Engaging scientists through institutional histories

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An institutional history is a narrative that records key points about how institutional arrangements – new ways of working – evolve over time creating more effective ways to achieve goals. It can be used to document institutional innovations in projects and to highlight barriers to change. An institutional history draws out and synthesizes lessons for research organizations and partners as well as for others in similar circumstances.

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Introduction

This brief describes how preparing 'institutional histories' can help a research organization become a learning organization. Such a transformation builds the capacity of an organization to cope with changing mandates, respond to new opportunities and challenges, and achieve goals. For centres in the Consultative Group on International Research (CGIAR) it means becoming better at contributing to agricultural innovation and sustainable poverty reduction.

An institutional history is a narrative about a project or programme that focuses on different ways of working that help scientists address challenges and become more effective. It may also reveal counterproductive practices. The central idea is that by going through a purposeful process of learning about how to make better use of research in an ever-changing development landscape, research organizations can become more effective agents of sustainable poverty reduction. The process of preparing institutional histories, and the dialogue that can be fostered around them, can contribute to learning and capacity building.

While this brief is not a 'how to' manual, it explains some of the underlying principles and options for using this approach.

What's in a name?

Why are these narratives called institutional histories? The term 'institution' is an endless source of confusion, and is commonly used interchangeably with 'organization'. Typically, an organization is a legally constituted group with a defined membership, governance structure and mandate (such as research, extension or teaching). An institution, in contrast, refers to rules, norms, conventions, incentives and sanctions that govern activities, i.e. the things that pattern behaviour. For example, the convention of scientists and economists setting research priorities and evaluating outcomes is an institution; the convention of non-government organizations (NGOs) not working with private companies is an institution; a weekly meeting to share experiences with co-workers is an institution; and marriage, governed by social rules and customs, is an institution. Institutional histories are narratives of ways of working that stem from the rules, conventions and routines governing behaviour, sometimes referred to as habits and practices.

Institutions assume particular importance when organizations with different histories, cultures and mandates begin working together. For example, traditionally, laboratories do research and NGOs do extension and development work. An organization that does something radically different – such as an NGO that works as a partner on a research project – represents an institutional innovation. Having more scientists or NGOs is not an institutional development per se, because rules and conventions have not changed. Similarly, the story of 10 successive project leaders is not in itself an institutional history. However, the story of the different conventions or research approaches that these 10 leaders brought into the project *is* an institutional history.

Why are histories of these changes important?

A key insight from recent work on innovation, guided by the innovation systems concept, is that the drivers of social and economic change include both technological and institutional innovations. Often they are interrelated. For example, participatory research methods introduced in the 1980s and early 1990s were an important institutional innovation, allowing technological innovations in farm practice to emerge. Participatory plant breeding in India is one such case.

Documenting these new working practices is particularly important in agricultural research organizations because the strong technological narrative tends to ignore the role of institutional change in achieving success. As a result, the learning associated with new working habits either occurs slowly, or more often, the same problems are encountered and the same mistakes repeated. What scientists may not realize is that this learning, and the resulting institutional innovations, may be international public goods in their own right, which others could use to improve the impact of their research.

The purpose of writing institutional histories is to introduce institutional factors into the legitimate narrative of success and failure in research organizations, by routinely drawing institutional lessons and promoting new working practices. The need for institutional innovation in research organizations is urgent – especially to cope with changing development agendas, which often demand partnerships with non-research organizations in the innovation system. These are the emerging realities to which development practitioners must adapt.

Where does the approach come from?

Institutional histories have been used by scholars from new institutional economics (a branch of economics that emphasizes the embedded nature of economic activity in social and legal institutions) and sociology. Its systematic use in agricultural research arose in the context of a research programme that made a radical shift to a more partnership-based approach, with an implicit recognition that both the technical and institutional outputs of the programme would be valuable. As a result, researchers began experiments in developing institutional histories of what were otherwise viewed as technical activities (Hall and Shambu Prasad, 2004; Hall et al., 2001).

