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Perspectives on partnership:
A literature review

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Table of Contents

Exhibits

Acronyms and abbreviations

CGIAR	Consultative Group on International Agricultural Research
CIAT	International Center for Tropical Agriculture
CIMMYT	International Maize and Wheat Improvement Center
CIP	International Potato Center
CSO	Civil Society Organization
EPMR	External Program and Management Review
GRPP	Global and Regional Partnership Program (World Bank)
ICRAF	World Agroforestry Center
IEG	Independent Evaluation Group (World Bank)
IFPRI	International Food Policy Research Institute
ILAC	Institutional Learning and Change Initiative
ILRI	International Livestock Research Institute
INRM	Integrated Natural Resources Management
ISNAR	International Service for National Agricultural Research
KFPE	Commission for Research Partnerships with Developing Countries (Switzerland)
NEPAD	New Partnership for African Development
NGO	Non-Governmental Organization
NRM	Natural Resources Management
PAT	Partnership Assessment Tool
SAFAR	Strategic Alliance Formative Assessment Rubric
SWEP	Systemwide and Ecoregional Program
TRG	Training Resources Group
USAID	United States Agency for International Development

Abstract

This paper reports on a wide-ranging review of the literature on partnerships and other closely related forms of collaboration. It aims to contribute to knowledge of the actual and potential roles of partnership in international agricultural research for development. The paper summarizes conclusions and insights from four distinct professional literatures: research studies; professional evaluation literature; practitioner-oriented reviews, guidelines and assessment tools; and CGIAR-related reviews, evaluations and policy documents. It identifies and analyzes key cross-cutting themes and success factors, highlights gaps in current knowledge, and identifies high-potential areas for further study. A wide range of research-based publications is reviewed, including studies in such fields as management and organizational development, public administration, economics and international development. Work in these fields covers such diverse topics as the role of inter-organizational collaboration in strategic management, public–private and cross-sector partnerships, North–South partnerships, roles of partnership in linking research with action, networking and transactions costs. The different literatures talk little to each other and are highly self-referential. Nevertheless, some common patterns, themes and concerns emerge related to definitions, partnership drivers and dynamics, trust and mutuality, power asymmetries and inequities, and success factors. It is noteworthy that empirical studies of partnerships are rare, particularly in-depth case studies. Theoretical pieces seldom present empirical tests of hypotheses, and practical guidelines are seldom grounded in theory. There is a clear need for more systematic and in-depth empirical research on partnership experiences. Although partnership is now considered an essential way of working in many fields, several authors caution that the costs of working in partnership may often exceed the benefits. Before establishing a partnership, one should identify a clear value-added proposition. Many reports on partnership prepared for the CGIAR are available only in grey literature, leading to difficulties in accessing them and risking a loss of knowledge. Gaps in knowledge are identified at the level of individual partnerships, the level of the organizations that participate in or manage portfolios of partnerships, and the level of research or innovation domains that are characterized by networks of partnerships.

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Perspectives on partnership: A literature review

1. INTRODUCTION

In recent years, working in partnership has become commonplace for organizations throughout the world as a means of addressing complex economic, environmental, social and technological problems. This mode of operation is now common in organizations concerned with international agricultural research for development. This type of research aims to produce development results in the medium term (five to ten years) and generally involves multi-organizational partnerships (including, for example, networks, alliances and consortia). It also frequently involves end users, including farmers, community groups or market agents, in research or activities designed to foster innovation.[1]

The concept of partnership has become central to the modus operandi of the Consultative Group on International Agricultural Research (CGIAR).[2] The CGIAR itself has been characterized as a partnership, as has been its relationship with the countries where research is conducted. Many of the CGIAR's programs, such as Challenge Programs (CPs) and Systemwide and Ecoregional Programs (SWEPs),[3] also operate in a partnership mode.

Over the past two decades, partnership relations in the field of international agricultural research for development have broadened from links among research centers to more extensive networks involving public, private and non-governmental or civil society organizations (NGOs or CSOs). Increasing concerns for positioning the CGIAR in global innovation systems and linking more effectively with others engaged in research and development activities is reflected in recent reviews of the CGIAR System and a number of studies of partnerships in the context of international agricultural research. Partnership issues also feature prominently in the recent discussions on revitalizing and developing a new model for the CGIAR.[4]

The forms of multi-organizational collaboration employed by CGIAR Centers have evolved over time, as have the labels applied to them. This reflects changes in Center goals, programs and

[1] Agricultural research for development contrasts with more basic or strategic research that aim to produce usable results over longer periods of time; and with development activities that aim to produce practical results in the very short term.

[2] "The Consultative Group on International Agricultural Research (CGIAR), established in 1971, is a strategic partnership, whose 64 Members support 15 international Centers, working in collaboration with many hundreds of government and civil society organizations as well as private businesses around the world. CGIAR Members include 21 developing and 26 industrialized countries, four co-sponsors as well as 13 other international organizations" (www.cgiar.org).

[3] These types of program are defined and discussed below in Section 3.5.

[4] Materials on change management in the CGIAR are available on the CGIAR website (www.cgiar.org).

strategies as well as the environments in which they operate. Over time, Centers have become more dependent on donor project funding, which has often encouraged them to engage a wider range of partners. Similarly, declining donor funding for national agricultural research institutes, the expanding role of market chains in driving technological change, and the emergence of innovation systems approaches that emphasize working in partnership, have all stimulated the expansion of partnership work.

The growing popularity of partnership also reflects what could be called 'organizational fashion' in the international development community. Forms of working across organizational boundaries that were previously referred to as outreach, regional research, networking or consortia are now commonly labeled 'partnerships'. This re-labeling of existing forms of interaction has confused discussions of partnership and led to a degree of cynicism concerning 'pseudo partnerships', 'transactional partnerships', and 'partnerships of convenience'.

As interest has grown in the use of partnership in international agricultural research for development, a number of studies have addressed this topic in the context of the CGIAR. In the 1990s, the Ford Foundation supported a program of organizational change for the CGIAR, which reviewed experiences with alliances and partnerships in other sectors and produced guidelines for applying the lessons in the CGIAR (Gormley, 2001; Merrill-Sands and Sheridan, 1996; Spink and Merrill-Sands, 1999). At about the same time, steps were taken to establish a research program on partnership and networks in the CGIAR (Özgediz and Nambi, 1999).[5] The International Service for National Agricultural Research (ISNAR) and later the International Food Policy Research Institute (IFPRI) conducted studies of public–private partnership in the context of agricultural research for development (Hartwich and Tola, 2007; Spielman et al., 2007; Spielman and von Grebmer, 2006). The CGIAR has also reviewed its partnership work on several occasions (Bevege et al., 2006; Bezanson et al., 2004; CGIAR Interim Science Council, 2002; CGIAR Science Council, 2006; CGIAR Science Council, 2008b; CGIAR Working Group 2, 2008). The Standing Panel for Mobilizing Science commissioned a study of CGIAR–Civil Society partnerships (Smith and Chataway, 2009).[6]

Of the various studies cited above, those conducted by Merrill-Sands and Sheridan (1996), Özgediz and Nambi (1999) and Spielman et al. (2007) provide especially useful reviews of partnership literature. The present paper draws on these studies and surveys additional

[5] The proposed program was never developed.
[6] This study was issued as a university working paper, not an official CGIAR publication.

knowledge and experiences with partnership and related forms of multi-organizational collaboration in a diverse range of fields.

Our review has its origins in the External Program and Management Review (EPMR) of the International Potato Center (CIP) which recommended that CIP create a Division of Partnership and Research on Partnership to assist the Center in developing "regional and country program partnerships" and to conduct research on partnership "of an international public-goods nature" (CGIAR Science Council, 2008a). CIP did not create such a division, but instead expanded the scope of an existing research project to incorporate research on partnership. The literature review reported here is the first step in CIP's partnership research. In light of the growing interest in this topic in the CGIAR and more broadly within the international agricultural research community, we have issued the review as a Working Paper to share our results, stimulate discussion, and encourage further research.

The review has three main objectives:

1) To survey contemporary literature of potential use for understanding and improving the roles of partnerships and related forms of collaboration in the context of agricultural research for development.
2) To summarize major conclusions and insights and identify key themes that cut across the different professional literatures and that are relevant for international agricultural research for development.
3) To identify significant gaps in knowledge and areas for future study.

The primary intended readers of this report are applied researchers who wish to understand and contribute to improving the use of partnerships in international agricultural research for development. Other important audiences include managers of agricultural research for development programs that involve partnerships or other forms of multi-organizational collaboration and professionals in donor organizations who support partnerships for agricultural research for development.

After this Introduction, Section 2 describes the methods used to conduct this review, which involved Internet searches, review of publications and reports, follow-up communications with prominent researchers and evaluators working in the field of partnership, and interviews with CIP researchers.

Section 3 presents the main results of the review. Our purpose is not to provide a comprehensive review of all relevant literature, but to review a sample of literature in each field, and to identify the main perspectives and insights in each. To facilitate comprehension of the ways in which partnership and related concepts are treated in different fields, the literature is grouped into the following four fields:

1) Research studies (Section 3.2).
2) Professional evaluation literature (Section 3.3).
3) Practitioner-oriented reviews, guidelines and partnership assessment tools (Section 3.4).
4) CGIAR-related reviews, evaluations and policy documents (Section 3.5).

The largest and most diverse field – research studies – is further sub-divided into seven sub-fields. The broader sub-fields are reviewed first, followed by progressively more narrowly defined fields. Hence the first research sub-field corresponds to management and organizational development studies, and the last one corresponds to economic studies of public–private partnerships in agricultural research.

Section 4 discusses a number of themes that emerge from the literature, identifies major gaps in knowledge and proposes some areas for future study of the use of partnership in international agricultural research for development.

The reference list includes all references cited in this Working Paper. With the exception of copyright-protected sources, these are all available on the website of the Institutional Learning and Change Initiative (ILAC).[7]

[7] See www.cgiar-ilac.org

2. METHODS

This review is a broad and exploratory work in progress in a loosely defined, little understood and rapidly evolving area. It is not a comprehensive and definitive review of a well-defined area of study or professional practice. The review aims to improve our understanding of the actual and potential roles of partnership in international agricultural research for development. Our interest is focused on the use of partnership in knowledge generation and innovation processes rather than other uses, such as improving cost effectiveness through joint service provision. The review concentrates on contemporary partnership arrangements and issues, with less emphasis on historical analysis of experiences with partnership-like arrangements at earlier periods in time.[8]

In order to inform our thinking about partnerships in international agricultural research for development, we have cast our net widely and searched diverse literatures concerned with partnership and related forms of multi-organizational collaboration for potentially useful frameworks, tools or insights. During the review, we consulted with researchers at CIP and elsewhere in the CGIAR, as well as in other organizations that work on partnership issues, to get their advice on areas to address, sources of knowledge and literatures to review.

Internet searches were conducted using such keywords as: partnership, research partnership, cross-sector partnership, North–South partnership, public–private partnership, partnership evaluation, collaboration, multi-organizational collaboration, and boundary organization. We also posted requests for partnership references on several Internet lists and received a number of valuable leads from these sources.

We presented preliminary findings to an interdisciplinary group of CIP scientists who provided valuable critical feedback. We shared an earlier version of the present report with Jacqueline Ashby, Selcuk Özgediz, Jamie Smith and David Spielman who provided many valuable suggestions and pointed us towards literature we had overlooked.

Since the literature review was carried out as the first step in a longer-term research effort conducted by a CGIAR Center, we paid special attention to two fields: partnership in the CGIAR (including documents concerned with partnership policies at Center and System level); and evaluation frameworks for assessing partnership processes and performance. We obtained documents on the first field mainly from the CGIAR website (www.cgiar.org) and from personal contacts in the System. We explored the second field by searching the contents of four evaluation

journals over the period 1998-2008: *The American Journal of Evaluation*, *The Canadian Journal of Programme Evaluation*, *Evaluation*, and *New Directions for Evaluation*.

As the review proceeded, we built up a list of prominent authors and organizations working on partnership. In some cases, they were contacted to request information or gauge their interest as possible collaborators.

Annotations were prepared for the documents reviewed. Then keywords were identified for each document, reflecting the type of document, the intended audience, the purpose of the partnership described (or the author's focus), the type of partnership, the field in which the partnership operates, and the country or region concerned. The keyword scheme is detailed in Exhibit 1.

[8] Nevertheless, the review does include a brief section on networking in international agricultural research in the 1970s and 1980s.

Exhibit 1. Keywords used in the partnership literature review.

For each document reviewed, keywords were assigned that correspond to the following five groups of variables.

1. Purpose and intended audience of document

- *Research studies.* These documents report on results of research. Include literature reviews and reports on primary or secondary research, published in books, journal articles, discussion papers and in a few cases institutional documents. Seek to contribute to the understanding of some aspect of partnership. Generally intended for an audience of researchers or specialized practitioners.
- *Reviews and evaluations.* These documents report on one or more reviews or evaluations of partnerships, generally carried out to inform decision-making concerning partnership work. Intended mainly for an audience of decision-makers concerned with partnerships.
- *Evaluation methods.* These documents provide frameworks or methods for evaluating partnerships. Intended mainly for an audience of professional evaluators.
- *Practical guidelines and tools.* These documents provide practical guidelines for planning, managing or (self) assessment of partnerships, generally with the aim of improving partnership work. Intended mainly for people directly involved in, or responsible for supervising, partnership work.

2. Purpose of partnership / author focus

- *Innovation.* Includes knowledge creation and transfer, research and development (R&D), science and technology (S&T) development, linking research with development and 'research for development'.
- *Service delivery*
- *Capacity development*
- *Policy influence*
- *Improving accountability / governance*
- *General or other purposes*

3. Type of partnership

- *Inter-organizational collaboration (general)*
- *North–South partnership*
- *Cross-sector partnership. Includes public–private partnership*
- *Networks and partnership programs. Includes regional and global networks and programs*

4. Sector in which partnership operates

- *Public administration / public services*
- *Agriculture.* Includes CGIAR
- *Health and social services*
- *Other.* Includes water and sanitation, transportation, industry, education, employment

5. Country or region

Source: Authors.

3. RESULTS

The literature reviewed falls into four broad fields: research studies; professional evaluation literature; practitioner-oriented reviews, guidelines and partnership assessment tools; and CGIAR-related reviews, evaluations and policy documents. The research studies are so numerous and diverse that it is convenient to group them into seven sub-fields (Exhibit 2). The other three bodies of literature are smaller and more homogenous.

Exhibit 2. Types of literature reviewed.

1. Research studies

- Management and organizational development studies.
- Public policy and public management studies.
- Studies of North–South Partnerships.
- Science and technology policy studies.
    - General studies.
    - Studies of agricultural innovation processes and systems.
- Studies of knowledge–action linkages.
    - Studies of participatory research and technology development.
    - Studies of 'boundary organizations' in sustainability science.
- Studies of networking in international agricultural research.
- Economic studies of public–private partnerships in agricultural research.

2. Professional evaluation literature.

3. Practitioner-oriented reviews, guidelines and partnership assessment tools.

4. CGIAR-related reviews, evaluations and policy documents.

Source: Authors.

3.1. Concepts and definitions

Partnership has been defined in many different ways in different contexts. This section presents some representative definitions, discusses some of the similarities and differences across definitions, and offers a definition of partnership in the context of international agricultural research for development.

Key findings:

- Different disciplines and communities of practice (or epistemic communities) tend to define partnership in different ways, leading to misunderstandings across disciplinary boundaries and fields of practice.
- In addition to 'partnership', there are a number of relevant, closely related terms, such as multi- (or inter-) organizational collaboration, cooperation, alliance and network.
- In the international community, the term partnership refers to a relationship that is similar to that of an alliance in the private sector, rather than a business partnership. It is also similar to the concept of multi-organizational collaboration in the field of management development.
- There has been re-labeling over time. Relationships that were called consortia, networks, or country and regional programs are frequently now called partnerships.

Partnership and closely related terms are defined in various ways in the different literatures reviewed. In the context of international agricultural research for development, the term partnership is often used loosely to refer to diverse structures and relationships, which include the CGIAR itself, relations between the CGIAR and nations, relations among research centers or programs, and relations between research centers and programs and other types of organizations.

As Bezanson et al. (2004: Preface) note:

> *"The very term 'partnership' is vague and can span objectives that range from – at the lower end – information sharing and 'getting to know each other better', to learning about how two parties might work together, to specific actions of an interdependent nature that assign responsibilities and accountabilities to two or more parties, to – at the higher end – an almost seamless blending of actors."*

Our intent in this section is to review how the term partnership is used in different fields of study and practice, and then to propose a definition that is useful in the context of international agricultural research for development.

3.1.1. Definitions used in different fields

A business partnership is a type of business entity in which partners (generally individual owners) share in the profits or losses of the business. In the fields of international research and development, however, when people refer to partnerships, they are usually thinking of collaborative relationships between organizations that are pursuing common objectives, not to a business entity owned by individuals who share profits and losses. For this reason, we have not reviewed the literature on business partnership but instead have focused on literature concerned

with multi-organizational collaborations, alliances, networks and partnerships involving public, non-governmental or civil-society organizations, often working with private firms.

One relevant field is concerned with partnerships for development, or 'development partnerships'. In a recent collection of papers on **Evaluation and development: The partnership dimension**, Klitgaard (2004: 43) notes that:

> *"in international development … talk of partnership abounds. The word partnership has been applied to relations between rich and poor countries, between donors and recipients, especially recently but also in the past."*

Picciotto (2004: 59) identifies key features of a partnership for international development in the following way:

> *"Partnership is a means to an end – a collaborative relationship toward mutually agreed objectives involving shared responsibility for outcomes, distinct accountabilities, and reciprocal obligations. Where there is no common vision of what the partnership is about, no mutual stake in the outcome, lack of clarity in task allocations, or imbalance in influence and unfairness in allocation of costs and benefits, the partnership is hollow."*

In the same context, Axelrod (2004: 9-10) provides the following more elaborate definition:

> *"Partnership is a collaborative relationship between entities to work toward shared objectives through a mutually agreed division of labor…. A partnership is not a gift. A partnership aims to take advantage of what the recipient, as well as the donor, can bring to the relationship. This can include local expertise, on-site workers, and a better understanding of priorities, needs, and constraints. Crucially, a partnership seeks also to establish joint ownership of the relationship and to build the capacity of the recipient government to undertake sustainable development. A partnership is not a relationship based on one-sided conditionality …. A partnership is not a principal-agent relationship between a donor and a recipient .... A partnership is not simply a team activity…. Finally, although the formal terms of a partnership may be expressed in a contract valid under international law … partners rely mainly on each other's need to maintain a good reputation to secure future agreements."*

Many specialists in management and organizational development have studied multi-organizational collaboration, which Lawrence et al. (2002: 282) define as follows:

> *"a cooperative, interorganizational relationship that is negotiated in an ongoing communicative process and that relies on neither market nor hierarchical mechanisms of control… This definition of collaboration is inclusive enough to encompass a wide range of collaborative arrangements (for instance consortia, alliances, joint ventures, round-table, networks, and associations)."*

A widely cited text by Huxham and Vangen (2005: 4) defines multi-organizational collaboration broadly as:

> *"any situation in which people are working across organizational boundaries towards some positive end…. We are concerned with the full range of positively oriented inter-organizational relationships, including partnerships, alliances, joint ventures, networks of various sorts, collaborative forms of contacting and outsourcing, joint working and so on."*

In contrast, Kitzi (2002: 49) defines inter-organizational collaboration more narrowly as:

> *"inter-organizational structures where resources, power, and authority are shared and where people are brought together to achieve common goals that could not be accomplished by a single individual or organization independently."*

In a review of research studies on collaboration prepared for practitioners, Mattessich et al. (2001: 4) provide a more exacting, and normative, definition:

> *"Collaboration is a mutually beneficial and well-defined relationship entered into by two or more organizations to achieve common goals. The relationship includes a commitment to mutual relationships and goals; a jointly developed structure and shared responsibility; mutual authority and accountability for success; and sharing of resources and rewards."*

In the field of public administration, Brinkerhoff (2002a: 21) provides this widely cited definition of the 'ideal type of partnership':

> *"Partnership is a dynamic relationship among diverse actors, based on mutually agreed objectives, pursued through a shared understanding of the most rational division of labour based on the respective comparative advantages of each partner. Partnership encompasses mutual influence, with a careful balance between synergy and respective autonomy, which incorporates mutual respect, equal participation in decision making, mutual accountability and transparency."*

The term 'public–private partnership' has come into common usage in the field of science and technology policy studies, where Cervantes (1998: 8) defines it as follows:

> *"In the area of technology policy, the term "public/private partnership" can be defined as any innovation-based relationship whereby public and private actors jointly contribute financial, research, human and infrastructure resources, either directly or in kind. As such, partnerships are more than simply a contract research mechanism for subsidizing industrial R&D. Partnerships can be formal or informal arrangements governing general or specific objectives in research or commercialization and involve two or more actors.*

In the context of agricultural innovation systems, Hall (2006: 9) defines public–private partnership more loosely, as follows:

> *"the pooling of public and private resources with the aim of providing value added to both parties …. Both parties must bring some resources to the partnership that are valuable for the other party and for the common interest…. Both parties must have an interest that overlaps …. Both parties must expect some net gain – something that they cannot achieve as cheaply, as rapidly or as effectively when they operate on their own."*

Agricultural economists studying public–private partnership in international agricultural research generally use a more narrow definition. For example, Spielman et al. (2007) provide the following definition:

> *"Public–private partnerships are commonly defined as collaborations between public- and private-sector entities in which partners jointly plan and execute activities with a view to accomplishing mutually agreed-upon objectives while sharing costs, risks, and benefits incurred in the process."*

Nevertheless, for a study of public–private partnership in the CGIAR, the same authors relax and expand this definition to include *"any type of formal or informal arrangement between public- and private-sector entities, such as knowledge-sharing networks, technology financing, or subcontracted research."*

Recently, a number of multinational corporations, organizations within the United Nations system, and international NGOs have begun to use the term 'cross-sector partnership', which Tennyson with Harrison (2008: 6), of The Partnering Initiative,[9] defines as follows:

> "*Cross-sector partnerships are those arrangements that establish a non-statutory arrangement between organizations from different sector (business, government and civil society). Such partnerships are typically put in place to achieve sustainable development goals at strategy and/or operational levels."*

Based on a review of experiences with partnerships around the world, the author concludes that it is unimportant, and perhaps impossible, to arrive at a universally applicable and generally accepted definition of partnership. What is important is the basic principle of "*sharing rather than transferring costs and risks."*

3.1.2. A definition of partnership proposed for use in international agricultural research for development

For use in the field of international agricultural research for development, we propose the definition of partnership shown in Exhibit 3, which we believe is broad enough to cover a significant range of activities in which international research programs engage with others, to generate knowledge and stimulate innovation; yet narrow enough to allow partnership to be distinguished from other significantly different types of inter-organizational relations.

[9] The Partnering Initiative, based at the International Business Leaders Forum in the UK, promotes cross sector partnerships.

Exhibit 3. Proposed definition of partnership.

In the context of international agricultural research for development, partnership is defined as a sustained multi-organizational relationship with mutually agreed objectives and an exchange or sharing of resources or knowledge for the purpose of generating research outputs (new knowledge or technology) or fostering innovation (use of new ideas or technology) for practical ends.

This definition is broad enough to cover a range of types of informal and formal arrangements that seek to promote knowledge production and its practical application in the field of agricultural research for development, from loose knowledge-sharing to more integrated collaborative arrangements between organizations. It includes both cross-sector and public–private partnerships, as well as relations that involve, for example, only research organizations in the public sector. On the other hand, it excludes teamwork that does not cross organizational boundaries, as well as arrangements such as contract research, where there is an exchange of resource rather than sharing of resources and knowledge. Our definition also excludes arrangements that pursue objectives not directly related to research or innovation (such as improving the cost effectiveness of administrative functions).

