

1. Introduction to *Towards Collaborative Research in International Development*

This book is about how best to carry out research intended to support international development and about the central role of social science in helping in this endeavour. The focus is on developing countries and, within those developing countries, on agricultural and rural development. This is an area where the development needs are particularly great, and likely to grow in the future with the large, looming, and possibly existential risks of climate change, environmental degradation, non-sustainable agriculture and failures of governance. Within this broad area, the primary focus will be on official development assistance (ODA). This is the assistance provided to developing countries by government agencies mostly from the so-called Western world (i.e. Europe, North America and Australasia) and often referred to as North–South aid. Following the end of World War 2, ODA accounted for almost all development assistance. Today, it still accounts for the lion’s share of development assistance in monetary terms. However, we recognize that increasingly significant assistance is also provided through South–South cooperation and from philanthropic sources.

Using research to guide development is well-accepted as an integral part of the change process required to address these risks. However, in the past the approach to research has not always been as effective as it could be. In the past, research intended to support development has often been driven and undertaken by international technical experts without enough consideration for the needs and priorities of the intended beneficiaries of the research. Research has also often been undertaken by specialists working in their own project or disciplinary silos, not communicating with other researchers working on a related research problem in the same aid recipient country. There has also often been a disconnect between researchers and development actors (including the intended beneficiaries) whereby researchers have seen ‘research as an end in itself’ and issues of implementation in a development program being the responsibility of someone else. In our view, for research to be successful in helping to bring about positive change in developing countries it needs to

be collaborative – collaborative among researchers and collaborative between researchers and development actors.

Collaborative research is not a new idea. Individual observers have been promoting a version of this in what has been referred to as participatory research since at least the 1970s. However, 1996 was a watershed year. In that year, the Development Assistance Committee (DAC) of the OECD (Organisation for Economic Co-operation and Development) proposed a new strategy for development aid to include ‘a much broader range of aims for a more people-centred, participatory and sustainable development process’ (DAC 1996, p. 13). This signalled a fundamental shift in development aid away from the old technocratic (expert-led) strategy to a people-centred strategy that has been affirmed in the Millennium Development Goals and the 2030 Agenda for Sustainable Development. Since the beginning of the new millennium, people-centred development has been increasingly mainstream and collaborative research is playing an increasingly important part of this new strategy.

In the early days of international development, there was a common perception that it was about transferring technologies and skills from the developed world to the developing world to help the latter modernize; a kind of technological determinism in which technologies and skills from one socio-cultural context (a developed country) are assumed to be readily transferable to another context (a developing country) to bring about social, economic and political change. Anyone who has worked in a developing country knows that this is generally a recipe for failure. It is disrespectful and ignorant of the local context, its culture and institutions and will often meet with resistance. It is generally not possible to simply transfer technologies and skills from one country to another without considering the local context: things like geography, climate, availability of natural resources, cultural and religious constraints, the social structure, the economic institutions of the country and governance. But even if one is cognizant of the context, there is still the question: who or what is driving the change and whose knowledge counts? In the *technocratic* model of international development, it is the technical expert who is driving the change and it is their knowledge that counts. And this expert is often a foreign researcher or development practitioner. By contrast, in the *collaborative* model of international development, researchers, development practitioners and local stakeholders are all invited to collaborate in the change process, and both local knowledge and expert knowledge count in this process.

Over the years, the technocratic approach to research-based development has been identified as an important reason for failure of many such initiatives. For example, Burns and Worsley (2015, p. 1) argued:

Development organizations have tried to bring about lasting and sustainable change to improve people's lives. Vast sums of money are spent on reducing poverty, promoting rights, stimulating economic growth, reducing inequity, reversing environmental damage and promoting good governance ... yet much of this has had minimal impact on the lives of marginalized people and those living in poverty.

The authors go on to lay the blame on these development organizations for their use of 'linear intervention logic' when in fact, as they argue, the change is the result of far more complex processes.

Easterly (2013, p. 6) refers to the conventional approach to economic development as a *technocratic illusion*, 'the belief that poverty is a purely technical problem amenable to such technical solutions as fertilizers, antibiotics or nutritional supplements'.

