

Food and Agriculture Organization of the United Nations



INCLUSIVE RURAL COMMUNICATION SERVICES BUILDING EVIDENCE, INFORMING POLICY















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In collaboration with:

The University of Queensland University of Guelph University of Reading University of the Philippines Los Baños Van Hall Larenstein University of Applied Sciences Wageningen University and Research

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LIST OF ABBREVIATIONS

AIDESEP	Interethnic Association for Development of the Selva of Peru
ALL in CBNRM	Adaptive Learning and Linkages in Community-Based Natural Resource Management
ARRPA	African Rural Radio Programme Analysis
ASARECA	Association for Strengthening Agricultural Research in Eastern and Central Africa
C4D	Communication for Development
CBNRM	Community-Based Natural Resource Management
ComDev	Communication for Development
DID	Difference in differences
DOAE	Department of Agriculture Extension (Thailand)
EAAPP	East African Agricultural Productivity Programme
ENRAP	Knowledge Network for Rural Development in the Asia-Pacific Region
e.RAILS	The African Portal on Agriculture
FA0	Food and Agriculture Organization of the United Nations
FARA	Forum for Agricultural Research in Africa
FFS	Farmer Field School
FNC	National Federation of Coffee Growers of Colombia
FRI	Farm Radio International
ICT	Information and communication technology
IDRC	International Development Research Centre
IFAD	International Fund for Agricultural Development
iREACH	Informatics for Rural Health and Community Health
KHETI	Knowledge Help Extension Technology Initiative
LIRNEasia	A pro-poor, pro-market think tank based in Sri Lanka
MMF	FNC Manuel Mejía Foundation
NGO	Nongovernmental organization
NRM	Natural resource management
OECS	Organization of Eastern Caribbean States
PAR	Participatory Action Research
RCS	Rural Communication Services
RUFORUM	Regional Universities Forum for Capacity Building in Agriculture

SCPCL	Sironj Crops Producers Company Limited
SSU	Shamba Shape Up
STRV	Saline-Tolerant Rice Varieties
UN	United Nations
UNIMAS	University Malaysia Sarawak
UoG	University of Guelph
UPLB	University of the Philippines Los Baños
UQ	The University of Queensland
USAID	United States Agency for International Development
WUR	Wageningen University and Research

EXECUTIVE SUMMARY

Over the past decade, efforts in the agriculture and rural development sectors have seen the rollout of diverse communication initiatives, with a focus on building human capacity and increasing access to equitable information and knowledge. A good number of these initiatives have contributed to promoting rural livelihoods, family farming and resilience. The lack of reported evidence, however, limits the possibilities for convincing policy makers to invest in and institutionalise communication approaches and services that put in the metaphorical extra mile to establish the human and social capital required for sustainable change in rural areas.

This scoping study is the first research initiative aimed at compiling existing evaluation cases with proven methodologies to assess and document evidence-based approaches in the field of Communication for Development that may be used for designing rural communication services as part of agricultural and rural development policies. It draws on a literature review and 19 cases across Africa, Asia-Pacific, Latin America and the Caribbean to compare, analyse and document convincing evidence of evaluative approaches, methods and outcomes of communication programmes and rural communication services. The analysis shows marked inconsistencies in evaluative frameworks, approaches, methods and the corresponding reported outcomes. Cases that used linear or vertical approaches and methods trend towards documenting quantifiable evidence to demonstrate accountability of project outcomes to funders with less possibility for adaptive learning processes and long-term sustainability. Additionally, initiatives that cross pollinated approaches and methods reported mixed outcomes, making it difficult to determine the extent to which some initiatives support sustainable rural communication services.

Compelling evidence of rural communication service initiatives, however, emerged from cases that used solely horizontal, participatory evaluative approaches. These cases showed convincing outcomes for policy consideration such as increased participation of key stakeholders in design, implementation and evaluation of RCS initiatives. It also showed equitable information and knowledge access, social learning, and sustainable impact.

The concluding remarks highlight the need for policy configuration that takes into an account all aspects of RCS initiatives, including the focus on investing in stakeholders' capacity development to participate at all levels of RCS initiatives, and strengthening rural knowledge institutions and farmer organizations. It also recommends streamlining the planning, implementation and evaluation of rural communication service initiatives, with focus on learning-based approaches. In all, the systematic evaluation approaches and the evidences demonstrated in the cases can inform policy, and will be used to argue for the establishment of rural communication services in rural development.

Chapter 1

ADVANCING RURAL COMMUNICATION POLICIES AND SERVICES: THE NEED FOR EVIDENCE

1.1 COMMUNICATION IN AGRICULTURAL AND RURAL DEVELOPMENT

Communication has long been recognized as a major driver for innovation and social change in rural development across the world. Over time, in response to changing needs and a growing understanding of how development initiatives affected different groups in society, communication approaches have substantially shifted from being technology-centred to people-centred. A myriad of good communication initiatives have been implemented over the past decades showing major contributions to individual livelihoods and community wellbeing. Relatively few, however, have been evaluated in a systematic way to build convincing evidence of the contribution of communication as a fundamental dimension of rural development efforts. Most evaluation processes mainly assess economic outcomes of an initiative, disregarding how these outcomes were achieved and how sustainable they are. They also frequently overlook the complex social dynamics and how they are affected by communication processes and activities for development programmes. Consequently, there is a lack of reported evidence to convince policy makers to invest in communication for development programmes that put in the metaphorical extra mile to establish the human and social capital required for sustainable change. Institutionalization of communication for development, especially when applied to agriculture and rural development, has therefore been limited in most development organizations, despite it recurrently being on the agenda of major forums such as the UN Roundtable on Communication for Development. As a result, the good initiatives continue to be implemented on a project basis, not allowing a major shift in the way rural development is done from the opportunities that emerge from the spread of ICTs in many remote areas. This is particularly important in light of global development and poverty alleviation priorities, as articulated in targets such as the Sustainable Development Goals (SDGs).

This paper attempts to start filling the gap in documented evidence of good communication for development initiatives and to provide some recommendations on how to assess its impacts on development by unravelling not only what was achieved but also how it was achieved and will sustain. It is based on a study involving the review of 19 cases that documented the processes and outcomes of communication mechanisms in rural development initiatives that were classified as '*Rural Communication Services*' (RCS). The resulting paper is the first research-based initiative to compile and analyse existing RCS evaluation cases, which is of importance in understanding Rural Communication Services as a new concept in the communication

for development sector, especially in its implications in relation to the promotion of policy frameworks and communication systems for agricultural and rural development. The specific objectives of the study were to:

- Explore main trends, key issues and cases with proven and compelling methodologies that can inform RCS policies and initiatives.
- Compare and analyse the evaluative approaches and methods used in these cases in order to understand and document the impacts (or lack thereof) of RCS and provide recommendations for practitioners and policy makers.

The sections below will first define what is meant by Rural Communication Services as well as by institutionalization and building evidence. These three concepts are the basis for further exploring how rural communication initiatives are operationalized and evaluated in order to identify the processes that make innovation and impact of communication for development possible. It should be noted that both RCS and evidence-based approaches for assessing RCS are concepts that are still being developed, making this paper a marker in time that is expected to feed into future deliberations. Chapter 2 of this paper provides the foundation for this with an overview of the recent trends and methods in evaluation of communication and development initiatives, in general. Chapter 3 continues with an overview and analysis of the cases reviewed in this study to illustrate the characteristics, strengths and weaknesses of different evaluation approaches for demonstrating evidence. Several key themes emerging from the analysis of evaluation methodologies and their effectiveness in building evidence are discussed in chapter 4. The report is wrapped up with a conclusion and recommendations in chapter 5.

1.2 RURAL COMMUNICATION SERVICES

The concept of Rural Communication Services (RCS) has evolved over the past few years as an alternative co-learning and engagement platform serving rural development processes. As defined in Farming for the Future: Communication Efforts to Advance Family Farming (FAO, 2014b), RCS are 'sustained two way processes delivered regularly to the rural population. They are intended to enhance rural livelihoods by facilitating equitable access to knowledge and information, social inclusion in decision-making and stronger links between rural institutions and local communities'. As such, RCS involve facilitated, deliberate and planned processes, characterized by a strategic use of interpersonal and mediated communication methods to facilitate stakeholder participation. They contain dimensions of policy, service provision and institutional organization with an integrated vision to "enhance rural livelihoods by facilitating equitable access to knowledge and information, social inclusion in decision-making and stronger links between rural institutions and local communities" as stated in the Communication for Rural Development Sourcebook (FAO, 2014a, p.49). RCS operate within a context of prevailing rural service delivery systems, such as governmental extension and advisory services, NGO development programmes and community media services, therefore requiring outcomes that complement the overall goals of these services and their existing dynamics.