Building on the ILAC Initiative (www.cgiar-ilac.org), researchers applied this approach to document an institutional history of watershed research at ICRISAT (Box 1). This was done in two stages. The first, covering 30 years of work at ICRISAT, documented the institutional issues associated with the organization's research on natural resources management and the emergence of the watershed approach. This was explored through interviews and analysis of archival records of scientists and research managers at ICRISAT. The narrative of institutional change, particularly factors that enabled or disabled learning, raised several questions for research managers, which were shared with the scientists concerned.

The second stage extended this approach by identifying institutional innovations and relations between research and non-research actors in an ongoing project, enabling real-time learning. One of the significant lessons documented was the way a non-conventional donor in this project had an explicit agenda of fostering a learning culture among dissimilar partners and thereby created space for open expression of alternate viewpoints (Shambu Prasad et al., 2006).

Institutional histories have since been used in a fodder innovation project of the International Livestock Research Institute (ILRI). This approach strongly resembles a variety of approaches discussed elsewhere in the literature, such as the search for positive deviants (Sternin and Choo, 2000) and innovation histories (Douthwaite and Ashby, 2005). The notion of institutional histories nevertheless differs from these in its focus on learning and its openness to explore unintended changes in research processes that are not always positive.

How to produce an institutional history

There is no established way to develop an institutional history, but there are a few principles to remember. Since the main objective of an institutional history is to help scientists and their organizations learn, it is important that they actively engage in the process. People with a broad social science outlook are usually required to facilitate this process. It is important that scientists are helped to make connections between ways of working and different outcomes, and the search for linkages and relations that might have brought about these outcomes. It can take several months to complete an institutional history of a long-term research programme, including assembly of diverse sources of information and conducting interviews with diverse stakeholders. Alternatively, an institutional history that focuses on a time-bound activity such as a project can be prepared much more quickly.

Compiling an institutional history requires openness – to be able to see unexpected results – and a good ear during interviews. Getting scientists to talk about their own time in a research group, especially if they have spent many years in it, can be very fruitful. Corroborating insights from these with an understanding from official documents helps to work out the more active phases in the evolution of a research programme and identify the learning obstructions in the 'unsuccessful', less active periods. Interviewing researchers who have retired or left the group can also help. In the ICRISAT case, a 70-year-old scientist painstakingly edited the text of an institutional history. This was the first chance he had ever been given to revisit and formally reflect on his earlier work.

See the Annex at the end of this brief which explains how to compile an institutional history.

Box 1. The evolution of the 'watershed approach'

During the late 1970s and early 1980s, the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) developed a new way to organize its natural resources management (NRM) research. It began to address issues in this domain in an integrated fashion, using the concept of a watershed as the organizing principle. This led to the 'watershed approach', an innovation subsequently widely used by others involved in natural resources research and rural development. The irony was that ICRISAT, despite the success of this innovation, paid little attention to it. A significant institutional constraint to learning that was documented in the institutional history was the separation of the research organization from farmers' fields. The conventional thinking at the institute was that its main contributions were technologies, usually improved varieties; thus the watershed approach which needed new institutional mechanisms was largely sidelined. It was only in the late 1990s that ICRISAT came to recognize the importance of these institutional innovations (Shambu Prasad et al., 2005).

Writeshops

Project-focused institutional histories can emerge out of 'writeshops', which encourage democratic history writing. Such writeshops take place over two or (preferably) three days, guided by a facilitator. The first day includes an introduction to institutional issues, sometimes followed by brief presentations on the project or projects. (It is useful to ask project staff to prepare a project history in advance.)

If more than one project is being discussed, cross-project interviewing can be used to extract lessons which are shared with the rest of the group. Representatives of individual projects use the discussions and insights arising from the workshop to create or revise their own narratives, either during the workshop or immediately after.

The kind of institutional history to be compiled – for a long-term research programme or for a shorter-term project – should be decided early on, in consultation with the research managers and scientists involved. In either approach the histories are fed back to the group for critique and clarification and might go through several rounds of presentation, critique and revision. Both approaches should involve not only scientists from the research organization, but also other stakeholders, as both perceptions of what worked and what did not are extremely valuable. A combination of thematic and project histories is desirable as these can capture operational and strategic lessons that are only visible when patterns emerge across project clusters.

