Book Review

Adiel N. Mbabu and Andy Hall (Eds.) (2012) *Capacity Building for Agricultural Research and Development: Lessons from Practice in Papua New Guinea*, 274pp; United Nation University-Maastricht Economic and Social Research and Training Centre on Innovation and Technology (UNU-MERIT), Maastricht: The Netherlands.

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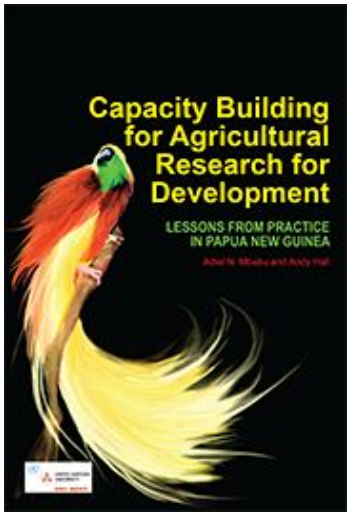

The majority of people living in the Western Pacific countries of Papua New Guinea (PNG), the Solomon Islands and Vanuatu are dependent on semi-subsistence agriculture for their livelihoods. These countries, however, are grappling with major development issues including malnutrition, poor health and poverty, with more than 80 per cent of the population dependent on agriculture for their employment and income. Agricultural development is key to addressing regional development challenges such as poverty, malnutrition and inadequate food security, and insufficient economic growth. However, such development has remained stagnant over the past few decades. The lack of human resource capacities among agricultural research and development (R&D) institutions in these countries, resulting in their inability to deliver effective solutions to such problems, must therefore be addressed.

Innovative agricultural technologies based on scientific advances need to be developed and promoted. This will require adequate training in core research-related competencies, such as project cycle management (PCM), practical research skills, biometrics, geographic information systems (GIS), communication skills, and an online regional agricultural information system (RAIS) to facilitate networking and sharing of information. With the acquired competencies, the participating organizations will become able to engage in effective research, train others in various core competencies, network with other institutions, and communicate the results of research to a wide range of stakeholders, including those responsible for formulating agricultural science and technology policies.

This book contains a collection of papers that discuss the experience of an Agricultural Research for Development (AR4D) capacity building program in Papua New Guinea (PNG). The program was the AusAID-funded Agricultural Research and Development Support Facility (ARDSF), which ran for five years from 2007 to 2012, and which sought to improve the delivery of services by agricultural research organizations to smallholder farmers.

AR4D is an emerging mode of agricultural research practice in the international development community. Definitions of this practice are rather fluid, but its key intent is to directly link investments in research with tangible development outcomes. The way to actually do this is still a work in progress - a gap that this book seeks to fill. However, it seems quite clear that AR4D's use of systems perspectives on learning, innovation and change have fundamental implications for the way agricultural research is conducted and the way capacity is built.

Recognizing the importance of learning how to follow an AR4D orientation, this book originated as an attempt to document the capacity building process that ARDSF undertook and to draw lessons from it. This desire to develop and share lessons was not part of the original ARDSF design. However, those involved in the program felt that their experience held valuable lessons for others. Lessons learning of this type in programs are increasingly viewed as a key way of improving the performance of agricultural and other development investments. Techniques such as institutional histories and other types of self-reflective exercises are now advocated as complementary activities to external review and evaluation approaches that most development investors require for both accountability and learning purposes.

While documenting process and developing lessons are laudable aims in theory, doing so in practice can be difficult, particularly in a busy development program with no mandate for either research or publications. ARDSF's approach to this grew organically as opportunities for documentation and analysis arose along the way. ARDSF was a challenging program, but all those involved in it recognized its intrinsic value- mainly because of its adoption of an AR4D orientation.

Having realized that the ARDSF experiences was richer than what was being captured by the program's M&E system, the ARDSF Director took it upon himself to find ways to document the process more comprehensively. Working with different people who had been involved with ARDSF, he began to record experiences. In doing so he recorded not only the rationale for why different approaches were followed, but also the different steps that were taken in the capacity building process, the pitfalls encountered and the outcomes achieved. These efforts produced the initial drafts.

Having completed most of the documentation process the ARDSF Director then brought distil critical reflections on ARDSF, particularly its use of AR4D as a way of farming its capacity building approach.