Underpinned by Communication for Development principles¹, RCS are based on the assumption that rural communities contribute a dynamic knowledge base and life-long experience to development. Participation of rural people is, therefore, essential at each stage during planning, implementation and evaluation of a change process. RCS can facilitate this participation through a variety of strategies, ranging from multi-stakeholder awareness raising and dialogue to the co-creation and operation of communication processes and systems integrating a wide range of media options from community rural radio, innovation forums, mobile phones and in general community driven ICTs and social media. Furthermore, RCS also refer to the institutional and operational arrangements under which Communication for Development is delivered in rural areas. They are flexibly designed for diverse strategic objectives such as problem solving, knowledge sharing, mutual learning, interaction and networking, and involve needs-based and demand-driven initiatives.

At the XIII UN Roundtable (UNRT) on Communication for Development in 2014, for the first time a flexible RCS framework was proposed for mainstreaming into policy and programmes, as to provide a platform through which collaborative planning, implementation and evaluation of integrated development initiatives could take place and be facilitated (FAO, 2014c). Such an RCS framework has the following features and advantages:

- 1. Allowing for local customization and negotiation of rural development initiatives.
- 2. Promoting coordination and better use of limited resources.
- 3. Connecting geographically dispersed agriculture service providers and users.
- 4. Creating a collaborative environment and improved linkages among stakeholders.
- 5. Providing a platform for discussion and enabling interactive communication.
- 6. Processing and managing data quickly and efficiently.
- 7. Enabling informed and collective decision making.
- 8. Providing correct information and knowledge when and where it is most needed.

9. Enhancing the effect and impact of existing agricultural information and advisory services. (Adapted from: Acunzo, 2011; Torres and Tirol, 2012.)

A system-based approach as expressed in the RCS framework is common in literature on rural communication, agricultural extension and rural innovation. Many current practitioners in the field have been exposed to a system's perspective on rural communication in higher education and professional training in their textbooks dealing with these underlying principles of rural development, communication and innovation, including innovation services and institutional arrangements for services².

¹ Communication for Development is defined as "the systematic design and use of participatory activities, communication approaches, methods and media to share information and knowledge among all stakeholders in a rural development process in order to ensure mutual understanding and consensus leading to action. The aim is to facilitate people's participation at all levels of the development effort to identify and implement appropriate policies, programmes and technologies to prevent and reduce poverty in order to improve people's livelihood in a sustainable way." (Source: *Participatory Rural Communication Appraisal: A Handbook, FAO*, 2004)

² For instance, Communication for Rural Innovation – Rethinking Agricultural Extension (Leeuwis and van den Ban (2004), Participatory Learning and Action (Pretty et al., 1995) and Farmers First (Chambers et al., 1989).

However, it has long been recognized that the plural 'communications' has stood in the way of understanding the importance of 'communication' within development contexts. In its singular form, communication is about the social processes of human interaction, in which communication processes and media serve as the platform for exchange and dialogue in support of development. Communications in its plural form is generally understood as the (technological) means and products for mainstreaming communication. The lack of distinction between 'communications' and 'communication' results in communicative functions being primarily associated with public relations, behaviour change and advocacy rather than communication for development and social change. As the days are gone when communication was simplistically defined as a directive exchange of information between actors in a communication process, it seems paradoxical that further innovation of rural communication is hampered by a deep lack of harmonization between different interpretations of the term 'communication' (FAO, 2014a). There is generally limited awareness of the full potential of communication for development that exists and its comparative advantage to significantly stimulate its operationalisation and collaboration in this field amongst institutions, governments and farmer organizations. In particular, the lack of a body of evidence of the results and impacts of the role of Communication for Development in the context of agriculture and rural development, limits its institutionalisation both at the policy and well as the programme level. A renewed conceptualization of Communication for Development within an institutionalized setting and delivered to rural areas, defined as Rural Communication Services is, therefore, warranted.

1.3 INSTITUTIONALIZATION OF RURAL COMMUNICATION SERVICES

To be effective and sustainable, RCS arguably need to be embedded in institutional arrangements and benefit from a **supportive institutional environment**. The term 'institutionalization' is widely used in social theory to refer to the process of structuring a new idea or approach as a function or a role within a program, organization or the wider social system. The general assumption about institutionalization is that it involves the creation of laws, policy frameworks and organizational structures to establish legitimacy of certain beliefs, norms, responsibilities, activities and power relations. However, an institution is more complex than its formal organizational structures. Institutions work as '*a web of interrelated norms, formal and informal, governing social relationships*' (Nee & Ingram, 1998). Institutionalization is then also the process of structuring social interactions around the new idea and approaches. In the context of institutionalizing RCS, communication itself provides the key to establishing such structures and interactions. It may be evident as an integrated part of an organization's mission, policies, partnerships and strategic activities.

RCS ideally have sustained structures and actions, including investment in dedicated funds and individual and organizational capacity. The institutionalization of RCS requires long term vision and high commitment at the policy, organizational and individual levels. Yet it is undeniable that RCS as a public good and social intervention implies committing resources from all actors involved. Knowing what it is for, how it works, what makes it work and what it achieves can enable evidence-based decision making for wise investment and minimize disappointment by implicated social actors. Thus, evaluation is especially important for institutional processes. In the context of development activity, evaluation is a support for rational decision making, including assessment of past performance and informing current and future practices (Funnel & Rogers, 2014). Evaluations can provide evidence and imperatives for advocating policy reforms and be used in incentive-based systems that reward high performance and identify areas of risk. Moreover, a strong evaluation practice for RCS can support institutional development through the integration of sound practices and lessons, which may not be intentionally defined or understood at the beginning of an initiative. Building the case for inclusion of RCS evaluation in development strategies and programmes can also help to respond to various stakeholders who want to know the difference that not just RCS but all development investments can make. RCS can run the risk of being poorly understood without evidence to support robust analysis of its processes and outcomes.

Enhanced insight on the processes and outcomes of RCS is just half of the equation. It is also essential to understand how communication processes and outcomes interact with other components within a system. Access to agricultural information, for instance, will be influenced by university research agendas, by the public media policies by network coverage and other infrastructural and financial factors. This study takes the perspective that change in practices and professionalism can be better understood when the broader environmental, socio-economic, and political context are factored into the analysis, and thereby consider the wider landscape of RCS. Within this wider landscape, is the combination of a Communication for Development approach with ICT4D and rights-based perspectives in establishing inclusive and effective RCS.

1.4 BUILDING THE CASE FOR MAINSTREAMING RURAL COMMUNICATION SERVICES IN AGRICULTURE AND RURAL DEVELOPMENT

Despite the positive perceptions of direct stakeholders about the impacts of rural communication services in agricultural and health development programmes, the difficulties faced in institutionalizing these services in organizations and programmes, have been on the agenda of several public forums over recent years³. At the latest forum, the FCCM⁴, it was strongly emphasized that there was an urgent need for a well-documented evidence base from which

³ These include three events organized by the United Nations' Food and Agriculture Organization, namely:

Expert Consultation on Communication for Development, 14-16 September 2011.
 XIII UN Roundtable on Communication for Development, 16-18 September 2014.

⁻ FCCM op cit note 4.

⁴ In the framework of the International Year of Family Farming, FAO Office for Partnerships, Advocacy and Capacity Development convened a Forum on Communication for Development & Community Media for Family Farming (FCCM) in Rome, Italy, from 23-24 October 2014. The Forum provided the opportunity to share experiences and showcase evidence of the contribution of ComDev, ICTs and community media to family farming as drivers for innovation and social change in rural areas. It addressed the need to promote RCS.

to garner support for RCS. As explained, in order for agencies and programmes to include RCS in their core funding, evaluation must clearly show their worth.

From an evaluation standpoint, communication processes and outcomes can sometimes be elusive. Considering that communication is the same element and process that make up organizational policies, structures, mechanisms and culture, it is a significant challenge for RCS evaluations to clearly define what communication is, what a communication strategy looks like, and the communication outcomes that programme implementers intend to observe as a result of a communication intervention. Rural communication services in this sense draws upon packages of tools, processes and activities and brings together existing approaches from a service perspective based on the needs and characteristics of the rural people. The recent forums recommended partnerships with academic institutions and research agencies for enhanced monitoring, evaluation and publication capacity. The recently established Global Research Initiative on Rural Communication (GRI-RC)⁵ agreed to take on this task through this present collaborative study on evidence-based approaches for RCS.