And R. Chambers (2005a, p. 158) said:

... scientists seek to increase productivity and diminish risk through simplifying, standardizing and controlling the environment ... Scientists then pass on to extensionists packages of standardized practices. But what CDR (complex, diverse and risk-prone) farmers often want is not standard packages but baskets of diverse choices among which they can pick and choose the better to exploit local micro variations and microenvironments, to buffer their systems against risk, and to help adapt and respond to dynamic and unpredictable conditions. The issue then is whose reality counts?

He goes on to suggest that farmers have greater capabilities and knowledge than most professionals think and that this needs to be considered.

Another important problem with the technocratic and technology-centred approach to research-based development has been the disconnect between the research and the development. At the CGIAR Research Programs Meeting in June 2013, each session emphasized the need for a clear linkage between research and development outcomes. As Dugan (2013) reported:

A central theme ... was the strong results focus of the donors and partners. They constantly reiterated their interest in research that leads to development outcomes (rather than simply interesting research outputs), the importance of having a clear set of indicators and specific measurable targets for each of these, and the growing importance of having a credible means of measuring progress towards these targets. In other words, the donors and partners are saying that we need to do a high-quality job of linking our research to tangible, measurable development outcomes, but that we also need to be able to argue convincingly how we are going to measure progress towards achieving these outcomes – and change tack as needed.

The key to effective research-based development is not simply the provision of new technologies, valuable as they may well be in dealing with a development challenge. Much more basic than this is the need for high-level connectedness between research and development outcomes and good processes for measuring progress towards these outcomes.

The shift from a technology-centred research strategy to a collaborative, people-centred research strategy means that development-oriented research can no longer be considered to be merely a *complicated* problem. Rather it is a *complex* problem in the sense of Glouberman and Zimmerman (2002). They divide the world of problems into three types:

1. Simple problems = ones that requires knowledge of technique and terminology (for example, following a recipe);
2. Complicated problems = contain a number of simple problems but are not reducible to them due to the need for specialized expertise and coordination (for example, building a computer); and
3. Complex problems = contains a number of simple and/or complicated problems but are not reducible to them because of ambiguity and uncertainty (for example, raising a child).

Simple and complicated problems can be adequately addressed with sufficient skill and management. A top-down, technocratic approach to their solution is appropriate. However, complex problems cannot be adequately addressed with such an approach due to the conditions of *ambiguity* and *uncertainty*. *Uncertainty* arises because the views of an actor can change over time in unpredictable ways. This may be due to changing circumstances or as a result of learning. What seemed like a good idea at the start of a research initiative may not seem so good later on. The more actors do, the more they learn about what will work and what will not, and this may require an adaptive approach. Conditions may also change. What might have been a sound research innovation in one location may not be so sound in another (for example, when scaling out).

Ambiguity arises in complex problems such as research-based development because different actors will have different views on the nature of the problem under review and hence different and often contradictory views on what should be done. These different views arise because of differences in the actors' knowledge, capacities, beliefs and desires. In the case of research-based development, the actors will include the scientists/researchers, the development professionals, the intended beneficiaries, representatives of the funding agencies, local government officials, politicians, local private sector partners and professionals in local and international NGOs. These various human actors

all have their own ideas, constraints and objectives and most likely they will differ. Three examples of potential areas for disagreement are:

1. Among researchers from different disciplines in *multiple disciplinary* research programs;¹
2. Between researchers/development professionals and intended beneficiaries; and
3. Among different programs funded by different organizations working in the same part of a developing country with overlapping objectives.

There may be disagreement on a number of things, such as: what are the most pressing issues to be addressed, what specific research is most appropriate to address these issues, what are the constraints to change, what are the constraints to scaling out and scaling up, what does success look like and what are the most appropriate ways to measure progress.

To the extent the various actors can collaborate with each other to construct a shared understanding and develop an agreed way forward we have what is called a *social constructivist* approach to change rather than a *technical objectivist* approach. In our view, social constructivism is the appropriate worldview for research-based development initiatives.

