linked through predetermined performance indicators.	– Effective means to measure progress towards fixed objectives. – Facilitates benchmarking comparisons over time.	– Definition of indicators guarantees success. When indicators are defined poorly, they are not good measures of effectiveness. – Predetermined indicators do not allow for measuring unexpected changes. – A risk that the intervention will need too many indicators; data for some indicators may be inaccessible or costly and impractical to measure.	World Bank (2004)

Source: Authors.

Box 7.13 Most Significant Change: A Form of Participatory Monitoring and Evaluation

Most Significant Change (MSC) is a form of participatory monitoring and evaluation that involves many participants in an intervention to decide what kinds of changes need to be recorded and to analyze the information collected, which can be used to assess the intervention's performance and impact. The approach focuses on collecting significant change stories that emerge from the field. Significant changes can include changes in people's lives and participation levels as well as changes in the sustainability of people's institutions and their activities.

Together, stakeholders decide what is going to be monitored. MSC process managers identify broad domains of change that they assume to be important and that should be evaluated. These domains of change are deliberately wide and inclusive. Stakeholders identify significant changes in a particular domain of change and justify why they think these changes are the most significant. The stories are analyzed by stakeholders at every level (field, organization, investor, and so on). This approach is a fairly simple way to make sense of a large amount of information. The central aspect of the technique is not the stories themselves but the deliberations and dialogues surrounding their selection. If implemented successfully, MSC causes whole teams of people to focus their attention on the intervention's impact.

Strengths

- Enhances capacities of the stakeholders (at organizational and individual levels) and fosters learning.
- Helps identify unexpected changes or outcomes.
- Processes large amounts of information, from which negative and positive changes are deduced.
- More accessible than traditional techniques for monitoring and evaluation, and requires no specific skills to participate (everyone can tell a story).

Weaknesses

- The approach is a subjective expression of the values and concerns of the stakeholders designated to select the stories.

Best use or application

- To make sense of an intervention's impact and foster learning.
- To identify the most significant changes that have occurred as a result of an intervention, with the help of all primary stakeholders.

Source: Kammili 2011; Davies 1996; Davies and Dart 2005.

4. ***Inclusive.*** A focus on the inclusiveness of the monitoring process. Inclusiveness can help diffuse tensions around the change process associated with innovation system interventions. It is also a way of helping to build the linkages that these types of interventions need.
5. ***Rapid.*** These methods generate information quickly. This consideration is important for innovation system interventions, which must be nimble in responding to unfolding events.
6. ***Nonexpert/open access.*** Methods are designed to be used by all those involved in interventions—that is, for self-assessment—rather than by monitoring experts. These methods are also designed to promote access to the information generated. Open access is important in innovation system interventions, because managing performance and achieving results is the responsibility of all those involved.
7. ***Tailor-made.*** A number of methods involve the use of institutional change indicators. The emphasis is on developing these indicators based on the nature of the intervention being monitored. Approaches accommodate the fact that indicators of performance are a moving target and need to be revised constantly. Tailoring indicators in this way is particularly suitable to the learning-based characteristic of innovation system interventions, in which the specific nature of the institutional change being sought rarely can be predicted, aside from generic terms such as the degree of participation, the strengthening of links between stakeholders, or the inclusiveness of decision-making processes.

Box 7.14 Innovation and Institutional Histories

The Institutional History method helps people involved in the innovation process construct a shared understanding of how innovation has occurred. Institutional histories are narratives written jointly by people who have been involved in an innovation. The history records changes in institutional arrangements (new ways of working) that evolve over time and facilitate the achievement of goals.

This approach highlights the importance of institutional innovations. The main idea behind these histories is to introduce institutional factors into the legitimate narrative of success and failure in research organizations. Histories can be written by using interviews to construct a timeline, gain a clear understanding of roles and relationships, inquire into what triggers or hinders successful innovations, and reflect on failures. Lessons drawn from the analysis can be used to improve performance.

The dialogue that is promoted between the actors during the preparation of institutional histories can promote learning and capacity building. The conclusions drawn can be used in subsequent planning and help to formulate a shared vision that can catalyze change. These experiences can then be scaled out by disseminating the findings of the innovation process.

Strengths

- Fosters discussion among stakeholders and leads to reflection and learning.
- Helps build a shared vision of the future.

Weaknesses

- Written accounts are based on recollections and could be biased.
- Skilled facilitators are needed to help assemble and analyze the information.
- It usually takes a long time for significant lessons to emerge.

Best use or application

- To understand past innovation processes and identify institutional factors that foster or hinder innovation.
- To forge a shared vision of the future among stakeholders.

Source: Kammili 2011.

POTENTIAL BENEFITS OF MONITORING APPROACHES

In common with all interventions, well-executed monitoring arrangements are central to the performance of innovation system interventions. Investments in developing such arrangements will *strengthen the effectiveness of investments* in achieving developmental goals and, in doing so, *improve value for money*.