The methodology of this study involved the review of relevant literature on evaluation theories and approaches as applied in development contexts, and on the design, implementation and evaluation of projects and programmes. Both offline and online resources and databases from publicly available sources were accessed, including documents from government and development organizations, private service providers, farmer organizations, community media organizations and communication networks. The research first took stock of a wide range of illustrative cases that were consistent with an RCS perspective, which had specifically documented an evaluation approach and conducted a comparative analysis of approaches used to assess and report evidence of impact and sustainability. The study focused mainly on evidence-based approaches for the provision of integrated and inclusive RCS. Understanding the context in which these initiatives operated was considered particularly relevant and consequently cases from different regions were identified to ensure a wide range of geographic coverage.

This study also draws attention to initiatives that demonstrate evidence of the benefits brought about through ICT based interventions to focus on the potential role that innovative ICT based communication strategies and increasingly cheaper ICTs devices, such as mobile phones and tele-centres, could play in rural development processes.

⁵ Founding members of the GRI-RC, and participating in this study, are:

⁻ Centre for Communication and Social Change, The University of Queensland (UQ), Australia;

⁻ College of Development Communication, University of the Philippines Los Baños (UPLB), Philippines;

⁻ Knowledge Technology and Innovation, Wageningen University and Research Centre (Wageningen UR), The Netherlands;

⁻ School of Agriculture, Policy and Development, University of Reading (Reading), United Kingdom

⁻ School of Environmental Design and Rural Development, University of Guelph (UG), Canada

⁻ Communication for Development Team, Food and Agriculture Organization of the United Nations (FAO), Italy.

For the purposive selection of case studies for this study, RCS initiatives were required to meet the following criteria:

- Demonstrating the institutionalization of values, principles and methods of communication for development.
- Being demand driven and needs based.
- Being integrated, interactive and collaborative.
- Having available sufficiently in-depth documentation about the initiative, in general, and its evaluation approach and outcomes, in particular.

The selection of cases representing a fair range of geographical, thematic and strategic diversity has been determined by the documented state of the evaluation practice of the various projects. Comprehensive and accessible reporting on evaluation approaches and outcomes seemed to be more the exception than the norm. After a first exploration, a total of 19 cases were selected for examination: five in Africa, nine in the Asia-Pacific region and five in Latin America and the Caribbean. After documenting all cases in a consistent format, a comparative analysis of approaches to assess and report evidence of impact was conducted. A complete list of the cases included in this study is provided in Appendix I and a description of each case can be found in Appendix II.

Chapter 2 EVALUATION APPROACHES FOR RURAL COMMUNICATION

2.1 TRADITIONS AND LIMITATIONS OF COMMON EVALUATION APPROACHES

This chapter will outline the state of the art in evaluation approaches for rural communication. It starts by outlining different models and draws on the range of evaluation tools and approaches used in development communication. It concludes with a more specific look at suitable evaluation approaches for rural communication services. The next chapter will analyse how RCS evaluation has been done in practice and contributed to programme management and policy.

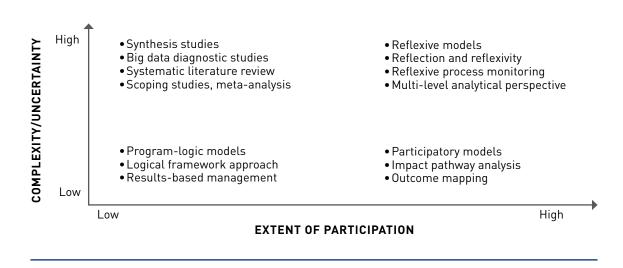
Well planned and executed evaluation processes function as a support mechanism in adaptive project management and inform decision making of policy makers over the allocation of resources but also over key aspects of institutional processes such as partnerships. Evaluation may implicate individual and/or organizational performance assessment, with or without associated incentives (Funnell & Rogers, 2014). There are two major approaches to evaluation that are commonly used to assess the effectiveness of rural communication initiatives.

The first approach focuses on assessing the causal relationships of the results chains – inputs, outputs, outcomes and impacts. This is a simple "cause and effect" model, which is further explored in Section 2.2. This type of evaluation is based on programme theory, also referred to as logic models with many additional names, such as 'results chain', 'theory of change' and 'theory-driven evaluation' (Funnell & Rogers, 2011). Emphasis on the counterfactual is also possible; "the question of what could have happened if the policy (program, strategy, project) had not been undertaken is always critical" (Forss & Schwarz, 2011, p. 24).

The second type of evaluation approaches, explored in detail in Section 2.3, takes into account processes of complex change using exploratory studies and critical reflection without causal attribution. Such approaches are associated with complicated interventions that have multiple components, which may need to be brought together to achieve clearly specified outcomes. Complexity is characterized by high and fundamental uncertainty because what will emerge is unknowable and unspecified in advance (Patton, 2011). In these contexts, evaluation has to deal with notions of multi-stakeholder influence and power, reflexive learning and transformative actions.

An overview of evaluation models is presented in Figure 1, characterizing approaches by the level of complexity and uncertainty they are dealing with versus the level of stakeholder participation. Before moving on to examine various cases of rural communication initiatives and the evidence-base for their institutionalization, there is a need to further describe the two major approaches and discuss the trend towards the reflexive, participatory evaluation methods in the area of rural communication and development.





2.2 **PROGRAMME THEORY**

Programme theory (or logic models) is widely used for the assessment of development initiatives, including rural communication interventions or projects. Indicators are based on pre-determined assumptions and use 'objectively verified data' to measure progress towards development goals, i.e. the achievement of stated objectives. Objectives are considered achieved if activities have been effectively implemented through the efficient use of resources or inputs for the outputs produced. Along a results chain, outputs are expected to lead to outcomes. In turn, outcomes, over the longer term, lead to impact. This so-called 'results-based management' approach is based on causal, or "if then", relationships. If a programme invests "x" then "y" occurs. The counterfactual is also linear; if "y" does not occur then "z" will likely happen. Under the stated assumptions and conditions of risk, the development outcomes are attributed to the outputs resulting from the inputs and activities of the programme. Programme theory evaluation is characterized as 'vertical' or 'top-down' because it is typically commissioned by donors or programmes and conducted by external experts or consultants. Table 1 displays a generic program-logic model, including the assumptions at each stage of the programme cycle.

Narrative summary	Objectively verifiable indicators - direct or indirect measures	Means of verification Sources of information	Assumptions Events, conditions or decisions
Impact: The long term results the project is expected to contribute	To verify the extent goal is fulfilled	(Longitudinal) data to keep track of ongoing progress	Conditions necessary for achieving long term results
Outcome: The medium- term results expected to achieve as the result of the project	To verity the extent purpose is fulfilled	Data on outcomes attained	Factors outside the control of the project which must prevail for the objectives to be attained
Outputs: The immediate results that the project management should be able to guarantee	To verify the extent outputs are produced	Data on outputs delivered	Factors outside the control of the project, necessary for the achievement of the immediate results
Activities: The activities to produce the outputs	Inputs/resources: Goods/services necessary to undertake the activities	Data on inputs/ resources used and activities conducted	Factors outside the control of the project, necessary for generating the outputs

Table 1. A generic program-logic model

Source: Pant & Hambly, 2014

Evaluations based on logic models face apparent limitations. While they can be useful for operational project decision making, their vertical nature is not designed to support wider processes of building stakeholder relationships and informing policy. Furthermore, program-logic models' dependence on predetermined indicators and assumptions hamper their relevance to dynamic aspects of programme implementation and the unanticipated changes in the wider system (Patton, 2011).

The growing acknowledgement of complex, or 'wicked', problems in the world today, such as poverty, climate change and social inequity, have supported an understanding of development outcomes as non-linear, including results that are likely to be unpredictable and unknown in advance (Burns, 2007). Judgements about development outcomes are best made by looking at the larger system at work, including social norms, cultural and political contexts (Burns, 2007). The programme theory evaluation process is typically not driven by stakeholders who are most affected by the initiative, and neither is it necessarily supportive of stakeholder learning. Performance may activate incentives for individuals and organizations, e.g. continued or future funding. Development evaluation, however, does not necessarily provide incentives for performance.

2.3 TRENDING TOWARDS REFLEXIVE AND PARTICIPATORY APPROACHES

Alternative viewpoints on evaluation practice emerged through critical reflection in the last 20 years. It was felt that program-logic evaluation primarily explained not a theory of change but a theory of action because it was used for operational decision-making and from a programme management standpoint. Rarely were underlying assumptions and theories of change sufficiently understood within programmes (Davies, 2004). As such, traditional approaches proved inadequate in addressing change in contexts characterized by complexity and uncertainty. Table 2 summarizes the distinction between vertical and horizontal evaluation approaches and identifies several aspects in which these two approaches are viewed as oppositional.