3.2. Research studies

Because this literature review seeks to provide a knowledge base on partnerships in international agricultural research for development, the use of partnerships for research or for promoting innovation has been given special attention. In this section, 39 research studies are reviewed, including 32 that deal specifically with partnerships for research or innovation and 7 more general studies that deal with the use of partnerships to improve service delivery, capacity development, accountability or other processes.

To make this diverse literature more accessible, it is divided into seven research fields:

1) Management and organizational development studies.
2) Public policy and public management studies.
3) Studies of North–South partnerships.
4) Science and technology policy studies.
5) Studies of knowledge–action linkages.
6) Studies of networking in international agricultural research.
7) Economic studies of public–private partnerships in agricultural research.

Key findings:

- Studies of partnership tend to reflect the concepts, methods and priority issues of their authors' home disciplines.
- There are very few detailed and theoretically grounded case studies of partnerships; most research is based on secondary data, questionnaire surveys or personal impressions.
- Management and organizational development literature emphasizes the roles of partnership in strategic management, learning and innovation, and political influence. It introduces useful concepts, such as collaborative advantage (versus collaborative inertia), and collaboration as a source of potential new institutions (proto-institutions).
- Public policy literature examines how alliances of public- and private-sector actors can contribute to achievement of social goals, and underlines issues of governance, accountability and power relations.
- Studies of North–South partnerships emphasize capacity development (in the South) and highlight issues of power imbalances and accountability. Many partnerships involving CGIAR Centers share common features with North–South partnerships.
- Science and technology policy studies emphasize the importance of interactions among researchers, policy makers, and economic actors in fostering innovation, in the context of innovation systems. The institutions that promote such interactions are frequently termed partnerships.
- The focus of literature on participatory research and technology development has evolved from linking individuals (researchers and farmers) towards linking organizations in sustainable partnerships.
- Authors in the field of sustainability science explore the role of 'boundary organizations' in linking knowledge generation and knowledge use.
- Economists have studied public–private partnerships in many sectors, including agricultural research. These studies tend to emphasize issues of market failure, transactions costs, and intellectual property rights.

3.2.1. Management and organizational development studies

Management studies have contributed significantly to our understanding of inter-organizational relations. Publications in this field generally focus on inter-organizational collaboration rather than partnership per se. A key author is Chris Huxham, who has authored or co-authored numerous, frequently cited journal articles and books. In **Managing to collaborate: The theory and practice of collaborative advantage***,* Huxham and Vangen (2005) pull together results of 15 years of work on a broad range of issues concerning the management of collaborative work between organizations. The authors note that collaboration between organizations to address such issues as economic development, health, the environment, knowledge sharing, supply chain management, and human resource management touches almost every aspect of contemporary business and social life. The book features a discussion of challenges in collaboration based on action research in a large number of cases.

Two key concepts developed in the book are those of 'collaborative advantage' and 'collaborative inertia'. Collaborative advantage, referring to the way in which synergy can lead to outputs that would not otherwise be attained, is also used by other writers and is discussed further below. Collaborative inertia is a concept used by Huxham and co-workers to describe poor collaborative performance. By conceptualizing factors that militate against collaborative success, the authors seek to offer managers a more informed basis for choice about actions that lead to collaborative advantage. The core of the book involves discussion of a number of collaborative themes that have arisen from the authors' action research with various types of organizations and collaborative projects (Exhibit 4).

Huxham and Vangen refer to collaborative advantage as the way in which synergy can lead to outputs that would otherwise not be attained; collaborative inertia describes poor collaborative performance.

The book also discusses issues of (action) research and theory building. For individuals seeking quick and low-cost solutions to problems of collaboration, the authors provide a reality check. They emphasize the complexity of collaborative situations and processes, the importance of careful analysis of specific situations before making judgments or proposing solutions, and a rejection of generic tools and cookbook recipes.

There is no single research literature on partnership or inter-organizational collaboration, but many distinct literatures that have tended to evolve in isolation. For this reason, there are few literature reviews that can be said to treat perspectives on partnership in a comprehensive sense. In this respect, the article **Resources, knowledge and influence: The organizational effects of interorganizational collaboration** by Hardy et al. (2003) is especially useful. The authors review three distinct literatures on inter-organizational collaboration:

1) Strategic management literature, which views collaboration as a means to develop an organization's resource base and capacity, principally through formal relationships.
2) Organizational learning literature, which views collaboration as a means of stimulating knowledge creation, primarily through multiple, fluid, informal relationships.
3) Literature on the network theory and political influence, which views collaboration as a means of enhancing the centrality of the organization within its network of relationships and its political influence on other organizations.

Exhibit 4. Collaborative themes.

Practitioner-generated themes: Issues perceived by practitioners to cause anxiety or reward in collaboration.

- Common aims
- Working processes
- Resources
- Communication and language
- Commitment and determination
- Culture
- Power
- Trust
- Compromise
- Risk
- Accountability
- Democracy and equity

Researcher-generated themes: Issues seldom perceived by practitioners, but frequently identified by researchers as being critical for the success of collaboration.

- Identity
- Social capital
- Transparency

Policy-generated themes: Issues commonly referred to by policy makers as critical for collaborative activities.

- Leadership
- Learning
- Success

Cross-cutting theme: Commonly identified by all groups.

- Membership structures

Note: The authors note that these lists are not comprehensive, but reflect the most commonly identified issues in their action research work with multi-organizational collaboration.

Source: Huxham and Vangen (2005).

These three literatures suggest three research questions: What characteristics of collaboration are associated with the acquisition of distinctive resources? What characteristics of collaboration are associated with the creation of knowledge? What characteristics of collaboration are associated with changes in inter-organizational influence?

Based on an in-depth qualitative analysis of the collaborative activities of a non-governmental organization in Palestine, the authors examine the relationship between the nature of the collaborations and the effects they produce on the collaborating organizations. It concludes that two key factors – 'involvement' and 'embeddedness' – determine the potential of a collaboration

to have important impacts on the collaborating organizations in the crucial spheres of resource sharing, knowledge creation and political influence. *Involvement* refers to the internal dynamics of a collaboration – the ways in which the participating organizations relate to each other. Collaborations with deep interactions, partnerships, and bilateral information flows are considered to have high levels of involvement. *Embeddedness* focuses on the external aspects of collaboration – the degree to which the collaboration is enmeshed in inter-organizational relationships. Collaborations involving interactions with third parties, external representation, and multi-directional information flows are considered to be highly embedded.

Hardy et al. identify two key factors – involvement and embeddedness – that determine the potential for impacts of a collaboration on the collaborating organizations.

This study has at least 4 potential implications for research on partnership in the context of international agricultural research for development:

1) There are inherent tensions between knowledge creation and strategic uses of partnership. When partners are highly involved and embedded, it can lead to extremely effective knowledge creation, but individual partners may lose their strategic advantage because the knowledge is often quickly transmitted to other members of the network.
2) Different membership structures and arrangements favor the achievement of different partnership goals. Successful collaborations that advance the strategic goals of the individual partners generally have clear goals, partner selection criteria, performance monitoring criteria, and termination arrangements. However formal rules can limit knowledge creation and innovation, which often emerges from ongoing, informal and unplanned relationships.
3) Fine-grained, qualitative approaches are useful for the study of inter-organizational relations. While much contemporary research has been dominated by large-scale, quantitative methods, there is much to be gained from examining more localized dynamics that can be dealt with in a more intensive fashion.
4) Holistic approaches that incorporate a range of perspectives, method and sources of information are useful for the study of inter-organizational collaboration.

According to Lawrence et al., inter-organizational collaboration can act as a source of institutional change through the generation of proto-institutions.

In an earlier article based on the same intensive qualitative research study, Lawrence et al. (2002) examine one potentially important, and often-ignored result of inter-organizational collaboration: *the emergence of 'proto-institutions'* – defined as new practices, rules, and technologies that transcend a particular collaborative relationship and may become new institutions if they diffuse sufficiently. The authors argue that inter-organizational collaboration can act as a source of institutional change through the generation of such proto-institutions. The article notes that collaboration is often entered into as a way to develop new solutions to complex problems. The nature of the collaborative activities influences the extent to which these

new solutions may be diffused and become applied beyond the boundaries of the initial collaboration (as proto-institutions), that may ultimately become more widely institutionalized. The article presents a useful review of literature on institutional innovation and the role of collaboration in generating and diffusing proto-institutions, followed by systematic qualitative cross-case analysis of the collaborative activities of a small NGO in Palestine. The four-year study suggests that collaborations that are both highly embedded and have highly involved partners are the most likely to generate proto-institutions.

Kitzi points out that multi-organizational collaboration is the most difficult type of cooperative relationship.

For some management experts, developing a cooperative strategy is as important as developing a competitive strategy. This is reflected in a chapter entitled **Cooperative strategy: Building networks, partnerships and alliances** by Kitzi (2002) in the book *Strategic tools for social entrepreneurs* (Dees et al., 2002). The author argues that by forming relationships with others, an organization may be able to expand its capability, extend its reach or market, lower its costs, provide more effective services or products, gain increased access to additional resources and improve its credibility. He points out that multi-organizational collaboration is the most difficult type of cooperative relationship that can be pursued, and notes that it is sometimes thought of as "*an unnatural act between two or more consenting organizations*" (page 48). Kitzi contrasts collaboration with three other cooperative strategies (page 50):

- *Networking* is an informal relationship that involves exchanging information for mutual benefit. Levels of trust and time commitments are limited and there is no inter-agency sharing of resources.
- *Coordination* is a formal relationship that involves exchanging information and altering activities for mutual benefit and to achieve a common purpose. Greater amounts of trust and time commitments are needed. However resources are still controlled by the individual organizations.
- *Cooperation* is a formal relationship that involves exchanging information, altering activities, and sharing resources for mutual benefit and to achieve a common purpose. A substantial amount of time and high levels of trust are needed, as well as access to each other's turf. Nevertheless, there is still limited sharing of resources.
- *Collaboration* is a formal relationship that involves exchanging information, altering activities, sharing resources, and enhancing the capacity of another organization for mutual benefit and to achieve a common purpose. There are substantial time commitments, very high levels of trust, and extensive areas of common turf. There is also full sharing of resources, risks, rewards and responsibilities.

Kitzi (2002: 53-54) notes that among these four cooperative strategies, collaboration is the most difficult form of strategy for working relationships, because in a collaborative relationship, the organization's priorities are secondary to the priorities of the collaboration.

> *"It is very difficult for boards of directors – the people who are the last resort for fiduciary responsibility for the organization – to release already scarce resources to another entity (the collaborating group) without some say or control over how these resources will be used. Many have tried, and most have resorted to coordinated efforts or contract services to avoid such a dilemma."*

3.2.2. Studies of partnership in public policy and public management

In the field of public policy, partnership is often viewed as the second generation of efforts to bring competitive market discipline to bear on government operations (after the first generation efforts of privatization).

Partnership features prominently in many studies of public policy, public administration and 'new public management'. **Public–private policy partnerships**, edited by Vaillancourt Rosenau (2000), views partnership as the second generation of efforts to bring competitive market discipline to bear on government operations. Unlike the first generation of privatization, partnering involves sharing responsibility and financial risk. Partnering institutionalizes collaborative arrangements in which the differences between the sectors often become blurred. This book evaluates public–private partnerships in a broad range of policy areas, including education, health care and health policy, welfare, prisons, the criminal justice system, environmental policy, energy policy, research and development, and transportation. The contributors, from such fields as political science, education, law, economics and public health, merge experiential and social-scientific findings to examine how partnerships perform, identify the conditions in which they work best, and determine when they might be expected to fail. The book includes a chapter on **Public–private technology partnerships** by Joseph Stiglitz and Scott Wallsten, which examines US government support for private sector research and development. They look at public funding of research led by industry and private sector consortia, as well as partnering between scientists in industry and the public sector. The authors argue that private firms tend to under-invest in research and development due to knowledge spillover effects and they identify a series of technological and political hurdles that need to be overcome to realize the potential of this type of partnership.

Jones and Little (2000) present a critical analysis of the role of partnership in new public management in the UK, in a paper called **Rural challenges: partnership and new rural governance**. The authors note that: "*whatever definition is favoured, partnerships or networks between the public, private and voluntary sectors are an important part of what constitutes novel forms of governance*" in the UK. The authors question the uncritical promotion of this form of governance, which emerged from the "*traumatic neo-liberal restructuring of urban politics in the 1980s*" and its transfer to rural areas, where it "*brings the requirement for rural organizations and*

Jones and Little question the culture of partnership and its suitability as a means of securing effective rural regeneration.

actors to form partnerships in order to secure funding and to deliver services". The authors argue that contemporary discussions of partnership approaches lead to "*submergence of key issues about power relations, accountability, public spending levels, and equitable resource allocation in the systematic addressing of the needs of rural communities*". They question the culture of partnership and its suitability as a means of securing effective rural regeneration, arguing for greater scrutiny to be paid to its increased political currency and practical applications.

In **Government–nonprofit partnership: A defining framework**, Brinkerhoff (2002a) notes that partnership has emerged as an increasingly popular approach to privatization and government–nonprofit relations. However, there is no consensus on what partnership means, and its practice varies. The author provides a useful review of partnership literatures and refines the definition of partnership using the concepts of 'mutuality' and 'organizational identity'. These concepts are used as the two axes of an inter-organizational relationship matrix, in which partnership is distinguished from three other basic relationship types: contracting, extension, and co-option or gradual absorption (Exhibit 5). The article provides examples of these types of relationships. It argues that practitioners with diverse interests could use the matrix to assess their relative tolerance for partnership approaches and provide them with a common language. The matrix could inform continuing theory building and practical experimentation with partnership.

Exhibit 5. Brinkerhoff's partnership model.

Organizational identity	**Mutuality**	
	Low	High
High	Contracting	Partnership
Low	Extension	Co-optation & gradual absorption

Source: Brinkerhoff (2002a: 22).

Accountability principles for research organizations by Whitty (2008a) provides a set of principles and practical guidelines to help managers and researchers of policy research organizations working in developing countries reflect on their organization's accountability. The term 'policy research organization' includes any organization that conducts research and uses that research to influence policy. It applies to many organizations whose primary aim is to develop technological innovations, since these frequently have profound policy impacts. The definition covers diverse types of organizations, including civil society organizations, consultancies, advocacy groups and large companies that conduct research that impacts on policy.

The study is the main product of the *Accountability Principles for Research Institutes* project, funded by the International Development Research Centre (Canada). The project took as its starting point the One World Trust's Global Accountability Framework, which was developed over a period of five years' consultative work and provides a set of accountability principles that apply to organizations with global impact. One World Trust defines accountability as "*the processes through which an organization makes a commitment to respond to and balance the needs of stakeholders in its decision-making processes and activities, and delivers against this commitment*" (Whitty, 2008a: 4).

Part 2 of Whitty's study describes motivations for an organization to be accountable. It draws on good practices increasingly described and advocated in the literature. It starts with four central principles of accountability (participation, evaluation, transparency and feedback) and discusses the stakeholders to whom a research organization should be accountable and why. Part 3 examines the tensions and constraints facing different types of organization when they seek to hold themselves accountable. It is based on work with 16 diverse research organizations active in developing country contexts. Part 4 defines in greater depth what accountability means in practice and how its principles may be implemented. Based on the foregoing discussion, it describes for different research organizations the key stakeholders who should be consulted, reviews key methods that will enable a research organization to be more accountable, and discusses practical issues and tensions in their implementation.

According to Blagescu and Young, partnerships are evolving from principal-agent relationships with highly unbalanced authority, toward a 'new partnership model' in which both parties contribute resources to achieve common benefit.

3.2.3. Studies of North–South partnership

North–South partnership has been a widely used strategy for donors as well as research and academic institutions in industrial countries to support innovation and capacity development in the South. In a working paper entitled **Partnerships and accountability**, Blagescu and Young (2005) summarize thinking on issues of accountability, partnership and capacity building between Northern and Southern organizations, and provide examples of current practice among organizations involved in similar work. North–South partnership is generally a means to strengthen the capacity of the Southern partners and to ensure that the results of work will be relevant to target groups and sustainable in the long term. The authors note that North–South partnerships are evolving from principal-agent (donor-recipient) relationships with highly unbalanced authority, toward a 'new partnership model' in which both parties contribute resources to achieve common benefits. Such a relationship is characterized by mutual accountability between partners, each of whom has different objectives and stakeholders. They present a three-level accountability framework that includes:

1) Accountability of the partners to their own stakeholders.
2) Accountability of the partners to each other.
3) Accountability of the partnership to its stakeholders.

The second level of accountability receives special attention in the paper. Four key aspects of this level of accountability are: access to timely and accurate information, terms of engagement, legitimacy of the partnership, and procedural review and evaluation mechanisms. The paper reviews the policies and strategies used by Northern agencies to promote equitable partnerships, noting the wide variation in practices among agencies and the wide gap between many policies and practices. An annotated bibliography of important publications addressing issues of accountability, partnerships, and capacity building, and a list of key websites with additional information on the subject are particularly useful features of this paper.

Maselli, Lys and Schmid (2006) report on a study of the impact of North–South research partnerships. The study, sponsored by the Swiss Commission for Research Partnerships with Developing Countries (KFPE) in cooperation with the Global Development Network has three aims: to provide insights into means of achieving desired impacts and avoiding drawbacks; to stimulate discussion of impacts; and to achieve better understanding of the functioning of research partnerships. It is based on case studies involving research partnerships and discussions at workshops organized by an Impact Assessment Working Group. The authors argue for moving partnership evaluations from 'proving' to 'improving' impacts. Several types of impact are assessed, including:

- Generation of new knowledge.
- Changes in attitudes (of researchers).
- Strengthening capacities (individual and institutional).
- Impacts on target groups (principally policy makers and local populations).

An impact matrix is presented that relates these types of impact to 'impact chains'. The report presents a useful synthesis of results of eight case studies, and identifies factors that enhanced or hindered impact. However, there is limited information on the extent of impacts reported.

Bradley (2007a) reviews the major issues and themes in the English literature on North–South research partnerships and identifies avenues for future research. The review, entitled **North–South research partnerships: Challenges, responses and trends**, examines literature on three different types of development research partnership:

- Partnerships between individual researchers or research teams, brought together to carry out a specific project.
- Capacity-building partnerships, which may focus on individual or institutional levels.
- North–South research networks (formal or informal).

Beyond differences in the structure of North–South partnerships, collaborations vary in terms of their duration; source of financial support; degree of focus on advocacy and policy-making; and the frequency and intensity of interactions between partners and principal actors, including individual researchers, research teams, research organizations (universities, NGOs, think tanks), policy-makers, communities, international organizations and donors.

Bradley argues that asymmetry between partners in access to resources and influence is often a major obstacle to effective North–South research partnership.

The review identified several concerns, including the inadequacy of collaborative frameworks, limited progress in the promotion of interdisciplinary dialogue and research and the need for improved conceptions of impact of partnerships, as well as better impact assessment tools. There are also more ethical concerns related to asymmetry between partners. These include such things as inequitable access to information, training, funding and publication opportunities, and disproportionate influence of Northern partners on project and budget management. Such asymmetries are seen as a principal obstacle to productive research collaboration. The review also notes that nearly all studies of North–South research partnerships have been produced by Northerners, and hence are likely to reflect Northern concerns and views.

The review also identified more positive trends, which include a growing interest in science and technology in general and in the sectors of health and agricultural research in particular; increased uptake of new concepts related to innovation systems, demand-led research and knowledge-based approaches to research for development; and increased emphasis on policy-oriented research, capacity strengthening and empowerment in the South.

Bradley's review identifies five key knowledge gaps that suggest priorities for future research:

1) Assessment of Southern views and perspectives on North–South partnership.
2) Changing roles of North–South partnerships in countries with increasingly robust national research communities (e.g., Brazil, India, China, and South Africa).
3) Researchers' and organizations' motivations for entering into North–South partnerships including the value added or strategic benefits expected from pursuing research through collaborative approaches.
4) Innovative and emerging partnership structures and activities such as opening up partnership opportunities to non-traditional actors.

5) Assessment of the experiences of some key donors, such as the US and Japan, with partnership support.

In a companion piece, Bradley (2007b) examines North–South research partnerships and agenda-setting processes. The literature on North–South research cooperation frequently laments the domination of collaborative agendas by the interests of Northern donors and scholars, and nearly always calls for more equitable Southern engagement in agenda-setting processes.

The paper argues that donor policies shape collaborative agenda-setting processes, chiefly by requiring Southern researchers to partner with Northern counterparts in order to receive support. The experiences of the Netherlands and the UK demonstrate that revamping bilateral donors' funding policies can potentially improve Southern researchers' ability to influence North–South research agendas, and diversify access to collaborative funding opportunities. However, even the most innovative partnership funding strategies cannot resolve all of the tensions and inequalities that characterize collaborative agenda-setting processes.

According to Bradley, North–South partnerships can augment individual and institutional resources and skills, but they are not a panacea for capacity building.

The paper also explores researchers' motivations for entering into North–South partnerships; the obstacles Southern researchers encounter in agenda-setting processes; and the strategies they employ to ensure that research partnerships respond to their concerns. The analysis suggests that strong Southern research organizations are best placed to maximize the benefits of collaboration. Nevertheless, many of the organizations entering into partnerships lack a clear sense of their own priorities and other key institutional capacities critical to successful agenda negotiations. The paper concludes that North–South partnerships can augment individual and institutional resources and skills, but they are not a panacea for capacity building and the creation and utilization of knowledge for development. Donors and researchers are advised to recognize the limitations of this approach and use it prudently, as North–South partnerships are not necessarily the best way to advance research agendas rooted in Southern priorities.

3.2.4. Science and technology policy studies

Over the years, there has been increasing criticism of the notion of a linear or 'pipeline' model of innovation that originates with research, passes through technology transfer and farmer adoption, to produce impacts. In recent years, this research–transfer–adoption model has been increasingly challenged by an innovation system model. As defined in a recent World Bank publication, an innovation system is "*a network of organizations, enterprises, and individuals focused on bringing new products, new processes, and new forms of organization into social and*

economic use, together with the institutions and policies that affect their behavior and performance" (World Bank, 2007: xiv). Major exponents of the application of an innovation system model to agricultural innovation processes have been Norman Clark, Andy Hall and others associated with the Science Policy Research Unit at the University of Sussex, UK. This work has emerged from a tradition of evolutionary economics and science studies conducted by sociologists.

General studies

In 1998, the *STI Review*[10] published a special issue on **Public–private partnership in science and technology**. The overview paper, by Cervantes (1998), defines a public–private partnership as: "*any innovation-based relationship whereby public and private actors jointly contribute financial, research, human and infrastructure resources, either directly or in kind*". The author describes various types of public–private partnership and notes that informal arrangements are often more important than formal partnerships. He examines the rationale for partnerships and the motivations for the public and private sectors, drawing on evidence from several member countries at both the national and international levels. A number of problems encountered by parties in developing public–private partnerships are identified, as are a number of good policy practices in designing, financing, implementing and evaluating partnerships. This article highlights the need for more systematic partnership research and evaluations, to collect information on public–private partnerships, "*not just in terms of their number, sector or geographic origin, but especially in terms of the organization and management of partnerships, their financing mechanisms and outputs*."

Cervantes describes various types of public–private partnership and notes that informal arrangements are often more important than formal partnerships.

In **Research partnerships**, Hagedoorn et al. (2000) review the published literature on the theme, which they define as: "*an innovation-based relationship that involves, at least partly, a significant effort in research and development (R&D) with an eye toward technology policy*". The authors synthesize the academic, professional and policy literature on research partnerships. A simple taxonomy of partnership is presented, based on:

1) The members of the relationship.
2) The organizational structure of the relationship (formal vs. informal agreements).