We have already said that 1996 was a watershed year in the journey from technology-centred to collaborative, people-centred research-based development. The journey has not been a smooth one. In the history of development aid, agricultural and rural development only achieved prominence after about 1960. Prior to that time, agriculture was not seen to be a part of the development equation. If anything, it was to be squeezed to provide the necessary capital resources and labour to fuel industrial growth. The early 1960s marked the beginning of research-based development of agriculture in developing countries and the focus was on how agriculture could contribute to economic growth.

By the early 1970s there was a broadening of objectives to include new concerns about poverty alleviation and sustainable development. This broadening of objectives plus the lack of success with many of the early technocratic initiatives led to a new way of thinking about research-based development. Top-down thinking was starting to be challenged by the idea of bottom-up development as a way of considering the perspectives of aid recipients which had previously been largely ignored. Rapid Rural Appraisal was a bottom-up

¹ This book uses *multiple disciplinary* and *multidisciplinary* as distinct and different concepts. *Multiple disciplinary* refers to the set of different approaches to research that involve more than one discipline. *Multidisciplinary* refers to a single approach within this set, which also includes interdisciplinary and transdisciplinary.

method for collecting data in the village in what R. Chambers referred to as 'putting the last first'.

With the onset of the 1980s, research-based development took an abrupt turn in the wake of the developing countries' debt crisis and neoliberalism. The mainstream development strategy radically shifted from poverty alleviation and sustainable development to structural adjustment and debt alleviation. Many saw this as 'the lost decade' for development. By the early 1990s, there was a sense of crisis in development aid and it was in this period of despair that the OECD's Development Assistance Committee proposed its new collaborative, people-centred development aid strategy for the twenty-first century of which an immediate outcome was the Millennium Development Goals. Some organizations involved in development-oriented research have responded positively to this strategy. For example, during the time we have been associated with the Australian Centre for International Agricultural Research (ACIAR) we have seen how this organization has attempted to respond positively to this new strategy.

The new development aid strategy appears to have inspired two broad avenues of response. They are the *rights-oriented* approach and the *innovation-oriented* approach to development. The *rights-oriented* approach has emerged in forms such as *rights-based participation* and *critical action research*. The rights-oriented approach started long before the new millennium with the calls to 'put the last first' and to 'listen to the voices of the poor'. However, in the new millennium, this approach achieved new momentum. Part of this momentum may be the result of the new development aid strategy, but it is also due to a major critique of participatory development around the beginning of the new millennium. The original idea of participatory development was for transformative development in which intended beneficiaries would be full participants in the development process. However, by the 1990s, participatory development had in many cases become transactional rather than transformative. Participatory development was being criticized for its failure to acknowledge power and thereby disempowering marginal groups. There was a call for participatory development to be 're-politicized' by creating invited spaces for participation and by building links with the formal political processes. The rights of marginalized groups in development were to be claimed through either adversarial exchange or through non-adversarial, collaborative exchange.

The *innovation-oriented* approach has emerged in forms such as *soft systems methods* and *innovation platforms*. The idea of innovation platforms is to facilitate interaction and collaboration within and between networks of research and development actors in a particular location. The development actors may include among others, farmers, government and non-government

service providers, policymakers, researchers and private sector players. The purpose is collaborative development.

While the shift to a collaborative, people-centred development strategy has been most welcome we do see some clouds on the horizon. There are emerging pressures in the West that could lead policymakers to pursue a development strategy less inclined to collaboration. These pressures include the rising influence of right-wing nationalist populism with its 'us and them' ideology, and the rise of China as a challenge to the existing geo-political balance hastening the end of Western hegemony. Thus, we view with some urgency the need to bed down this new collaborative, people-centred development strategy in research organizations around the world.

Practically speaking, how is this to be done? In this book we propose a three-pronged approach. First, we think there is a need for research administrators in the relevant research organizations to take the lead in ensuring the research culture of their organization is one that is supportive of a collaborative, people-centred development strategy. Second, there is a need for individual researchers to foreground collaboration in their general approach to research. Third, there is a need for researchers and research administrators to adopt a research model/methodology that supports this collaborative, people-centred development strategy. This will be a model that places research firmly within a broader socio-economic development context, is problem-oriented, is social constructivist with respect to the generation of knowledge, is collaborative among researchers and development actors, is adaptive and which is able to incorporate higher-order goals and values. There are several models that are supportive of a people-centred research strategy and we discuss the more important of these in Chapter 6. In Chapter 7, we then present our own proposal for an appropriate research model, one that we call Collaborative Research in International Development (CRID).