Two different strategies for evaluation subsequently emerged: (1) approaches that emphasize participation and include input from multiple stakeholders (horizontal approach); and (2) synthesis studies using more or bigger data sets, such as meta-analysis. Pant and Hambly (2014) argue that both methods claim to handle complexity and uncertainty, but the former effectively brings multiple stakeholders together while the latter merely synthesizes more information, including big data and multiple studies. Consequently, we observe that in practice there is a continued use of programme theory and even a combination of these logic or results-chain models alongside participatory, reflexive models of evaluation.

Vertical, reductionist approach	Horizontal, participatory approach
Evaluation is pre-planned and pre-determined Indicators are set in accordance with prescriptive project objectives.	Outcomes are unpredictable and unknown in advance, and indicators are set by the stakeholders
Positivist epistemology	Constructivist epistemology
Progress and outcomes of development interventions are reduced from complex outcomes to simple cause-effect processes.	Openness, flexibility and innovation are central to the evaluation process.
Evaluation occurs with little or no involvement of stakeholders	Dichotomy between the stakeholders and evaluators is blurred (it empowers stakeholders by integrating them into the evaluation process).
Socio-cultural, political and economic realities of the stakeholders are not considered in the evaluation process.	The judgement about development outcomes is made by looking at the larger system at work, including social norms and the cultural, economic and political systems.
Funding for impact evaluation: Performance and success are measured to demonstrate accountability to external authorities (short-term benefits)	Ongoing reflexive learning process to maintain long- term sustainability and effectiveness of development interventions.

Table 2. Dueling approaches to evaluation

Adapted from Armytage, L. (2011), 'Evaluating Aid: An Adolescent Domain of Practice', Evaluation 17(3): 261-276, and Lennie, J. and Tacchi, J. (2013), Evaluating Communication for Development: A Framework for Social Change. Abingdon: Routledge.

2.4 SYSTEM RECONFIGURATION, REFLECTION AND LEARNING

To maintain long-term sustainability and the effectiveness of rural communication interventions, evaluation is increasingly conceptualized as part of an on-going learning process (Lennie and Tacchi, 2013, 2015; Burns, 2007). This fits with a contemporary understanding to look at complex societal issues, such as food insecurity, climate change, and conflicts over resources, as wicked problems which require learning, social dialogue and a reconsideration of actor roles (Witteveen & Lie, 2012). In this context, requests for accountability and learning have begun to replace programme evaluations traditionally commissioned by donors and programme funders. There is, however, a reoccurring discrepancy between rhetoric and practice. Thomas and Van de Fliert (2015) present a sceptical view on the capacity of larger institutions to deal with 'wicked problems', such as caste systems and feudalism, due to the inherently compartmentalized and often disciplinary structures in organizations. Recognition of wicked problems leads to a plea for transdisciplinarity and a reimagining of the roles of scientists, practitioners and rural people using a rights-based approach. With this perspective, scientists and practitioners would be accountable and, as Servaes and Lie (2014) formulated, there would be an imperative "to connect communication to learning, education and knowledge exchange".

Individuals and organizations can only learn from evaluations if the findings are accessible. Therefore, recent evaluation strategies emphasize interactive, "off the shelf" reporting that is open and accessible to all users. In addition to making reports available, the learning approach to evaluation requires effective information and knowledge management. This means ensuring that effective databases are kept updated and used for agile decision-making. Using participatory, reflexive models combined with the synthesis of multiple data sets may best inform a move towards the opportunity to ensure long-term sustainability and effectiveness of rural communication interventions.

With these theoretical considerations in mind, this paper now turns to examine what the current evidence base is for rural communication interventions, how specific methods to assess evidence can support the effectiveness of RCS, and how RCS policy frameworks might benefit from this evidence-base. The analysis of the 19 cases exposes a series of themes on the requirements, benefits and challenges of RCS evaluation approaches that will provide further insights into this area in Chapter 4.

Chapter 3 ANALYSIS OF EVIDENCE-BASED RCS CASES

3.1 A SELECTION OF CASES

While numerous publications exist describing communication for development initiatives, many of which can be classified as Rural Communication Services, the number of initiatives that report both evaluation methodology and outcomes in a coherent way, appears to be limited. The selection of cases for this study confirmed the novelty of the RCS concept in practice and the limited focus on evaluation as an imperative for learning and change. Few of the 19 cases selected for review in this study focus both on an initiative that can clearly be defined as RCS and have applied a comprehensive evaluation approach. The selected cases had to be deliberately designed and long term communication-based projects and information on project design, implementation and impact had to be accessible. The selection of cases brings together an array of rural communication services and diverse evaluation approaches, and thereby represents an overview of current practices and initiatives that may be classified, or have the potential to be classified, as RCS. Lessons can be drawn from these cases through characterizing the evaluation approaches according to the type of evidence collected and studying how the findings inform the effectiveness of rural communication strategies, decision-making and performance in each case. The evaluation characteristics used to categorize cases are the following:

- *Programme theory or summative evaluation:* assessment of the outcomes and impacts in relation to the stated objectives of an initiative. This typically serves the purpose of assessing return on investment and meeting accountability requirements of funding agencies. To some extent, policy makers have evidence that the initiative contributed to overall development goals. The type of evidence collected typically involves 'what' was achieved without relating this to an understanding of 'how' achievements were gained and sustained and aligns with the program-logic model. The attribution of the development policy, programme or project to the outcomes assumes that all other factors and influences over the outcomes cannot be accounted for or at best, are held constant.
- *Reflexive or formative evaluation:* assessment of the implementation process of an initiative for adaptive management. This is typically single-loop learning ("*Are we doing things right?*") to stay or get back on track as planned, but should ideally also involve double-loop learning ("*Are we doing the right things?*") to inform discussions on a possible change of course. It aligns with a more horizontal and complex view on evaluation. Ideally, a third level, 'triple loop' learning ("*How do we decide what is right?*"), should be included to allow for transformative change, however, this is rarely evident.

• *Evaluating the effectiveness of communication processes within development policy, programmes and projects:* assessment of the particular contribution that the initiative's communication processes made to the summative evaluation results. This evidence of 'how' the communication strategy contributed to achievements is crucial to making a case for further investment in communication processes.

Table 3 presents an overview of the 19 cases included in this study (also summarized in Appendix I and described in detail in Appendix II), indicating which of the above aspects of evaluation apply to each case and also how some initiatives specifically used communication for evaluation.

Case	Summative evaluation	Formative evaluation	Effectiveness of communication processes	Communication as evaluation
	Afr	·ica		
ARRPA	yes	yes, strongly	yes	-
EAAPP	yes	yes	-	-
e.RAILS	yes	yes	yes	yes (ICT use)
SSU	yes	yes	yes	-
RUFORUM-ICT	yes	yes	-	-
	Asia-I	Pacific	^ 	
ENRAP	yes	partially	yes	-
eBario Sarawak	yes	yes	yes	yes (process)
Tradenet	yes	yes	yes	-
IREACH	yes	-	yes	-
КНЕТІ	yes	-	yes	-
STRV	yes	yes	yes	-
CBNRM	yes	yes	-	Yes (process)
FFS	yes	-	yes	-
ALL in CBNRM	yes	yes	yes	Yes (process, stories building)
Latin America and the Caribbean				
Starfish - her infinite impact	yes	yes	-	yes (process)
AIDESEP	yes	yes	-	yes (radio, video)
Chambita Medidor	yes	yes	yes	-
FNC & MMF	yes	yes	-	yes (mass media, social networking)
OECS Telecommunications and ICT Development Project	yes, strongly	yes	-	-

Table 3. Aspects of evaluation applied in the study cases

As expected, all donor-funded cases have a programme theory or summative evaluation component, which is often a requirement of the funding agency and is common practice for development initiatives that are of standard (Reynolds *et al.*, 2014). Most cases also described processes of reflexive or formative evaluation, showing that it has become a good trend in evaluation practice over the past decade (Patton, 2011).

Those cases that demonstrated the effectiveness of communication processes were typically initiatives that introduced participatory communication and media strategies to support development and as such needed to justify the investment in the communication approach by demonstrating the impact (e.g. SSU, iREACH, CBNRM, FFS). Twelve of the 19 cases reviewed had some elements of this characteristic, although the case selection criteria may have favoured such cases. From the perspectives and combined experience of the study team members, it was observed that communication processes are often underestimated in evaluation methodologies. Analysis of the cases reviewed in this study will highlight the importance of this missed opportunity to evaluate the communication process.

