

Short Guide for Institutional Assessment

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Short Guide for Institutional Assessment

For use in field work

Prepared for IDRC by Universal Management Group

This Guide is intended to provide a framework for rapid institutional assessment during brief (one to two day) visits to an institution. For in-depth assessments, more comprehensive instruments are available from IDRC.

The Guide provides some key concepts for you to reflect on as you analyze the institution's environment, motivation, capacity, and performance. Use these concepts in writing your institutional assessment report.

Data sources

Think about your data needs as your visit progresses. In the assessment process, attempt to:

- Meet a suitable spectrum of people and record their names
 - Administrators
 - Researchers/teachers/support staff
 - Clients/stakeholders/institutional representatives
 - Government officials
- Obtain available key documents
 - Institution handbook/calendar/prospectus
 - Mission statement
 - Annual Report/financial reports
 - Program descriptions
- Observe relevant facilities
 - Buildings/grounds

- Laboratories
- Teaching areas
- Program or project sites
- Observe the dynamics among people
 - Nature of meetings with you; who attends; who presides
 - Processes for teaching and learning
 - Nature of dealings with institution's clients
 - How research is conducted; dominant paradigm

The Institution's Environment

Every institution is affected by its external environment: its region, country, part of the world. Six of the major influences are noted below. Characterize the institution's environment using the following guidelines.

- Describe and assess the **administrative/legal** environment within which the institution operates:
 - policy
 - legislative
 - regulatory
 - legal
- Describe and assess the **technological** environment within which the institution operates:
 - infrastructure
 - utilities
 - technological literacy
 - information technology
 - links to national issues
- Describe and assess the external **political** environment within which the institution operates:
 - form of government
 - distribution of power
 - access to government resources

- allocation decisions
- Describe and assess the **economic** environment within which the institution operates:
 - GDP, inflation, growth, debt
 - IMF conditionality
 - wage/price structure
 - community economics
 - hard currency access
 - government funding distribution
- Describe and assess the **social/cultural** environment within which the institution operates:
 - norms
 - values
 - attitudes in society
 - literacy
- Describe and assess the major **stakeholders** of the institution:
 - clients
 - donors
 - beneficiaries
 - volunteers
 - government bodies
 - other institutions

What is the impact of these environmental forces on the mission, performance and capacity of the institution? In what ways is the environment friendly or hostile? What are the major opportunities and risks resulting from the environment?

Institutional Motivation

No two research institutions are alike. Each has a distinct history, mission, culture and incentive/reward system, which are all powerful motivators of behaviour. Characterize the level of institutional motivation as determined by the following components.

- Analyze the institution's **history**
 - Date and process of founding

- Major historical achievements/milestones
- Major struggles
- Changes in size, growth, programs, leadership, structure
- Associations with IDRC, with other donors
- Understand the institution's **mission**
 - Evolution of the mission statement
 - Role of mission in shaping organization, giving it purpose, giving it direction
 - Institutional goals
 - Types of research/research products that are valued
- Understand the institution's **culture**
 - Attitudes about work and working
 - Attitudes about colleagues, clients, other stakeholders
 - Attitudes towards women, gender issues
 - Values, beliefs, customs, traditions affecting mission fulfilment
 - Underlying organizational norms that guide operations
- Understand the institution's **incentive/reward** structure
 - Key factors, values, motivations to promote productivity
 - Intellectual freedom, stimulation, autonomy
 - Remuneration, grant access, opportunity for advancement
 - Peer recognition, prestige

How does motivation affect institutional performance? In what ways do the history, mission, culture and incentive system positively and negatively influence the institution?

Institutional Capacity

Institutional capacity underlies an institution's performance. Capacity is understood as the six interrelated areas detailed below. Characterize the institutional capacity using the following conceptual guidelines.

- Assess the strengths and weaknesses of **strategic leadership** in the institution:
 - Leadership (managing culture, setting direction, supporting resource development, ensuring tasks are done)

- Strategic planning (scanning environment, developing tactics to attain objectives, goals, mission)
- Governance (legal framework, decision-making process, methods for setting direction, external links)
- Structure (roles and responsibilities, coordinating systems, authority systems, accountability systems)
- Niche management (area of expertise, uniqueness, recognition of uniqueness)
- Assess the strengths and weaknesses of the following systems, processes or dimensions of **human resources** (managerial, research, teaching, technical/support staff):
 - Human resource planning (recruiting, selecting, orientation)
 - Training and professional development (performance management, monitoring and evaluation)
 - Career management (record-keeping, merit)
 - Compensation (wage rates, incentives)
 - Equity (gender, minority issues)
- Assess the strengths and weaknesses of other **core resources**:
 - Infrastructure (facilities, equipment, maintenance systems, utilities)
 - Technology (information, communication technologies, levels of technology needed/acquired to perform work)
 - Finance (Planning, managing and monitoring, cash flow and budget, ensuring an accountable and auditable financial system)
- Assess the strengths and weaknesses of **program management** of research, teaching and service programs in the institution:
 - Planning (identifying needs, setting objectives, costing alternatives and developing evaluation systems)
 - Implementing (adherence to schedules, coordination of activities)
 - Monitoring (systems for evaluating progress, communicating feedback to stakeholders)
- Assess the strengths and weaknesses of **process management** in the institution:
 - Planning (identifying needs, looking at alternatives, setting objectives and priorities, costing activities and developing evaluation systems)
 - Problem-solving and decision-making (defining problems, gathering data, creating alternatives, deciding on solutions, monitoring decisions)

- Communications (exchanging information, achieving shared understanding among organizational members)
- Monitoring and evaluation (generating data, tracking progress, making judgments about performance, utilizing information, changing and improving organization, program, etc)
- Assess the strengths and weaknesses of **interinstitutional linkages**:
 - Networks (type, nature, number; utility, recruitment of appropriate members, coordination, participatory governance, management structure, technology, donor support, participation of national research systems, cost-benefit, sustainability)
 - Partnerships (type, nature, number; utilization, cost-benefit, needs met, sustainability)
 - External communications (type, nature, number; utilization, frequency, cost-benefit, needs met)

How does institutional capacity affect institutional performance? What are the overall strengths and weaknesses of the institutional capacity?

Institutional Performance

Every institution should attempt to meet its goals with an acceptable outlay of resources while ensuring sustainability over the long term. "Good performance" means the work is done effectively, efficiently and remains relevant to stakeholders. Characterize the institutional performance by answering the following questions:

- How effective is the institution in moving toward fulfilment of its mission?
 - Research performance (major achievements, general level of research productivity defined according to the institution's mission and values, utilization of results)
 - Teaching performance (training researchers, serving clients' learning needs)
 - Service performance (development of community activities, support to research community, transfer technology)
 - Policy influence
- How efficiently are resources used?
 - Stretching the financial allocations
 - Staff productivity (turnover, absenteeism, research outputs)
 - Clients (program completion rates, long term association with institution)
 - Administrative system efficiency
- Has the institution kept its relevance over time?
 - program revisions

- adaptation of mission
- meeting stakeholders needs
- adapting to environment
- reputation
- sustainability over time
- entrepreneurship

How well is the institution performing?

Developing an Institutional Profile

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A Learning Partnership

Institutional evaluations have been described as "processes which use concepts and methods from the social and behavioral sciences to assess organizations' current practices and find ways to increase their effectiveness and efficiency" (Universalia 1993).