POLICY ISSUES RELATED TO MONITORING

A number of policy issues are important for ensuring that monitoring delivers some of the benefits that have just been described.

A primary concern is to *improve the demarcation of responsibilities for monitoring and evaluation.* A lack of clarity on the part of investors as well as intervention implementers about the different purposes of monitoring and evaluation and about who is responsible for each task causes monitoring systems to underperform and results in badly executed evaluations (see IAPs 6 and 7). These wasted resources lead to ineffective interventions and prevent investors from learning vital lessons for designing future interventions. This issue is addressed easily by simply clarifying roles, responsibilities, and time frames for the separate tasks of monitoring and evaluation.

Strengthen the capacity to implement learning-based performance management approaches. Within the agricultural research and innovation profession such expertise is limited. Although these skills are better developed in the general development and rural development communities, particularly in the nongovernmental sector, training in these methods is needed urgently, because monitoring is the lynchpin of effective innovation system interventions.

As a central performance management tool, *monitoring must be integrated and mainstreamed in innovation system interventions* rather than exist outside of them. Isolating

monitoring as a specialist domain simply to satisfy the investor, without all the intervention's personnel taking performance management seriously, defeats the objective of an innovation system intervention.

Investors will need to modify their expectation of accountability reporting, accepting the process nature of interventions and becoming more comfortable with institutional change outcomes. This changed perspective places additional responsibility on the investor to ensure that impact evaluation is undertaken in a timely fashion and in a way that recognizes the nature of these interventions.

LESSONS AND RECOMMENDATIONS FOR PRACTITIONERS

Innovation system interventions demand an expanded suite of monitoring arrangements that respond to the learning-based nature of these interventions and their primary focus on using institutional adaptation as the foundation for future impacts. A wide range of tools and approaches is available; the challenge is to know which to select and how to adapt them to best match the performance management demands of innovation system interventions. Practical lessons for doing so include:

- ***Negotiate accountability reporting with the investor.*** Learning-based monitoring generates mainly qualitative information on processes and institutional arrangements, including unexpected outcomes. Investors may be unfamiliar with this kind of information in accountability reporting, so it is important to discuss reporting expectations beforehand.
- ***Ensure that the indicators of institutional change are specific to the particular intervention and revised as needed.*** Generic institutional change indicators, such as the degree of participation or the strengthening of links between stakeholders, can act as guidelines for categories of institutional change that are likely to occur. In managing the performance of an individual intervention, however, more case-specific indicators are needed. Since the nature of institutional bottlenecks may become apparent only as the intervention unfolds, performance

Box 7.15 Developing Institutional Change Indicators

Institutional change encompasses a very wide range of changes, from new ways of doing things to formal policy changes. Developing indicators can be difficult, because decisions need to be made about what types of institutional change are important to help understand the progress of a particular innovation system intervention. At the same time, it is important to capture the range of changes that an intervention is helping to stimulate, some of which may not be expected. This last objective is important when reporting outcomes to investors. The DFID-funded Research Into Use program (see www.researchintouse.com) faced this challenge. The program recognized that institutional change would be the main route through which it would achieve long-term impacts, but it had no systematic mechanism for capturing evidence of those changes, nor did it have an accessible way of reporting institutional changes to its investor other than through lengthy case studies. For this reason, the program's Central Research Team developed an inventory of all institutional changes observed (IAP 7) and categorized them as follows:

- Changes in the poverty relevance of actions and interventions.
- Market-related institutional change.
- New types of organizations playing new types of roles.
- Old types of organizations playing new roles.
- New forms of rural credit.
- Changes in agricultural research practice.
- Changes in the policy-making process.
- New network configurations.
- Formal policy changes.
- Changes in donor practice.

This practice helped identify categories of institutional change where limited progress was being made—changes in donor practice and changes in the policy-making process. It also helped to improve communication of the program's progress in stimulating institutional change, which had previously been difficult for an external audience to see.

Source: Authors and Adwera et al., forthcoming 2012.

indicators will need to be revised constantly (box 7.15 illustrates institutional change indicators developed in an innovation system intervention).

- ***Collect data on outcomes in a timely way to contribute to the intervention's learning cycles, with due attention to the approach and scale of data collection.*** Quantitative methods are likely to play a role in collecting outcome or proxy outcome information to understand the effectiveness of process changes brought about by an intervention. The approach and scale of this data collection need to be in proportion to implementers' need to manage the performance of the intervention and ensure that it is on track to achieve its agreed outcomes. Implementers should guard against collecting impact evaluation data. This time-consuming activity will not necessarily provide data at the appropriate time to manage an intervention successfully.
- ***Revisit milestones and expected outcomes.*** Learning-based interventions may evolve. Their evolution will lead to unexpected outcomes and modified theories of change. It is important to make the investor aware of these changes and negotiate how new milestones and outcomes will be reported.