Seven cases also used communication interventions as an evaluation mechanism. These cases applied principles and practices of Communication for Development as the backbone for the evaluation strategy. This occurred both through the strategic use of participatory interpersonal communication processes and the participatory application of ICTs and media for evaluation purposes. This approach shows the value of Communication for Development in providing an extensive platform for collaborative planning, implementation and evaluation of development initiatives.

Subsequent sections explore how each of the three characterizations presented above were represented across the 19 selected cases, with an overview of challenges faced in the evaluation, and an analysis of evidence. Table 4 below presents the format that was applied to build the cases and construct the evidence for further analysis.

PROJECT NAME AND LOCATION STAKEHOLDERS INVOLVED		
Project description Evaluation description		
Project goal	Evaluation aims and audience	
 Objectives Approach	 Approach to collecting evidence Evidence and learning	
Achievements	 Reporting to inform practice and policy 	

Table 4. Format for des	cription of the cases
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3.2 EVALUATION TO DEMONSTRATE IMPACT (SUMMATIVE)

Evaluations of all 19 rural communication initiatives were carried out to determine whether or not project activities were contributing to intended outputs, outcomes and impacts, while some specifically assessed partnerships and improved capacities of target stakeholders. While summative evaluation was omnipresent, the depth of investigation varied across the cases. For instance, the FFS project (case 13) focused on demonstrating that public investment in FFS has a good rate of return while iREACH (case 9) delved deeper, trying to further understand what difference the project had made to the lives of people within its catchment areas. KHETI (case 10) identified achievements at different levels, starting from establishing if mobile phone technology had been effective in delivering quality, timely extension services, to investigating to what extent mobile phone technology diffused had resulted in increased knowledge and practice change. In order to understand outcomes, they also collected information such as farmers' attitude toward the new technology. Such multi-level explorations help to establish a deeper understanding of not only what was achieved but also how and why things happened so that conclusions can be drawn to inform future initiatives. Such information at the level of the wider landscape of RCS enhances the system approach to change and informs actors beyond the level of the initiative including policy makers.

A different, standardized results-chain approach to programme evaluation was used in the case of the OECS (case 19) universal access telecommunications project. This World Bank (WB) led exercise involved two layers of summative evaluation, one completed by the management team and the other by the WB's oversight group, the Operations Evaluation Department. While the first evaluation was generally satisfied with the achievement of the stated objectives, including institutionalizing some new regulatory structures for universal ICT access, the oversight summative evaluation did not reach the same conclusion. Its final assessment highlighted the project's inability to achieve all policy-level changes and to report fully on the program-logic model, including assessment of the economic rate of return on the sizeable investment.

Of the 19 cases reviewed, 18 were donor-funded. Donor-funding requires summative evaluation, to justify resources invested, which explains why the 18 donor funded cases had a component addressing this. The remaining case, STRV (case 11), was based on a PhD dissertation which did not assess the rate of return but was more focused on formulating policy recommendations.

The documentation of several rural communication services showed evidence that summative evaluation results were effectively used to influence policy. The ENRAP (case 6), iREACH and FFS projects were explicit in their objectives to influence policy (see Section 4.4 on reporting). ENRAP's evaluation strategy included the intention to improve the effectiveness and sustainability of project activities and to inform policy for adaptation or scaling up. Considering that the operationalization of RCS requires commitments at institutional,

organizational, community and individual levels, this case demonstrates how evidence should be collected, and results shared and debated, at each of these levels, through multiple outlets. iREACH developed a framework that integrated capability, ICT use and sustainability of environment approaches to guide the design and evaluation of the ICT systems to be put in place, and subsequently influence policy on community access to ICT. Similarly, the STRV project not only implemented communication services but piloted an RCS model that could be institutionalized to enhance the delivery and adoption of STRV technology among farmers, beyond the timeframe of the project. EAAPP (case 2) also reported that the end-of-project evaluation served to generate key lessons to inform the design of a next potential project phase.

Likewise, eBario's (case 7) evaluation served several aims, including, exploring ways to maintain sustainability, further improve quality of life and adapt and scale up the process, thus informing policy. To this purpose, evaluation findings were disseminated through a report, policy brief, academic journals, a website, conferences and the local news media, attracting attention at many different levels.

3.3 EVALUATION FOR SYSTEM RECONFIGURATION, REFLECTION AND LEARNING (FORMATIVE)

Formative evaluation aims at improving the design and performance of an initiative or organization, and as such is often done as a component of routine operations. Ideally, the evaluation system serves as a participatory communication tool to direct adaptive management. While some sort of formative evaluation is generally embedded in project design through internal monitoring and evaluation (M&E) systems, there is a big difference between only collecting and effectively *using* M&E data for adaptive management. An M&E system can be very powerful in producing sustainable outcomes if it applies participatory communication principles and methods to instigate widespread understanding and ownership of processes and outcomes. Effective implementation, however, requires substantial expertise in M&E design and facilitation, which is often inadequately resourced.

Of the cases reviewed in this study, the majority reported incorporation of formative evaluation in their project design. EAAPP, for instance, described facilitation of evidencebased and adaptive management through their Performance Monitoring Plan. This plan established linkages between approaches, indicators, milestones and targets described in the Project Appraisal Document, the activities, and Country Project Implementation Plans. The evaluation of STRV and KHETI examined the effectiveness or strengths and weaknesses of the rural communication services and provided input to improve the agricultural extension delivery system. Through evaluation, FNC & MMF aimed to provide an internal diagnosis of organizational learning and development with a comparative review of relevant extension and communication approaches used elsewhere. None of the cases, however, used counterfactuals, i.e. a comparison of outcomes against what would occur without rural communication services intervention. A particularly interesting case of formative evaluation is ARRPA, as the whole project was an exercise to assess the state of M&E operations and recommend areas for improvement to farm radio service providers. Through the formal evaluation exercise, they also attempted to provide support in establishing local M&E systems for continued data collection and informed decision making in adaptive management within stations and across farm radio stations which are part of the Farm Radio International network.

3.4 CHALLENGES IN RCS EVALUATION

Providing clear evidence of why and how particular communication processes and services made a difference in achieving outcomes and impacts ameliorates making a case for mainstreaming communication within development interventions. This can be difficult to elucidate, as evaluations seldom compare 'with' and 'without' scenarios. Some projects, such as iREACH, clearly tried to explore whether and how the rural communication services had contributed to capabilities, empowerment, and sustainability, while STRV attempted to determine the relationship between rural communication delivery used and the extent of STRV adoption. Similarly, CBNRM assessed the strengths and weaknesses of capacity development strategies used in the programme, in order to establish an understanding of the effectiveness of the communication processes. The ECD-CBNRM project was the only case that subsequently looked into the impact of the capacities created on the broader systems, such as the participants' learning groups and their organizations.

Providing true causal evidence between the process of delivery (Communication for Development) and the development outcomes and impacts requires a long-term engagement between evaluators, implementers and participants. This contrasts with some simple approaches used in short-term, consultancy-type projects in which evaluation can simply serve to close the project cycle and complete reports that will help to secure the next consultancy or funding application. Evaluation may not necessarily be used to support participants to advance their own power and influence. Reporting failure or lessons learned may not serve the business case of such initiatives, although this good development evaluation has been used to disconnect from partnerships and to redirect policies (Rogers, 2011; Patton, 2011).

Some key challenges exist in RCS evaluation and they revolve around two aspects that are interrelated with one another: attributional and methodological. Across these two aspects, there are four main challenges observed in the cases reviewed in this paper, as described below.

Less rigorous design and lack of attention to baseline data and multiple datasets

Based on the review of the 19 cases, the most persistent challenge to RCS evaluation, particularly those dealing with results, outcomes and impacts, is the link between objectively verified indicators and the RCS intervention. An understanding of 'cause-effect' relations requires the ability to shut out extraneous factors using appropriate designs and methods.

Though there are prescribed research designs and methods addressing these issues, the RCS evaluations reviewed generally employed less rigorous regression methods and ex post facto designs without sufficient attention to ex ante or baseline studies.

Without these baseline data, and without maintaining up-to-date datasets, it is difficult to claim that the change is indeed due to the RCS intervention. One of the main reasons why some organizations failed to collect baseline information or to design evaluations that drew on multi-period panel data and multiple datasets was the inability to integrate a comprehensive M&E framework and strategy during the planning phase of the programme. While RCS outcomes may not necessarily be a perfect fit with the initial set of project criteria and indicators, baseline information and multiple datasets can be very useful in explaining deviations from predictions based on program-logic models and unintended effects of the RCS intervention. In other words, it is not that logic models are not useful to RCS evaluation, but rather that they are often used ineffectively or too exclusively.