The social science constructs used by IDRC to conceptualize the complex processes of institutional growth and development are "institutional capacity development," "institutional strengthening," and "institutional performance." As discussed in Chapter 1, it is essential for IDRC to learn what areas of an institution to invest in (institutional strengthening/capacity development) and the returns from these investments that can be expected (institutional performance).

For IDRC's purposes, institutional assessments should be conducted as learning exercises for both donor and recipient institutions. They should be designed to diagnose areas of need so as to guide capacity building efforts. In the best sense, an evaluation serves as a reforming process, seeking ways to make the institution stronger and better.

A learning model of evaluation goes beyond the summative approach which measures the total impact of an organization's programs, products, and services. IDRC's approach ideally integrates these results with the techniques of formative evaluation, in which evaluators become involved with helping the organization become more effective in meeting its goals. Beyond merely observing and collecting data, IDRC would like to work alongside people in Southern partner institutions, learning with them how best to influence the development and performance of the organization.

To have meaning and credibility for the Southern organization, the process of developing an organizational profile should be conducted in partnership with individuals having intimate, day-to-day knowledge of the institution, particularly those in a position to act on the evaluation results. By evaluating in partnership, the means to understand and strengthen the institution can spring from practical realities and experience. Moreover, those working inside the institution stand to benefit from self-examination. Undergoing assessment can serve as an organizational stimulant.

No Blueprint for Evaluation

Institutions are normative structures. They are grounded in societies and thus can hardly be understood outside of their contexts. For this reason there can be no specific blueprint for conducting institutional evaluations nor for knowing ahead of time all of the issues that bear on institutional functioning. And since institutions are socially constructed, complex systems, neither the means nor the ends of the evaluation process can be fully known prior to implementation.

An evaluation methodology that relies on predetermined instrumentation assumes that the social reality of an institution functions independently of the various environments and stakeholder groups, and yet these forces undoubtedly have a formative influence on institutional performance.

Just as IDRC's personnel must go through considerable learning to know how to work with and relate to certain institutions, so IDRC must be supportive of the knowledge development process inherent in conducting each institutional evaluation, for the process as well as the outcomes will likely be in flux. Institutional assessments require experimentation and the continuous correction and adaptation of plans to keep pace with institutional complexity. IDRC's own organizational culture indeed supports such a learning process approach.

Institutional Assessment Methodology

There are many good texts on project and program evaluation, not to mention research methodologies and ways to ensure reliability and validity of data. We do not want to attempt to duplicate that work here without the space to do it justice, so we have annexed a short bibliography of useful sources. These are important subjects, however, and form the foundation of sound institutional evaluations. Thus, while we have incorporated fundamental concepts in this text, we suggest that you look more carefully at the background sources.

Specificity vs Generalization

There is a strong temptation, when engaging in institutional evaluations, to over-generalize the issues ("all organizations should...") or to apply, blanket-style, the latest prescriptions of the day (Don't all institutions need programs in "Total Quality Management?"). But by nature, each institution is unique, grounded in a particular history and housing a distinctive culture. Each institution's mission is unlike that of any other institution and is designed to serve complex and unique stakeholder needs. Circumstances and needs evolve continuously, thus institutions are never static entities.

The uniqueness of an institution does not of itself defeat or invalidate generalization. It does, however, necessitate the carrying out of analytical groundwork so that a proper understanding of the mission, culture, and context will become a lens through which performance is viewed. The ideas and concepts dealt with in each institutional evaluation should flow from and reflect the institution's own ideas and its approach to these ideas — indeed the institution's own way of knowing about itself.

Choosing Institutional Issues to Explore

The various conceptual frameworks in use for evaluating organizations suggest diverse issues to explore in the course of evaluations. While the names of categories or areas differ slightly, many models share similar content, with some more comprehensive than others. At the close of this section we will propose a framework developed specifically by IDRC's Evaluation Unit for profiling organizations. The framework notwithstanding, it is important to reiterate that the issues inherent in each institutional profile must be institution specific, and their examination must be negotiated with key insiders so as to meet the needs of end users. Also, choices of issues must be congruent with the limitations of the evaluators' resources and interest, i.e. examining the whole institution may be unfeasible.

For example, measuring the performance of a research institution is a central issue, but little agreement exists as to the meaning of performance or its measurement. Thus we need to develop the precise meaning of good performance for each institution. Fortunately, there are generally accepted constructs (such as effectiveness and efficiency) that can be used as a basis for determining institutional performance. However, specific criteria cannot be determined a priori but must be negotiated — for example, the relative importance of papers published in peer journals, the number of research grants, per unit costs, client satisfaction, the amount of contractual research conducted for clients, the number of patents produced, the amount of external support garnered, the success of those trained at the institution, and so on. Beyond performance issues, organizational capacity issues are similarly diverse and complex.

Finally, institutional issues to be explored are subject to shaping by the data that are available. The lack of valid data can be a constraint to evaluation, and making up data deficits can be an expensive process.

Creating a Credible Design

Because of the complexity of the concepts and issues being discussed and the inherent interest of researchers in questions related to research design, design is an important issue. Institutional evaluations lend themselves to many of the most recent advances in methodologies from the social sciences, management and economics. They are less well served by experimental or quasiexperimental designs. The most useful designs are descriptive and analytic, incorporating elements of historical time series analysis, case study methodology, and frequently comparative analysis. They attempt to foster in-depth understanding based on a solid foundation of descriptive data. The challenge is often in data interpretation which can only be fruitful when people believe in the data themselves.

Who Collects Data?

The agents of data collection in the evaluation process are generally (1) peer review, (2) self-study, and (3) external experts. For evaluating research quality, peer review is widely considered the best method. Self-study is a methodology growing in popularity, particularly in the nongovernmental organization (NGO) community. Recent work in Canada using on-site analysis has provided both a method and methodology to support institutional self-study. When both these approaches are augmented by the evaluative expertise of outside consultants, the combination can provide a rigour of design and methodology that strengthens and adds objectivity to the exercise.

Evaluation on the basis of experts' assessments is currently the most common method used by higher education and research centres, however, it is often not the most effective method for assessing a whole institution in all its complexity. Experts are defined as independent and distinguished peers of the same profession, or administrators who examine an institution or unit with the help of documents and possibly a prior internal report and undertake on-site visits. Faults of this approach are that it tends to be overly selective in the issues examined and often ignores what the science of institutional evaluation can contribute. In some fields, accreditation standards and procedures that rely on visiting panels of outside experts provide thorough and valid institutional analyses.

Sources of Data and Types of Instrumentation

Both quantitative and qualitative data are normally utilized in institutional evaluations, depending on the issues being explored. Sources can be both internal and external to the institution. A combination of qualitative and quantitative data is important, for unless tempered by other measures, quantitative measures considered in isolation can erode confidence in the evaluation process. By weaving qualitative with quantitative information, a deeper understanding of the institution will be achieved.

Certain quantitative indicators currently in vogue are justifiably criticized because they merely skim the surface of performance and are subject to overinterpretation. One example is the practice of counting the number of research papers published as a means of judging output, without considering their influence (as revealed in citation indexes) or their timing or relevance (i.e. the point of career of the researcher or the developmental progress of a new research group).

Quantitative data are important, however. These take many forms, ranging from counts and other descriptive statistics to ratio variables such as measures of unit cost or productivity. All such data should conform to the best available standards of reliability and validity.