The article describes three distinct theoretical perspectives on partnership, concerned respectively with transaction costs, strategic management, and industrial organization. The strategic management literature is especially rich, being concerned with issues of competitive

[10] The Science, Technology and Industry (STI) Review is a publication of the Organization for Economic Co-operation and Development.

advantage, strategic networks, resource-based strategy, access to new technologies, and dynamic capabilities (primarily focused on organizational learning). The authors discuss how these theoretical perspectives address two key questions related to research partnerships:

- What are the incentives to form a research partnership?
- What are the expected results of research partnerships (for the partners and for industry and society more broadly)?

Hagedoorn et al., conclude that: "Theory clearly warns public authorities, technology policy authorities in particular, to be cautious and to be aware of the downside effects associated with collaboration."

The authors highlight the lack of a unifying framework for explaining and analyzing research partnerships and the need for more systematic empirical research. Based on their review of available theory and empirical investigations, they note that there are a number of important reasons why firms participate in research partnerships and also why governments encourage them to do so. Nevertheless, they conclude that: "*Theory clearly warns public authorities, technology policy authorities in particular, to be cautious and to be aware of the downside effects associated with collaboration*."

Studies of agricultural innovation processes and systems

Within the broad field of science and technology policy, a number of studies have focused on issues of agricultural research and innovation.

The paper by Hall et al. (2001) entitled **Why research partnerships really matter** explores the conceptual basis for partnership approaches to technology development in the context of agricultural research and agricultural innovation. Drawing on studies of private enterprise activity in smallholder horticulture in India, it suggests that agricultural innovation processes involve a wider range of organizational types than the conventional policy focus on public sector research organizations assumes. The authors use the concept of a 'national innovation system' to argue that a partnership approach should be adopted as a core methodology for engaging science and technology development with the livelihood demands of the poor. The paper concludes that: "*partnerships in technology development are important because of the benefits in innovative performance derived from productive relationships between those organizations engaged in formal research and those engaged in the use of new knowledge in economic production*".

Hall et al. urge the adoption of a partnership approach to engage science and technology development with the needs of the poor.

In **Capacity development for agricultural biotechnology in developing countries**, Hall (2005) uses the innovation system concept to shed light on the importance of developing innovation capacity (in contrast to more narrowly defined science and technology capacity). The paper presents examples of different capacity development approaches. It argues that North–South

and public–private partnerships are valuable for capacity development, to provide developing country research organizations with access to materials and advanced techniques and also to expose research organizations to new ways of working. However, it is noted that a common type of innovation system failure is the poor record of Southern research organizations in building local partnerships and networks with firms, NGOs and other stakeholders.

In a paper on **Context-bound knowledge production, capacity building and new product networks** Smith (2005) analyzes a partnership-led veterinary vaccine initiative, the East Coast Fever Project, as a "*potentially new model of institutionally disembedded research and development partnership that functions in a developing country context*." The author highlights the fact that the innovation approach used in this case is more complete than many others, because it concerns itself not only with identification of needs and priorities, but also with ways to market the vaccine. The network appears to have built innovation capacity in a more effective and broadly based way than injecting funding into agricultural research and extension organizations.

In **Public private sector partnerships in an agricultural system of innovation: Concepts and challenges**, Hall (2006) argues that even though promoting partnerships has proved more difficult than many assumed, the potential for public–private sector partnerships is likely to grow. Such partnerships need to be viewed in the framework of an innovation system and a development scenario where networks of local agro-enterprises will underpin rural development and poverty reduction. The author highlights institutional constraints to building partnerships and concludes by suggesting that efforts to promote innovation should focus on building social capital in agricultural innovation systems.

According to Hall, efforts to promote innovation should focus on building social capital in agricultural innovation systems.

3.2.5. Studies of knowledge–action linkages

Improving the linkage of research organizations and potential users of new knowledge (generally viewed as policy makers or economic actors) is a common theme in writing on science and technology policy. In this section we review literature in two distinct fields that have grappled with this issue. These fields relate to studies of participatory technology development and to the emerging field of sustainability science.

Studies of participatory technology development and partnership

Beginning in the 1980s, there was considerable experimentation with participatory on-farm research and participatory technology development in agricultural research for development

programs, as ways of linking research more effectively with farmers' needs. The approaches used in many contemporary partnership initiatives have their origins in this earlier work.

In a paper titled **From participation to partnership: A different way for researchers to accompany innovation processes**, Hocdé et al. (2006) report on a study launched in 2005 to analyze ten contrasting experiences in which research has been conducted with local actors (such as farmers and farmers' organizations, extension services, governments and private firms). The paper draws lessons concerning research approaches, methods and results, and proposes guidelines to improve the design and conduct of research projects that aim to foster innovation through cross-sector partnership. Analysis of the case studies focused on the balance among problem resolution, knowledge generation and empowerment of local actors; the extent of formalization of partnerships; and the modalities adopted for steering activities and for partnership governance.

Sanginga notes that institutionalizing partnerships requires creative strategies for coping with high staff turnover and over-commitment, conflicting personalities, institutional differences, and transactions costs.

The authors attempt to gauge the distance between actual project practices and what could be called an ideal action–research process. The cases were found to vary greatly in terms of knowledge production, learning process and problem solving. Each experience was the result of an encounter among specific individuals who attempted to break away from prevailing research for development paradigms to achieve effective change. They also show that the research and innovation processes are not linear, with well-planned phases and cycles, but are the result of stakeholders negotiating tensions and adjusting to changing circumstances in attempts to solve problems and generate knowledge.

Effective involvement of farmers' organizations in partnership with researchers is critical yet difficult to achieve, because of the time needed to build trust, develop a common language, and achieve needed commitments. Professionals also need to develop mediation and facilitation skills. Even some projects that did not strictly follow principles of action research often achieved noteworthy results.

In a paper on **Enhancing partnerships for enabling rural innovation in Africa**, Sanginga (2006) notes that, despite increasing interest and support for multi-stakeholder partnerships, examples of successful partnerships are uncommon or undocumented. There is also a dearth of simple tools and approaches that enable research and development organizations to benchmark the status of their partnerships, assess their effectiveness and performance, and to reflect on their experiences and lessons in partnerships. In an applied research project, the author used the After

Action Review and Peer Assist tools from the field of knowledge sharing to facilitate collective reflection and analysis of experiences with partnerships. Results highlight the dynamic process of partnership formation. Key success factors for partnerships include shared vision and complementarity, consistent support from senior leadership, evidence of institutional and individual benefits, investments in human and social capital, joint mobilization of resources, and equitable sharing of the resources and benefits generated by the partnership.

The author notes that institutionalizing partnerships requires creative strategies for coping with high staff turnover and over-commitment, conflicting personalities, institutional differences, and transactions costs. The paper suggests that After Action Review and Peer Assist techniques can be valuable tools for use in a partnership context when combined with well-grounded qualitative analytical methods and rigorous quantitative analyses to strengthen the robustness of the results.

The study of Ortiz and colleagues shows that research-oriented and development-oriented organizations can interact fruitfully using participatory research to promote learning, flexibility in interactions, and innovation.

In a paper on participatory research and organizational learning, Ortiz and colleagues (2008) analyze the interaction between a research organization, the International Potato Center (CIP), and a development organization (CARE) in Peru, and makes the case that farmer participatory research can contribute to creating a collaborative learning environment among organizations. The paper describes the evolution of the inter-organizational collaboration over more than a decade, including an information transfer phase (1993–1996), an action-learning phase (1997–2002), and a social-learning phase (2003–2007). The case shows how research-oriented and development-oriented organizations can interact fruitfully using participatory research to promote learning, flexibility in interactions, and innovation. Interactions foster the diffusion of information and the sharing of tacit knowledge within and among organizations.

In 1987 Robert Chambers at the Institute of Development Studies organized a Farmer First workshop that brought together a number of people who were innovating with or writing about participatory approaches in agricultural research. "*These people were marginalized in their organizations. Some felt they had to work in semi-secret, and hide what they were doing from their colleagues*" (Chambers, 2009). In 2007, the Institute organized the Farmer First Revisited workshop to take stock of "*achievements, failures and missed opportunities of the past two decades, assess the current state of farmer-centered R&D and consider prospects for the future*" (Scoones and Thompson, 2009: 3). In the collection of papers issued after the workshop, Ashby (2009) draws on extensive institutional and personal experience to analyze efforts to institutionalize Farmer First approaches in plant breeding programs in national and international research institutes over the past 20 years and to draw lessons for the future. In this – one of the

rare papers to address political dimensions of methodological innovation – the author argues as follows (pages 39, 45):

> *"Past efforts to drive forward the Farmer First paradigm in science bureaucracies were fundamentally flawed by an overinvestment in reforming the supply-side of innovation in organizations that lacked then – and still lack – accountability for satisfying demand for innovation from the poor.... The essential challenge for the future is to address the political dimensions of demand for Farmer First innovation in the agricultural sector.*
>
> *… It is timely now to redress the balance towards the demand-side in Farmer First efforts in agricultural R&D. This means FPR [Farmer Participatory Research] must show how it can contribute to investment in strengthening the capacity of the poor to organize collectively and make demands on R&D through improved governance and control over budgetary mechanisms. It also means closer engagement for FPR with political processes of change that are already driving new kinds of alliances between business, farmers and consumers in the global food system."*

The underinvestment in the demand-side of innovation to which Ashby refers is very much connected to the power asymmetries discussed by several other publications reviewed in the present paper, especially in the context of North–South partnerships (see Section 3.2.3 above). However it goes further, highlighting the hierarchy of power asymmetries between North and South and also within the South, between different actors in the research–development continuum. Some of these asymmetries are also dealt with in publications in the field of sustainability science, discussed in the next section.

Boundary organizations in the emerging field of sustainability science

Sustainability science has emerged as a recognized discipline and field of study in the 21st century.[11] Researchers associated with the Sustainability Science Program at Harvard University have published a number of important studies of the factors that affect the influence of research on policies related to sustainability goals.[12] Not all of these publications deal explicitly with partnership, but they highlight the importance of inter-organizational relations and communication – themes that are also central to studies of research for development partnerships.

In recent years, particularly in the USA, students of science and political science have begun to pay attention to what Guston (2000) labeled 'boundary organizations'. As described by Miller (2001: 481), these institutions, which operate on the boundary between science and politics,

[11] For an introduction to the field and useful links, see the Wikipedia entry for this term.

[12] Sustainability science seeks to advance basic understanding of the dynamics of human-environment systems; to facilitate the design, implementation, and evaluation of practical interventions that promote sustainability in particular places and contexts; and to improve linkages between relevant research and innovation communities on the one hand, and relevant policy and management communities on the other (www.cid.harvard.edu/sustsci).

attempt to maintain a productive tension between science and other forms of life in modern society.

In a paper called **Knowledge systems for sustainable development**, Cash et al. (2003) conclude that efforts to mobilize science and technology for sustainability are more likely to be effective when they manage boundaries between knowledge and action in ways that simultaneously enhance the salience, credibility, and legitimacy of the information they produce. The authors emphasize the importance of 'boundary management' and characterize the three functions that contributed most to boundary management as communication, translation and mediation. This research suggests that boundary management functions can be performed effectively through various organizational arrangements and procedures, which can be institutionalized in 'boundary organizations', mandated to act as intermediaries between the arenas of science and policy. Boundary organizations have at least three features:

1) They involve specialized roles within the organization for managing the boundary.
2) They have clear lines of responsibility and accountability to distinct social arenas on opposite sides of the boundary.
3) They provide a forum in which information can be co-produced by actors from different sides of the boundary, through the use of 'boundary objects'.

Cash et al. conclude that knowledge systems that make a serious commitment to managing boundaries between expertise and decision-making, link knowledge to action more effectively.

The central finding of the study is that, all else being equal, those knowledge systems that made a serious commitment to managing boundaries between expertise and decision-making, linked knowledge to action more effectively than those that did not. Such systems invested in communication and translation, and they balanced salience, credibility and legitimacy in the information they produced.

Van Kerkhoff and Label (2006) assess the theories and strategies that have emerged in the attempt to improve the linkages between research-based knowledge and action in the context of sustainability. Four strategies are highlighted: participation, integration, learning, and negotiation. While the paper does not discuss partnership per se, these four strategies relate to issues of concern to researchers and practitioners who advocate the use of partnership to foster innovation.

McNie (2007) defines the practical problem of reconciling the supply of scientific information with users' demands as one of ensuring that scientists produce information that decision-makers need and use in policy decisions. Literature from a variety of disciplines and topics is reviewed in order to explain the goals of reconciling the supply and demand of scientific information, define

what constitutes useful information, explore lessons learned from experience, and identify various alternative strategies and processes that forge stronger science policy linkages. The paper emphasizes the role of boundary organizations in mediating the supply and demand for research and concludes with recommendations for future research.

Work on sustainability science and boundary organizations is beginning to have an impact on thinking in the CGIAR, in at least two Centers. McNie et al. (2008) report on a workshop on the role of boundary organizations, objects and agents in linking knowledge with action in agroforestry watersheds in South Asia. This workshop was convened to discuss results of a research project carried out by the World Agroforestry Center (a CGIAR Center) and the Sustainability Science Program on integrating knowledge and policy for management of natural resources in international development, with special reference to boundary organizations. Findings of the research and discussions at the workshop include the following:

- In many respects, trusted individuals, particularly embedded boundary agents, possess greater influence and are more important in linking knowledge to action than organizations such as The World Agroforestry Center.
- The most trusted individual boundary agents are those who have had the most extensive periods of work and relationships with stakeholders on all sides of the boundaries.
- The World Agroforestry Center's most valuable role as a boundary organization came in its ability to convene stakeholders and to enhance the credibility of boundary agents.

Kristjanson et al. (2009) report on an assessment of sustainable livestock research projects in Africa and Asia, led by the International Livestock Research Institute (ILRI). This used a series of theoretical propositions developed by the Sustainability Science Program, the Academy of Sciences of the Developing World and the Science and Technology for Sustainability Program at the US National Academy of Sciences. The propositions, derived from empirical studies ranging across agriculture, health, conservation, energy and manufacturing, relate to factors likely to improve the linkage of knowledge with action for sustainable development. The authors propose that attempts to link knowledge with action are more likely to be successful if:

1) They employ processes and tools that enhance dialogue and cooperation between those who possess or produce knowledge and those who use it.
2) They adopt a project orientation and organization, with leaders made accountable for meeting user-driven goals.

3) They employ 'boundary organizations' or 'boundary-spanning actions' that help to bridge gaps between research and research user communities.
4) They work in recognition that scientific research is just one piece of the puzzle, apply systems-oriented strategies, and engage the partners who are best positioned to help transform knowledge, co-created by all participants, into actions.
5) They are designed as much for learning as for knowing (i.e., they are experimental; they expect and embrace failures as learning opportunities).
6) They operate locally, building strong networks, and innovation and response capacity, and co-create communication strategies.
7) They manage to level the playing field to generate hybrid, co-created knowledge and deal with the often large (and largely hidden) asymmetries of power felt by stakeholders.

Based on their assessment of a number of cases, the authors conclude that boundary spanning activities are crucial to closing knowledge–action gaps in sustainable development, but note that:

> *"institutions are often disinclined to invest in boundary-spanning activities that appear extrinsic rather than central to their core missions, whereas government and private funding agencies have proved reluctant to invest in the creation of new organizations aiming to serve as 'go-betweens'"* (page 5052).

Kristjanson et al. conclude that boundary-spanning activities are crucial to closing knowledge–action gaps in sustainable development.

In summary, these papers highlight the potential roles of partnerships and partnership programs for communication, translation, and mediation across organizational boundaries and for linking research and practical action. They have the potential to connect agricultural research more effectively to policy-making and to innovation processes at the level of farms and value chains.

3.2.6. Studies of networking in international agricultural research

The main focus of the present review is contemporary forms of partnership, and we have not exhaustively reviewed literature on earlier forms of multi-organizational collaboration. For readers interested in early experiences with networking in international agricultural research for development, two publications by Plucknett and Smith (1984) and Plucknett et al. (1990) provide useful introductions to the topic.

The paper by Plucknett and Smith (1984) published in *Science*, assesses informal and formal networking in international agricultural research. The authors argue that networking can reduce costs, minimize duplication of efforts and boost efficiency. They note that networks, often involving hundreds of scientists in dozens of countries, were formed to test crop germplasm over a broad range of environments, explore ways of boosting the efficiency of fertilizer use, upgrade disease resistance in livestock, and identify socioeconomic obstacles to improved agricultural

output. The benefits of networking are viewed as especially valuable to countries with limited funds and scientific manpower.

The book by Plucknett et al. (1990) presents a conceptual framework for studying network effectiveness, identifies stages of network development, and reviews principles for network success. It describes the main types of network in international agricultural research:

1) Information exchange networks.
2) Material exchange networks.
3) Scientific consultation networks.
4) Collaborative research networks.

The book identifies some of the common problems of networking and proposes remedies, draws lessons from experience with networking in international agricultural research, and speculates as to future directions in networking. In general the expected growth in funding of networks has not materialized, perhaps because of the emergence of another trend identified as 'network overload'. Whilst these authors were over-optimistic about networks as "*cheap and relatively quick solutions to research problems*" (page 175), they foresaw the takeover of much network planning and coordination by developing countries – very evident in current networking in sub-Saharan Africa. They were also prescient in ending the book on the emerging importance of computer networking at a time when the Internet had barely launched.

3.2.7. Studies of public–private partnerships in agricultural research

Several publications on the role of public–private partnership in agricultural research have been written, mainly by agricultural economists. The book **Agricultural research policy in an era of privatization** (Byerlee and Echeverria, 2002), which aims to provide an overview of contemporary experience on public and private sector roles in funding and executing agricultural research, includes three papers on public–private partnership. As noted by Vernon Ruttan in the Foreword, public–private partnerships represent an important recent institutional innovation aimed at strengthening national agricultural research systems. The chapters on public–private partnerships in research present experiences from The Netherlands, Argentina and India.

In **Public–private partnerships in international agricultural research: An analysis of constraints**, Spielman and von Grebmer (2006) note that, despite the prevalent discourse on the values of public–private partnerships, there are few examples of successful collaboration in international agricultural research that have contributed to food security, poverty reduction or

agricultural development. This study hypothesizes that partnerships between public research agencies and private, multinational firms are constrained by fundamentally different incentive structures, prohibitive costs (direct and indirect), mutually negative perceptions between the sectors, and high levels of competition and risk associated with valuable assets and resources. Findings from a survey of individuals involved in partnerships with CGIAR Centers and a review of the literature suggest a more optimistic assessment: the primary impediments to public–private partnerships are perceptions, competition, and risk. Issues of costs and conflicting incentives were found to be secondary. The authors argue that investments in innovative organizational mechanisms and supportive public policies can help overcome the primary constraints and facilitate more, and more successful, public–private partnerships for pro-poor agricultural research.

Spielman and von Grebmer find that the primary impediments to public–private partnerships are perceptions, competition, and risk; issues of costs and conflicting incentives are secondary.

Spielman et al. (2007) explore the ways in which partnerships in the CGIAR System can contribute to **Sharing science, building bridges and enhancing impact**. The paper presents an extensive and useful review of partnership literature that is especially rich in its treatment of properties that have been used to develop partnership typologies (pages 7–9). These include, but are not limited to, the following:

- The form that knowledge takes within the partnership (pure public good, pure private good or some intermediate form).
- The ways in which knowledge is generated, exchanged, and used.
- Purpose of the partnership.
- Type of output sought.
- Number, type and size of the partners (measured in different ways).
- Number of partnerships in which each partner is engaged.
- Extent of collaboration.
- Organizational form of the partnership.
- Roles and responsibilities of the partners.
- Geographic domain.

Based on the literature review, the authors identify the following common factors that influence the success of public–private partnerships (pages 15–16):

- Clearly defined objectives, roles and responsibilities that are compatible with the incentive structures, competencies or comparative advantages of the individual partners.

- Bridge-building mechanisms to overcome tensions caused by cross-sectoral mistrust, misperceptions, and unclear expectations of partners.
- Mechanisms to ensure commitment and ownership, to ensure that all partners contribute to the innovation process, that relationships between partners are durable, and that roles, responsibilities and benefits are distributed equitably.
- Organizational innovations – internal changes in structures, behaviors and practices within the partners' organizations.
- Availability of tools to manage and mitigate risks.
- Innovative mechanisms (formal and informal) to manage the exchange and use of knowledge – especially knowledge that is proprietary or subject to some form of intellectual property rights.

This paper also reports on primary research that focuses on three issues: whether public–private partnerships contribute to reducing the cost of research; whether they add value to research by facilitating innovation; and whether they enhance the impact of research on smallholders and other marginalized groups in developing-country agriculture. The study examines 75 projects undertaken by CGIAR research centers and programs in partnership with various types of private firms. The study found that the CGIAR is using public–private partnerships for a variety of reasons, ranging from the traditional one of increasing yields and production to attempts to reduce poverty through value chain development.

An important finding for future research on partnerships is that "*public–private partnerships are generally not vehicles through which centers engage in joint processes of technological innovation where partners collaborate on the planning and execution of project activities*" (page 60). Instead, CGIAR Centers are using public–private partnerships to commercialize and deploy new technologies and products with local relevance and to access knowledge and technology from the private sector Furthermore, such partnerships are rarely designed with sufficient analysis of the direct and indirect pathways through which the research is expected to benefit the poor. The paper notes the paradox of "*high expectations of the development community [for public–private partnerships] on the one hand, and the low level of interest and effort among key partners on the other*" (page 61). It concludes by noting the need for:

- Platforms – to assemble and negotiate interests, objectives, roles and responsibilities with partners.
- Resource commitments – for research, coordination and management activities

- Strengthened organizational mechanisms – to facilitate the exchange of knowledge and resolve conflicts.
- Benchmarks and decision points – that allow partners to evaluate progress.
- Strategies to manage and mitigate risks – associated with projects.
- Analysis of impact pathways – to make explicit ex ante and ex post assessments of how projects affect the poor.
- Research on public–private partnerships in the national agricultural research sector – to better understand their limitations and potential.

In **Building public–private partnerships for agricultural innovation in Latin America**, Hartwich et al. (2007a) examine seven cases in Latin America. These partnerships involve private companies, producer associations and research organizations that collaborate in order to develop innovations in agricultural production and value chains. The paper considers different entry points for partnership building following best practices. The paper describes how common interests among multiple stakeholders were identified; how partners were motivated to participate in partnerships; how the roles of different brokers within or outside the partnerships fostered partnership development; and how the contributions of partners were negotiated to ensure that partnership arrangements are in alignment with the interests of the partners, their capacities, and the prevailing technological and market opportunities. The paper targets policymakers and administrators in agricultural development, and collaborators in research and innovation projects who are interested in learning how to build partnerships among public and private agents.

Hartwich and Tola find that whilst partnerships in agricultural innovation are often established without clear perceptions of costs and benefits, private partners are often satisfied, because their investments are low or are tax-exempted.

Hartwich and Tola (2007) develop a set of conditions to determine when partnerships should form, and compare these with experiences in real partnership cases in Latin America. They argue from first principles that partnerships make sense (only) when four conditions are met: no prospective partner could accomplish the task alone; the partners gain more than they invest; there are significant synergies; and the gains are equitably distributed. Their research in Latin America indicates that partnerships in agricultural innovation are often established without clear perceptions of the potential costs and benefits. To make public–private partnerships more viable, both parties need to improve their planning. Nevertheless, private partners are often satisfied with current arrangements, because their investments are low or are tax-exempted.

3.3. Professional evaluation literature

Applied researchers and evaluators have produced frameworks and methods for evaluating partnerships. Many of these have been published in evaluation journals, while some are in conference papers or in documents only available on the Internet. Here fourteen documents are reviewed, including seven journal articles, two conference papers, one book, three book chapters and one Working Paper. The main source of the documents reviewed is the international journal *Evaluation*, which has published five papers on evaluation of partnerships over the last decade. During this same period, *Evaluation and Program Planning* and the *American Journal of Evaluation* each published one article on the evaluation of partnerships.