Absence of clear analytical frameworks

Appropriate theoretical frameworks and concepts for evaluation are useful to clearly show the boundaries of the data available and the analysis that can be drawn from it (Rogers, 2011). The literature suggests that it is essential to determine if the evaluation is based on simple, complicated or complex systems analysis (Patton, 2011). While some cases reviewed in this paper explicitly stated the theories or theoretical assumptions that guided the design and conduct of the evaluation study, the majority did not. Moreover, most cases did not provide a clear explanation of how the link was made between an observable change and their RCS intervention.

A good example of a case that explicitly identified and used a theory in its evaluation was the ECD-CBNRM, which focused on the theory of change from the individual, group, organizational, up to the community levels. The Forum for Agricultural Research in Africa (FARA), as a continent-wide organization responsible for coordinating and advocating for agricultural research for development (R4D), also had a defined theory of change and an M&E strategy. However, while there was a general framework in place, the need for adaptation to local project circumstances, such as those of e.Rails, was not always met.

Quantitative versus qualitative methods and skills required

While most of the cases examined in this study used a combination of both quantitative and qualitative methods, there is still a need to build the capacities of RCS practitioners on how to better design evaluation and conduct mixed-method data collection and analysis. The choice of methods should not depend on which ones the evaluator is most comfortable with. There should be clear justification of a single or mixed method approach, analytical rigour in the evaluation design, awareness of existing data as well as new data to collect, understanding of the suitability of methods to collect certain types of data, and finally, existence of skills of the evaluator or evaluation team members to effectively conduct the data collection or analysis processes.

Inaccessible knowledge and reporting

The RCS evaluation studies were all drawn from publicly available, digital repositories, websites, journals and technical publications, with some published in detail in a limited format (e.g. dissertations). In locating RCS evaluations, it is apparent that researchers and academics may have an advantage thanks to access to online resources, citation indices and unpublished dissertations. Policy makers and development planners may lack time and access to these databases but are in crucial positions with respect to planning and evaluating RCS. Ideally, there should be communities of practice that link researchers and academics with RCS policy makers and planners to share knowledge and mobilize evaluation tools, reports and other capacity building resources.

3.5 ANALYSIS OF EVIDENCE

Of the 19 cases reviewed, RCS had contributed to the improved capacities of their intended or primary stakeholders in most cases. For example, the farmers in KHETI, STRV, and FFS; the underserved sector in iREACH; NRM practitioners and researchers in the two CBNRM cases; community radio broadcasters and producers in ARRPA; and staff and students in RUFORUM-ICT. The ECD-CBNRM and ALL in CBNRM were both capacity building programmes, hence they focused the evaluation on changes in capacities of their intended stakeholders.

The ARRPA evaluation aimed to fill a knowledge gap and build capacity in radio services and in their own services to radio stations. This is consistent with the overall goal of RCS, which is to provide needs-based information and knowledge to stakeholders to enable them to enhance their skills in their particular areas of work. In RUFORUM-ICT the primary stakeholders were staff and students of African Agricultural Universities. It aimed to support the RUFORUM member universities to effectively harness ICT opportunities, both through infrastructural support and strengthening human capital and research capacity.

KHETI and FFS employed the DID (Difference in Differences) technique to support their data claims, a technique that modifies the commonly used programme theory evaluation method of random controlled trials. Through DID, the two cases compared treatment group and control group before (first difference) and after the RCS intervention (second difference). The treatment group was exposed to RCS intervention (the mobile technology in ICT-KHETI and experiential learning in the FFS case) and the control group was not exposed. The control group provided an estimate of what would have happened in the absence of the RCS intervention (counterfactuals).

The evidence for improved capacity as an outcome resulting from the RCS intervention was made empirically stronger in the FFS case. Here, the methodology also included the use of multi-period panel data covering a period of four years or ten rice cropping seasons. This offsets the limitations of the other studies that used a quantitative approach, which had to rely on 'before-and-after' (*ex-ante/ex-post*) and 'with and without intervention' comparison.

To compensate for a lack of baseline, the claim of increased capacities in other cases was supported by other statistical tests. In the STRV study, change in capacity or behaviour (i.e. adoption of STRV technology) was attributed to the RCS delivery as shown by the results of the Fisher's Exact Test for association.

To strengthen the evidence for the role of the RCS intervention in observed change, the evaluations of the two CBNRM cases also measured those changes that occurred in the organization and the community as a result of the participants' improved capacities. This expanded the evaluations beyond the participants and also included changes in the service itself and the wider community where the RCS intervention was introduced (Vernooy *et al.*, 2009; Tirol & Dagli, 2009). This sort of observation is called a 'multiplier effect' or 'ripple effect', helping to substantiate claims that RCS interventions brought about net impact on wider systems.

In addition, the CBNRM cases drew evidence from traditional qualitative methods: FGD, Most Significant Change (MSC) technique, social network analysis, unstructured interview, case story writing and participatory story building. Information and narratives derived from these methods helped provide depth and supplemented the quantitative data generated by a survey among participants. While qualitative data do not necessarily show statistically significant differences, they are socially significant in that they usually capture vivid details that mere numbers hardly depict. Both CBNRM cases, as well as e.RAILS and RUFORUM-ICT, were reported through narratives to have increased participation of stakeholders in decision making and planning.

In all, although the cases presented seem to either draw on Communication for Development approaches or augment traditional linear logic approaches to leverage RCS, various methodological challenges are still evident in most of the cases. The core of these challenges lies mainly in the difficulty to align donor funding requirements, project objectives and appropriate RCS evaluation approaches that integrate Communication for Development frameworks. Against this background, the analysis of evaluation methodologies employed by the 19 cases identified several key themes relating to the appropriateness and effectiveness of methodologies to building evidence. These themes are discussed in the next chapter.

Chapter 4 KEY THEMES OF RCS EVALUATION

4.1 IDENTIFYING KEY THEMES

The analysis of the 19 cases in this study consciously looked for elements in the evaluation mechanisms of RCS initiatives that could give some leads to inform policy. Requirements for providing evidence of outcomes and impacts of RCS initiatives that tend to operate in complex situations has implications for project design, resources and capacity. As such, appropriate frameworks or guides are needed in the implementation and application of the evaluation mechanisms. Across the cases, some evaluation approaches were embedded in the project design and implementation plans while others were adopted specifically for the purpose of assessing project outcomes. To compare and analyse the effectiveness of the approaches and methods used in the 19 cases, it is imperative to identify key themes that exemplify appropriateness and effectiveness of evaluation. These themes are discussed in the following sections under the broad categories of (1) frameworks for evaluation, (2) evaluation approaches and methods, (3) evaluation outcomes, and (4) reporting formats. Based on these themes, the paper will then illustrate how RCS evaluation should be streamlined in policy.

4.2 FRAMEWORKS FOR EVALUATION

The analysis of the 19 cases roughly identified four different specific evaluation frameworks that were applied across the RCS initiatives, including theory of change, participatory and adaptive learning, VOICE model and capability approach, while some initiatives did not indicate a clear framework at all. An overview of the frameworks applied by the 19 initiatives is displayed in Table 4 and the application of the four specific frameworks is discussed in the sections below.

Africa		
ARRPA	VOICE model	
EAAPP	Theory of Change	
e.RAILS	FARA's own Theory of Change and M&E strategy	
SSU	Multiple evaluations, including one based on Theory of Change	
RUFORUM-ICT	Not indicated	

Table 5. Frameworks used for evaluation

Asia-Pacific		
ENRAP	Linear logic model of change based on two dimensional processes	
eBario Sarawak	Based on project objectives and vision of knowledge-based economy	
Tradenet	Action Research Pilot (ARP) approach	
iREACH	Capability approach and ICT4D	
КНЕТІ	Not indicated	
STRV	Cybernetic; socio-psychological	
CBNRM	Not indicated	
FFS	Organizational learning; participatory development	
ALL in CBNRM	Participatory development communication; adaptive and social learning	
Latin America and the Caribbean		
Starfish - her infinite impact	Reflexive and reflexivity approach (formative evaluation)	
AIDESEP	Scoping studies; Reflexive monitoring (formative evaluation)	
Chambita Medidor	Programme theory; ex-ante/ ex-poste analysis (summative evaluation)	
FNC & MMF	Systematic literature review; scoping studies (formative evaluation)	
OECS Telecommunications and ICT Development Project	Programme theory with two-stage process: internal and oversight (summative evaluation)	

Theory of Change

Theory of Change (ToC) served as a core framework for eight out of the 19 RCS initiatives as a conceptual framework to visually conceptualize, implement and assess impact of the project (Table 4). The key aspect of the ToC frameworks across the eight projects is the measurement of indicators and objectives with the view of documenting convincing outcomes of project implementation, and to mainly serve as the basis for effectiveness and accountability. For instance, the EAAPP built its project planning, implementation and evaluation approaches around the Theory of Change framework. As an agricultural research development initiative, EAAPP aims, within a ten-year period, are to enhance regional specialization in agricultural research, enhance collaboration in agriculture training and technology dissemination, and facilitate increased transfer of agricultural technology, information and knowledge across national boundaries. To demonstrate the outcome of the project effectiveness and impact, EAAPP developed its evaluation approaches to measure the project-specific objectives, indicators, milestones and economic achievements enshrined within the project Theory of Change or Logic Model.