The value of agricultural research and technological change and innovation in transforming economics is uncontested. Yet the search for ways to improve the delivery of agricultural services to smallholders has exercised the minds of policy – makers for the entire 50 years of the development assistance era. Despite the emergence of new sources of economic growth, innovation in the agriculture sector remains a key avenue to poverty reduction, food security and trigger for broad – based growth.

The idea of AR4D has been enthusiastically embraced by the international agricultural community- it is now flagged as a mission/strategy/roadmap by a number of prominent regional and international research organizations, including Global Forum on Agricultural Research (GFAR), the Forum for Agricultural Research in Africa (FARA) etc.

AR4D certainly presents some compelling principles that resonate with much of recent thinking on innovation systems and contemporary notions of capacity as a systemic phenomenon.

These principles include the need for capacity building to be learning- based and participatory; to be results- driven and explicitly linking research to development; to take a systems view, where research is planned and executed as part of a wider development agenda; to involve partnerships with policy and practice stakeholders; and for it be a continuous process of learning, where capacity building responds to the evolving context of the agricultural sector.

ARDSF, with its focus on improving the delivery of agricultural research services, is part of a long tradition of development assistance projects tackling capacity building of agricultural research and extensions organizations. One of its key features is its use of Agricultural Research for Development (AR4D) as a framework for structuring its support of capacity building. AR4D is a term that is used by a number of international, regional and sub-regional agricultural development organizations in Africa to describe a style of agricultural research that is explicitly focused on achieving development outcomes. AR4D is part of long history of approaches, concepts, and capacity building frameworks aimed at improving the performance of agricultural research. ARDSF is an example of this emergent practice.

A current trend in building capacity to support agricultural development is to use the heuristic of an agricultural innovation system. An agricultural innovation system is defined as "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.

ARDSF was launched on the back of studies carried out to analyze the state of PNG agriculture and define the areas where AusAID support was most required.

An early study confirmed that the primary direct services from the PNG government to agriculture included: the provision of policy, research, development, extension and regulation. Further analysis articulated the confused, overlapping, disunited and inefficient state of sector governance arising from the multiple agencies delivering government services to this sector in PNG. This highlighted the need for interventions with agricultural R&D agencies to address governance reform concurrently with improving service delivery.

Talents are aptitudes that human beings are born with. These talents are affected by the environment. If this environment is supportive, talents are strengthened; if unsupportive, they are weakened. The aim of the organization in AR4D is therefore, to provide a supportive environment to nurture and strengthen the staff's talents to achieve effective performance. The term 'human talent' reflects the importance of the contribution of human beings to organizations. By seeing human talents as a necessary resource, the organization strengthens itself by hiring and developing talented people and synergizing their contribution within its range of existing resources. A human talents management and development system provides the basis for sustained effective individual, team and organizational performances.

The development and implementation of an agricultural innovations grants scheme is a part of a capacity building process framed by AR4D. The grant scheme was critical to the capacity building process as it provided resources for agricultural research organizations to work in a new way as part wider development activities. The development of the scheme illustrates the way its protocols were iteratively developed through a series of four grant calls. This helped fine-tune the targeting of the scheme towards innovation projects that had development relevance and made the most of research as well as development expertise of the partners involved.

The success of the scheme has made it a potential candidate for scaling up as a national competitive grant scheme. The establishment of an Agricultural Innovation Grants Scheme (AIGS) was the third component of ARDSF. Its overall purpose was to promote agricultural innovation in order to improve agricultural productivity and increase incomes and food security among smallholder agricultural producers in PNG.

AR4D recognizes that impact arises from an integrated set of activities, partnerships, strategies and policies, monitoring and evaluation system need to be designed in such a way that allows the effectiveness of individual component parts to be understood as part of a greater whole.

ARDSF adopted an approach where planning, monitoring and evaluation (PME) were designed with this integrated vision of impact pathways in mind. Key here was the cascading logic of a results framework, which positioned activities at different levels in a hierarchy of objectives linked to a higher – level objective of improving food security and smallholder prosperity. ARDSF, in its effort to facilitate capacity building, recognized the need to create linkages between agricultural research and policy-makers and the policy-making process –a key element of the AR4D orientation.