Key findings:

- There are a number of potentially useful frameworks for evaluating partnerships; however, few of them have been thoroughly tested and applied in real world evaluations.
- Most publications in this field appear to be based on the authors' personal evaluation experience or on knowledge drawn from sector-specific studies of collaboration, partnership or related topics (rather than on previously published frameworks or methods for evaluating partnerships).
- None of the reviewed frameworks or methods for partnership evaluation appears to have been mainstreamed in evaluation practice.

Toulemonde et al. (1998) deal with the increasingly prevalent partnerships between public authorities at different governmental levels in Europe, and note that co-formulation and co-financing of policies and programs make joint evaluations necessary. Such evaluations face a number of challenges, which the authors address in relation to four key phases in the evaluation process:

- Clarifying the main expected impacts that will be assessed.
- Choosing the most suitable observation and measurement tools for each type of impact.
- Collecting information in the field and analyzing it to assess the impact.
- Making a synthetic judgment of the program based on different impacts.

The paper illustrates how the difficulties of joint evaluations were addressed in an assessment of an urban development policy co-designed and co-funded by the French government and a regional government. Methodological innovations are highlighted, which include use of a concept map to structure the evaluation, scoring sheets to construct qualitative impact indicators, data about impacts collected through 20 case studies, and a 'multi-criteria, multi-judge' analysis used to synthesize results of the evaluation while respecting different points of view.

Brinkerhoff (2002b) provides a framework and a process-oriented, participatory and developmental approach for assessing partnership relationships. The main targets of assessment, detailed in a checklist, are the presence of predefined success factors for partnership, the degree of partnership practice, outcomes of the partnership relationships, partner performance, and efficiency. Unfortunately, it seems that the proposed evaluation framework was not tested or applied by the author.

Gajda (2004) is concerned with evaluating collaborative violence-prevention efforts in US schools. The author argues that utilizing collaboration theory can enhance the development and assessment of inter-organizational collaboratives, or strategic alliances. The author describes a Strategic Alliance Formative Assessment Rubric (SAFAR), which distinguishes five levels of progressively greater integration:

1) Networking – creating a web of communication.
2) Cooperating – working together to ensure tasks are done.
3) Partnering – sharing resources to address common issues.
4) Merging – merging resources to create or support something new.
5) Unifying – unification or acquisition to form a single structure.

For each of these levels, the rubric specifies key aspects of collaboration on four dimensions: the purpose of collaboration, strategies and tasks, leadership and decision-making, and interpersonal relations and communication. The paper describes how the SAFAR was used as part of a four-step evaluation process to help leaders, managers and members of strategic alliances in the schools to carry out formative evaluations,[13] to develop baselines, and to gauge and communicate the relative strength of their collaborative endeavors over time.

[13] In the field of program evaluation, 'formative evaluation' refers to an evaluation carried out during the design or implementation of a program, for use within the program for the purpose of improvement. In contrast, 'summative evaluation' is carried out after completion of the program to report on the program for the benefit of an external audience.

Evaluation of partnerships has become important for the World Bank because partnerships have become prevalent in the delivery of goods and services required for economic growth and poverty reduction.

Liebenthal et al. (2004) present an edited volume with 22 papers originally presented at a World Bank conference on Evaluation and Development: the Partnership Dimension. Evaluation of work in partnership has become important for the Bank because partnerships among state, private, business and civil society organizations have become prevalent in the delivery of goods and services required for economic growth and poverty reduction. Moreover, aid activities have shifted from a project focus to a more strategic and holistic focus on programs, sectors and policies that are frequently designed and implemented in a partnership mode. Partnerships are often viewed as essential to deal with the added complexity and the larger number of agencies, groups and stakeholders involved

Six chapters (authored by Douglas North, Robert Axelrod, Margaret Catley-Carlson, Elliot Stern, Robert Klitgaard and Robert Picciotto) deal with "*foundations of partnership and their evaluation*". Two of these chapters are of particular interest to this review. The chapter by Klitgaard on **Evaluation of, for, and through partnerships** (Klitgaard, 2004) discusses three levels of evaluation question regarding partnerships, corresponding to:

- Evaluating the benefits and costs for a specific partner.
- Evaluating the partnership as a whole.
- Evaluating the conditions that influence the emergence and functioning of partnerships.

Stern identifies distinct roles for evaluation in the phases of partnership design, development, management and lesson learning.

The chapter by Stern on **Evaluating partnerships** (Stern, 2004) identifies a number of features that are generally agreed upon as those of an ideal partnership, and discusses evaluation issues related to the design of partnerships and the key areas of trust, hierarchy and the environment in which partnerships operate. The paper identifies distinct roles played by evaluation in the phases of partnership design, development, management and lesson learning. Stern concludes with a proposal to develop a framework for partnership evaluation, together with practitioners and development agencies, and then to apply this in an action research mode.

Among the case studies in the book, the paper by Stone on **Research partnerships and their evaluation** looks at the role played by partnerships in public policy research and at the difficulties in evaluating the work done by these partnerships. Through a discussion of the Global Development Network, the author emphasizes that the evaluation of research partnerships is not simply a matter of ascertaining the *quality* of research conducted, but the *influence* of that research. The importance of evaluating partnership processes, as well as outputs and outcomes, is highlighted. Finding a common identity, developing a strong sense of purpose, and creating and maintaining trust are identified as particularly important aspects of partnering processes.

Two of the papers reviewed propose frameworks for evaluating cross-sector partnerships. Atkinson (2005) describes a methodology for evaluating multi-agency partnership working within Children's Services Planning in Northern Ireland. The evaluation framework contains seven interconnected dimensions with associated sub-dimensions and assessment criteria. The first dimension relates to impact (the desired result). The six other dimensions relate to factors believed to strongly influence impact. These factors correspond to: vision and leadership, partnership dynamics, strategy and performance measurement, capacity to influence others, participation, and cost effectiveness. At the time of publication, the evaluation framework had not yet been applied.

Jørgensen (2006) presents a general framework for evaluating cross-sector partnerships in the field of poverty reduction and social development. The framework covers both partnership *processes* and *outcomes*. Evaluating partnership processes involves assessing actors' strategies as well as collaborative advantage and collaborative inertia (as defined by Huxham and Vangen, 2005). With regard to outcomes, the framework includes parameters relating to both 'developmental outcomes' (contributions to development goals) and 'business outcomes' (contribution to each organization's goals). The framework contains a broad selection of evaluation parameters from which the analyst can choose the most relevant, depending on the specifics of the partnership being analyzed. The framework employs broad evaluation measures, rather than more specific indicators, so that it can be applied in a wide range of settings and different kinds of partnership, with varying levels of information and data available. The paper contains a useful literature review and an extensive list of references. At the time of writing, the framework had not been tested or applied.

Jørgensen notes that evaluating partnership processes involves assessing actors' strategies as well as collaborative advantage and collaborative inertia.

In a paper presented at the Australian Evaluation Society, Funnell (2006) addresses how to evaluate two key aspects of partnership working: the effectiveness of a program that is run by a partnership; and the way in which the partnership itself functions. The paper is based on an evaluation of an Australian environmental program that was underway at the time of writing. This is one of the few papers on evaluation frameworks and methods reviewed that draws on earlier evaluation work in the field. Funnell's proposed evaluation framework applies principles and methods drawn from Toulemonde et al. (1998) to evaluate partnership programs and an adaptation of the Nuffield Partnership Assessment Tool (Hardy et al., 2003) to evaluate how well the partnership itself is functioning.

Van der Meer and Edelenbos (2006) are concerned with multi-actor, cross-sector policy processes in The Netherlands. These authors illustrate how the two main functions of evaluation –

Van der Meer and Edelenbos argue that in multi-actor, cross-sector policy processes, cooperation in evaluation is a precondition for preserving the accountability and learning functions of evaluation.

accountability and collective learning – both face serious challenges in multi-actor policy processes. Examples are provided from the field of spatial policy. A third function of evaluation is identified: evaluation as an instrument of cooperation. The authors argue that in multi-actor, cross-sector policy processes, cooperation in evaluation is a precondition for preserving the accountability and learning functions of evaluation.

In **Three spheres of performance governance**, Uusikylä and Valovirta (2007) address issues of performance management in government systems in OECD countries. Their central argument is that traditional performance measurement and management models are of limited utility due to their focus on the activities and outcomes of single organizations. Given the complex nature of societal problems dealt with by public agencies, individual organizations can seldom gauge their effectiveness (impact) in addressing mission-level goals.

The authors suggest that organizations should use logic models to trace the effects of their interventions out as far as possible in the direction of societal-level goals. However, evaluations of public programs should focus at the levels of outputs and their use by customers and not attempt to assess impacts on macro-level indicators of social or economic wellbeing. They propose an evaluation framework with three levels, or spheres, of analysis, corresponding to:

1) Intra-organizational factors that influence performance, such as learning, process development and human resources.
2) An organization's performance targets (i.e., outputs delivered to customers and the immediate results).
3) The multi-organizational sphere of societal effectiveness where positive results can only be created by multi-actor performance clusters.

In the third sphere, public agencies cannot control or manage processes but only 'govern' them by influencing social processes in networks of many actors, who have different, and sometimes conflicting, objectives and interests. Potential strengths and weaknesses of the framework are discussed, but there is no indication that the framework has actually been applied in an evaluation.

In one of the few applications of economics in the professional evaluation literature, Jobin (2008) proposes the use of transaction cost economics to assess the performance of partnerships and verify the common assumption that partnerships are an alternative way to deliver programs provided by governments and organizations more cost-effectively. A key assumption of

transaction cost economics and, by implication, of the proposed approach is that partners choose a governance structure that minimizes transaction costs. If a partnership's governance structure is misaligned with its transactions, higher costs will decrease the partnership's performance. Hence, measuring the partnership's transaction costs is essential. After defining what constitutes a partnership, the article introduces the transaction costs framework, and identifies relevant factors in the literature affecting partnership performance. It concludes with key steps in applying the framework and shows how it fits into partnership performance evaluation. There is no indication that the proposed approach has been applied in evaluation work.

Jobin's approach assumes that partners should choose a governance structure that minimizes transaction costs.

3.4. Practitioner-oriented reviews, guidelines and assessment tools

Some organizations promoting multi-organizational collaboration have commissioned reviews of partnership literature and experiences to offer guidance to practitioners. Others have issued guidelines or tools for assessing and improving partnership work in their areas of influence. In this section, we review two practitioner-oriented reviews of literature and experience and fourteen sets of guidelines or assessment tools intended for use by practitioners.

Key findings:

- A few of the guidelines and assessment tools (e.g., The Partnering Toolbook and The Wilder Collaboration Factors Inventory) were developed for general application; most others were developed for use in specific areas such as health, transportation, water and sanitation, and in one case, the CGIAR.
- Some of the guidelines reviewed (e.g., The CGIAR Self-Assessment Inventory for Successful Collaborative Partnerships, the Nuffield Partnership Assessment Tool and The Wilder Collaboration Factors Inventory) are based on systematic reviews of literature and experience with partnerships; most, however, appear to have dubious theoretical and empirical foundations.
- Some authoritative researchers (e.g., Huxham and Vangen, 2005; Halliday et al., 2004) question the general validity and utility of the available guidelines and assessment instruments as stand-alone tools.
- There have been few empirical studies of the use and value of existing guidelines and assessment tools for partnership.

3.4.1. Practitioner-oriented reviews of partnership management and evaluation

In this section, we summarize the main findings of two practitioner-oriented reviews of literature and experience.

Mattessich et al. (2001) aim to bridge the gap between research and practice by reviewing research literature on factors that influence the success of collaboration among organizations in the human services, government and other nonprofit fields, and by reporting the results of the literature review in a form that is accessible to people who want to initiate or enhance a

collaborative effort. The authors distinguish between collaboration and two other forms of partnership – cooperation and coordination:

1) Cooperation is characterized by informal relationships that exist without any commonly defined mission, structure or planning effort.
2) Coordination is characterized by more formal relationships and an understanding of compatible missions.
3) Collaboration connotes a more durable and pervasive relationship in which previously separated organizations enter into a new structure with full commitment to a common mission (page 60).

Twenty factors are identified that influence the success of collaboration. The authors describe each of these factors, discuss their implications, and provide at least one illustration of each from a research study. The success factors form the basis for the *Wilder Collaboration Factors Inventory*, a self-assessment instrument that is intended for use by groups who are planning or participating in collaborative projects, to inventory their strengths and areas for improvement. (This instrument is described in Section 3.4.2, on guidelines and tools.)

According to Tennyson and Harrison, it is a myth that partnerships are shaped around a common vision; in fact, the partners generally see the partnership largely in terms of their own organization's aims.

In **Under the spotlight: building a better understanding of global business–NGO partnerships**, Tennyson with Harrison (2008) of The Partnering Initiative offer a concise yet substantive summary of current knowledge and experience, aimed at practitioners engaged in cross-sector partnerships. The report originated from an applied research and knowledge-sharing project involving World Vision, Accenture Development Partnerships and The Partnering Initiative. It builds on desk research, action research, workshops, and case studies in eleven countries, supplemented by more than 100 interviews with businesses and NGOs. The report summarizes a wide range of issues and provides numerous examples and illustrations related to the 'partnership landscape' (the types of partnerships found in different countries and regions), challenges faced by those engaged in cross-sector partnerships, partnering opportunities, and critical success factors that have been identified by practitioners and in recent studies. Among the valuable features of this publication is a list of 'endearing myths' and 'enduring truths' (Exhibit 6). One myth is that partnerships are shaped around a common vision; in fact, the partners generally see the partnership largely in terms of their own organization's aims. Another myth is that individual champions are key to a partnership's success; in fact, champions have a very limited function in partnerships – systems and structures are ultimately far more valuable (page 16).

Exhibit 6. Endearing myths and enduring truths of partnership.

Issue	Endearing Myths	Enduring Truth
Aims	Partnerships are shaped around a common vision	The partners see the partnership activities as delivering their individual organizational aims
Drivers	Partner organizations are drawn together by a common goal	Partner organizations are drawn together by the complementarity of what they bring to the table
Context	Partners know each other well and partnerships benefit from a stable context	Partnerships are often most effective in fractured contexts where – by their very operation – they are building bridges and filling gaps
Champions	Individual champions are key to a partnership's success	Champions have a very limited function in partnerships – systems and structures are ultimately far more valuable
External inputs	Partnerships work best when locally owned and driven	Even local partnerships can benefit hugely from external inputs and interventions – in terms of sharing knowledge and experience as well as leveraging further resources
Boundaries	Ring-fenced partnerships are likely to be most successful	Innovation in partnerships depends on a more fluid structure if new ideas are to evolve and new opportunities are to be seized
Costs	Partnering costs are so high they are likely to be unattractive to many	Managed well, and with early investment in partnership building, costs can be shared and reduced by coordinating not duplicating efforts
Wider benefits…	…occur when the partnership itself reaches scale or is replicated	…occur when all those involved take the lessons and outputs from the partnership and apply them in their own spheres of operation and influence

Source: Tennyson with Harrison (2008).

This publication emphasizes the issue of power as "a hugely important challenge in partnering" (page 17), and notes that a surprisingly large number of partnerships appear to ignore this issue, leading to arrangements that may survive but are experienced as 'relationships of convenience between unequals' rather than 'real partnerships'. Other common partnership issues identified in this publication are:

- Internal marketing – those who lead the formation of partnerships report that the challenge of building engagement within their own organization is often greater than that of building cross-sector engagement.
- Inefficiencies – sound and appropriate systems need to be put in place for decision-making, communications and management, to back up initial enthusiasm and optimism.
- Leadership – a different kind of leadership is needed in partnerships, as partnering involves letting go of unilateral decision-making.

Based on their research and extensive experience, the authors identify a number of partnership types, including business, advocacy, sponsorship, marketing, capacity building and brokering types. It is noted that partnerships rarely fit neatly into a single type and are often less rationally motivated then the models presented. For example, many partnerships start as an open-ended

conversation and have 'low-level, quick-win' commitments that suit both parties and require minimal negotiation. Then over time, as confidence in the value of the relationship grows, new elements are generally explored, tested out and added to the mix of activities. The research carried out for this study confirmed the importance of five generic success factors identified in an earlier study (Tennyson with Hurrell and Sykes, 2002):

The Partnering Initiative considers the most basic principles of partnership to be equity, transparency and mutual benefit.

- Fully committed and engaged partner organizations – not just a few individuals.
- Active commitment to ensuring benefits and value added for all partners.
- Maintaining a learning culture in day-to-day operations, internalizing lessons and building from mistakes.
- Genuine respect and increased trust between the different players.
- Having strategic impact over and above local successes.

Based on its work with many partnerships over the years, The Partnering Initiative believes that partnerships that endure and reach a reasonable level of achievement and impact are underpinned by shared principles or operate within a series of agreed ground rules. The most basic principles are considered to be equity, transparency and mutual benefit (page 30).

Serafin et al., find that few partnerships have been evaluated in terms of outcomes and even fewer in terms of the effectiveness of partnership operations compared to alternatives.

In 2008, The Partnering Initiative published a Working Paper titled **What is current practice in evaluating cross-sector partnerships for sustainable development?** (Serafin et al., 2008). This paper is based on a survey of partnership practitioners associated with the Partnership Brokers Accreditation Scheme, the University of Cambridge Post-Graduate Course on Cross-Sector Partnership, UN Staff College partnership training, and selected organizations from the public and private sectors, and civil society, which have made a public commitment to using cross-sector partnership approaches. The working paper includes a list of recent references on the evaluation of partnership. Based on a review of this literature and on the survey, the authors identify three main areas for partnership evaluation:

- Achievement of outcomes and impacts.
- Effectiveness of partnership operations.
- Value added by the partnership, compared to alternative approaches.

According to the survey of partnership practitioners, few partnerships have been evaluated in terms of their overall outcomes and impacts and even fewer have been evaluated in terms of the effectiveness of partnership operations or the value added by the partnership, compared to alternative modes of working. Most partnerships have been evaluated from the perspective of a

single partner or funding agency, and have focused on the degree to which narrowly defined project objectives have been achieved. The authors characterize most evaluations as informal, since they are based largely on the judgment of individual consultants, rather than on generally accepted evaluation principles and approaches. Partnership practitioners frequently expressed a desire to find ways to evaluate their partnerships in a more holistic way and to involve all partners in their evaluations, but few have done so. The authors note that more holistic evaluation approaches and broad stakeholder involvement would necessarily be complex, time-consuming and costly.

3.4.2. Partnership guidelines and assessment tools

In this section, we summarize the main features of 14 partnership guidelines and tools that are available on the Internet.

Swiss Guidelines for North–South Research Partnerships

The Commission for Research Partnerships with Developing Countries (KFPE) is a Swiss organization dedicated to promoting research partnerships with developing and transition countries, with the goal of contributing to sustainable development. The commission issued a set of **Guidelines for research in partnership with developing countries** (KFPE, 1998[14]), presenting eleven principles for research partnership, which can be summarized as follows: decide on the objectives together, build up mutual trust, share information and develop networks, share responsibility, create transparency, monitor and evaluate the collaboration, disseminate the results, apply the results, share profits equitably, increase research capacity, and build on the achievements.

University of Wisconsin Extension Manual for Evaluating Collaboratives

This manual (Taylor-Powell et al., 1998) stemmed from requests from extension agents in Wisconsin, USA, for assistance in evaluating partnerships, coalitions and collaboratives, the latter being defined as a structure or group working together to achieve a shared vision. Extension agents were increasingly involved in such modes of work and their traditional evaluation methods did not seem appropriate. The manual does not seek to provide readers with a recipe book, but rather a compendium of ideas and research to use when evaluating collaboratives and collaborative programs. It includes a glossary of terms and discusses the need for collaborative projects. It then distinguishes between five types of relationships, depending on the degree of integration. These include networks, support groups, task forces, councils or alliances, partnerships, consortia or coalitions, and collaboratives. The manual describes a number of

features of the contemporary context of collaboration in the USA, which appear to apply in many developing countries as well. These features include complex problems, hard-pressed resources, social fragmentation, disengaged citizens, and rapid, sweeping change. The manual provides a number of practical approaches and tools for evaluating important features of collaboration, including self-interest, the feasibility of collaboration, collaborative processes and outcomes.

CGIAR Organizational Change Program Partnership Self-Assessment Inventory

Successful collaborative partnership: Key elements and a self-assessment inventory by Spink and Merrill-Sands (1999) is intended for use by CGIAR Centers and their partners, either at the start-up phase of a partnership or later on, to reflect on strengths and priorities for improvement. It is suggested that all members should use the self-assessment inventory to provide feedback on the partnership's strengths and weaknesses. Members should share results in a facilitated discussion and explore ways to improve targeted areas. Ten key elements of a successful partnership are identified (Exhibit 7). A seven-point scale is used to indicate the partnership's current level of capacity and effectiveness.

[14] Available at: www.kfpe.ch/key_activities/publications/guidelines/guidelines_e.php.

Exhibit 7. Key elements of successful partnerships

Foundation elements:

- Compelling vision.
- Strong and shared leadership.
- Shared problem definition and approach.
- Interdependency and complementarity.
- Mutual accountability.

Sustaining elements:

- Attention to process.
- Communication linkages.
- Clear and open decision-making process with sharing of power and equity.
- Trust and commitment.
- Sharing credit and recognition.

Source: Spink and Merrill-Sands (1999).

Wilder Collaboration Factors Inventory

In 1992, the Wilder Foundation (USA) issued the publication, **Collaboration: What makes it work** based on a review of research literature on factors that influence the success of collaboration. A decade later, an expanded second edition of this publication was issued (Mattessich et al., 2001). This publication summarizes research literature on factors that influence the success of collaboration among organizations in the human services, government and other nonprofit fields. It makes an explicit attempt to present practical tools that bridge the gap between research and practice. Chapter 5 presents the Wilder Collaboration Factors Inventory and outlines a self-assessment approach that is intended for use by groups that are planning new collaborations or reviewing existing ones. The Inventory identifies 20 factors that researchers have found to relate to the success of multi-organizational collaborations, and two statements for each factor. Participants in collaborative groups are asked to indicate how much they agree or disagree with each of the 40 statements, on a 5-point scale, ranging from strongly disagree to strongly agree. The statements and factors relate to six broad dimensions of collaboration (Exhibit 8).

Exhibit 8. Wilder Collaboration Factors Inventory.

1. **Factors related to environment**
   - History of collaboration or cooperation in the community.
   - Collaborative group seen as a legitimate leader in the community.
   - Favorable political and social climate.
2. **Factors related to membership characteristics**
   - Mutual respect, understanding and trust.
   - Appropriate cross section of members.
   - Members see collaboration as in their self-interest.
   - Ability to compromise.
3. **Factors related to process and structure**
   - Members share a stake in both process and outcome.
   - Multiple layers of participation.
   - Flexibility.
   - Development of clear roles and policy guidelines.
   - Adaptability.
   - Appropriate pace of development.
4. **Factors related to communication**
   - Open and frequent communication.
   - Established informal relationships and communication links.
5. **Factors related to purpose**
   - Concrete, attainable goals and objectives.
   - Shared vision.
   - Unique purpose.
6. **Factors related to resources**
   - Sufficient funds, staff, materials and time.
   - Skilled leadership.

Source: Mattessich et al. (2001).

Note: The publication includes a questionnaire intended for use by groups to assess their collaborative projects, which contains two questions for each of the 20 factors in the above list.