Another striking use of programme Theory of Change was evident in FARA's e.RAILS project. The overall goal of e.RAILS is to develop an African platform for agricultural information and learning systems, in which e.RAILS serves to enhance access, retrieval and use of agricultural information and technologies by African agricultural research for development stakeholders

in the global knowledge exchange arena through an online portal. Within the framework of project implementation and evaluation, FARA developed its own Theory of Change and M&E strategy, which is documented and publicly available. The documents provide guidelines and FARA's "M&E Unit collects, analyses, manages, and reports on data and information, embedding a Theory of Change focussing on: (a) developing a simple, technology-enabled monitoring approach that supports managers at multiple levels to capture, analyse, visualize and report on progress in delivering work and achieving results, (b) significantly increasing the number of evaluations in programmes and projects through a managed regular cycle of outcome and impact monitoring and evaluation, (c) producing evaluative knowledge products, (d) providing coaching, mentoring and capacity building to support staff and selected partners to manage and develop their skills in monitoring and evaluation, and, (e) increasing staff skills in commissioning and managing high quality evaluations.

It is no doubt that the programme Theory of Change or Logic Framework has in many ways served as a core development project planning, implementation and evaluation component to provide quantifiable, accountable evidence for donor funding or value for money per se. However, in the age of an increase in support for a shifting development paradigm from results-based approaches to learning-based approaches, the Theory of Change framework may unlikely account for evidencing the kinds of impacts that are associated with these people-centred, learning-based approaches. Its result-based focus offers very little possibility for an inclusive RCS project evaluation process that draws on the learning experience of all project stakeholders within the larger socio-cultural, economic and political contexts in which they embed. For instance, projects such as EAAPP, e.RAILS and SSU demonstrated this limitation by drawing on vertical methodological approaches such as qualitative interviews and quantitative surveys to evaluate outcome and impact against certain predefined project-specific objectives and indicators.

Participatory and adaptive learning framework

By virtue of its capability to handle complex uncertainty and maintain long-term sustainability and effectiveness of RCS, participatory and adaptive learning framework has received a growing acknowledgement in rural development practices. In spite of this, when it comes to its application in reality, there is always a recurring discrepancy between what is perceived in theory and practices (Thomas & van de Fliert, 2015). Indeed, the analysis of the 19 cases confirms this discrepancy. When a comparison is drawn between the projects that employ the traditional Theory of Change evaluation approach and the adaptive learning approach, there is a marked numerical differentiation. While eight out of the 19 projects employ the Theory of Change framework, only four projects (eBario, FFS, ALL in CBNRM and Starfish) use at least some elements of the participatory and adaptive learning framework.

The eBario project serves as an epitome to illustrate the necessity of a participatory and adaptive learning framework in RCS. The overall goal of the project was to improve the quality of rural livelihoods by increasing information access and communication capability

to address social exclusion and enhance economic opportunities. The entire project lifecycle, from planning, implementation to evaluation, was built on the participatory and adaptive learning framework. Like the planning and implementation phase, the project evaluation adopted a participatory action research model involving mainly the project target group and other stakeholders. The aims were to determine the project outcomes and exploring ways to maintain sustainability to further improve the quality of life and adapt and scale up the process. The evaluation also provided evidence for funders and the broader development community on participatory rural communication service development.

In the case of the Farmer Field School (FFS) project in Thailand, the adaptive learning evaluative framework applied slightly differed from that of eBario. The FFS project aimed to reduce the amount of pesticide used by farmers and to encourage the use of integrated pest management (IPM) to create economically viable and environmentally sound pest management systems. Unlike eBario, the evaluation study of FFS employed a Difference in Differences (DID) approach using panel data from 241 farm households on three occasions over a period of four years in five rice-producing provinces of Thailand. Comparatively, despite the differing approaches, the main aim of FFS evaluation shared a similar adaptive learning target with eBario. Apart from demonstrating accountability, the main aim of the evaluation was to serve the basis for learning and recommending effective practices of extension and rural communication services. Equally, the evaluation approaches of ALL in CBNRM and Starfish served similar objectives, namely to articulate the changes in the capacity of project stakeholders, to provide accountability and to enhance participation and adaptive learning.

The common thread in these four projects is that project evaluation can target accountability while also integrating participation and adaptive learning. The combination of both intentions in RCS project evaluation is expected to enhance outcome, sustainability and sense of ownership among the stakeholders.

VOICE model

Apart from the two dominant evaluation frameworks discussed thus far, the VOICE model emerged as another important framework to evaluate rural communication services. The VOICE evaluation tool provided evaluators, who once needed to ask "How do you evaluate the content of the radio programme?", a standardized framework to use across programmes. VOICE represents:

Value	valuing farmers
Opportunity	providing opportunity for farmers' voices to be heard
Information	broadcasting information which is relevant, credible, and timely
Convenience	offering convenient broadcasting services
Entertainment	airing engaging and entertaining radio

The VOICE tool aimed to guide the processes and proved to be an exemplary model for evaluation of ARRPA's farmer radio programmes. It allowed a differentiation between higher and lower quality programmes and an identification of which elements were "easier and more difficult". Thus, it was used to facilitate a relative and comparative assessment of the programme quality.

To assess the programme quality, ARRPA's VOICE evaluation framework reflected *an action research approach* towards improvement of farmer radio programmes and station service delivery. The full research project was guided by a thorough understanding of the practice of radio production. The exploration was based on detailed descriptions of programme specifics provided by the stations. Focus group discussions with farmer audiences (listening groups) evaluated experiences as well as suggestions for improvement.

Capability approach

The capability approach emerged as an alternative framework for evaluating rural communication services only in one project (iREACH); however, it is considered an important framework that has potential for a wider use in RCS planning, implementation and evaluation. Since its emergence in the 1980s, Amartya Sen's (2001) capability approach has gained inroads into the mainstream development discourse as a normative and evaluative framework. It is generally employed to evaluate the freedoms and opportunities that people have in order to live the life that they have reason to value (Sen, 1999).

The centrality of freedom in communication for development is often framed and reinforced at the political institutional level, with focus on political freedoms and civil rights (Manyozo, 2005). The iREACH evaluation, however, employs the capability approach to evaluate the freedom that people enjoy by having access to information and communication technologies in rural communities. As a rural community informatics initiative, the iREACH evaluation aims to understand what differences the deployment of ICTs in rural communities make to the lives of people in terms of capabilities and empowerment. It also aims to develop a framework or model integrating capability approach to facilitate sustainable use of ICTs.

On the basis of these aims, the evaluation used a longitudinal case study. That is, data was repeatedly gathered from the members of underserved rural areas over four successive years. By studying the same group over time, the evaluation could be more certain that any changes in behaviour were not simply due to chance but were indeed persistent outcomes of the RCS intervention.

4.3 **EVALUATION APPROACHES AND METHODS**

An overview of the evaluation approaches and methods employed to collect and analyse data in the 19 cases reviewed in this study is presented in Table 5. The approaches used for evaluating rural communication services can be grouped under three main categories: vertical, horizontal and cross-pollinated approach. In all categories some generic methods are used but comparison of the table also shows that specific methods are used to serve the nature of a particular approach.

A noteworthy observation across the cases is the use of the corresponding linear research methods such as focus group discussions (FDG), interviews and survey. Although some studies adopted different research approaches, they seem to converge on the more accepted methods to build evidence that indeed demonstrate the outcome or impact generated from RCS intervention. Among the qualitative methods for data gathering, FGD was most commonly used. FGD involves bringing together a group of stakeholders to talk liberally about a topic or issue. Aided by a facilitator, it can generate socially inclusive ideas and thinking around a particular topic.

Vertical

The general questions that often drive the vertical or linear evaluation methodologies are what works or what does not work—that is, whether a particular project achieves its predetermined objectives, indicators or outcomes. Achieving this task or responding to these questions involves the application of a linear evaluation design, such as a case study, and the use of qualitative and/or quantitative methods. Of the 19 RCS initiatives, four used a case study approach, while five employed a quantitative approach based on either experimental design or descriptive statistics. For instance, building on the World Bank logic model, El Chambita Medidor evaluation adopted a descriptive-longitudinal case study approach to assess RCS in El Salvador.