Qualitative data has many forms and diverse sources. These include observational records of the research setting and its ambience, data from interviews and group discussions, and written data ranging from letters of clients to formal questionnaires and inventories on the organizational culture. These forms of data can be gleaned from individuals inside the institution as well as from peers and clients external to it.

Interpretation of Data

One of the most difficult aspects of an evaluation is making judgments about the data, i.e. whether performance is "good." In general, the organization must decide what types of performance should be measured and what standards are acceptable in their environment. Investors must ultimately decide whether or not the levels of performance that exist (or are potential) are worth the level of investment.

Since there are at least two main institutional interests involved in the institutional evaluation process (IDRC's and the organization's) and possibly others, the probability exists that many interpretations could arise from the same data. Therefore, it is important to take these potential differences of interpretation into account at the design stage.

In general, judgments about data are made by using four main decision-making tools: (1) benchmarking (using best practices to compare data), (2) reliance on experts' opinions, (3) criterion measures (deviation from specific, stated goals and objectives), and (4) measurement of statistical differences (often with the use of tests of statistical significance). Using one or more of these tools, evaluators North and South must interpret the evaluation data collected.

It is ultimately the organization's responsibility to accept or reject the analysis and judgments and decide whether to commit to making organizational change. IDRC must interpret and react to the data and the institutional response to the data in light of its own institutional objectives.

Institutional Scope and Stage of Development

Institutional assessments typically generate an array of complex information, all of which potentially contributes to understanding the performance and developmental progress of an organization. Clearly, the data must be contextualized and the limitations of both data and process acknowledged.

Data considered in isolation of context can be misleading. For proper interpretation, many results need to be placed into social, political, economic, and historical perspective and screened through the institutional lens. For instance, new institutions differ from more venerable ones in that their normative structures are not yet integrated into the national, regional, or local cultural systems. Some institutions are local in scope rather than international and should be assessed from this perspective. All institutions, whether local, regional, national, or international, will need to have their stage of development considered (as will subunits within the institution), for given the nature of the research endeavour, it undoubtedly takes time to generate positive results.

Costs: Expectations and Limitations

The expense of a full-blown institutional evaluation is a major issue. Collecting valid evaluation data entails a comprehensive process that can be difficult, time-consuming, and costly. Without such data, institutions must rely on the perceptions of experts, and the credibility of external people can become a focal issue. A large number of trade-off decisions need to be made by IDRC, the research institution, and other partners in the evaluation. Expectations need to match the scope of the exercise. Trade-off decisions need to be explained if they materially affect the validity or reliability of the data; limitations should be clearly identified.

A Framework for Profiling Organizations

IDRC's Evaluation Unit has constructed a framework to help IDRC personnel achieve greater understanding of organizations funded by the Centre. Following this approach will help clarify important issues and guide the collection of data that will inform decisions about enhancing institutional performance and capacity. In brief, the framework encompasses the following areas, each of which will be discussed in forthcoming chapters:

Forces in the External Environment

- Administrative/legal

- Technological
- Political
- Economic
- Social and cultural
- Stakeholders

Institutional Motivation

- History
- Mission
- Culture
- Incentives

Institutional Capacity

- Strategic Leadership
- Human Resources
- Other Core Resources
- Program Management
- Process Management
- Interinstitutional Linkages

Institutional Performance

- Movement towards Mission
- Efficient Use of Resources
- Relevance

Key forces in the environment which have a bearing on the institution's performance must be understood. These could include the host country's science/technology policy, the level (or lack) of basic infrastructure services such as electricity and water, or pressing social problems in the country which shape action research. The strategic environment is dealt with in Chapter 3.

Donors are interested in seeing the clear-cut results of their investments. Thus, their natural tendency is to intersect an organization at the level of "performance," made visible through products, programs, and services. But before assessing an institution's outputs, it is first necessary to gain an understanding of institutional motivation: its mission and goals, and insofar as possible, its culture and organizational incentives. These drive performance from within, and a performance assessment must address how well the organization is fulfilling its mission. Institutional motivation is discussed in Chapter 4, in which key concepts and potential indicators for use by IDRC are suggested.

For those wishing to examine the key components of institutional capacity which underlie performance, the complex area of organizational capacity is covered in Chapter 5. Six main areas of institutional capacity are detailed (strategic leadership, human resources, other core resources, program management, process management, and interinstitutional linkages) and components within each of these areas are discussed.

Performance is seen in the visible outputs of the research institution, namely its research and training products and services. Our framework asserts that performance is a function of the interplay of an institution's unique motivation, its organizational capacity, and forces in the external environment.

Ways to approach performance are discussed in Chapter 6. Guides for conducting selected aspects of institutional evaluation have been described in a series of companion documents derived from this framework. They can help delineate approaches for organizational assessments lasting one to two days as well as for large-scale assessments.

Exhibit 2.1: Framework for assessing research institutions.

- Understand the organization's environment
- Determine organizational motivation
- Examine key areas of organizational capacity
- Measure organizational performance

Constructing the Institutional Profiling Process

For the institutional profiling process to become a learning experience for all parties, it is necessary for the key players to create and agree upon an appropriate model at the outset. Components of the profiling process include creating partnerships, developing terms of reference, utilizing a workplan, participating in data collection and analysis, obtaining evaluation feedback, validating the results, and developing action plans. Each is discussed below.

Creating Partnerships

Partners in an organizational assessment initiated by IDRC are, of course, the Centre and the particular research organization. Additional partners might include other interested donors or granting organizations — in fact, any legitimate participant with a stake in the process, including those who might help fund it.

Developing Terms of Reference

Each organization is unique, with its own mission to fulfil and its own stakeholders to satisfy. The terms of reference (TORs) of each evaluation will vary according to the situation (including the interests of the partners, above) and should be negotiated at the outset between IDRC and those within the partner institution in a position to effect organizational change.

The TORs describe the broad areas upon which the partners intend to focus, and each evaluation will need to have defined information needs. For example, will the spotlight be solely on performance? What is the time span in which performance will be considered? Will underlying institutional capacity be considered as well? Which areas of capacity? Who is doing what in the course of gathering data, i.e. what tasks fall to external experts and what might be topics for self-study? Finally, what will the budget be for the evaluation effort?

Utilizing a Workplan

A specific plan should be set in writing, detailing the steps of how the terms of reference will be carried out. The workplan is the point at which partners come to agreement and formalize a contract regarding their working relationship. In the workplan, specific questions are identified, methodologies are settled upon, and values are clarified.

Factors to be negotiated include the specific types of data to be collected within each area and appropriate indicators of performance (which are only suggested in this guide and need to be refined and further developed, as befits each situation). It is essential that all parties agree on fair and legitimate indicators, otherwise the assessment process will have little credibility or positive potential for reform.

Value judgments will ultimately need to be imposed upon the performance indicators, and these, too, will need to be negotiated. For instance, how much published research constitutes an adequate output? What dollar figures attached to external funds garnered or research contracts are considered healthy?

Participating in Data Collection and Analysis

Once the types of data to be collected are decided upon and delineated in the workplan, concerns typically arise about the complexity of the information and of the large measure of time and expense it will take to amass and analyze it. Approaches to data collection and analysis are custom-tailored for each institution based upon the type of data that is available and the financial feasibility of the effort, in accordance with the budget. Much can be done internally, drawing on existing management and administrative practices.