Nuffield Partnership Assessment Tool

In 2001, the Office of the Deputy Prime Minister of the UK established a Strategic Partnership Taskforce to find innovative ways in which local government could improve public service delivery by working in partnership. Such partnerships could be with other local authorities, other public service organizations, or with the private or voluntary sectors. The taskforce commissioned the Nuffield Institute for Health at the University of Leeds to develop a tool that local authorities could use to assess and improve partnerships. The resulting **Partnership assessment tool** (PAT) (Hardy et al., 2003) draws on previous work carried out by the Nuffield Institute with health and

social care partnerships. It aims to provide a simple, quick and cost-effective way to assess the effectiveness of partnership working and to identify problem areas, so that partners can take remedial action and focus resources commensurate with the seriousness and urgency of the problems. The PAT is based on six partnership principles that can be summarized as follows:

- Recognize and accept the need for partnership.
- Develop clarity and realism of purpose.
- Ensure commitment and ownership.
- Develop and maintain trust.
- Create clear and robust partnership arrangements.
- Monitor, measure and learn from experience.

Six indicators for each principle are presented in self-assessment forms that stakeholders can use to assess their own partnerships. Each indicator is scored on a 4-point Likert scale, ranging from "strongly agree" to "strongly disagree." Guidelines are provided for using the self-assessment instrument in a 4-stage assessment process that includes preparation, undertaking the partnership assessment, analysis of findings and feedback, and action planning.

The Partnering Initiative's Partnering Toolbook

The partnering toolbook (Tennyson, 2003), issued by the International Business Leaders Forum and the Global Alliance for Improved Nutrition, is designed for a general audience of all those concerned with the use of cross-sector collaboration and partnership to achieve development goals. The toolbook is based on the premise that cross-sector collaboration can be effective and sustainable when it is designed, developed and managed in a systematic way. It builds on the experience of practitioners and offers an overview of essential elements of effective partnering. The toolbook identifies 12 key phases in partnering processes that correspond to scoping, identifying partners, building working relationships, planning activities, developing management structures and arrangements, mobilizing resources, implementing planned activities, measuring and reporting on results, reviewing the partnership, revising the partnership, institutionalizing appropriate structures and mechanisms for the partnership, and sustaining or terminating the partnership. The toolbook offers guidelines for good practice in the critical areas of building partnerships, developing partnering agreements, managing the partnering processes, delivering successful projects, and sustaining partnerships.

Verona Benchmark / Working Partnership

In 1998, at the first meeting of the World Health Organization's Investment for Health Initiative, in Verona Italy, a consensus emerged that tools were needed to support capacity development at local, regional and national levels. This led to the design, development and testing of a benchmarking and assessment tool to enable partnerships to assess their progress against evidence-based criteria, and to share good practice in partnership working (Watson et al., 2000). This tool, known as the Verona Benchmark, was tested in community planning partnerships in Scotland and at 15 pilot sites across Europe. The tool is based on evidence, theory and practice in the areas of business performance assessment, community involvement and partnership dynamics.

After extensive review in the UK, the tool was revised and restructured to offer greater flexibility in its use. Rechristened as **The working partnership** (Markwell et al., 2003) it is packaged in three books. Included are an introductory guide, a short assessment manual, an in-depth assessment version, and guidelines for continuous program improvement. These tools can be used by partnerships to assess their own levels of performance in six key areas: leadership, organization, strategy, learning, resources and programs. A number of assessment questions are provided for each of these areas and can be used to gauge performance at different levels. While these tools have been developed ostensibly to support partnership development and improve the quality of partnership working in the UK health sector, the authors note that the tools can also be used to "*help meet external expectations and requirements [for performance measurement], such as area-based initiative evaluation guidance from one or more government departments, Best Value, and the Audit Commission's Comprehensive Performance Assessment Framework*".

EQUAL Guide for Development Partnerships

The EQUAL[15] Guide for Development Partnerships (European Commission, 2005) is concerned with developing partnerships in the areas of employment and labor relations. It identifies key areas of relevance for the development of successful partnerships, explores learning experiences about partnership, and makes recommendations for other partnerships. The guide is structured around five key partnering processes: preparatory work, initiation of the partnership (ensuring commitment and equity of involvement), development and testing of approaches and procedures, adapting and institutionalizing procedures, and planning for further action and sustainable change.

[15] EQUAL is the European Commission's Directorate-General for Employment, Social Affairs and Equal Opportunities.

Capacity Project Toolkit for Partnership Building

This toolkit (Gormley and Guyer-Miller, 2007) was issued in 2007 by the *Capacity Project (www.capacityproject.org)*, a global initiative funded by the United States Agency for International Development (USAID) "*to help developing countries build and sustain their health workforce, so they can respond systemically to the challenges of implementing and sustaining quality health programs*." The Introduction to the toolkit notes that, the complex and wide ranging challenges related to human resources for health in developing countries need stakeholders to work together through inclusive alliances and networks. The partnership building toolkit offers ten tools for use by alliance and network members to assess partnership readiness, identify promising partners, deliver an effective partnership start-up meeting, create an alliance memorandum of understanding, craft an effective communication strategy for their alliance, facilitate and assess alliance meetings, assess the health of their alliance, assess alliance member competencies, diagnose alliance challenges, and build consensus.

Guidelines for Assessing Partnership Performance in Water and Sanitation

Caplan et al. (2007) provide a set of guidelines for assessing partnership performance and understanding the drivers of success based on work in the water and sanitation sector. Written with practitioners in mind, this document provides easy-to-use guidance on what to look for when reviewing partnership progress. The premise of the approach is that "*the fundamental building blocks of partnership revolve around the diverse motives ('drivers') that bring partners together to help them meet their own and wider aims*". In assessing partnerships, drivers need to be assessed at three levels:

- The external environment.
- The organizational environment.
- Individual partner representatives' incentives and disincentives.

The paper discusses assessment of the *results* of collaboration as well as the *process* by which partners work together. The guidelines are general in nature and do not provide specific tools for assessment.

IFPRI Guidelines for Public–private Partnerships for Agricultural Innovation

Hartwich and colleagues (2007b) provide a set of detailed guidelines for assessing public–private partnerships based on an analysis of 125 such partnerships in 12 Latin American countries. The authors note that public–private partnerships are not always the most appropriate mechanism by which to carry out research for development and foster innovation in agriculture. Before deciding to participate in a partnership, the partners should consider the following factors: Is there is

sufficient common interest? Is the cost–benefit relationship positive for each partner? Will all partners derive benefits from their contributions? Is there sufficient equilibrium between the partners' benefits? Will the partnership produce results that are non-conflictive? The guide views the creation of public–private partnerships as occurring through five phases:

- Identifying a common interest.
- Negotiating the partnership contract, including financing and organizational design.
- Operating the partnership itself.
- Evaluating the partnership.
- Deciding to terminate or continue the partnership.

The guide provides suggestions for grappling with key issues in each of these phases such as understanding the process of partnership building, identifying and negotiating common interests, financing partnerships, legal implications, organizational design, and operating, evaluating and terminating partnerships. The guide provides detailed examples and background information on the research on which recommendations are based.

World Bank Sourcebook for Evaluating Global and Regional Partnership Programs

The Independent Evaluation Group (IEG) of the World Bank (2007) has produced a sourcebook for evaluating Bank-funded global and regional partnership programs. The purpose is to help improve the independence and quality of program-level evaluations of global and regional partnership programs (GRPPs) in order to enhance the relevance and effectiveness of the programs. The principal audiences for the Sourcebook are the governing bodies and management units of GRPPs, as well as professional evaluators involved in the evaluation of these programs. The Sourcebook draws on previous work by the Evaluation Network of the Development Assistance Committee of the Organization for Economic Co-operation and Development, the United Nations Evaluation Group, the Evaluation Cooperation Group of the Multilateral Development Banks, evaluation associations, and others to develop principles, norms and standards for evaluating development assistance programs, projects and activities. It also draws on IEG's experience in reviewing GRPPs and on feedback received at a Stakeholder Consultative Workshop held in September 2006. The sourcebook presents a detailed set of guidelines under the broad headings of evaluation governance issues, participation and transparency in monitoring and evaluation processes, planning and conduct of evaluations, and evaluation content and criteria. This last section – the main one in the Sourcebook – outlines standards and guidelines for evaluating a program's relevance, effectiveness, efficiency, management, resource mobilization, financial management, sustainability and impact. Checklists

are provided for developing evaluation terms of reference and for the contents of evaluation reports.

One World Trust Toolkit for Accountability in Research Organizations

The One World Trust (www.oneworldtrust.org) has recently issued a toolkit for accountability in research organizations (Whitty, 2008b), as one output from a research project on this subject. This toolkit provides a set of "*good accountability practices for research organizations working in developing countries*", based on four key principles of accountability (participation, evaluation, transparency and management of feedback). Drawing on a study conducted with 16 research organizations, the author identified nine processes that are common to most research organizations and that offer opportunities for improved accountability. One of the key processes is forming partnerships and engaging in networks. For each process the toolkit indicates why it is important and what the benefits of accountability might be for the research organization. Suggestions are provided for implementing the principles of accountability in each process. Challenges and tensions that organizations might face in implementing them are noted.

VicHealth Partnership Analysis Tool

This tool, based on the evaluation of initiatives undertaken to promote mental health and wellbeing, is intended to assist organizations to develop a clearer understanding of the purposes of collaboration, to reflect on the partnerships they have established, and to focus on ways to strengthen new and existing partnerships by engaging in a discussion about issues and ways forward. The tool refers to a 'continuum of partnership' in health promotion that extends from networking (the least intensive mode of partnership), through coordination and cooperation to collaboration (the most intensive mode). The tool contains a checklist for self-assessment with 30 "*key features of a successful partnership*" grouped under seven headings: determining the need for partnership, choosing partners, making sure partnerships work, planning collaborative action, implementing collaborative action, minimizing the barriers to partnerships, and reflecting on and continuing the partnership. Instructions are provided for scoring the factors in a self-assessment exercise.

3.4.3. Experiences with the use of partnership guidelines and assessment tools

Little is known about actual use and results of the numerous partnership guidelines and assessment tools that have been developed. In this regard, the article by Halliday et al. (2004) is of considerable interest, as it assesses the use of a formal self-assessment tool adapted from the Nuffield PAT and the Verona Benchmark. Drawing on the evaluation of two Health Action Zones in south-west England, this article explores the contribution of formal tools to the understanding

Halliday et al., conclude that formal assessment tools can be valuable in stimulating learning, but should only be used as an adjunct to a broad-based investigation.

of partnership. The authors modified the PAT by introducing three additional dimensions that are suggested by the Verona Benchmark and were considered highly relevant for the local evaluation. The paper stresses the importance of understanding the organizational setting and its operational environment alongside any measurement of partnership effectiveness. It concludes that while formal assessment tools can be valuable in stimulating learning, "such tools *should only be used as an adjunct to a broad-based investigation"* (page 300, italics in original). As a stand-alone device, such tools are open to misinterpretation and are unlikely to foster learning and development unless the partnership is already committed to evidence-based learning and prepared to invest the necessary resources in broad-based evaluation activities.

One of the leading texts on managing multi-organizational collaboration (Huxham and Vangen, 2005) warns against reliance on standardized guidelines, assessment tools, and precise recipes for managerial action because: "*To do so would be to deny the complexity and idiosyncrasy of the collaborative situations. It would also deny the* tensions *between the pluses and minuses of alternative ways of addressing issues*" (page 40). Instead, they advocate the use of 'descriptive theory', based on action research, which "*paints a complex and highly interrelated picture of collaboration, in which there are no simple prescriptions for best practice*" (page 34). The purpose of the theory is to alert managers to the challenges of collaborative situations that will need active attention and nurturing, and to "*provide* handles for reflective practice *through offering a structure for sense-making and consideration of alternatives… we see reflection as a way of speeding up as well as improving action*" (page 40). As a way of summarizing the results of the authors' extensive action research, Huxham and Vangen (2005: 37) offer ten tips for collaborating (Exhibit 9).

Exhibit 9. Ten tips for collaborating.

Use this with care!

They are intended to provoke thought.

Only the first and last should be taken as absolute truths.

1. Don't do it unless you have to! Joint working with other organizations is inherently difficult and resource consuming. Unless you can see THE POTENTIAL for real collaborative advantage (i.e. that you can achieve something really worthwhile that you couldn't otherwise achieve) it's most efficient to do it on your own.

.....but if you decide to go ahead….

2. Budget a great deal more time for the collaborative activities than you would normally expect to need.
3. Remember that the other participants involved are unlikely to want to achieve exactly the same thing as you and make allowances. You need to protect your own agendas but be prepared to compromise.
4. Where possible, try to begin by setting yourselves some small, achievable tasks. Build up mutual trust gradually through achieving mutual small wins. If the stakes are high, you may need a more comprehensive trust-building approach.
5. Pay attention to communication. Be aware of your own company jargon and professional jargon and try to find clear ways to express yourself to others who do not share your daily world. If partners speak in ways that do not make sense, don't be afraid to seek clarification.
6. Don't expect other organizations to do things the same way yours does. Things that may be easy to do in your organization may, for example, require major political maneuvering in another.
7. Ensure that those who have to manage the alliance are briefed to be able to act with an appropriate degree of autonomy. Wherever possible, they need to be able to react quickly and contingently without having to check back to the "parent" organizations.
8. Recognize that power plays are often a part of the negotiation process. Both understanding your own source of power and ensuring that partners do not feel vulnerable can be a valuable part of building trust.
9. Understand that making things happen involves acting *both* facilitatively *and* directively towards others.

…. in summary ….

10. Assume that you cannot be wholly in control and that partners and environment will be continually changing. Then, with energy, commitment, skill and continual nurturing, you can achieve *collaborative advantage*.

Source: Huxham and Vangen (2005: 37).

3.5. CGIAR-related reviews, evaluations and policy documents

Different forms of collaboration (e.g., partnerships, networks, alliances and consortia) have been important and controversial in the CGIAR over at least the past two decades. During this period, the CGIAR System, individual Centers or programs have commissioned a number of literature reviews on partnership (six are reviewed here), and several reviews of partnership programs were carried out, ten of which are included below. A few partnership-related policy documents have also been produced within the CGIAR System and five have been identified for review.

Key findings:

- Under the umbrella of the CGIAR, several reviews of partnership literature and experience have been conducted that grapple with important issues and present useful findings.
- Few of the reviews have been formally published and consequently, the reports are often difficult to obtain and have been ignored in subsequent work.
- Review and evaluation reports often lack descriptions of the methods used to gather and analyze information and draw conclusions, making it difficult to assess the extent to which the findings reported are empirically or theoretically grounded.

3.5.1. Literature reviews

In the late 1990s, the Ford Foundation funded an Organizational Change Program for the CGIAR. Based initially at the Simmons Institute for Leadership and Change, at Simmons College in Boston, the program focused initially on five Centers: the International Center for Tropical Agriculture (CIAT), the International Maize and Wheat Improvement Center (CIMMYT), the World Agroforestry Center, IFPRI, and the International Irrigation Management Institute.[16] Through grants, workshops and information provision, the program sought to support these Centers in experimenting with organizational changes aimed at improving their natural resources management research, working with a broader spectrum of partner and client organizations, and harnessing the full potential of their diverse staff. The expectation was that lessons learned from the experiments and workshops carried out with these five Centers would be diffused and benefit the CGIAR System as a whole (Merrill-Sands and Sheridan, 1996: ii). In the context of the Organizational Change Program, three papers were prepared that are relevant for the present literature review.

Merrill-Sands and Sheridan note that the increasing complexity and turbulence of organizations, rapid changes in technology, and the increasingly dense web of connections in the global economy all drive inter-organizational collaboration.

In **Developing and managing collaborative alliances**, Merrill-Sands and Sheridan (1996) summarize lessons from a review of the literature on collaborative alliances. Specific goals of this review were to pull together findings from diverse sources on the relative advantages and disadvantages of strategic alliances and inter-organizational collaboration, and to extract relevant lessons for designing, managing and sustaining effective alliances, particularly in research. As the authors note, the increasing complexity and turbulence of organizations, rapid changes in technology, and the increasingly dense web of connections in the global economy all drive inter-organizational collaboration. In the private sector, collaboration has been motivated by the desire to improve competitiveness, access new markets and technologies, share risks, and achieve economies of scale. In the public sector, declining budgets have stimulated cross-sector

partnership. Funding agencies have promoted collaboration to reduce costs and duplication of efforts. Public and private organizations are forming partnerships to address common concerns and improve service delivery.

The review indicates that while collaborative alliances can add value and contribute to organizational effectiveness, the costs and management challenges are often greater than expected. As the findings of this review appear to remain highly relevant for the CGIAR today, we quote the authors' conclusions at length:

Merrill-Sands and Sheridan conclude that while collaborative alliances can add value and contribute to organizational effectiveness, the costs and management challenges are often greater than expected.

> *"Many alliances fail due to conflicts in goals or work styles, weaknesses in management, inadequate resources, or problems in communications…. For alliances to be successful, members need to be able to complement each other in knowledge, resources and skills. Alliances appear to be more likely to succeed when they are formed to address problems that no single member can do on its own. In contrast, alliances formed solely on efficiency considerations with members joining together to deliver the same service in order to gain economies of scale and reduce costs … appear to be more vulnerable to failure.*
>
> *Successful alliances are management intensive and require a significant investment of resources. Attention to membership selection is critical to ensure the collaborative advantage. Careful management of process within the collaboration is also essential to success. Time and effort needs to be invested early in the collaboration to negotiate a shared agenda and ensure that all members believe that they are reaping added benefits from the alliance. Commitment and trust has to be nurtured throughout the process, it cannot be assumed. Links need to be formed at the strategic and operational levels and dense networks for communications have to be developed. Differences in organizational cultures and work styles need to be recognized and common values and ways of working negotiated. Power dynamics pervade all aspects of collaborative alliances; they need to be explicitly recognized and managed.*
>
> *In summary… given the high costs and management demands of collaboration, alliances appear to be best justified and most likely to succeed in those situations where a clear collaborative advantage can be achieved. Efficiency considerations alone are unlikely to provide the foundation of commitment required for successful partnerships." (Merrill-Sands and Sheridan, 1996: 16).*

Based on this literature review and on experiences with CGIAR Centers, Spink and Merrill-Sands (1999) present a synopsis of key success factors for collaborative partnerships and elements of a self-assessment inventory. They identify a set of Foundation Elements, defined as actions that need to be addressed in the initial stages of forming partnerships, to begin the process of developing a climate of openness and trust; and a complementary set of Sustaining Elements, which are defined as actions that are needed to maintain the energy, commitment and enthusiasm necessary for sustaining a partnership over time (see again Exhibit 6).

[16] At the time, these were the five Centers that received core support from the Ford Foundation. IIMI later changed its name to International Water Management Institute.

After the initial stage, the CGIAR Organizational Change Program broadened its scope to cover all the CGIAR Centers and refocused its goals on strengthening leadership and organizational performance by supporting innovative ways of managing collaborative alliances and improving knowledge management. Responsibility for implementing the program shifted to the Training Resources Group (TRG), Inc. (www.trg-inc.com). Building on earlier work in the program, TRG worked with Centers that were trying to improve their effectiveness at establishing collaborative relationships with other organizations, and several times delivered a seven-day course on Leading and Managing for Collaborative Advantage. Based on this experience, Gormley (2001) presents a handbook on selecting partners and practical considerations for forming partnerships. The handbook presents summary information on characteristics of successful partnerships, common challenges to effective partnering, determining if a partnership is the best way of working in specific situations, and guidelines for forming a partnership.

The Change Management Process in the CGIAR does not seem to draw on the knowledge and experiences gained with the Organizational Change Program of the 1990s.

Appendices contain a partnership readiness questionnaire, a partnership self-assessment inventory, criteria for selecting partners, a list of partnership leadership and management roles and responsibilities, and tips for designing a partnership start-up meeting, managing meeting energy, and building consensus.

It is notable that the Change Management Process in the CGIAR that is now underway, which includes deliberations on partnership, does not seem to draw on the knowledge and experiences gained with the Organizational Change Program of the 1990s.

Selcuk Özgediz, a senior advisor at the CGIAR Secretariat, has authored or co-authored three papers on issues related to partnership since the mid-1990s. In 1997, he worked with the CGIAR Private Sector Committee to prepare a paper on strengthening CGIAR–private sector partnerships in biotechnology (CGIAR Private Sector Committee, 1997). The paper notes that the private sector has become a dominant actor in agricultural biotechnology research, particularly in industrial countries, but that there is little biotechnology-based research directed towards problems of developing countries. The paper discusses two critical issues facing public–private partnerships in biotechnology: (1) intellectual property protection of enabling technologies, and (2) shifting boundaries between public- and private-sector research. The paper argues that the CGIAR needs to strengthen its capacity in biotechnology in order to link effectively with cutting-edge biotechnology research, to develop the 'absorptive capacity' to use proprietary private-sector technology, and to participate more effectively in the changing global biotechnology market. For the CGIAR to partner effectively with private firms in biotechnology research, it will

also have to "*reconcile the public good nature of its work with the norms prevailing in the biotechnology industry, such as patenting and licensing*" (page i).

Issued a decade ago, and available only in draft form, the paper by Özgediz and Nambi (1999), **Partnerships and networks: Definitions, forms and critical success factors** is based on the earlier work of Sands and Sheridan and a wide review of literature on inter-organizational partnerships available at that time. The authors identify three perspectives from which partnerships can be viewed in the context of international agricultural research for development:

1) The micro perspective of the individual partnership.
2) The meso perspective of the organization engaged in one or more partnerships.
3) The macro perspective of the industry or sector with its network of partnerships.

Özgediz and Nambi find that 3 common threads run through studies on the performance of partnerships: the continuing strategic relevance of the partnership and its activities, trust, and governance and management processes.

In discussing the formation of partnerships (the first perspective), the authors highlight two critical questions. The first question is *Why partner?* Possible answers include the addition of complementary resources, gaining legitimacy, capacity building, spreading risks, exchange of information, materials or staff, joint research, or joint provision of services. The second question is *Who to partner with?* The following criteria are offered for evaluating potential partners: strategic fit, compatibility, complementary strengths, commitment to joint activities and problem solving, and potential for influencing the governance of the partnership. Two main aspects of partnership performance are discussed: survival and continuity of the partnership itself, and success of the partners in achieving the objectives of the partnership. Three common threads that run through the studies on performance of partnerships are the continuing strategic relevance of the partnership and its activities, trust (the 'glue' that holds partnerships together), and governance and management processes.

When the focus of analysis moves from the micro level of the individual partnership to the meso level of the organization engaged in one or more partnerships, attention shifts to issues of organizational policy, strategy and management practices, which may foster or hamper partnering.

Finally, at the macro level of the industry or sector in which partnerships operate, the authors focus on the networks of relationships among the individuals and organizations. Özgediz and Nambi cite several studies of the structure of relations within the automobile and textile industries. To clarify this level of analysis for agricultural research for development – and to avoid confusion with the common use of the term 'sector' in the literature on partnerships generally, and in this paper in particular to refer to the public, private, and civil society sectors – we propose

the term 'domain'. By this we refer to the overall structure of relationships among actors involved in research or innovation with particular commodities (e.g., the potato domain), or to subject-matter areas within or cutting across commodities (e.g., the biotechnology domain).
There has been considerable work on social network analysis and innovation systems since Özgediz and Nambi produced this paper, which reinforces the importance of analyzing this macro level.

Reflections on the future of partnerships in the CGIAR (Özgediz, 2000) is a briefing note prepared for the Chair of the CGIAR Technical Advisory Committee (now Science Council) as an input to TAC's discussions on the CGIAR's future vision. It notes that the number of international cooperative arrangements has expanded greatly in recent years and is expected to accelerate in the future. The growth of cooperative arrangements is a global phenomenon, fueled by advances in information technology, the end of the cold war, globalization and market pressures. It implies radical changes in the management of organizations in both the public and private sectors. The note highlights four partnership domains of relevance to the future of the CGIAR:

1) Partnerships with other scientific institutions that have complementary resources, focused on research goals.
2) Value chain partnerships "to improve the flow of technology".
3) Participation in global policy networks whose outcomes influence the work and results of the CGIAR and its partners.
4) Partnerships with other institutions oriented towards poverty reduction.