In the past, when the mainstream development strategy was technology-centred, the natural sciences and (neoclassical) economics played a central role in development-oriented research organizations. However, with the shift to a collaborative, people-centred development strategy, a strong case can be made for interpretive social science to play the central role. Interpretivism asserts that social reality is fundamentally different from natural reality. Knowledge and meaning in the social world exist within individuals and is derived from the individuals' interpretations of the world around them. This is highly relevant to our three-pronged approach for embedding the new development strategy in the relevant research organizations. The position of interpretivist social scientists needs to be elevated from the periphery to the centre. They can play a key role in helping research administrators to shift the research culture of their organization, in helping researchers to foreground

collaboration in their research initiatives and in helping to facilitate the use of an appropriate research model such as CRID.

We see this book as being relevant to all those with a professional interest in the field of research-based international development: graduate students, natural scientists, social scientists (including economists), development practitioners, administrators of research and/or development programs and government officials and advisors. The ideas that emerge from the book are based on our own experience over about 17 years working in several agriculture-based research projects that have attempted to improve livelihoods for low-income rural households. The location of our work has been primarily in Papua New Guinea, Cambodia, Vietnam and Pakistan. We are social scientists who have spent most of our time working with natural scientists, agricultural economists and local stakeholders to help improve the effectiveness of research-based development initiatives. The layout of the book is as follows.

In Chapter 2 we provide the historical context for collaborative research in international agricultural and rural development. It traces the journey from the early days of official development assistance for agriculture beginning around 1960 until the present. In the early days, research-based development was top-down and technocratic, led by international experts. The focus was on economic growth. During the 1970s, with a broadening of development objectives, there came attempts to introduce participatory and holistic methods in the form of farming systems research, integrated rural development and rapid rural appraisal. At the end of the day, research-based development was still primarily top-down but there was now an increasing emphasis placed on consultation with the intended beneficiary communities. During the 1980s and early 1990s, the focus of development initiatives shifted radically away from programs to improve the well-being and livelihoods of low-income rural households and towards structural adjustment programs to deal with the severe debt crisis being faced by many developing countries at the time. It was not until the mid to late 1990s that there was a return to the research-based development goals and methods that had been developing during the early 1970s. As we have already mentioned, 1996 was a watershed year for ODA and it provided the springboard for a collaborative, people-centred development strategy into the new millennium with significant implications for the research community. But, the journey to collaborative research in international development did not occur in a vacuum. It took place within a context of major paradigm shifts in Western thinking on a grand scale – from the Welfare State to Neoliberalism to the Third Way and now to the rise of Civil Society. In Chapter 2, we suggest that these paradigm shifts have played and will continue to play a significant role in shaping the journey of research-based international development.

In Chapter 3 we discuss the emerging challenges for development-oriented research organizations that result from the shift to a collaborative,

people-centred development strategy. In our view this shift has presented three major challenges. They are:

1. The research process needs to be 'more people-centred, participatory and sustainable' (DAC 1996, p. 13).
2. The research process needs to be able to incorporate higher-order goals and values, as, for example, reflected in the Millennium Development Goals.
3. There needs to be a greater emphasis on aid effectiveness in which 'developing countries and their people must be at the centre of any effective system' (DAC 1996, p. 14).

We discuss these challenges with reference to the Australian Centre for International Agricultural Research (ACIAR). ACIAR funds and manages an extensive portfolio of development research programs and is one of the premier such organizations in the world. It is also an organization with which two of the authors have been associated since early in the new millennium so we have been able to observe firsthand how ACIAR has engaged with these challenges. We worked as contract researchers on several development research programs funded and managed by ACIAR. Our discussion will be based both on our own experiences and on interviews we conducted in early 2017 with the Research Program Managers (RPMs) of ACIAR.