Feedback

After the profiling process, transmitting the results of the exercise to interested stakeholders (both within the organization and external to it) is an essential step. Employing multiple media to get the message out is generally more successful than relying on people to read the written report. The main issue is to ensure that those who need to learn the results actually hear the feedback. Effective methods to convey information include formal and informal talks and workshops, which can be ongoing during the profiling process.

Action Plans

Once the profiling process is complete, strategies to address the findings can be incorporated within the organization's strategic planning process. Indeed, they may help to inspire it.

Organizational Capacity

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Introduction

Since 1970, IDRC has stressed that investment choices should focus on building the capacity of indigenous organizations and institutions to solve their development problems. The Centre's recently defined strategy for the 1990s (*Approaches to Strengthening the Institution*) seeks to ensure sustainable organizational development through a focused and holistic effort to build the capacity of its funded partners.

The experience of IDRC and other agencies indicates that creating wider change at the organizational level is conceptually and practically a more difficult and complex undertaking than is project support. At the centre of this complexity is our embryonic understanding of institutions and of building organizational capacity.

Our framework for viewing organizational capacity entails six main, interrelated areas that underlie an institution's performance: strategic leadership, human resources, other core resources, program management, process management, and interinstitutional linkages. Each of these areas contains various components (detailed in the table below) which range in importance among institutions.

Exhibit 5.1: Components of capacity in research institutions.	
Strategic Leadership	Leadership, Strategic Planning, Governance, Structure, Niche Management
Human Resources	Research, Teaching, Managerial Staff, Technical/Support Staff
Other Core Resources	Infrastructure, Technology, Finance
Program Management	Planning, Implementing, Monitoring
Process Management	Problem-solving, Decision-making, Communications, Monitoring and Evaluation
Interinstitutional Linkages	Networks, Partnerships, External Communications

Strategic Leadership

Strategy refers to all those activities that set the course for the organization and help keep it on course, in service of its mission. Strategic leadership is associated with risk, with vision, and with

ideas. It is the process of setting clear organizational goals and directing the efforts of staff and stakeholders alike toward fulfilling organizational objectives. Strategic leadership of the institution involves developing ways of procuring essential resources, inspiring organization members and stakeholders to perform in ways that attain the mission, and adapting to or buffering external forces.

Exhibit 5.2: Components of strategic leadership.

- Leadership
- Strategic Planning
- Governance
- Structure
- Niche Management

The outcome of strategic leadership is aligned direction and action. A strategically led institution will be continuously engaged in the process of changing, adapting, and following a path that makes sense to its members and to the external stakeholders who fund the institution or confer reputation.

Leadership

Leadership can exist at many places inside the organization, both formally and informally. Formal leadership is exercised by those appointed or elected to positions of authority; it entails activities such as setting direction, providing symbols of mission, ensuring that tasks are done, and supporting resource development.

Informal leadership is exerted by persons who become influential because they possess special skills or resources valued or needed by others; examples of informal leadership include spearheading the reorganization of the professional library or initiating an innovative, multidisciplinary approach to a research problem.

The more broadly that constructive leadership is assumed by members of the organization, the more vibrant and creative the organization.

Strategic Planning

Strategic planning refers to the pattern of calculated responses to the environment, including resource deployments, that enable an organization to achieve its goals. It entails formulating and implementing activities that lead to long-term organizational success. The strategic plan is a written document setting out the specific goals, priorities, and tactics that the institution intends to employ to ensure good performance.

The development, implementation, and monitoring of institutional strategies can emerge either centrally or within decentralized units. The issue for the organizational assessment is whether or not a realistic strategy is helping to guide decisions throughout the organization.

In a research organization, strategic planning is generally a participatory process that helps engender shared commitment to organizational directions. Formulating strategy begins with identifying and/or clarifying goals and objectives and determining methods for reaching them. It involves exploring the fundamental questions: What are the major services that we offer? Who are our clients and what

services do they want us to provide? Do our researchers agree with organizational direction? What new directions should we be moving toward?

As detailed in Chapter 3, each element of strategy (objectives, activities, and resources) is constrained by political, social, technological and economic environmental variables, particularly in public organizations. For instance, in certain research institutions the science/technology policy of the government is a vitally important variable. Strategic planning thus typically includes a scan of both opportunities and constraints presented by the environment.

A central issue in the survival of an organization is acquiring core resources in the vital areas of funding, infrastructure, technology, and personnel. Leadership in this domain means anticipating and capitalizing on opportunities in the external environment that might yield or support needed resources. It also means predicting threats to organizational resources and intervening (typically, politically) to insure that organizational performance and survival are safeguarded. This level of leadership generally transpires between the senior executive of the organization and the governing body.

Resource acquisition entails constantly being on the look-out to create opportunities that will augment the organization's resources. This can be accomplished through forming new alliances and partnerships and by forging new ways of thinking about generating resources.

For strategies to become operational, they need to be communicated, explained, processed, and revised according to feedback from stakeholders, both internal and external. From the board on down, all members of the organization need to work toward making the institution's strategy a reality. Implementing strategy requires matching resources and activities to objectives and, if required, scaling activities to fit resource constraints (human, financial, technological, infrastructure).

Exhibit 5.3: Questions typically asked in assessing strategy.

- Is there an organizational strategy?
- Is it known by the board of governors, senior managers, researchers, and other staff?
- Is the strategy generally accepted and supported in the organization?
- Has the strategy helped clarify priorities, thus giving the organization a way to assess its performance?
- Is it used as a way of helping to make decisions?
- Is the strategy an impediment to capacity-building or improved performance?
- Is the strategy one that supports issues of equity?
- Is there a process for clarifying and revising the organization's mission and beliefs, for working on its goals, and for understanding its clients and users?
- Is there a process for scanning the environment in order to consider potential threats and opportunities?
- Is the governing body active in acquiring and protecting core resources?
- Does the organizational strategy identify the opportunities and constraints regarding

core resource areas?

- Does the organization lobby effectively in its actions to secure core resources?
- Do senior board and management officials understand their roles in core resource acquisition?
- Is there a process for monitoring application of the strategy?
- Is there a similar process for understanding client and stakeholder requirements and changes?

Governance

The board of directors and constitution provide the legal and policy framework and direction for organizational functioning. Governance can be conceived as the point at which the external and internal environments meet. A good board of directors has its finger on the pulse of both environments; it assesses whether or not organizational initiatives are supportable, whether they meet development goals nationally and/or regionally, whether the organization is responding appropriately to important forces and trends in the field of endeavour and within the wider environment, and whether it is meeting the needs of those it serves.

At the governance level, policy issues are discussed and resolved in a timely manner, organizational policies are set, and capital and operating budgets are approved. The power and politics of the organization inevitably reside here, for the governing structure is often a forum for airing internal demands and resolving them within funding realities. Strategic direction and priorities, stakeholder representation, equity, external environmental forces (both positive and negative), as well as core resources all concern the governing body.

In research institutions, the governing body must strive to create a framework that allows experts within the organization to have the resources they need to remain on the leading edge of their fields. For instance, the board might approve the organization's acquisition of a new technology and related staff training by affirming its supportability in terms of relevance to the core mission and to the demands and needs of constituents.

Exhibit 5.4: Questions typically asked about governance.