The note also offers some terminology on partnership modalities, comments on the features of existing CGIAR partnerships, and offers some thoughts on the likely future role of partnerships in the CGIAR.

3.5.2. Review and evaluation reports

Review and evaluation reports are seldom formally published and as a result, they are rarely included in literature reviews. Fortunately, recent reports of CGIAR reviews and evaluations (including the so-called thematic 'stripe reviews') are available on the CGIAR website.

The **Independent evaluation of the partnership committees of the CGIAR** by Bezanson et al. (2004) is one of the most critical and insightful analyses of collaboration and partnership in the CGIAR. It goes far beyond the scope of a typical evaluation and includes findings of primary and secondary research on cross sectional partnership in the context of international programs. Based

on this review of literature and interviews with people highly experienced in implementing and negotiating partnerships, the authors provide the following lessons and recommendations for the CGIAR (pages 44–46):

- There has been too much emphasis on partnerships as ends in themselves, and too little recognition that partnerships can create burdensome transactions costs.
- Recent partnerships in international development demonstrate a tendency to be driven by relatively non-specific notions such as 'inclusiveness', 'participation' and 'voice'. Such notions may be of the highest order of importance, but they have tended to divert attention away from the painstaking detail required for successful partnerships.
- There are major issues and problems of asymmetry of power, influence, capabilities, experience and credibility, but these are seldom dealt with directly and transparently.
- Constituency committees are probably not the most productive way of building partnerships with either civil society or the private sector.
- As a basic rule, generic partnership arrangements should be avoided. Partnerships should be specific to function and objective and should be entered into only on the basis of ex ante utilitarian agreements bounded by specific rules and agreed divisions of labor.
- Especially where institutions with major differences in 'cultural perspectives and traditions' are involved, the front-ended investments required may extend over several years in order to establish the specific bases for partnership. These investments may include several years of effort prior to the signing of any agreements (if indeed agreements are possible).
- Evaluation criteria, standards and timing should be integral to partnership agreements. As already indicated above, these factors are considered essential by agreements.

Bezanson et al., conclude that the nature and intensity of interaction for a successful partnership vary with the purpose and type of relationship sought and the context in which the partnership operates.

The authors conclude that the nature and intensity of interaction for a successful partnership varies with the purpose and type of relationship sought and the context in which the partnership operates. They offer the following rough typology of partnerships that vary in terms of the depth, intensity, and degree of formality of arrangements:[17]

- Consultative partnership, which exists among institutions that wish to establish new relations with other organizations for information exchange.
- Coordinative partnership, where efforts are exerted to avoid duplication of activities and synchronize separate institutional initiatives for greater efficiency and effectiveness in field operations.

[17] This typology of partnerships is similar to typologies of forms of participatory research developed earlier by Ashby (1987) and Biggs (1990).

- Complementary partnership, where, although each party has separate initiatives, all are guided by a common program framework characterized by purposive efforts to support each other.
- Collaborative partnership, where both institutions agree to work together, sharing a common vision, establishing common objectives and plans of action on a program level. Mechanisms are institutionalized so as to facilitate delivery of services to their target communities (for example, sector-wide approaches).
- Critical partnership, which is considered to be the highest form and level of partnership where all institutions consider each other as indispensable partners in pursuing broad development goals and visions. All sectors work together in a more strategic long-term arrangement on various aspects of the socio-economic and political life of the community.

Readers may note that our definition of partnership, presented in Section 3.1, with its emphasis on mutually agreed objectives and the exchange and sharing of resources, relates more closely to the last three types of partnership in this typology.

Three distinct reviews of systemwide initiatives have been commissioned by the CGIAR since 2000, reflecting the contested role of these initiatives (particularly the SWEPs) in the CGIAR System. The first was a brief exercise to draw lessons from implementation of systemwide programs (CGIAR Interim Science Council, 2002). The report noted that most of the programs experienced funding problems, particularly for their coordination units. It identified the following as success factors: strong scientific leadership, clear articulation of the problem being addressed, capacity to attract active and appropriate partners, and a convening Center that takes a keen interest in the program. The report recommended that the interim Science Council conduct an overall assessment of SWEPs to draw lessons learned from the Centers, their partners and investors.

The second review was a meta-analysis of SWEPs (Bevege et al., 2006), based on a desk evaluation of external review reports for CGIAR Centers, Center-commissioned external review reports, available summary reports, medium-term plans and other available documentation. The purpose of the review was to provide strategic recommendations for planning and managing SWEPs and for defining their potential role in the implementation of System priorities. The panel was asked to identify successful collaborative mechanisms but not to judge individual programs.

The authors concluded that SWEPs were innovative, inter-institutional, multidisciplinary networks and consortia that serve to strengthen the capacity and capability of all partners engaged in the research for development effort. The authors note that involvement of organizations in SWEPs has generally been driven by, and is dependent on, the availability of special funding from donors. In many cases, donors have required Centers to establish collaborative programs with others (in the North or the South) as a condition for funding. Nevertheless, funding of the SWEPs' coordination units has been difficult, and Centers have been forced to act as 'donors of last resort' for many of these units using their core funds.

It was noted that the boundary between a SWEP and the core program of the convening Center is often blurred, leading to conflicts of interest, confusion of roles and responsibilities, multiple accountabilities, and ambiguities in decision-making and performance assessment. Participation of all members at the activity level has been broad. However, at the policy and management levels there has been much less opportunity for all partners to participate due to the limited representation of partners on governing, steering, and technical committees. One Center (the host) generally dominates in decision-making and management of the program, in comparison with other CGIAR Centers and other partners.

The review identified the following key factors that influence the operation and performance of SWEPs:

- Building on existing successful programs or initiatives.
- Adopting a consultative planning process.
- Using participatory research approaches within an integrated natural resources management (INRM) framework.
- Engaging the private sector.
- Encouraging self-financed partners.

The third review, in 2008, was based on the earlier reviews as well as more up-to-date information on SWEPs and the current CGIAR System priorities for research. The review's focus was on the role of current systemwide initiatives in implementing the CGIAR's research agenda (CGIAR Science Council, 2008b). The report combined review results and policy recommendations for the CGIAR.
In 2006, the Science Council's Standing Panel on Mobilizing Science published results of a survey of CGIAR Center collaboration (CGIAR Science Council, 2006). The survey was conducted in two parts, in 2004 and 2005, to assess the extent and nature of external collaborations at the CGIAR System level and to gather information on the most important organizations with which CG

Centers collaborate, the type of collaboration they have with these organizations, and the extent and degree of activity in these collaborations. The survey highlighted considerable variability among Centers in the number of organizations with which they collaborate. However, it is not known to what extent this reflects differing notions of what constitutes 'collaboration', different ways of handling information on collaboration, or substantive differences in the extent of collaboration in different Centers.

The survey indicates that while around 75% of the organizations with which CGIAR Centers collaborate are in developing countries, the Centers consider their collaborations with advanced research institutes and universities in the North to be of critical importance to their research programs, because they provide access to critical, complementary disciplinary expertise and material resources. The survey indicates that funding considerations rarely motivate Centers' key collaborations, even with institutions in the North. Private sector collaborators are still rare in the CGIAR System, and are seldom short-listed by Centers as highly relevant. Based on the survey findings, which were general in nature, several topics for future research were suggested, including the following:

1) What areas and methods of research in the CGIAR are more amenable to (or in need of) partnerships or other kinds of collaboration?
2) What incentives drive organizations to pursue collaboration with CGIAR Centers?
3) How is bilateral aid influencing the choice of collaborator?
4) What mechanisms and modalities of collaboration are most appropriate for the CGIAR?
5) Under what circumstances should collaboration be formalized in partnerships?
6) What key elements make different kinds of collaboration work under specific circumstances?
7) What kinds of collaboration are most likely to generate benefits that justify the transactions costs involved?

The report, **Lessons learnt from selection and implementation of the CGIAR Challenge Programs** (CGIAR Science Council and the CGIAR Secretariat, 2007) was prepared at the request of the CGIAR Executive Council, to inform CGIAR members of the progress in implementing the CP concept. The document, which builds on previous reports on related subjects, presents two separate lists of lessons – one developed by the Science Council and one by the CGIAR Secretariat. There is no attempt to combine the two. Some lessons related to partnership follow:

- It is important that a CP engage groups that have expertise in new and innovative areas of science that can benefit the overall goals of the CP and complement the competencies of the CGIAR and national partners (Science Council).
- There is need to carefully consider what level of national research partner engagement is optimal for increasing the CP's likely success in delivering relevant outputs, for implementation and for out-scaling and impact (Science Council).
- The CP should consider whether investment in supporting the development of national research system capacity to apply for and manage competitive funds is the best focus for capacity building (Science Council).
- Although institutional representation of partners in a CP's governance structure has merits, a governance body with independent individuals appears to have more advantages and greater potential for effective and efficient performance (CGIAR Secretariat).
- Allocation of CP resources to partners has ranged from 30-60%. There is still scope for strengthening engagement and increasing the flow of resources to partners (CGIAR Secretariat).
- Differences in governance structure across CPs makes it difficult to obtain consistent and comparable data for analyzing the CP transaction costs (CGIAR Secretariat).
- In general, partnerships have been regarded in a positive light by CP partners. Although there were difficulties during the inception phases, there is a consensus that the partnership model has been effective. National researchers have appreciated the skills gained through training and other capacity building activities. However, there are also remaining challenges that the CPs need to address (CGIAR Secretariat).

The report of the Independent Evaluation of the CGIAR (CGIAR, 2008) includes two chapters dedicated to partnership issues. Chapter 8 assesses the long-term partnership that has existed between CGIAR members and donors and the Centers. This partnership is viewed as a strong but 'frayed' comparative advantage of the System. A 'new compact' is recommended to rebalance the partnership. The review panel proposes a continuing close partnership between CGIAR members, donors, and the Centers, with new governance mechanisms that clarify responsibilities and authorities. The proposed 'balanced partnership structure' would include a CGIAR Fund, a Consortium and other bridging institutions.

Chapter 6 assesses CGIAR efforts to reach out to other research and development partners. The panel concluded that: "*while there is evidence at the Centers of an important range of*

partnerships with measurable added value, on the whole, the Panel finds that the CGIAR and its Centers are falling far short of developing the strategic potential of partnerships" (page 63). Furthermore, "*the recent External Program and Management Reviews (EPMRs) of all 15 CGIAR Centers refer consistently to the Centers' lack of appropriate tools to engage in and manage partnerships…. The result is a host of ad hoc partnership arrangements that lack strategic purpose*" (page 63). Five lessons drawn from an independent World Bank evaluation of its global partnerships are offered as a 'best practices framework' against which the CGIAR could address deficiencies in its current partnership arrangements (pages 75–76):

1) A global strategy is an essential precondition to partnerships.
2) Financing requirements for partnerships need to be tightly linked to programs and program priorities, and the requirements for achieving success must be clearly presented.
3) Effective management is imperative.
4) Universally accepted standards of good governance need to be applied.
5) Measurement and evaluation need to be explicitly negotiated and stipulated in advance, as a foundation for partnerships and to establish a schedule of independent evaluations.

In 2008, the CGIAR launched a Change Initiative to identify how best to adapt to and anticipate global changes and challenges and thereby continue to serve as an effective provider of science-based solutions for agriculture, natural resource management, and rural development. Four working groups were established to deal with the following major issues: (1) visioning and development challenges; (2) partnerships; (3) funding mechanisms; and (4) governance. The report of the partnership working group, **The future of partnerships in the CGIAR** (CGIAR Working Group 2, 2008), reviews experience with partnerships in the CGIAR, identifies gaps and problem areas, and proposes ways to address these issues in the future. Partnership is viewed from the perspective of "*repositioning and raising the public profile of the CGIAR*" as a research for development and knowledge management organization oriented towards impact. As this assessment was conducted at the level of the CGIAR System as a whole, the discussion and recommendations tend to be rather abstract, as reflected in these statements on pages 2–3:

> *"Appropriate consultative processes with relevant non-member stakeholders need to be organized at the CGIAR System level to define strategic dimensions and main priorities…*
>
> *The CGIAR needs to diversify its relationship in order to include the ministries and secretaries of Science and Technology and other public sector institutions that have mandates in areas of interest to the CGIAR, such as natural resources or climate change….*
>
> *The CGIAR should redefine its capacity strengthening strategy to include a wider partnership with universities, foster processes that equip those in the uptake chain with*

> *the necessary skills to bring about development impacts, reward capacity-strengthening activities by its scientists, and incorporate capacity strengthening activities that are within approved programs and projects as Fundable items in the International Fund proposed by WG4.*
>
> *A new "Partnership Facilitation Unit" comprised of independent persons with extensive experience in partnership-building who are knowledgeable about the different constituencies engaged with the CGIAR should be created…."*

In 2008 the CGIAR Science Council commissioned a review of social science research in the CGIAR. The chair of the review panel (Barrett, 2008) prepared **A normative framework for social science activities in the CGIAR,** which highlights the importance of partnership for the CGIAR generally, and for social science research in particular. The emergence of partnerships is viewed largely as a CGIAR response to declining core funding, growth in restricted project funding, and the broadening research for development agenda of the System and the social sciences. The partnerships developed by the CGIAR include Systemwide and Ecoregional Programs, Challenge Programs, and partnerships with development practitioners, local communities, and the private sector.

Increased dependence on restricted funding with short-term development goals has been accompanied by demands for evidence of research impacts on productivity, poverty and the environment. Hence these partnerships have tended to focus downstream ("*on links to adaptive researchers, extensionists, and development practitioners in national agricultural research systems (NARS), non-governmental organizations (NGOs), private firms and government agencies in developing countries*") rather than upstream (on links to advanced research institutes). The author notes that collaboration among individuals and organizations has also been used to foster knowledge sharing across disciplinary and organizational boundaries.

Barrett sees increased dependence on restricted funding with short-term development goals and demands for evidence of research impacts on productivity, poverty and the environment as reasons for a downstream focus of partnerships.

As the CGIAR conducts a small part of the agricultural research undertaken in developing countries with a focus on international public goods, partnerships are also increasingly important for CGIAR (social) scientists to bridge and leverage knowledge from other sources. The CGIAR needs partnership models to effectively leverage external resources and skills. Barrett (2008) argues that in addition to the downstream partnerships with technology delivery agents, two other types of partnerships are needed, but often neglected: upstream partnerships with the advanced research institutes that hold comparative advantage in more basic research and horizontal partnerships with other international organizations working on related activities (e.g., United Nations agencies) and to larger NARS that have developed significant research capacity in specific areas (pages 10–11). (Note, however that the neglect of upstream partnerships seems to

contradict the finding reported earlier (CGIAR Science Council, 2006) that Centers consider their collaborations with advanced research institutes in the North to be of critical importance.)

As an input into the CGIAR Change Management process, staff members of the four Challenge Programs (CP) established between 2002 and 2004 prepared a paper entitled, **The CGIAR's Challenge Program experience: A critical analysis** (Woolley et al., 2009). The Challenge Programs, established to address complex research for development problems (such as management of water for agriculture, biofortification, and the particular challenges of agricultural development in sub-Saharan Africa) have annual budgets in the region of US $15 million and have time-bound objectives. Each Challenge Program is hosted by one of the CGIAR Centers, but engages research for development professionals in other Centers, as well as national and regional organizations.

The CPs, like some of the earlier SWEPs, have explicitly sought to engage a broader range of partners beyond the traditional agricultural research community within which CGIAR Centers have mostly sought collaboration. In this sense, the CPs are cross-sector partnerships, in the way this term is used by The Partnering Initiative. This paper addresses a wide range of issues that the CPs have grappled with, including governance, financial management, roles and responsibilities vis-à-vis CGIAR Centers, leadership and management, special features of planning, managing and evaluating research partnerships, communication challenges, and issues of intellectual property.

Drawing on the literature dealing with multi-organizational collaboration, the authors identify five key objectives of working in partnership:

1) Knowledge sharing or creation: Foster information sharing and collaborative learning; cross-fertilization of solutions; deployment of successful technologies.
2) Political motives: Accountability to stakeholders, greater leverage and political legitimacy.
3) Strategic motives: Access to resources and efficiency of resource use.
4) Fostering systemic solutions to systemic problems, mimicking the complexity of the system.
5) Fostering and accelerating behavioral and institutional changes through social learning.

The authors note that: "in order to make the CPs truly functional and attractive to non-CGIAR partners, and hence more useful to the CGIAR Centres, it was necessary for the Centres to relinquish control of the governance process" (page 2). They go on to state that: "partnerships are

highly valuable to innovative research for development…. Yet partnerships require extra investment in the sensitive coordination of different institutional cultures" (page 5). Based on the collaboration literature and on the self-assessment of their own experience with CPs, the authors list what they consider to be "best practices for building collaboration" (Exhibit 10).

Exhibit 10. Best practices for building collaboration

Best practices identified in the collaboration literature:

- Get the right people and organizations (commitment, competence, continuity and complementarity).
- Agree clear guidelines about how responsibilities are shared (who does what?) and how conflicts are resolved.
- Agree clear, shared, flexible objectives: designed by all; reflect stakeholders' diverse interests/needs.
- If necessary, budget for capacity building of weaker partners.
- Agree on how to disagree (conflict resolution processes).
- Share recognition and responsibility for outcomes.
- Allow time for development of social capital *(social capital = trust + common language),* but balance concern for process with focus on task outcomes. Thus, look for many small wins to foster trust; strengthen capacity in facilitation, negotiation, and participatory monitoring and evaluation; reward the work of those who span the boundaries among disciplines.

Additional best practices identified from Challenge Program experience:

- Give more leadership responsibility to non-CG partners. This often changes the way the science questions are handled. Examples of improved handling: better attention to integration, attention to scale issues, connection to policy making, impact. However, this may also introduce cultural practices that damage the research, such as lack of flexibility of partners located in regimented and hierarchical bureaucracies.
- Clarify expectations of team members from different institutional and national cultures about their different expectations about time investment in decision making, who speaks when, etc.
- Base virtual communication in dispersed networks on initial face-to-face contact, and its use for complex debate.
- Work with projects to make their impact pathways explicit and understandable by all partners and then make sure they regularly revisit and update them.
- Agree on team standards for response time, sharing information, giving credit, and time to be invested in discussion.
- Agree on criteria for diversity (disciplinary experience, age, nationality, gender) across institutions involved.
- Consider that full-time dedication is more effective than part-time for managers.
- Agree on supervision responsibilities across institutional boundaries.
- So as to find an effective role for diverse partners, assign responsibilities at different levels (such as project activity, project oversight, basin or theme coordination, program management).

Source: Woolley et al. (2009)

Smith and Chataway (2009) look at six partnerships between civil society organizations (CSOs) and CGIAR Centers, in order to increase understanding of the organization, development and impact of Center–CSO partnerships. The partnerships studied fall into the complementary, collaborative and critical types in the typology presented by Bezanson et al. (2004) (discussed in

Section 3.5.2). Two of the six partnerships studied are based at CIP (Papa Andina and The Vitamin A for Africa Partnership). The report presents key insights and lessons learned from the analysis and discusses how CGIAR–CSO partnerships might best be organized and supported in the future. Some of the key insights about Center partnerships with CSOs include:

- The most effective partnerships have a 'shared history' that facilitates collaboration through well-established trust, working procedures, and localized or specialized knowledge.
- Successful partnerships tend to be well resourced and allocate resources to strengthening the partnership itself, in addition to meeting project objectives.
- Effective partnerships have the ability to communicate clearly both internally and externally, resulting in a common and clear understanding of goals, roles and ways of working together.
- The organizations involved in a partnership may have divergent policy agendas, which can strain relations.
- Successful partnerships often result in unforeseen outcomes that have relevance beyond the local context, and which can be 'packaged' as international public goods.

Smith and Chataway encourage Centers to develop institutional partnership strategies, in order to develop better, longer-term and ultimately more effective partnerships.

Based on these insights, the authors encourage the CGIAR and its partners to budget and invest more time and resources in developing 'partnership platforms' that foster communication, establish trust, and build strong relationships over time. They also encourage partners to reflect more on their own experiences and to capitalize on the lessons learned. The authors note that many partnerships are ad hoc, developed by chance or reactively. They encourage Centers to develop institutional partnership strategies, in order to develop better, longer-term and ultimately more effective partnerships.

3.5.3. Partnership policies

Center-level policy documents

Given the high profile of partnership in CGIAR discourse, the broad scope of work with partners in the CGIAR System, and the growing proportion of research funds that go to partnerships, surprisingly few policy documents have been identified that deal with partnerships in the CGIAR. Only two Center-level policy documents on partnership, issued by ILRI and ICRAF, were identified in the present literature review. The **Partnership strategy and management system** (ILRI, 2008) is intended to serve as a guide to managers and staff in the establishment and management of the Institute's partnerships. It aims to "*professionalize ILRI's new way of doing research through partnerships, thereby increasing its overall quality, effectiveness and efficiency.*" It explains the

importance of partnership strategy and management in implementation of the Institute's corporate strategy, which views ILRI as a facilitator of pro-poor innovation processes.

Surprisingly few policy documents have been identified that deal with partnerships in the CGIAR.

Sections of the guide outline ILRI's partnership strategy, its partnership management system, complementary procedures that support partnership management, and how to nurture use of the guide.

ILRI's partnership strategy and management system is based on the following partnership principles:

- Engage with partners in an inclusive, transparent, and trustworthy manner.
- Treat partnerships as a means to an end.
- Articulate clear mutual benefits.
- Support management of partnerships at all levels (project, program, institutional).
- Commit to the supremacy of performance over politics, seniority and hierarchy.

Three broad types of partnership are defined, based on the level at which they are established and operate:

- Project-level partnerships.
- Program or theme-level partnerships.
- Institute-level partnerships.

For each of these types, the guide elaborates partnership functions as well as management approaches, instruments and processes. The document also identifies changes needed to support effective partnering in five management areas: contracting arrangements, research management, human resource management, financial management, and knowledge management and learning.

The World Agroforestry Center's **Partnerships strategy and guidelines** (2008) notes that in 2006, the Center evaluated the status of its partnerships. The results indicated that while the diversity of the Center's partners provided it with access to a wide range of skills and resources, and facilitated capacity building and achievement of outcomes, there were some concerns for the Center's capacity to manage partnerships, which included the following:

- Unclear structure (typology or nomenclature) and hierarchy of partnership agreements.
- Varied and inconsistent structure and content of partnership agreements.
- Insufficient attention to legal aspects of partnership agreements.

- Problems in management and monitoring of agreements (e.g., incomplete records, expiration of partnerships without being noticed, inadequate handover of partnership responsibilities at times of staff turnover, organizational changes that impacted on roles of staff working with partners, and termination of partnerships without consulting the concerned parties).
- Confusion over publication of joint research results.
- Weak coordination of relations with partners and sharing of knowledge within the Center.
- Inadequate mobilization of partners' capacity.
- Inadequate attention to selection of partners to ensure value added.

As a result of this evaluation, a Partnerships Directorate was established and the Partnerships Strategy and Guidelines was developed. A section on Partnership Strategy in this publication outlines the goals and strategic objectives of partnering, defines partnership categories, discusses how the Partnership Strategy is to be operationalized, and presents 12 features of enduring partnerships. A section on Partnership Guidelines then defines types and duration of partnerships, lists a set of guiding principles, and lays out management principles for partnerships. Annexes identify important elements to be included in agreements, a template for memoranda of understanding, a form for assessing the state of a partnership, and a set of partnership assessment criteria (adapted from The Partnering Toolbook (Tennyson et al., 2003).