Cross-project interviewing and the practice of having project members write their own histories do have drawbacks. In the first case, there is a steep learning curve while interviewers become familiar with the project. (Yet, if they ask the right questions, they cut to the heart of the institutional lessons without getting bogged down in contextual details – a tendency among project staff.) In the second case, writers who are intimately familiar with the project often make vague, sometimes exaggerated claims of lessons emanating from their work, without supporting evidence.

Two things are essential to make these writeshops work: a good facilitator who creates the right environment and encourages others to capture institutional innovations as they emerge from the discussion; and a checklist to provide a framework for the writers. The facilitator needs to ensure that checklists are used to produce an analytical narrative, rather than just factual, descriptive information.

The institutional history document can be shared with others. However, it is more important that project teams get a chance to reflect on both the successful and failed processes and learn for the next time. It is seldom practical or useful to involve all stakeholders in a writeshop. But the main findings can be shared with other stakeholders at separate meetings.

While the primary audience of institutional histories are project teams and research managers, they need to draw generic lessons for people in similar circumstances. This point is particularly important for CGIAR research scientists faced with the need to produce international public goods. Institutional innovations are often the main international public good arising from applied, locally specific and development-oriented activities that CGIAR scientists are engaged in. Institutional history writeshops are a way of collecting, analyzing and discussing such innovations.

Tips on producing institutional histories

The idea of preparing institutional histories is new and still evolving. It helps to know the following before embarking on one:

- The process of creating an institutional history is as important as the final outcome (sometimes more so).
- An institutional history can be written up in a polished document that captures institutional memory and tacit knowledge; but more importantly, the process of preparing the history opens up spaces for reflection and learning that can help redirect projects towards better performance.
- Producing institutional histories through cross-project interviews often allows for more nuanced reporting of lessons.

There is a danger in some organizations that institutional histories may be prepared merely to report successes, or that some groups will use them to push their point of view. A good way to avoid such pitfalls is to maintain a continuous dialogue with scientists and stakeholders, to share tentative findings and to constantly reiterate the learning focus of the exercise. Some common mistakes made in institutional histories are listed in Box 2.

The preparation of an institutional history should not be seen as a one-off event. A history can be developed in stages and evolve over time as participants change. For example, an institutional history can be prepared relatively early in the project cycle, midway, towards the end and after completion of the project. Comparing such histories prepared at different points in time can be a valuable source of learning.

The most important outcome of an institutional history is better diagnosis of the system of innovation of which the particular project or programme is a part. This allows for better planning of work by enabling project or research managers to actively seek the involvement of players hitherto ignored. An institutional history also helps build greater ownership of a project within the project team and its stakeholders. It does this by making them reflect on and improve the way they function as a team through recognition of institutional constraints and celebration of institutional, and not just technological, innovations.

Box 2. Common mistakes in producing institutional histories

- Following guidelines too rigidly.
- Being afraid to express opinions.
- Seeking to use tools such as the actor linkage matrix and map as proof that the organization's linkages are strong.
- Using timelines constructed by an individual or group before project start.
- Using the exercise to resolve project-related quarrels.
- Allowing cross-project interviews to give too much emphasis to technical achievements or challenges.

The preparation of a good institutional history requires an environment conducive to listening and reflection. Facilitators with knowledge of institutional change processes are also essential to success. Facilitators can at times be seen by some partners as mediators. Bringing the institutional issues that result in conflict into a public rather than private space requires sensitivity and judgement on the part of the facilitator.

Further reading

Biggs, S. and Matsaert, H. 2004. Strengthening Poverty Reduction Programmes using an Actor Oriented Approach: Examples from Natural Resources Innovations Systems. Agricultural Research and Extension Network (AgREN) Paper No. 134. London, UK: Overseas Development Institute (ODI).

Douthwaite, B. and Ashby, J. 2005. Innovation Histories: A Method for Learning from Experience. ILAC Brief 5. Available at www.cgiar-ilac.org.

Hall, A.J., Clark, N.G., Rasheed, S.V. and Taylor, S. 2001. Institutional Learning through Technical Projects: Horticultural Technology R&D Systems in India. Agricultural Research and Extension Network (AgREN) Paper No. 111. London, UK: Overseas Development Institute (ODI).