- Does the governing structure both clarify and support organizational direction?
- Does the charter provide an adequate framework for carrying out the mission of the organization? Is it adequate for dealing with the external forces challenging the organization?
- Does the governing body scan the external and internal environment in order to understand the forces affecting the organization?
- Does the governing body respond appropriately to important environmental trends and influences, be these social, political, or economic? For instance, are both quality and equality issues reflected in the minutes and discussions? Does the governing

structure support principles of equity?

- Does the governing structure operate effectively and efficiently?

Structure

The structure of an organization is the system of working relationships arrived at to divide and coordinate the tasks of people and groups working toward a common purpose. Most people visualize an organization's structure in terms of the familiar organigram. However, structure is far more: It involves the division of labour including roles, responsibility, and authority, as well the coordination of labour into units and inter- and intra-unit groupings. Structure must be assessed to see if it is facilitating or hindering movement towards the mission and goals.

The task of creating appropriate and manageable work units or departments has challenged managers and students of organizational development for decades. We now realize that the "ideal" structure is the one that best fits the situation. At issue is whether or not the organizational structure supports or inhibits the capacity of the organization to perform its work.

In looking at the structure of a research centre, we are interested in (a) departments' or other groupings' understanding of their roles in the organization, (b) whether they have the authority to carry out their roles, and (c) whether they are accountable for their work.

Coordination is the process of linking specialized activities of individuals or groups so that they can and will work toward common ends. The coordination process helps people to work in harmony by providing systems and mechanisms for understanding and communicating one another's activities.

In research perhaps more than in any other endeavour, where innovation and productivity are key, interdisciplinary teamwork is a competitive advantage. Entire networks are being formed in which the best minds collectively tackle difficult research problems, with each contributor bringing his or her special perspective and expertise. The ease with which the research institution facilitates interdisciplinary approaches to research projects is an indicator of organizational health.

Many variables influence organizational structure. History, organizational goals, strategy, governance, funding (and other) pressures from the external environment, the specific fields of research, and technology all play a role in influencing the type of structures that exist.

Another important structural consideration is the manner in which authority is shared. Organizations range from the decentralized to the centralized, from the highly participatory to the dictatorial. In assessing the organization's functioning, determining which model is better becomes a matter of judgment, for in actual fact, the appropriateness of the model depends upon the situation and context.

Exhibit 5.5: Questions typically asked in assessing organizational structure.

- Are the organization's mission and goals supported by its structures?
- Are roles within the organization clearly defined, yet flexible enough to adapt to changing needs?
- Are departmental lines or divisions between groups crossed easily, particularly in cases when collaboration would mean an improved product? Or are departmental

lines jealously guarded, serving as an impediment to collaboration?

- Is structural authority used to further issues of equity?
- Does staff have linkages with/access to other researchers and units in the organization that are important to their work?
- Are there coordinating mechanisms which facilitate access to other researchers or research units within the organization?
- Can staff create important coordinating units with ease?
- Are efficient means for coordinating staff and units fostered and encouraged?
- Are there clear lines of accountability (individual, group, and organizational)?
- Do people have the authority to set agendas that support accountability?
- Are there efficiently functioning work groups?
- How centralized (vs. de-centralized) is decision-making? If highly centralized, does this model appear to be having negative consequences such as impeded productivity, low morale, etc.?
- Who bears responsibility for performance? Does this structure make organizational sense and facilitate the work?

Niche Management

In today's global society, the success of a research institution is in part predicated on being able to establish a unique role within the society. Niche management entails carving out a particular area for the organization in the "marketplace" that matches its particular expertise. In the private sector, the marketing function evaluates an organization's image or position in the marketplace and reaches strategic decisions concerning target markets, services, and products. This model is not so far afield for research institutions, which also depend upon a client system for support — namely government funders, industrial contractors, and the general public (i.e. taxpayers). For the research institution's survival, appropriate clients must be cultivated and the research products and services must meet their needs.

A research centre's niche helps clarify where it stands in relation to the constellation of other local, regional, national, and international research organizations. The organization's position helps determine the level and types of funders that can help it build capacity.

Niche management is an organizational function that forces managers to look beyond internal matters to consider the wider environment and the broader issues of our time. If this function is neglected, the organization's ability to adapt to the changing global situation will be severely limited.

Within the area of niche management, external communications are important. These will be targeted to stimulate funding (e.g. research grant proposals, requests for donor funding) or to stimulate awareness and interest regarding the services, products, and capabilities of the organization (e.g. annual reports, research reports, and newsletters to stakeholders).

Exhibit 5.6: Questions typically asked in assessing niche management.

- Has the organization defined a marketing program in which the philosophy, mission, goals, and resource strengths of the organization are matched with the needs of the market groups selected for service?
- Is equity served through this niche? For example, are women and other under-represented groups served within the niche?
- Does the organization seek information about the products and (research) services that clients want?
- How do potential clients or customers know or find out about programs/services?
- What promotional information about the research organization is generated and communicated to stakeholders?
- Does the organization appear to have sufficient financial support from outside the organization? If not, could a lack of aggressive marketing or promotion, resulting in a lack of awareness, be the cause?
- Does the organization seek a larger share of customers, clients, funders, or other constituents through the collection of systematic client and product information market research?

Human Resources

The human resources (HR) of an organization consist of all staff (research, teaching, managerial, and technical/support staff) engaged in any of the organization's activities. It is well-recognized that the human resources of any organization are its most valuable asset. This is particularly true in research centres, where the people required to do the core work of the organization are highly trained individuals. IDRC has long been committed to supporting the continuing professional development of researchers in the Centre's partner institutions.

The HR management function is charged with planning and controlling this resource to make sure that peoples' needs are met. This is not merely an altruistic function, for it is highly likely that staff who are reasonably comfortable with working conditions and stimulated by the environment will be productive.

Managing human resources requires forecasting the demand and supply of staff needed to carry out the activities of the organization. HR management also entails keeping records of human resources so as to permit the creation of a more equitable employment system.

Besides assessing staffing needs, some of the specific tasks involved in HR management include recruiting and hiring the best people possible, creating an assessment system that rewards people and helps keep them in the organization, and providing for the ongoing learning and career development of employees.

Exhibit 5.7: Questions typically asked in assessing human resources.

- Are the right people in the right jobs in the organization?
- Is adequate HR planning occurring? Does the organization forecast, recruit and select human resources effectively?
- Is there an adequate HR policy in place? Does the organization keep personnel records? Is there a performance assessment system in place?
- Is the workforce reflective of a fair gender and equity policy?
- Is equity dealt with appropriately, particularly as relates to issues of selection and promotion?
- Are the learning/professional development needs of staff provided for?

Other Core Resources

Whether a government or a private sector enterprise, whether a self-contained institution or a department within a larger institution, the research entity needs well-managed resources. Having treated human resources separately, above, due to IDRC's special commitment to their development, we have grouped the other essential resources into three areas: infrastructure, technology, finance. Strategic leadership entails developing systems for their planning, acquisition, and control.

Exhibit 5.8: Other core resources.

- Infrastructure
- Technological Resources
- Finance

Throughout the development literature, studies point to deficiencies in internal management capabilities. Stories abound about poor resource management — for example, equipment remaining in crates and getting ruined before it is used and buildings falling into disrepair due to the absence of maintenance systems.

The capacity to manage resources is crucial not only to the performance of institutions but also to organizational survival. As IDRC engages in the organizational assessment process, it is likely that assessments of the current status of resource management will provide insights into how future resources or grants will be used.