In Chapter 4 we expand on the discussion started in the previous chapter about the response of research organizations to the challenges posed by the new collaborative, people-centred development strategy. One of the responsibilities of research administrators in such organizations is to set the research culture of the organization. The question posed in this chapter then is: what can research administrators do to shift the research culture from one that revolves around technology to one that revolves around people? We say the first step is to treat research-based development as a complex problem rather than as merely a complicated problem. Then, be clear on why a technocratic and technology-centred research culture is not well-suited to dealing with this complex problem of human interactions. It is because the fundamental worldview of a technology-centred research culture is objectivism and positivism whereas a more appropriate worldview would be social constructivism and interpretivism. We then go on to explain what we mean by these terms and why a social constructivist research culture is more appropriate than an objectivist research culture. Positivism is a theoretical perspective that argues the aim of research is to discover the nature of an objective reality and that this objective reality exists in both the natural and the social worlds. Interpretivism is a theoretical perspective that argues that natural reality and social reality are fundamentally different. While natural reality can be studied by the scientific method, social reality cannot. For interpretivists, knowledge and meaning in

the social world exist within individuals and is derived from the individuals' interpretations of the world around them. Social constructivism emphasizes the collaborative nature of learning and the importance of the cultural and social context.

In Chapter 5 we shift focus from research administrators to individual researchers. Here we ask individual researchers to think about how well their research worldview meshes with a research culture supportive of collaborative, people-centred development. Is it still overly technology-centred? Does it need to be recalibrated to foreground collaboration by strengthening the interactions with other researchers and development actors? We begin Chapter 5 by asking researchers to reflect on the messages conveyed in Chapter 4 about a social constructivist view of knowledge creation. We then discuss complex systems thinking as a useful tool for researchers to use in dealing with the complex problem of research-based development. It is not appropriate to just ignore this complex problem or treat it as merely a complicated problem that can be solved with, say, a top-down, command and control approach. Researchers need to find a way of dealing appropriately with it. We discuss two general aspects of this complex problem for researchers to consider. They are:

1. How to interact with other researchers from related projects of programs. Here, we discuss three alternative strategies of multiple disciplinary research (multidisciplinary research, interdisciplinary research and transdisciplinary research); and
2. How to interact with development actors. Here, we discuss three alternative levels of connectedness between research and development: low-level, mid-level and high-level).

Our preference is for transdisciplinary research with a high level of connectedness between research and development. In the final section of this chapter we present five principles for researchers aspiring to engage in transdisciplinary research with a high level of connectedness to development.

In Chapter 6 we discuss the foundations of a research model that we think is well-suited to a collaborative, people-centred development strategy. We refer to this research model as CRID (Collaborative Research in International Development) and it will be discussed in detail in Chapter 7. The foundations for this research model are a variety of methodological approaches to development-oriented research that have either been influential in our development of CRID or that we have found to be sympathetic to this model. They are approaches that acknowledge complexity and emphasize collaboration, holism and/or the incorporation of higher-order goals and values. The seven approaches considered in this chapter are participatory action research, critical action research, participatory rural appraisal, rights-based participation, soft

systems methods, innovation platforms and learning alliances, and research in development.

In Chapter 7 we develop our proposed research model which we refer to as Collaborative Research in International Development (CRID). It is based on an earlier model of ours called Organic Research and Collaborative Development (ORCD). ORCD is a *critical action research* model we have been using and developing over several years. We have found ORCD to be very useful and robust with respect to different cultural contexts in dealing with many of the complexities of research-based development. It emphasizes *organic* (adaptive) research and researcher-to-development actor collaboration. At the heart of ORCD are the collaborative planning workshops where researchers and development actors come together in collaborative exchange. In running these planning workshops, we use what we refer to as the Collaborative Problem-Solving Method (CPSM). This is a collaborative, critical workshop method we have developed that incorporates higher-order goals and values. ORCD does allow for collaborative researcher-to-researcher interactions, but their interactions are often dependent on overall program structure that is beyond the scope of ORCD. Thus, ORCD is vulnerable to poor program structure. The CRID research model combines an ORCD-based research model with specifications for a supportive program structure.