System-level policy documents

A paper prepared recently for the Science Council explores **The role of system-wide initiatives in implementing the CGIAR's research agenda** (CGIAR Science Council, 2008b). This discusses the need for and potential of systemwide initiatives as mechanisms for implementing the CGIAR-endorsed System priorities for research. Building on a 2007 meta-review of CGIAR SWEPs, the paper summarizes the main conclusions and success factors for SWEPs identified in that review. It concludes that the utility of the current SWEPs for implementation of the CGIAR system priorities varies widely, and suggests that future systemwide initiatives should play one of three roles: (1) systemwide coordination programs should support communities of practice and coordinate CGIAR research; (2) systemwide natural resource management (NRM) initiatives should organize research on NRM to facilitate the production of international public goods; or (3) short-term, systemwide task forces should be piloted as a means of advancing new emerging research ideas where concerted action involving different partners could help accumulate knowledge for defining longer-term research programs.

The assessment concluded that future system-wide initiatives should have the following characteristics:

- The topical focus of the initiative should be related to the host Center's mainstream research.
- The partnership should involve several Centers.
- There should be clear synergy from Center collaboration.
- The initiative should emerge from the CGIAR and be built around relevant research topics or activities.
- The initiative should foster capacity building and effective communication.
- The program should be outcome-oriented and emphasize scaling up or out.

Detailed criteria for assessing proposals for new systemwide programs are presented. With the ongoing change process in the CGIAR, the status of these recommendations is unclear.

The **Integrated reform proposal** prepared by the CGIAR Change Steering Team (2008) contains a section on enabling effective partnerships that indicates that future 'program performance contracts' will explicitly include involvement of partners in research implementation and will be evaluated on this basis. To stimulate ownership of programs by partners and to catalyze further development beyond the System's reach, a significant proportion of resources flowing through the proposed Fund will go to partners.

Working Group 2 of the Change Management Process (CGIAR Working Group 2, 2008) has outlined a framework for a partnership policy that includes general principles, operational guidelines, areas that need new or strengthened partnerships (such as links to science and technology organizations, capacity strengthening and links to those responsible for policy and institutional change), creation of a 'partnership facilitation unit', and incentive policies. The Working Group report highlights four aspects of partnership processes, and notes that each requires different resources, skills and institutional capacities:

1) Identifying and evaluating partnership opportunities.
2) Structuring individual partnerships.
3) Managing partnerships.
4) Learning from partnership experiences and improvement over time.

The Working Group recommends that the CGIAR develop a partnership strategy and create a Partnership Facilitation Unit (page 74).

As policy statements are seldom formally published, it is likely that other CGIAR Centers, Challenge Programs, or System-level governance bodies have issued policy documents concerned with partnership that we have not included in this review. Furthermore, it is possible that other Center, Program and System policy documents contain sections on partnership that we have missed in our search. One priority for future research on partnership would be to identify and review other policy-relevant institutional documents on partnership in the CGIAR System and in other sectors.

4. DISCUSSION

4.1. Cross-cutting themes and issues

The different literatures all grapple in one way or another with definitional, conceptual, methodological and ethical considerations associated with partnerships. In this section, we discuss eight main cross-cutting themes related to the establishment, operation, and performance of partnerships:

- Definitions and labeling.
- Partnership dynamics.
- Partnership drivers.
- Analytical versus normative approaches.
- Trust and mutuality.
- Power and equity.
- Success factors.
- Evaluation of partnerships.

4.1.1. Definitions and labeling

Key findings:

- In the international development community, including organizations concerned with agricultural research for development, partnership is currently the preferred (fashionable) term used to describe a host of different ways in which organizations work together.
- By contrast, in business law, the term partnership refers to a type of business entity in which partners (owners) share with each other the profits or losses of the business. Collaborative arrangements between businesses are more generally referred to as alliances.
- The literatures reviewed vary in terms of the inclusiveness (looseness) and exclusiveness (precision) of the terms and definitions they employ.
- There is some consensus on essential elements of a definition of partnership in the context of international development, and thus on what is not a partnership (or a pseudo-partnership).

This literature review demonstrates a highly variable terminology for describing alliances, collaboration and cooperation, often leading to confusion.

Collaboration or cooperation between groups has been a fact of life in all human societies, whether political alliances between lineages in remote parts of highland Burma (Leach, 1954), or high-powered business alliances between internet firms (Contractor and Lorange, 2002). However this literature review demonstrates a highly variable terminology for describing these phenomena, often leading to confusion. In the sentence above, the terms 'collaboration' and 'alliance' are the currently preferred over-arching terms for describing these relationships in the management and organizational development literature and the business world respectively. In international agricultural research, the term network was widely used during the 1970s and 80s (Plucknett and Smith, 1984), but appears to have gone out of favor by the early 1990s. In a climate of go-getting neo-liberal economics and globalization in the early 1990s, the term consortium,

with its more business-like, results and funding-oriented connotations, became appealing (CONDESAN, 1993). In the area of international development, the emergence of 'partnership' as the major over-arching term appears to have been given a strong push by a series of high-level meetings in the early 2000s. The Monterrey Consensus of the International Conference on Financing for Development in 2002 employed the terms 'partner' or 'partnership' prominently and strategically in the declaration, especially in terms of 'a new partnership between developed and developing countries', 'public–private partnerships', 'development partnerships', 'inter-enterprise partnerships' and the recently established New Partnership for African Development (NEPAD). The Paris Declaration, issued in early 2005 by the High Level Forum on Joint Progress towards Enhanced Aid Effectiveness, gave even greater prominence to these terms, deploying them 111 times in 12 pages.

The Paris Declaration employs the terms partner and partnership 111 times in 12 pages.

In the private sector, the term partnership has a very different meaning, referring to a type of business entity in which partners (owners) share with each other the profits or losses of the business, and alliance is the preferred term to describe cross-organizational collaboration between businesses. Business partnership is not the focus of this review.

Despite the diversity of definitions across literatures, there is broad consensus on the importance of a few elements of a meaningful definition of partnership in the context of international development. One such element is *collaboration across organizational boundaries*. Teamwork that involves different members within a single organization is not considered partnership. Another common element that has also been included in the definition we propose in Section 3.1.2, involves *sharing*. This may range from simply sharing assets or competencies up to sharing decision-making and governance through complex structures. In either case, the emphasis is on sharing rather than off-loading costs or risks to other parties. A third element that is commonly considered to be essential to a partnership is *mutually agreed objectives*. However, this has been contested by some practitioners (e.g., Tennyson with Harrison, 2008), on the grounds that participants in partnerships often view them in terms of their own organization's aims. We suggest that at least a formal agreement on objectives, which satisfies each organization's aims, is essential; even if in reality the individual partners have divergent, tacit agendas. Tennyson with Harrison (2008) proposes that the most important element to secure a strong partnership is not compliance with a general definition, but agreement between partners on the aims of the specific partnership in question. The failure to agree on aims is often related to power imbalances and this leads to the identification of what are called pseudo-partnerships, partnerships 'in name only' (ibid: 17), 'transactional partnerships', or 'partnerships of convenience' (CGIAR Science

Council, 2009) that lack real sharing and equity. Issues of power in partnerships are discussed below.

We can also consider some of the key differences in definitions across these literatures. The preference for the term 'collaboration' in the management and organizational development literature is also associated with a more flexible, inclusive definition, essentially any work "*across organizational boundaries towards some positive end*…" (Huxham and Vangen, 2005: 4). On the other hand, for writers in the fields of science and technology policy and for some development economists, partnership is often used to refer specifically to public–private partnerships involving innovation and the joint contribution of financial, research, human and other kinds of resources.

One type of partnership may evolve into another -- a fluid, information-sharing partnership may transform itself into a more highly structured and formalized relationship with more elaborate goals.

These different ways of viewing partnerships may reflect the fact that different types of collaborative relationships exist for different purposes. For example, partnerships that focus on information exchange probably retain a high level of informality and low levels of mutual responsibilities. Where a partnership involves commitment to meeting broad development goals that cannot be achieved by individual organizations alone, it is likely to be characterized by more elaborate governance and sharing mechanisms, and concerns about trust and mutuality (see below). Diversity in the literature reviewed highlights not only that diverse types of partnership exist, but that partnerships are dynamic phenomena. One type may evolve into another, so that a fluid, information-sharing partnership may transform itself into a more highly structured and formalized relationship with more elaborate goals.

4.1.2. Partnership dynamics

Key findings:

- One reason for the difficulty of defining partnership is the dynamic, or developmental character of inter-organizational relationships.
- There is a tendency for partnerships to evolve from less to more formal arrangements.
- Not all partnerships evolve; some meet specific and stable needs.
- The developmental character of partnership can lead to the creation of 'proto-institutions'.
- More formality does not necessarily mean more effective or efficient partnering.
- In partnerships, effective leadership is associated more with providing motivation, and influencing and facilitating processes, rather than with controlling decision-making.

One reason why definitions of partnership vary so much is that collaborative arrangements tend to be dynamic or developmental in nature. Partnering is what one author describes as 'a journey'. This leads several authors in different fields to propose 'partnering continuums' based on the nature and intensity of the relationship (Exhibit11). There are similarities between these different schemes and indicators, especially in the gradual shift from informal information sharing to

synchronizing separate activities; to developing a common purpose and increased interdependence and common visioning; to finally sharing resources and institutionalizing the relationship. It is noteworthy that the highest level of partnership in the scheme presented by Gajda is 'unifying', involving the formation of a single structure. This suggests that in this writer's view, partnering can eventually bring about a new organization, which, if we accept the central tenet of partnerships as collaboration across organizational boundaries, means the disappearance of the partnership in a process of organizational change. This goes further than the findings of Lawrence et al. (2002) in the literature on management and organizational development regarding the possibility that inter-organizational collaboration can lead to 'proto-institutions' – new technologies, practices and rules "*that are narrowly diffused and only weakly entrenched, but that have the potential to become widely institutionalized*" (page 283). Such new ways of working still leave the partnering organizations in place.

Whilst not specifying a continuum, several writers and literatures differentiate between informal and formal partnership arrangements. This seems to be a basic structural characteristic of partnerships and a determinant of the continuum. It is also noteworthy that increased intensification does not necessarily mean more effective or efficient partnering. The increased formalization that often comes with intensification can mean less flexibility, knowledge creation, fluidity and innovation, all of which tend to flourish in informal, unplanned partnerships. Kitzi (2002), whose partnering continuum is included in Exhibit 11, provides one of the most sobering discussions of the potential difficulties of inter-organizational collaboration. In a collaborative relationship the organization's priorities become secondary to the priorities of the collaboration, and this sets up inevitable tensions, especially with the sharing of resources and the consequent relinquishing of control over these resources by an organization's governing body.

Exhibit 11. Comparison of three examples of partnering continuums.

Kitzi, 2002		Bezanson et al., 2004		Gajda, 2004	
Partnering continuum	**Indicators**	**Partnering continuum**	**Indicators**	**Partnering continuum**	**Indicators**
Networking	Informal relationship. Limited trust, no resource sharing	Consultative partnership	New relations, information exchange only	Networking	Web of communication
Coordination	Formal relationship for information sharing, altering activities, no resource sharing	Coordinative partnership	Avoiding duplication, synchronize separate initiatives	Cooperating	Work together to ensure tasks are done
Cooperation	Formal relationship for information sharing, altering activities, for common purpose, limited resource sharing	Complementary partnership	Common framework for separate initiatives		
Collaboration	Formal relationship for information sharing, altering activities, for common purpose, full sharing of resources, risks, rewards, and responsibilities	Collaborative partnership	Work together with common vision, plan of action. Institutionalized mechanisms	Partnering	Share resources to address common issues
		Critical partnership	Partnership perceived as indispensible for implementing common vision and goals. Strategic long term arrangement	Merging	Merge resources to support something new
				Unifying	Unification or acquisition to form a single structure

Source: Authors.

Leadership, decision-making and vision are important variables in the partnership p evaluation literature. Leadership also features in many guidelines and assessment tools.

Another aspect of structure that could help to clarify the relation between a partnership's effectiveness and its degree of formality is its leadership and decision-making. Sanginga (2006) notes the importance of consistent support from senior leadership as one of the key elements contributing to successful partnerships. 'Leadership and decision-making' and 'vision and leadership' are listed as important variables in the partnership evaluation literature. 'Leadership' also features in many sets of guidelines and (self-) assessment tools. Some define effective leadership as influencing, communicating with and motivating others, so that responsibility for decision-making is shared between partners (Markwell et al., 2003: 5), and consider leadership as one of six key themes for effective, successful partnerships. Tennyson with Harris (2008) note the importance of broad organizational commitment to partnership and the need for a new type of leadership – one that is 'willing to let go'.

4.1.3. Partnership drivers

Key findings:

- Surprisingly little attention has been devoted to the drivers of partnerships.
- External pressures are important drivers for the formation of many partnerships, especially in the non-profit sector, but the literature is especially silent on these.
- Partnerships can be driven by different types of external, organizational or individual factors leading to mixed motives for engagement as well as conflicts and trade-offs.
- Partnerships driven by the pursuit of strategic advantage or resource capture tend to have lower levels of involvement and external 'activism' by partners than those driven by the pursuit of knowledge creation or political influence.
- An important driver of partnership is the need to achieve 'higher order' goals.
- The need to link research to action drives many partnerships in the field of research for development.
- There are some significant negative drivers that undermine partnership.

It seems that the types of driver that lead to a partnership have a profound influence on the subsequent partnering processes and results.

Very few studies attempt to understand the different drivers leading to partnership; most focus instead on partnering processes or (often assumed) benefits. Yet the type of driver that leads to a partnership is likely to have a profound influence on both partnering processes and their results. For example, where a donor makes partnering a precondition for funding a project, this is likely to lead to the establishment of an unsustainable 'transactional' relationship with weak outcomes. Yet, the literatures reviewed are nearly silent on this topic.

An exception to this silence is the set of guidelines for partnership assessment developed by Caplan et al. (2007) for water and sanitation projects. They note that the development of partnerships revolves around different drivers – essentially incentives or obligations – that bring

partners together and help shape their involvement in the different partnering processes. They helpfully distinguish between three types of drivers:

1) External drivers (the set of political, socio-economic, and cultural conditions and rules regulating the arena in which the partnership is operating).
2) Organizational drivers (the visions, missions and skill sets of particular organizations involved in the partnership, which determine incentives and obligations to partner).
3) Individual drivers of the people actually engaged in establishing and operating the partnership, who bring with them professional and position identity and motivation.

In practice, various motivations usually come into play in the same partnership, leading to potential conflicts and trade-offs.

Where other authors do examine partnership drivers, they usually focus on the organizational level. Authors working in different fields generally highlight different types of motivation. For example the strategic management literature focuses on collaborative advantage and the capture of resources through partnership. In contrast, the organizational change literature focuses more often on knowledge creation through partnership. What usually transpires in practice is that various motivations come into play in the same partnership, leading to potential conflicts and trade-offs.

The management and organizational development literature that identifies these mixed motives also highlights two key factors that measure motives for partnering. 'Involvement' concerns the internal dynamics of collaboration, the way partners relate to each other. A high level of involvement includes deep interactions and intense information flows, often leading to joint knowledge creation. A low level of involvement indicates motives of strategic advantage and resource capture, usually with conservation and protection of knowledge by each partner. 'Embeddedness' relates to the external activism of partners on behalf of the partnership. This focuses on the external aspects of collaboration: the extent to which collaborating organizations are enmeshed in inter-organizational relationships and the partnership's relevant domains; the degree to which they act as external representatives of the partnership with third parties; and how much they engage in multi-directional information flows. High levels of embeddedness or activism can be expected to be motivated by a desire for knowledge creation and political influence, but not so much by the search for strategic advantage or resource acquisition. High transactions costs, as well as knowledge protection, may be expected to mitigate against high levels of activism on behalf of the partnership.

In some of the definitions proposed for partnership, as well as in discussions of partnership in the different literatures, the need or desire to achieve goals not achievable by an individual organization is a commonly identified driver, especially where different skills can be combined.

Some authors concerned with the evaluation of partnerships also throw further light on this driver, although they discuss the achievement of higher order goals in terms of the evaluation of partnerships, rather than as a way to understand why organizations partner. For example, Uusikylä and Valovirta (2007) emphasize the need to recognize and evaluate the attainment of 'societal-level' goals by partnerships, not just mission-level goals of organizations. Others distinguish between the achievement of 'developmental outcomes' by partnerships and 'business outcomes' by participating organizations (Jørgensen, 2006). The capacity of 'cross-sector collaboration and partnership' to achieve development goals is also underlined in some assessment tools, reviews and evaluation reports as a characteristic of 'critical partnerships', which are considered to be the highest form of partnership.

The emerging field of sustainability science highlights the importance of managing boundaries between research knowledge and action.

Another important partnership driver that is highly relevant for agricultural researchers concerns the links between research and action – between science on the one hand, and policy formation or enterprise decision-making on the other. Literature from the new academic field of sustainability science highlights the management of the boundary between knowledge and action as crucial for science and technology to make an effective contribution to sustainability. Boundary management means mediating between the perceptions and positions of science and policy, and where necessary 'translating' between these two discourses. Partnerships which successfully mediate this boundary will provide benefits to organizations on both sides. The literature on partnerships involving public research organizations and private businesses also highlights potential cost reductions and increases in research impact through effective management of the boundary between these two types of organization.

Most of the studies reviewed deal with positive drivers of partnership; few are concerned with challenges or disincentives. In the public administration literature, Huxham and Vangen (2005) introduce the concept of 'collaborative inertia' to understand what undermines motivation or capacity to partner. They highlight slow production of benefits, perceived or actual transactions costs, a perception of inadequate knowledge about how to change, and the sense that partnerships are not delivering, or that the gain comes with too much pain. Other authors in the literatures of public administration, public–private partnership, and evaluation methods highlight transactions costs as a major disincentive or demotivator for partnership, with Hagedoorn et al. (2000) cautioning that theory teaches about "*the downside effects associated with collaboration*". On the other hand, a generally pessimistic assessment of public–private partnerships in the CGIAR (Spielman and von Grebmer, 2006) found that the major disincentives to public–private

partnerships had to do with perceptions, competition and risk rather than costs. This analysis tends to corroborate the factors identified by Huxham and Vangen (2005).

4.1.4. *Analytical versus normative approaches*

Key findings:

- The partnership literature includes both studies that explore how partnerships *are* set up and operate, and normative guidelines and tools concerned with promoting partnership or indicating how partnerships *should* function.
- There is little communication between these two types of knowledge. Normative prescriptions do not necessarily flow from analyses of partnerships, and analyses seldom offer practical lessons or guides for action.
- Very few in-depth empirical studies of partnership are reported in the literature.
- Some analytical studies identify different levels at which partnerships operate (interactions among partners, management and governance of partnerships by 'parent organizations' and a sectoral level where many partnerships with similar concerns interact).
- Normative tools and guidelines focus very largely on the first of these levels (interactions among partners).
- Both analytical and normative texts emphasize the phasing of partnering tasks, involving different methods and strategies.

The literature on partnership includes both analytical research on how partnerships actually function and normative guidelines and tools about how they should be established and operate.

The literature on partnership includes both analytical research on how partnerships actually function – how they are established and operate – and normative guidelines and tools about how they should be established and operate. Although one would expect that guidelines would be based on evidence, in practice research studies do not always present suggestions for action, and guidelines seldom seem to be based on prior research. Many sets of guidelines intended for practitioners present lists of success factors, which are discussed in a later section of this report (Section 4.1.7).

Despite the large number of analytical studies of partnerships and how they function, there are surprisingly few in-depth, empirical case studies. Many analytical writers concentrate their methodological discussions on the internal aspects of partnership – choice of partners, quality of the relationship, intensity of interaction and so on. In one of the few in-depth case studies, Hardy et al. (2003) also look at the external environment of particular partnerships and the extent to which the partners are engaged with that environment.

In a useful review and thought piece, prepared for the CGIAR, Özgediz and Nambi (1999) recognize the importance of context for the functioning of alliances and networks, and identify three levels for analysis:

- The internal level of the partnership itself.
- The higher level relations that partners have with parent organizations, and the governance and management of relations between partnership and parent organizations.
- The domain level[18] at which organizations and partnerships operate (e.g. the potato domain or the soil fertility domain).

The most critical tasks and challenges vary depending on the stage in the life cycle of a partnership.

Not only can partnerships be examined at different system levels; several authors also note that tasks and challenges vary depending on the stage in the developmental or life cycle of a partnership. Different kinds of 'stage' or 'phase' models of partnership have been proposed by several authors. Common phases include:

- Scoping: whether to partner, with whom, and at what risk, cost or benefit to partner.
- Planning and developing management structures: choosing a model, appointing responsible persons, building commitment, goal-setting, assessing assets, planning/budgeting.
- Mobilizing, implementing: includes team development, leadership, management, building trust, honesty, respect and dealing with power.
- Monitoring and evaluation: involves reviewing, assessing results, drawing lessons for improving the partnership.

A slightly different model, which is not presented as a sequence and indeed seems to combine elements of both horizontal stages involving developmental processes and vertical contexts, is proposed by Uusikylä and Valovirta (2007), also from the professional evaluation literature. They describe three spheres in which organizations are involved: the first sphere involves 'internal enabling factors' such as management and leadership arrangements, and capacity development; the second concerns organizational performance targets through implementation to produce outputs. This describes a situation analogous to CGIAR Centers and programs where research for outputs is controlled and managed by the individual Centers.

The third sphere concerns 'societal effectiveness' of the outputs, which we might paraphrase as 'social outcomes'. The authors argue that this sphere requires multi-organizational collaboration through performance clusters and networks of organizations, through which a particular organization involved in collaboration 'governs' the strategic direction rather than managing the

day-to-day details of the process. This echoes the importance of mediating and translating partnerships referred to above, to enable outputs to be 'translated' into meaningful social outcomes.

4.1.5. Trust and mutuality

Key findings:

- Trust is a common feature of partnership principles and success factors, but not of definitions of partnership.
- Some writers view trust as an indicator of the intensity of a partnership.
- Mutuality is a common feature of many definitions, but is little discussed as a characteristic or success factor of partnerships.
- There is limited systematic knowledge of how trust and mutuality are (or are not) established and how trust relates to mutuality.
- Similarly, there are few practical guidelines for developing trust and mutuality.

Trust is usually considered to be an essential characteristic or principle of partnership.

In many of the documents reviewed, trust is referred to and discussed as an essential characteristic or principle of partnership, a key element for partnership evaluation, and/or a partnership success factor. However, trust never appears as part of the definition of partnership. In other words, there is a convergence in the literature around the idea that trust is something that emerges through the process of partnership, with the implication that at the point of formation of a partnership trust may not exist. This idea is supported in some partnering continuums, where the growth of trust is an indicator of the increased intensity of the partnership. Other continuums, however, make no reference to trust (Exhibit 11).

Some writers highlight trust as a central requirement of partnerships – as its 'glue' according to Özgediz and Nambi (1999) – and something that requires considerable time and investment to build up. In both the professional evaluation literature and in practitioner-oriented guidelines, trust is characterized as something that not only needs to be created, but also re-created or maintained, as it can easily dissipate and be lost.

The use of the notion of 'mutuality' in the literatures differs sharply from that of trust. For example, mutually agreed goals and mutual benefits feature in many definitions of partnership, but the notion is seldom identified as a characteristic or principle and rarely appears in the evaluation literature, guidelines or toolkits. An exception is the public administration and evaluation writings of Brinkerhoff (2002a;b). In the first, she proposes mutuality as a key partnership term that can generate a matrix of partnership types when combined with the notion of organizational identity (Exhibit 5). The matrix reminds us that building social capital can

[18] As mentioned earlier, Özgediz and Nambi use the term sector to describe this level, which we prefer to retain for discussing the public, private and NGO spheres of activities.

involve a trade-off against other organizational assets such as identity, integrity or organizational brand. In the second evaluation article, she proposes mutuality as one of the two dimensions (together with organizational identity) that should be used to measure the degree of partnership (2002b: 224–225).