Infrastructure

Infrastructure refers to the basic environmental conditions which enable work to transpire — for example, reasonable space in a building equipped with adequate lighting, clean water, a dependable supply of electricity, and transportation to and from work. In the North we take these conditions for granted, for we have the wealth and the governmental structures to support adequate infrastructure. In certain developing countries in which IDRC works, some of these fundamental conditions are missing.

Each Southern institution has its own array of assets and liabilities with respect to infrastructure resources, and the positive and negative points in each represent the starting points for information-gathering. If an organization has its basic infrastructure in place, this area will represent a small component of an assessment; if infrastructure is debilitated, however, with electricity and water found to be problem areas, then infrastructure will become a major concern.

As part of understanding capacity, one has to consider the extent to which inadequate infrastructure interferes with the functioning or the potential functioning of a specific research institution. Most of the time, deficiencies in one or more elements of infrastructure do not interfere with day-to-day work; however, at some point, work will be impacted. Typically, the crux of the infrastructure issue is maintenance, which suffers due to the lack of recurrent budgets providing for upkeep.

As technology becomes more and more sophisticated, basic infrastructure will play an increasingly important role in the type of organizational support that IDRC and its partners can provide. For example, sensitive scientific equipment cannot tolerate intermittent electrical supply, so acquiring a generator may be necessary. And if water quality is poor, purification may be required or a new well may need to be drilled to rectify the situation.

Exhibit 5.9: Questions typically asked in assessing infrastructure.

- Does the organizational strategy identify the opportunities and constraints regarding infrastructure?
- Are the buildings and internal services (e.g. water, electricity) adequate to support and facilitate daily work?
- Is there adequate transportation to and from work for employees?
- Are communications systems (hardware) functioning at the level required?
- Are there adequate maintenance systems and procedures that are supported by a maintenance budget?
- Is building and equipment maintenance being managed? Is infrastructure being managed?
- Is adequate planning ongoing to address infrastructure concerns? Is an individual or a group responsible?

Technology

The technological resources of an institution encompass all of the equipment, machinery, and systems, including library information system hardware and software, that are essential to the research and training function. It is important to keep in mind that the instruments of technology are merely tools for enhancing research endeavour: ideas must inspire the technology.

The technological resources of a research centre must be appropriate to the type of work the organization is doing and must keep pace with the emerging ideas in each discipline.

Inappropriate technology can drive significant gaps between Southern and Northern research institutions, particularly in the hard sciences and engineering. Simply put, it is difficult to publish in the leading scientific journals using old technology. And in all disciplines, lack of access to the

sophisticated means of accessing information used by colleagues worldwide will mean that institutions will have difficulty building the networks required for global research.

Assessing the appropriateness of organizational technology is a complex endeavour. Providing technology without developing the corresponding ability to use it is a waste of valuable resources. In general, one has to assess the ability of the organization and its units to create realistic plans for technology and to manage against these plans. If the plans are either too ambitious or not ambitious enough, an organization can have difficulty. A clear understanding of the broader strategy of the organization and of the requirements of the field is needed in order to assess the appropriateness of a given technology.

Exhibit 5.10: Questions typically asked in assessing technological resources.

- Is adequate technological planning occurring?
- Overall, is the organization's level of technology appropriate to carry out its functions?
- Does any one unit seriously lag behind the others in the level of technology needed to carry out its work? Why?
- Is access to international information provided to all units through library and information management systems?
- Are there adequate systems in place for managing the organizational technology?
- Are there adequate information technologies in place to manage the organization?

Finance

Financial management includes the prediction of financial resource requirements (operating and capital budgets) and cash management as well as the financial accounting function. Good management of budgeting and financial record keeping is critical to overall organizational functioning. It enables essential information to be provided to the board and to those managers responsible for organizational resources. Good financial management also inspires confidence in funders who are interested in financial accountability and sound financial management.

Financial statements are a barometer of organizational health. Sound internal financial procedures regarding the administration of the organization's operating funds and likewise, of individual program grants, offer assurance to donors that their monies are being directed properly. Of particular interest, when scrutinizing an organization's financial system, is assessing what information the financial system can provide to decision makers.

Overall, important organizational goals should be supported by the budget. For example, if international exchange of information is an organizational priority, there should be evidence of funds allocated for electronic data systems, for hosting international visitors, and other related activities in support of this goal.

Exhibit 5.11: Questions typically asked in assessing financial resources.

- Is there adequate budgetary planning?
- Are budget plans timely?
- Are they updated as financial information comes in?
- Are financial information reports provided to senior managers, the board, and funders?
- Are members of the governing structure involved in financial planning and monitoring?
- Are technology and human resources adequate to ensure a good financial control and information system?
- Are the auditors of the organization happy with the controls of cash and assets being utilized by the financial managers?
- Have the finances of previous grants been properly managed?

Program Management

A research institution's ongoing programs of research are its central endeavour and indeed, its main "product." Research-supporting services and ongoing training are also vital programs within the organization. Program management is the ability to develop and administer these programs in a way that supports the mission.

Program management is vitally connected with all other areas of organizational capacity, for ultimately, the strength of the organization's strategic leadership, human resources, other core resources, process management, and intrainstitutional linkages affect the quality of the institution's programs. Program performance is highly visible outside the organization and is often the major focus of organizational assessments.

Good program management sees to it that proper weight is given to each facet of mission fulfilment. For instance, if producing research and conducting ongoing training are both stated priorities, each should receive commensurate resources.

Exhibit 5.12: Components of program management.

- Planning
- Implementing
- Monitoring

Research Program Planning

The planning function within research program management includes the following tasks:

- Identify and assess research needs — their relevance to national plans and priorities and any gaps in existing programs.
- Set goals and strategies; identify focus areas and activities.
- Develop plans that
 - are consistent with needs, strategies, and areas of focus,
 - address constraints and opportunities, and
 - take into account technical and organizational capabilities.
- Account for technological, economic, social, and environmental aspects to ensure applicability of research outputs.
- Find/create opportunities for funding that is secure, diversified, and sustainable.
- Review, revise, and approve plans/budgets.
- Generate and review research proposals; submit to and negotiate with funding agencies, sponsors, clients.
- Assimilate reviewers' comments; approve proposals, activities; allocate resources.

Research Program Implementation

Research program implementation entails some or all of the following tasks:

- Implement research objectives.
- Provide technical, administrative, and logistical support to projects.
- Identify and meet training needs.
- Disseminate/use research results, as appropriate.
- Maintain linkages with policy makers, research disseminators, and other users.

Research Program Monitoring and Evaluation

Monitoring and evaluating research programs are necessary elements in the planning cycle. These activities involve:

- Establishing performance measurement indicators and processes.
- Monitoring technical quality and scientific progress and providing feedback to researchers.
- Administrative and financial monitoring and reporting.
- Reviewing/revising procedures and resources; taking corrective measures or terminating.
- At project completion, evaluating:

- objectives — their overall relevance, adequacy, appropriateness, and degree of achievement
- cost effectiveness of activities
- quality of outputs produced (relevance, adequacy, and appropriateness vis-à-vis objectives)
- activities required to maximize utilization of outputs
- lessons learned
- Based on the assessment, identifying follow-up courses of action.