Hall, A.J. and Shambu Prasad, C. 2004. Operationalising Innovation Systems Thinking in Research for Development. CPHP South Asia Briefing Notes Series – Crop Post-Harvest Programme (CPHP). Patancheru, India: International Crops Research Institute for the Semi-Arid Tropics (ICRISAT).

Sternin, J. and Choo, R. 2000. The Power of Positive Deviancy. Harvard Business Review, Jan–Feb, 14–15.

Shambu Prasad, C., Hall, A.J. and Wani, S.P. 2005. Institutional History of Watershed Research: The Evolution of ICRISAT's Work on Natural Resources in India. Global Theme on Agroecosystems Report No. 12. Patancheru, India: International Crops Research Institute for the Semi-Arid Tropics (ICRISAT).

Shambu Prasad, C., Laxmi, T. and Wani, S.P. 2006. Institutional Learning and Change (ILAC) at ICRISAT: A Case Study of the Tata–ICRISAT Project. Global Theme on Agroecosystems Report No. 19. Patancheru, India: International Crops Research Institute for the Semi-Arid Tropics (ICRISAT).

Annex. Outline for an institutional history document

While there is no set formula, an institutional history can usefully cover the following broad stages.

a. Constructing institutional timelines

Timelines are useful tools to learn about projects and can be done separately or collectively, the key being to capture contending narratives. Partners may have different starting or entry points from those perceived by project managers or managing partners. It is important to capture as much diversity as possible.

b. Partner/actor inventory and roles

This exercise helps build an understanding of the linkages between research and non-research actors (Biggs and Matsaert, 2004 provide a useful guide on how to do this). List the project partners and ask:

- How were the partners selected and by whom?
- What were their roles?
- How have their roles changed during the course of the project and why?
- Have partners been added or dropped? If so, why and how did it happen?
- With hindsight, could any other individuals/organizations have usefully contributed?

Often projects rely on a large number of people or groups who are not formal members but contribute significantly to their success. Listing them and their contributions is often useful to enable partners to reflect on linkages to the larger innovation system in which they are situated.

c. Institutional innovations

This is the main element of the institutional analysis done by reviewing themes to explore changed patterns of working. The working patterns discussed here evolve out of projects tackling the need to work in partnership. Other histories might focus on different institutional innovation themes such as:

Communication

Communication among partners helps to draw out changed behaviour. For example, when ICRISAT led a project on sorghum use in the poultry industry that involved dissimilar partners, new ways of communicating had to be developed. A typical research project might have scientists meeting several times during a project; but in this case the partners met formally 22 times in two years. Informal communication methods might be just as effective on some projects.

Conflict management

Conflicts in working with dissimilar partners are common and the more successful projects are those that do not avoid them, but use them as opportunities for learning and innovation. Conflicts in partnership projects include issues such as domination by one or more partners, and relationships between individuals.

Learning

An important part of the institutional arrangements is the learning mechanism. Asking questions aids critical reflection on how lessons are learnt.

- How do projects learn about their successes, failures and progresses?
- How is information shared with partners?
- And how, by whom and using what criteria are results evaluated?

Learning often occurs informally, but getting projects to reflect on the learning process helps to include these mechanisms. E-mail exchanges copied to all partners in a project were used in an ICRISAT project to promote discussion of issues not strictly part of the project mandate.

To build in an element of self-reflection and avoid complacency because of a success-based history, it is useful to ask participants to list five things that went wrong in the project. How did the project deal with this? And how would they deal with it with the benefit of hindsight?

Box 3. Insights gleaned from writing institutional histories of research projects

Institutional lessons are often project-specific but are articulated quite well during writeshops. A writeshop involving different partners in South Asia provided interesting reflections on working in partnerships. Among them:

- Research norms changed due to client involvement.
- Research organizations were 'stepping down' to talk to clients.
- Working in partnerships is about 'working jointly at a faster pace' due to convergence of learning.
- Projects need joint activities to build rapport and enable learning.
- Travelling together can break professional boundaries and power relations, and is important for learning.
- There needs to be openness and sensitivity to unexpected outcomes.

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