In many of the definitions of partnership, when the terms mutual or mutuality are used, their meaning seems to be largely instrumental, referring to the flow of tangible benefits to all parties in the partnership, or to common agreements. In other words, mutuality and mutual benefit are considered to be the same thing. Brinkerhoff (2002b) provides a more comprehensive understanding, with the emphasis on inter-dependence, mutual commitment, rights and responsibilities and 'value–balance', although equal benefits are still an important component. An article by Rose and Wadham-Smith (2004) which considers mutuality and its relationship to trust in partnerships, proposes an alternative view that distinguishes mutual benefit, typical of a 'a trading relationship', from mutuality. They argue that we should consider mutuality "*not as a process (though it can and must be translated into processes) but a closely interconnected set of values*" (2004: 11), and that this involves an unconditional offer in the short- to medium-term in the belief that "*implementing these values with no strings attached is the only way to build long-term, trust-based relationships*" (page 24). This lack of conditionality and the emphasis on relations based on trust leads to an important set of ethical issues involved in partnership, especially related to power and equity.

4.1.6. Power and equity

Key findings:

1) Power and equity rarely feature in the definitions of partnership.
2) The role of power in partnerships is often ignored, hidden or dealt with indirectly and non-transparently.
3) A major equity issue concerns the sharing of benefits, gains or profits of partnership.
4) Power and equity issues are especially problematic in North–South partnerships.
5) Partnerships can empower local actors.

Power and equity issues are seldom addressed in definitions of partnership. Whereas many authors refer to 'resource-sharing' in their definitions, only Kitzi (2002) explicitly mentions power-sharing as part of a definition. Similarly, Brinkerhoff is one of the few writers to highlight equity in decision-making as a central aspect of partnership (2002a: 21).

It is possible that the absence of reference to power and equity in definitions is similar to the absence of trust in these definitions discussed above. Whilst power-sharing and the equitable distribution of benefits are frequently considered to be the success factors, they need to evolve with the development and intensification of partnering and may be absent at the beginning. It is more common for the analytical literature (rather than the normative guidelines and tools) to raise concerns about the ubiquity of power and equity difficulties in partnerships and the need to manage them in order for partnerships be 'genuine' and produce results. A few of these authors suggest that power asymmetries and the unethical distribution of benefits may continue to pervade many partnerships because they are systematically ignored or 'submerged' in political or social support discourses (Bezanson et al., 2004; Jones and Little, 2000; Tennyson with Harrison, 2008).

Power asymmetries and the unethical distribution of benefits may pervade partnerships partly because they are systematically ignored or 'submerged' in political or social support discourses.

These asymmetries are especially in evidence in North–South partnerships. Asymmetry in power relations between Northern and Southern partners and lack of transparency in the handling of information and resources are highlighted as major reasons for a failure of trust (Bradley, 2007a). The same author notes that nearly all of these North–South partnership studies were done by people from the North, thus tending to over-represent Northern perspectives and views and suggesting that there is a continuing asymmetry in the voicing of issues from within the partnerships. Some of the research literature describes efforts to address these asymmetries, especially through enhanced systems of accountability and proposed changes in bilateral donor strategies (Blagescu and Young, 2005; Bradley, 2007a). Bradley also notes some positive trends in North–South relations, especially the changing roles of North–South partnerships in countries with increasingly strong national research communities.

The partnerships of the CGIAR share many characteristics of North–South partnerships and Bezanson et al. (2004) have highlighted ethical concerns in relation to "*power, influence, capabilities, experience and credibility*" (pages 44–46). Bradley (2007a) and Hocdé et al. (2006) note that North–South and research–action partnerships can also be positive means for empowering local actors. Clearly attention needs to be paid not only to rectifying power asymmetries, but also to strengthening the means to realize this kind of empowerment.

4.1.7. Success factors

Key findings:

- Much of the literature reviewed emphasizes the following success factors:
  - A common vision and purpose.
  - Realistically defined goals.
  - Legitimacy and support for the partnership by parent organizations.
  - Equitable sharing of resources, responsibilities, and benefits.
  - Transparent governance and decision-making.
  - The creation and re-creation of trust.
  - Learning and capacity development.
- A few authoritative authors emphasize that, due to the contingent nature of inter-organizational relations, no single set of success factors applies in all cases.

A number of authors, particularly, but not exclusively, those of practitioner-oriented guidelines and assessment tools, identify success factors for partnership. In this section we review these findings and identify some common elements and patterns across the different literatures.

Exhibit 12 compares five different sets of success factors and uses some of the major cross-cutting themes discussed above (plus capacity building, and monitoring and evaluation (M&E)) to organize the factors. The clearest convergences are around the need for a common vision and purpose, and for clearly and realistically defined goals, what Caplan et al. (2007) call the organizational drivers of partnership. None of the authors referred to in Exhibit 12 mention supportive external drivers (political, socio-economic, and cultural conditions and rules) as success factors. Picciotto (2004) identifies a further dimension of 'owning' the partnership – the need to ensure that the partnership has legitimacy, acceptability and support throughout the organizations of the different partners. For most of the authors cited in Exhibit 12, successful partnerships also ensure that resources, responsibilities and benefits are equitably shared and that trust is established and strengthened over time. The idea of building and rebuilding trust as a key success factor is also mentioned by many other authors, including Stone (2004), who notes the need for constant re-creation and re-confirmation of trust through the activities of partnering. In this sense trust is less the glue of partnerships, as suggested by Özgediz and Nambi, than the language of partnership.

Many authors argue that successful partnerships ensure that resources, responsibilities and benefits are equitably shared and that trust is established and strengthened over time.

Exhibit 12. How five authors treat major cross-cutting partnership themes.

Major themes	*Evaluating partnerships Stern, 2004*	*The logic of partnership Picciotto, 2004*	*Guidelines for Research Partnership* (*KFPE, 1998*)	*Partnership Assessment Tool (Hardy et al., 2003)*	*Collaboration: What makes it work* (*Mattessich et al., 2001*)
Shared vision and goals	• A shared vision and shared purposes	• Goals adequately defined and fully owned by partners. • Partners secure full consensus for goals of partnership within their organization.	• Decide on the objectives together	• Recognize, accept need for partnership • Develop clarity and realism of purpose	• Concrete, attainable goals and objectives • Shared vision • Unique purpose
Mutuality	• Interdependence and a clear division of labor • Perceptions of mutual benefit	• The partners reach out and engage in broad-based participation in support of partnership goals	• Share information; develop networks • Disseminate the results • Apply the results • Build on achievements	• Create clear and robust partnership arrangements	• Flexibility • Development of clear roles, policy guidelines • Adaptability • Appropriate pace of development • Open and frequent communication • Established informal relationships and communication links
Trust	• Trust building and capacity development • Conflict resolution*	• Partners demonstrate intellectual conviction through concrete upfront actions	• Build up mutual trust	• Develop and mainstream trust	• Mutual respect, understanding, trust • Appropriate cross section of members • Members see collaboration as in their self-interest • Ability to compromise
Power and equity	• Equality and empowerment of weaker partners • Equitable distribution of costs and benefits		• Share responsibility • Create transparency • Share profits equitably	• Ensure commitment and ownership	• Members share stake in process and outcome • Multiple layers of participation
Capacity building	• Mutual adjustment and learning	• Capacity development built into partnership to ensure that weaker members participate and exercise influence	• Increase research capacity		• Sufficient funds, staff, materials and time • Skilled leadership
M&E			• Monitor and evaluate the collaboration	• Monitor, measure and learn	

* Additional points cited by author outside of the formally presented 'success factors'.

There is much less consistency in the success factors relating to mutuality. Stern underlines the need for a clear division of labor with interdependence of different roles. Mattessich et al. (2001) provide the most elaborate listing of success factors in the *Wilder Collaboration Factors Inventory*. The clarity and differentiation of roles is again highlighted, as is the preservation of flexibility and informal communication. This speaks to the tension (discussed above) between the intensification and formalization of partnerships, and the loss of flexibility, creativity and direct control over some resources. Most authors identify learning and capacity development as central factors for successful partnerships, though only Mattessich et al. (2001) include capacity development of leaders as part of this. Despite the fact that two of these lists of success factors are from the evaluation literature, neither of them includes evaluation to be essential to a successful partnership! Two other authors (Hardy et al., 2003; KFPE, 1998) however, do include evaluation as a key success factor.

With over 15 years of research experience with many different types of inter-organizational collaboration, Huxham and Vangen (2005) make no attempt to identify universal success factors or recommendations for best practice. Instead, they encourage researchers and practitioners to use a set of collaborative themes that have emerged from their work with different partnership stakeholders (including practitioners, researchers, and policy actors) as a guide to developing context-sensitive action plans for each specific partnership situation (see again Exhibit 3).

4.1.8. Evaluation of partnerships

Key findings:

- Although it is widely assumed that partnership is an appropriate and effective way to address sustainable development goals, there is little systematic evidence to support this claim.
- A number of promising approaches for evaluating partnerships are available in the published and grey literatures, but few have been thoroughly tested or widely applied.
- High-priority areas for partnership evaluation, identified by numerous authors, include:
    - Evaluation of partnering processes.
    - Evaluation of the contribution of partnerships to the (often distinct) objectives of individuals partners.
    - More comprehensive evaluation of the 'value added' or contributions of partnerships to sustainable development goals.
- Most of the practical toolkits for (self-) assessment of partnerships focus on partnering processes, rather than results.
- Most of the evaluations that focus on results do so from the perspective of a single partner's objectives.
- Very few partnerships have been systematically evaluated from the more holistic perspective of their contributions to broad social, economic, or environmental goals.

Surprisingly little attention has been devoted to the evaluation of partnerships. This is true of partnerships generally and also for those associated with international agricultural research for development. A recent global study of current practice in evaluating cross-sector partnerships (Serafin et al., 2008: 8) concluded that few partnerships are subjected to formal evaluation, and of those that are evaluated, only a minority receive sufficiently systematic or comprehensive treatment to gauge their overall performance and impact. Alternatives to partnering approaches are seldom considered in evaluations.

In an evaluation of the Civil Society and Private Sector Partnership Committees of the CGIAR, Bezanson et al. (2004: 44) noted that there is too much emphasis on partnerships as ends in themselves. While partnership has become what these authors call "*one of the central mantras in the theory and practice of international development*" (page 46) it has tended to be driven by generalized notions of inclusiveness and participation, which have taken attention away from more detailed analysis that could contribute to more successful partnerships.

In one of the few published studies of public–private partnerships in international agricultural research, Spielman and von Grebmer (2006) note the deficit of careful empirical assessment of partnerships:

> *"Public–private partnerships are a potentially important means of conducting pro-poor agricultural research…. Yet…. there are few examples of successful collaboration that have contributed to food security, poverty reduction or agricultural development"* (page 291).
>
> *"There are few systematic assessments that ask why real successes have been so limited. Rather than analyze the underlying causes of limited success, the literature on public–private partnership offers expert testimonials of partnerships' benefits, simplistic how-to manuals for planning and implementation, broad policy guidelines and frameworks, and glossy write-ups of the few existing partnership successes"* (page 293).

One reason for the dearth of systematic partnership evaluations is the difficulty of assessing the diverse, complex, and dynamic institutional forms that are commonly labeled 'partnerships.'

One reason for the dearth of systematic partnership evaluations is the methodological challenge of assessing the diverse, complex, dynamic and little-understood institutional forms that are commonly labeled 'partnerships'. As partnerships operate on the boundaries between traditional organizations, conventional approaches to organizational assessment – such as those presented by Harrison (2005), Love (1991) and Lusthaus et al. (2002) – are of limited utility. The fact that the partners often have multiple and conflicting objectives, hampers the use of traditional models for evaluating goal attainment. The evolution of partnership objectives and operational modes complicates partnership evaluation further, as it becomes more an art of tracking progress toward moving targets than one of measuring clear, pre-determined indicators based on well-defined planning targets.

There is seldom an incentive for comprehensive evaluation of a partnership unless stakeholders expect the findings to be positive.

Beyond methodological challenges, there are also institutional challenges to evaluating partnerships. Partnership is now so broadly accepted and aggressively promoted as a mode of implementing sustainable development efforts that assessing the effectiveness of partnerships can be a risky business for evaluators as well as for the managers of the partnerships assessed. Within a partnership, stakeholders may be interested in 'back-of-the-envelope' assessments of internal processes, which could aid them in improving management practices. However, they have little incentive to seek more comprehensive evaluations of the partnership unless they feel the results will be positive, and potentially lead to sustained or increased support. Similarly, the individual partners may be interested in gauging the contribution of the partnership to their own objectives, or bottom lines. However, the partners themselves are unlikely to be motivated or willing to provide the resources needed for a comprehensive evaluation.

In the international development arena, inter-governmental bodies and funding agencies are prominent advocates of partnership.

In the international development arena, the most prominent advocates of partnership – particularly those that cross sector boundaries – are inter-governmental bodies and funding agencies. There is a growing awareness among these groups that more systematic evidence of the performance, effectiveness and impact of partnerships will be essential to sustain interest in, and financial support for, partnership approaches in the future (Serafin et al., 2008: 4). However, this rationale for evaluation could easily lead to the conduct of evaluations designed to produce evidence of impact, rather than critical analysis of different partnering approaches operating in different settings.

Few partnerships have been evaluated from the point of view of their contribution to broad social, economic or environmental goals. Uusikylä and Valovirta (2007) distinguish between the outputs at the level of individual organizations (which are achievable and measurable by traditional performance measurement and management models) and the more difficult-to-measure contribution of these organizations to higher level, societal goals or outcomes through their participation in multi-organizational clusters. They develop a multi-level framework for measuring these different kinds of results, but this paper does not describe cases where such contributions are achieved.

4.2. Knowledge gaps

A major knowledge gap concerns the **lack of empirical studies and systematic evaluations** of partnership. Few in-depth studies of partnership processes and performance have been done, and consequently, many prescriptions for organizing and managing partnerships appear to lack

solid theoretical and empirical groundings. As partnership processes and performance are highly variable and contingent upon sectoral, organizational, and individual circumstances, advancement of knowledge of the actual and potential roles of partnership in international agricultural research for development could benefit greatly from empirical studies of partnerships in this specific context.

A second general knowledge gap concerns the **informal nature of many reports on partnership** in international agricultural research for development, and the consequent loss of knowledge over time. Many perceptive analyses of partnership discussed in this review were unpublished thought pieces. This leads to the risk of a loss of institutional memory, something that appears to occur in the CGIAR. For example, an insightful review of partnership conducted for the CGIAR in the 1990s (Merrill-Sands and Sheridan, 1996) and published as an Organizational Change Briefing Note within a US College, seems not to have been consulted by the recent Task Force on Partnership set up as part of the CGIAR Change Management Process.

A third general gap relates to the **rather limited perspective on partnership issues commonly taken within the CGIAR.** The CGIAR seems to be locked into a pseudo-policy level, focused on how best to 'manage' partnerships between the system and other stakeholders, in particular the private sector and civil society organizations, rather than developing a better understanding of diverse types of partnership involving Centers, Challenge Programs, and their different stakeholders as well as initiating a more vigorous analysis of the different 'partnership domains' in which the CGIAR is involved. These three perspectives on partnership[19] – understanding the operation of individual partnerships, the management of portfolios of partnerships by individual organizations, and the constellations of partnerships that occur within specific domains – can help to organize the discussion of more specific gaps identified by this review.

4.2.1. Knowledge gaps at the level of individual partnerships

Notwithstanding the fact that most of the literatures reviewed focus on issues at the level of individual partnerships, some notable knowledge gaps remain at this level.

A first knowledge gap concerns the **lack of basic information on the partnerships that are currently operating** in the sphere of international agricultural research for development. As reported earlier, there are numerous typologies of partnership and other related forms of inter-

[19] These three perspectives on partnerships were originally proposed by Özgediz and Nambi (1999). We use the term 'domain' to refer to the third and highest level, whereas Özgediz and Nambi used the term 'sector'.

organizational collaboration. However, there has been little systematic effort to apply such typologies in the context of international agricultural research for development.

A second knowledge gap concerns **the factors that influence the performance of different types of partnerships in different contexts.** Most of the studies and guidelines that list success factors are based on research or practical experiences with partnerships established to improve service delivery in public health or other sectors in North America, Europe or Australia. Even in these cases, the extent to which these success factors are based on theoretical or empirical research is unclear, as is the extent to which the factors presented may be of general validity. Additional research is needed to determine which factors influence the performance of different types of partnerships associated with CGIAR Centers and programs.

A third knowledge gap concerns **the type of research that is needed to expand knowledge of partnerships** in international agricultural research for development. Most of the studies reviewed are based on secondary research or surveys. Very few of the publications on partnership are based on in-depth primary research on actual partnerships. The need for additional primary research on partnerships is noted in many of the publications reviewed. This need is especially relevant for the CGIAR, where very few partnerships have been subjected to in-depth research. As noted by Hardy et al. (2003) and Huxham and Vangan (2005), in-depth case studies employing an action research approach would be especially useful; for example, the adoption of a sociological methodology could lead to an understanding of how partnerships are constructed by participating actors, how they are negotiated and re-negotiated in practice through the interactions of participants, and how these interactions lead to sets of rules, norms and ethical practices (e.g., Bourdieu, 1998; Long and Long, 1992).

4.2.2. Knowledge gaps at the organizational level

An important knowledge gap concerns **the types of partnership managed at different system levels** in the context of international agricultural research for development. The need for a typology of partnerships that is relevant to international agricultural research for development has already been mentioned. Such a typology is needed to understand and improve both (a) the management of individual partnerships and (b) the management of portfolios of partnerships by their parent organizations. ILRI (2008) distinguishes between partnerships that are managed at the institutional, theme and project levels. Barrett (2008) distinguishes between Centers' upstream, downstream and horizontal partnerships. More work is needed to combine variables identified in different partnership literatures into fine-grained typologies designed specifically for

international agricultural R&D partnerships that will help improve management of these different types of partnerships, particularly those established to foster innovation.

A second gap relates to the **extremely limited research on the policies and management practices that guide partnership establishment and operation** within organizations concerned with international agricultural research for development. There has been considerable research on the management of alliances and similar forms of inter-organizational collaboration that is relevant to the CGIAR, and potentially useful frameworks for analysis are available. However, to date, there has been little systematic research on the management of partnerships within the CGIAR or its partner organizations.

4.2.3 Knowledge gaps at the domain level

At this level, **the most critical gap in knowledge concerns inter-organizational relations.** In the context of international agricultural research for development, it would be useful to develop maps of 'research partnerships' and 'innovation networks' that illustrate inter-organizational relations that together support the production and application of new knowledge for different commodities (the cassava, rice, coarse grains sectors, etc) or for key subject-matter areas (integrated pest management, market chain development, crop genetic conservation, etc). For example, we could look at all the partnerships engaged in potato research for development as a commodity-based domain, but for some purposes it would be useful to know what partnerships are supporting research and innovation in breeding and genetics or market-chain development across potatoes and other commodities. We can conceive of each as a separate constellation of partnerships in a discrete partnership environment. Better mapping of these constellations of partnerships could help to promote synergies and avoid needless duplication. The field of social network analysis provides one promising set of tools for this type of analysis.[20]

[20] Information on and resources for social networking analysis can be found on the website of the International Network for Social Network Analysis (www.insna.org). The Social Network Analysis Instructional Web Site (www.analytictech.com/networks) presents clear and helpful explanations of basic SNA concepts.

5. SUMMARY AND CONCLUSIONS

This paper has explored the current state of knowledge of the actual and potential roles of partnership in international agricultural research for development. The report summarizes key insights and identifies knowledge gaps and areas for future research. Four types of document have been reviewed:

1) Research studies.
2) Professional evaluation literature.
3) Practitioner-oriented reviews, guidelines, and assessment tools.
4) CGIAR reviews, evaluations, and policy documents related to partnership.

A central finding is that various literatures deal with partnership; there is no single 'partnership literature'. The distinct literatures have their roots in particular disciplines and fields of practice, which influence their perspectives, the topics treated and their findings. For this reason, knowledge about partnership has been generated and codified in many different ways in different contexts for different purposes and audiences. The distinct literatures have tended to evolve in isolation from one another. For example, many practitioner-oriented guidelines and self-assessment guidelines do not make reference to the research literature.

The largest body of literature reviewed, and the one that offers most insights into the potential roles of partnership in international agricultural research for development, is the research literature, which itself has a number of major currents with disciplinary roots in management and organizational development, public policy, science and technology policy, and economics.

One rich source of insights is the field of management and organizational development. Some management experts feel that developing a partnership strategy may be as important as developing a competitive strategy. Nevertheless, management studies identify problematic aspects of collaboration and highlight the importance of assessing the likelihood of significant benefits before entering into a partnership. Commonly identified partnership success factors include:

1) Shared vision and goals.
2) Recognition of mutual benefits of the partnership.
3) Genuine respect and trust between the different players.
4) An equitable learning culture.
5) Higher level outcomes and impacts beyond the partnership itself.

The management literature emphasizes that issues of partnership, governance and accountability are interrelated. Working in partnership can improve accountability to the individual partners involved. However, it can also complicate accountability, because of the diverse, and in some cases conflicting, interests and accountability requirements of the different partners.

Working in partnership is increasingly common for research organizations, and it is viewed as central to the interactive learning processes that promote agricultural innovation. Nevertheless, there are few detailed and theoretically grounded case studies on partnership in the context of research for development. Those case studies that have been conducted suggest the value of applying holistic methods to the study of complex and dynamic partnership arrangements.

Unfortunately, reviews of partnerships, including those associated with the CGIAR, seldom describe the methods used to gather and analyze information. This makes it difficult to distinguish between evidence-based conclusions and reviewers' preconceptions. More generally, while there are distinct analytical and normative literatures on partnership, sometimes the boundary between 'what is' and 'what should be' is blurred.

The lack of empirical studies and the absence of detailed presentation of methods may reflect a tendency to avoid scrutinizing such a fundamental aspect of how we do, or are supposed to do, our business. It may be inconvenient to examine our partnering through an analytical lens (or 'under a spotlight') because the conclusions could challenge power structures in worrying ways. Power asymmetries and inequities and the unwillingness of partnerships to address them are a concern of many writers included in this review.

In the context of international agricultural research for development, the review has highlighted general gaps in partnership knowledge and practice as well as specific gaps at three levels:

1) The level of individual partnerships.
2) The level of the organization that manages a portfolio of partnerships.
3) The level of the research for development domain, where constellations of partnerships are found.

Some of these gaps should be addressed through improved systems of evaluation and knowledge management. Much of the knowledge that is accumulated on partnerships remains tacit – in the minds of partnership practitioners. Such knowledge of partnership processes, outputs and outcomes needs to be converted into explicit knowledge that is easily accessible.

This would help to avoid the type of knowledge loss that apparently occurred when in 2008, the group working on the future of partnerships in the CGIAR did not know about the work done by the CGIAR Organizational Change Program a decade earlier.

Other gaps will need to be addressed through specific research initiatives, including empirically grounded studies adopting a holistic methodology. Better understanding of partnership structures and dynamics could assist organizations to formulate and implement partnership strategies. There is much to be done also to understand and develop partnerships in a particular research for development domain. For example, better mapping of inter-organizational relationships among all the partners in a domain could help to promote synergies and avoid needless duplication.

Finally we end on a cautionary note. Partnership appears to be the latest fashion or bandwagon in international agricultural research for development. The term 'partnership' seems to appear in every document one picks up, as a virtual cure-all for practically any problem related to relevance, participation, cost-effectiveness and impact of our work. However, we know from experience that after brief periods of glory, fashions become passé and bandwagons are left behind. So it is important to manage expectations about what partnership can deliver. One way to do this is to develop better-informed theories of partnership and apply them in partnership practice.

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[21] Non-copyrighted and unpublished materials are available at: www.cgiar-ilac.org/content/rd-partnership.

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The International Potato Center (CIP) works with partners to achieve food security and well-being and gender equity for poor people in root and tuber farming and food systems in the developing world. We do this through research and innovation in science, technology and capacity strengthening.

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Our vision is roots and tubers improving the lives of the poor.

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