Research-Supporting Services

Research-supporting services in the organization which must be planned for, implemented, and monitored include:

- External linkages with relevant actors, decision-makers, and policymakers
- Information and materials management
- Financial and administrative services
- Field-testing and disseminating research outputs (farm, community, and commercial trials, patents, marketing)

Process Management

Taking a vision and making it a reality through smooth-flowing, daily work in an organization is largely dependent on the ongoing "processes." These are the internal management systems — the many mechanisms that guide interactions among people to ensure that ongoing work is accomplished rather than hindered or blocked. They include planning, communication, decision-making, problem-solving, monitoring, and evaluation. Every piece of work in an organization goes through these systems.

People interact to accomplish their work, and the way that organizational processes are set up dictates the tone of the interaction that takes place. If the processes of problem-solving, decision-making, and communication are all working, the outcome is that the organization is learning and accomplishing a great deal.

Process management takes place at every level of an organization. Boards of governors must know how to plan, problem-solve, and make timely decisions. If they are deficient in these areas, organizational direction is often hampered. These same processes are at work throughout the organization, albeit at more operational levels. For instance, project units and departments need to be able to set direction and create mechanisms to carry out activities in service of this direction.

Exhibit 5.13: Organizational process.

- Planning

- Problem-solving and Decision-making
- Communications
- Monitoring and Evaluation

Planning

Planning is the organizational process that helps predict how organization members will behave. The strategic plan sets the overall direction and, at operational levels, planning becomes the process by which strategy is translated into specific objectives and methodologies to accomplish goals. It entails optimally engaging resources of time and people (e.g. developing time-lines and schedules).

Policy and procedure development are special types of plans setting out courses of action for organization members. In research organizations, the degree to which plans, procedures, and policies are explicit varies considerably across the organization. Organization members need enough direction to know what to do to support the organization's mission and goals. The planning of policies and procedures should provide this direction adequately at all levels of the organization: for projects, for departments, and for the organization as a whole.

Exhibit 5.14: Questions typically asked to assess planning resources.

- Is adequate — or too much — planning and policy and procedure development occurring in the research institution? (at all levels, from the governing board to departments and individual projects)
- Is the process of planning contributing to the strategic direction of the organization?
- Do plans provide adequate direction to organizational members?
- Are plans, policies, and procedures generally followed? Why or why not?

Problem-Solving and Decision-Making

Plans, policies and procedures set the course for organization members, but these systems do not cover the wide assortment of actions and behaviours that people are asked to assume. This is particularly true in research institutes, where the performance of many activities relies on the creativity and personal judgment of researchers.

Problem-solving and decision-making are two interacting and mutually reinforcing processes that must function well at every level of an organization. These processes entail the ability to define important problems, gather the data to frame the issue, create a set of alternatives to deal with the problem, decide on solutions, create the conditions to carry out decisions, and monitor these decisions and the problem's progression. Timeliness is a key element in this process: Organizations must be able to identify important issues and act in a timely fashion.

Exhibit 5.15: Questions typically asked to assess problem-solving and decision-making.

- Is the implementation of work at various levels of the organization smooth-flowing or blocked? If blocked, are inadequate problem-solving and decision-making processes the causes?
- Are performance gaps and opportunities identified in sufficient time to resolve them to the benefit of the individuals involved and the productivity of the organization?
- Are there decision-making mechanisms in place?
- Are decisions made in a timely manner?
- Are adequate organizational problem-solving and decision-making skills found on the governing board and within the ranks of senior managers?
- Are problem-solving and decision-making adequate in departments and for important projects?

Communications

The exchange of information and the achievement of shared understanding among members of an organization are vital goals of the internal communications function. In research institutions, continuous communication, both formal and informal, about ongoing activities is a must.

Internal communications can serve as the glue holding an organization together; alternatively, they can break it apart — for both information and misinformation constantly flow in organizations. Accurate information is vital to keep employees informed as well as motivated: Aside from the specific information needed to carry out work, organization members also need information that makes them feel part of an important effort and a wider purpose. The organization must create mechanisms that help its members gain both types of information. Coordinating committees, newsletters, and meetings of various sorts all provide vehicles for transmitting correct messages. (Communications with external constituents will be dealt with below in the section on "InterInstitutional Linkages.")

Exhibit 5.16: Questions typically asked to assess communications.

- What are the main vehicles of internal communications?
- Do people in the organization feel there is adequate, ongoing communication about the organization's activities?
- Do staff members receive information related to the organization's mission and about progress in fulfilling the mission?
- If information circulating in the organization about activities becomes distorted, are there corrective mechanisms to remedy this?
- Do people have easy access to those in the organization with whom they must deal? Can they communicate easily with them?

Monitoring and Evaluation

Monitoring and evaluation are the processes used by organizations to collect and use feedback. Theoretically, monitoring and evaluation are linked to planning and decision-making. In this context, feedback should permit comparisons of what has actually happened with what was planned and with the organization's overall goals.

Monitoring and evaluation complement each other in several ways. Monitoring can help clarify program objectives, link activities and inputs to those objectives, set quantitative performance targets, collect data routinely, and feed results directly to those responsible. Evaluation looks at why and how results were or were not achieved, links specific activities to overall results, includes broader outcomes that are not readily quantifiable, explores unintended results, and provides generalizable lessons for adjustments to programs and policies to improve results.

Monitoring is the ongoing process of gathering, analyzing and reporting data on how an organization, department, or project is doing, for the purpose of managing and identifying problems at an early stage. Ideally, it is administratively light, part of the management process, and uses a small number of selected performance indicators. Designing a monitoring framework often helps to clarify objectives and program priorities. Data can be used to take corrective action to improve performance or to realign activities to suit goals.

Monitoring is most often used in the financial arena to assess how well an organization is doing in relation to the planned budget. Increasingly, with the advent of better management information systems, organizations are creating monitoring processes to track progress in other crucial aspects of their work.

Evaluation is typically a more comprehensive, summative process. It identifies factors that facilitated or hampered achievement of results and may trace the contribution of these results to broader objectives. Evaluation involves making judgments about the merit or worth of an activity at a given time, during or after implementation. It answers questions of relevance, effectiveness, and impact. For instance, should the research centre continue to support the women's entrepreneurship centre and at what funding level? How can cooperation with the extension agency be improved? Is adequate attention being paid to gender dimensions in the research? What is the expected rate of return from this research? Was the research methodology/design appropriate to the research problem? Are people using the new technology; is it beneficial to the community?

Organizations may use their own staff as evaluators (internal assessment) or evaluators from outside the organization (external assessment). Both approaches can work, depending on the methods used to design and carry out the study and on the level of commitment in the organization to learning from the assessment exercise. The existence of regular formal or informal mechanisms for reviewing and using assessment findings is an indication of the extent to which they are valued in the organization.

Evaluations tend to require more resources and to be methodologically more complex than monitoring activities. Thus they occur less frequently and focus in greater depth on specific issues and activities. In the organizational assessment process, the important issues are (1) whether monitoring and evaluation are encouraged or discouraged, and (2) what use is made of the data these processes provide.

As organizations become more and more concerned about institutionalized learning — how individuals and the organization as a whole can improve and grow in knowledge — the processes of monitoring and evaluation become increasingly important. Attention is being paid to how data generated from these processes can be used for learning, improvement, and change. The assessment of monitoring and evaluation activities in an organization can be an important component of organizational learning.

Exhibit 5.17: Questions typically asked to assess monitoring and evaluation capacities.

- Are there policies and procedures that guide evaluation and monitoring?
- Are resources assigned to monitoring and evaluation?
- Are monitoring and evaluation valued at all levels in the organization as ways to improve performance?
- How are data obtained and used to monitor and evaluate the organization's units and activities?
- Are data gathered through organizational monitoring and evaluation activities utilized?
- Do evaluation plans or performance monitoring frameworks exist?
- Are evaluation results mentioned in strategy, program, policy and budgetary documents?

Interinstitutional Linkages

For research organizations engaged in creating and utilizing knowledge, it is vital to cultivate contacts with other institutions, organizations, and groups of strategic importance to the work. These may be potential collaborators and collegial bodies, potential funders, or key constituents. Formal links with others can result in a healthy exchange of approaches and resources (including knowledge and expertise) and can serve as an important reality check.

Keeping up with advances in pertinent fields of research is of crucial importance to research organizations. This means having access to wide-ranging sources of up-to-date information within each discipline. New information and technology of importance in the field bear directly on the organization's program management, from the choice of research topics to pursue to the types of training and services the institute will provide.

IDRC has been particularly strong in helping institutions capture information from beyond their boundaries. The Centre has vigorously supported libraries, information systems, and now, institutional networks and linkages to achieve this purpose and enable partner institutions to use scarce resources wisely.

Exhibit 5.18: Methods of linking institutions.

- Networks
- Partnerships
- External Communications

The research endeavour requires external collaborative linkages of many types: finding colleagues who share intellectual interests with whom to exchange and test ideas; linking with others able to fund research; sharing scarce resources (for example, libraries) with colleagues in other institutions; visiting other research institutions; and participating in external advisory committees for other organizations are all outreach activities.

Researchers have always found ways to communicate with their colleagues, whether in their own country or elsewhere in the world. Historically, contacts have occurred through attendance at conferences and through telephone and written communications, but these methods can be time-consuming and/or costly. Today, more accessible computerized networks are emerging to facilitate communication among investigators, enabling them to share data and experiences. Computer networks are indeed becoming a new organizational form. They are nonhierarchical, have no boundaries, and are easy to access. On the other hand, participating in these networks requires a commitment of resources.

IDRC has been a leader in supporting the networking of researchers in the developing world. Networking has reduced the isolation of researchers spread across wide geographical areas and has allowed researchers to stay in contact with colleagues around the world.

Networks

Networks are defined as groups of individuals or organizations that share a common interest and exchange information or resources in various forms on a regular or organized basis. Networks are effective ways to overcome the isolation of working in undeveloped research environments. Computerized information networks, in particular, have become particularly valuable facilitators of communication among investigators, enabling them to share data and experiences on-line. Indeed, in certain fields, participating in these networks is essential to keep up with fast-breaking developments; both participation and maintenance require a steady commitment of resources.

The advantages of scientific networks include the ability to pull together a critical mass of resources to address a particular research area; to serve as "institutional surrogates" for researchers in poor research environments; to coordinate the use of regional research resources; to transfer knowledge and expertise between countries, thereby broadening the national base of knowledge and experience; to reduce duplication of effort; to achieve economies of scale; and to allow contributions of greater impact through facilitating multicountry projects.

On the down side, networks can be costly to coordinate, the administrative tasks can be daunting, nonproductive networking activities can proliferate, and networking activities sometimes compete with (rather than build on) national research priorities.

Since its inception, IDRC has funded a wide variety of networks and network-related activities. It has initiated networks itself; responded to requests from developing country institutions for network support; and it has joined with other donor agencies in creating and supporting research and research-supporting networks. These networks have enabled members to share information, germ plasm, technologies or research methodologies, and combine efforts in order to solve problems of mutual concern. IDRC has come to see networking as an indispensable tool in the efficient pursuit of scientific research and technological adaptation for development purposes. The centre has found networks to be a highly adaptable mechanism for linking and meeting the needs of researchers in developing countries.

The form a network takes depends on its members' needs, the resources and capacities available, and the kind of contacts established. Networks tend to evolve as participants learn more about each other, build relationships, and discover opportunities. In IDRC's experience, networks move towards higher levels of integration and collaboration as they mature. The process reflects growth in research capacity, in mutual confidence, and in the flow of benefits from the network. The literature abounds in advice on how to promote successful networks. Some important considerations:

Membership: Network members must share a common problem or objective and be able to jointly define a common approach or strategy for finding solutions. They should have long-term commitment as well as the technical competence to contribute to finding a solution. Weak members should be balanced by strong members; both formal and informal training can be provided through the network.

Direction: Participatory governance is the key to ensuring that the network continues to serve the shared interests of its participants. Leadership for the network can be provided by an advisory group

or steering committee which defines the network's research agenda, cooperatively plans how to use shared resources, and fosters a climate of trust among members.

Structure and organization: A resilient, responsive structure is essential to facilitate communication, coordinate activities, manage resources, and ensure equal opportunity and the equitable distribution of benefits among network participants. Roles of network members and of structural units such as the coordinator, the steering committee or advisory group, project leaders, consultants, and network members must be well-defined and known to all. Roles must be able to evolve as the network matures.

Donor support: Setting up and coordinating network activities require a long-term commitment of external resources to supplement the contributions of national participants. Research networks typically take two to three years to begin functioning effectively. Viability can require funding and effort for ten years or more.

Relationship to national research systems: While network structure and programming should reflect research priorities at the national level, it is unrealistic to expect national programs to reallocate large amounts of their resources to fund network activities. Hence external support is necessary to augment the funding, resources, and staff that national research systems are able to commit to the network. Attention must be paid to the division of labour and responsibilities, and the flow of benefits, between international and national members.

Partnerships

Over the past decade, new alliances, consortia, and partnerships have formed in both the developing and developed world to enable like-minded organizations to come together and share resources to achieve common goals and objectives.

Partnerships can develop between funders and institutions, as often occurs when Northern NGOs want to support a particular type of work within a research institute. Or they can occur between two similar institutions, as found in the linkage arrangements between Northern and Southern institutes, or among Southern institutions. Partnerships can also be formed between an organization and its local stakeholder groups, as is often seen in health and agricultural research centres.

External Communications

Formal and informal communications with key external players and constituents are vital to help foster important linkages. A continuous flow of information to the outside world keeps those in the wider environment informed, be they the general public, identified constituents, or specialized technical audiences.

Exhibit 5.19: Questions typically asked about interinstitutional linkages.

- To what extent is the research institution linked to the external world of colleagues, of clients, of markets (users)? Are these relationships active? Are they beneficial?
- Are existing networks supported financially? technically?
- Do existing networks effectively respond to the needs, shared interests, and capabilities of participants?
- Have networks had an effect on the way the organization functions? Why? Why not?

- Are there fruitful, ongoing partnerships with external organizations that bring new ideas and/or resources to the research institution?
- Is the research institution communicating information about its work to external stakeholders, including the general public?

In research, there is a continual need to communicate results — in the hard sciences, to remain credible in the field and competitive for funding, and in the social sciences, to contribute up-to-date information to the process of policy formulation.

External communications can take many forms. Indeed, they consist of any appropriate means to converse with the outside world. Besides journal articles, proven ways of communicating the organization's work to the wider public are newsletters and promotional materials crafted to create awareness and interest in the organization's work. Research reports and annual reports of activities serve to raise the organization's profile and, by keeping important stakeholders informed, can play an important role in linking the organization to the wider community.