In addition to FGD, the most significant change (MSC) also emerged as part of the qualitative analytical technique. The technique involves the generation of stories of change, caused by the intervention, by various stakeholders involved in the intervention. The more significant of these stories are then selected by the stakeholders and in-depth discussions of these stories take place. These discussions bring to the stakeholders' attention the impacts of the intervention that have the most significant effects on their lives. The iREACH and ALL in CBNRM evaluations draw on the MSC technique to elicit and demonstrate the most significant impact of RCS initiatives on rural livelihoods.

Table 6. Research designs and methods

Case	Research design	Methods and tools used	
Africa			
ARRPA	Action research approach	Focus Group Discussion (FGD); collecting detailed descriptions of programme specifics provided by the radio stations	
ΕΑΑΡΡ	Mixed methods	Desk research; interviews with key informants; Focus Group Discussion (FGD); survey (questionnaires)	
e.RAILS	Monitoring and Evaluation framework	General M&E framing (no specific information for methods and tools for data gathering and data analysis is provided)	
SSU	Several evaluations, some Knowledge, Attitudes and Practices (KAP) surveys (pre/post), some mixed methods	Several evaluations – KAP surveys or mixed methods including questionnaires, participatory budgets, focus group discussions, and key informant interviews	
RUFORUM-ICT	Levels approach	Studies and field visits are carried out, but no specific information for methods and tools for data gathering and data analysis is provided.	
	Asia-Pac	ific	
ENRAP	Mixed methods, including Strength, Weakness, Opportunity and Threat (SWOT) analysis	Interviews, field observations, questionnaires, and review of monitoring and annual reports, project- specific literature, website and digital videos	
eBario Sarawak	Participatory Action Research with mixed methods	Participatory Action Research, interviews, survey	
Tradenet	Mixed methods designed by implementing partners in Action Research Pilot (ARP) approach	Workshops/information sessions, household questionnaire-based survey, in-depth focus group discussions and interviews	
iREACH	Descriptive-longitudinal case study	Survey using questionnaire Structured and unstructured interviews with question guides Focus Group Discussion (FGD) Most Significant Change	
КНЕТІ	Experimental design	Randomized survey with treatment and control group, before and after the intervention, using questionnaire Difference in Differences (DID)	
STRV	Descriptive-correlational	Survey using questionnaire FGD Social network analysis (SNA)	
CBNRM	Experimental design	DID in multi-period panel data using questionnaire	
FFS	Case study; descriptive- tracer study	Regional workshops and writeshops with participatory techniques of facilitating group discussions and case story writing guide	
ALL in CBNRM	Case study; mixed method research design	Survey using questionnaire FGD with question guide Most Significant Change (MSC) technique with MSC user guide Participatory story building with facilitator guide	

Case	Research design	Methods and tools used	
	Latin America and the Caribbean		
Starfish - her infinite impact	Participatory/reflexive discussions; some descriptive-tracer data	Self-reflection; discussion groups; key informant interviews (KII) using semi-structured discussion guides	
AIDESEP	Case study	KII, participant observation using ethnographic enquiry and semi-structured discussion guides Literature review	
El Chambita Medidor	Descriptive-longitudinal case study	Surveys using questionnaire KII and FGD with question guides	
FNC & MMF	Case study; comparative analysis	Literature review KII, FGD with question guides	
OECS Telecommu- nications and ICT Development Project	Cost-benefit analysis; descriptive	KII with question guides Cost-benefit analysis	

From the perspective of quantitative approach, apart from questionnaire survey, the Difference in Differences (DID) method was used for studies with experimental design. DID calculates the effect of a treatment (e.g. FFS as independent variable) on an outcome (e.g. rate of use of pesticides as the dependent variable) by comparing the average change over time in the outcome variable for both the treatment group (farmers who participated in FFS) and the control group (farmers who did not participate in FFS). The use of a control group provides a good counterfactual scenario in addition to the baseline data.

In the KHETI case, the double difference or DID method compared the treatment and control group (first difference) before and after an intervention (second difference). The 'treatment' group was exposed to mobile phone technology and the 'control' group was not exposed to the intervention. The control group provided an estimate of what would have happened in absence of the intervention.

Horizontal

The horizontal approach, also known as the bottom-up or reflexive learning approach, provides a way for integrating an ongoing learning process into evaluation processes of RCS initiatives, with the aim of facilitating sustainability and long-term impact of RCS interventions. FAO and other organizations such as GTZ see this learning process as having a number of implications. This includes assessing project effectiveness to establish replicable models; generating feedback to inform an ongoing project implementation; engaging stakeholders in implementation and improve ownership; and capturing data to inform policy and lobby for more resources and removal of barriers (FAO & GTZ, 2006, p. 27). Of the 19 cases, three initiatives (ARRPA, eBario and Starfish) adopted a horizontal approach such as Participatory Action Research (PAR) methodology as a core evaluation tool. Using

PAR methodology as an evaluation tool gives control to project stakeholders to comment on outcomes, develop sense of ownership and direct the trajectory of an initiative in a sustainable way that is adapted to their needs.

To successfully deploy PAR and any other horizontal approaches requires methods that facilitate a two-way communication dialogue and reflexive learning. The eBario evaluation demonstrated success in this respect. From the onset, the project stakeholders were engaged in dialogue to agree on the project objectives and activities. They were also trained to monitor and evaluate the progress and identify new opportunities for maximizing the project benefit. Unlike eBario, the ARRPA evaluation, based on its VOICE model, adopted focus group discussions with farmer audience (key stakeholders) to evaluate their experiences as well as suggestions for improvement.

Another interesting discovery emerged in the case of ALL in CBNRM. Although the project built its evaluative framework on a case study approach, it drew on a mixed method research design to integrate participatory story building. The method was used to determine the contributions of the network in PDC-CBNRM. Country groups collectively shared and analysed the outputs and outcomes of the programme. Using a technique capable of capturing complexity was important in the PDC-CBNRM case, since electronic forums and regional workshops were utilized and not a single, conventional source. Through participatory story building, value-added information could be traced to multiple sources and directions within the network. Aside from participatory story building which was facilitated through face-toface discussions, the programme also collected written stories of change (case writing) from participants. This was also the main evaluation method used by ECD-CBNRM. The cases were then published as a book.

Cross pollination of approaches and methods

Ideally, when it comes to choosing evaluation approaches and methods, there is often a normative thinking that such methodologies have to conform to a specific evaluation framework. What this means is that studies that adopt, for example, a participatory and adaptive learning framework are likely to employ approaches such as participatory action research or participatory rural appraisal (Lennie and Tacchi, 2013). A close examination of the 19 cases, however, suggests what could be referred to as a 'cross pollination' of methodologies with respect to the evaluative framework. Apparently, projects that claim to be grounded in a participatory and adaptive learning framework employed linear logic methodologies, such as quantitative survey, alongside participatory methods of enquiry (see for example, ALL in CBNRM and Tradenet). Equally, projects that build on linear models tend to integrate some elements of a participatory approach (e.g. FFS).

An important logic behind this discrepancy seems to be embedded in the demand for projects to be accountable to funders or influence policy, while at the same time they are compelled to facilitate a sense of ownership among the stakeholders. The most obvious way for a project to be accountable is to adopt evaluation methodologies that provide quantifiable evidence, as these are often required (and resourced) by funding agencies. Hence, no matter what evaluation framework a project chooses, the summative evaluation still prevails. Indeed, as Table 3 depicts, all of the 19 cases, one way or another, demonstrate a certain level of summative evaluation. In light of this, the analysis of the evaluation approaches and methods frequently used for evaluating rural communication services is shaped independent of any specific evaluation framework.

4.4 EVALUATION OUTCOMES: A COMPARATIVE ANALYSIS OF APPROACHES AND METHODS

The analysis thus far demonstrates an inconsistency between the evaluation framework, approaches and methods. To demonstrate evidence, it is imperative that the discussion turns to whether the inconsistency is also reflected in the evaluation outcomes. An outcome in this context refers to the achievement(s) generated following the implementation of an initiative. An outcome can be summative or formative. Different evaluation framework approaches and methods account for different outcomes. For example, a linear framework that adopts a quantitative approach with a questionnaire-based survey may provide a quantifiable outcome to demonstrate accountability in terms of direct achievements and return of investment. However, it is not capable of answering the 'how' and 'why' that are needed to truly understand sustainable change in people's capabilities, for which a formative framework is needed. But what happens when approaches and methods are mixed or cross-pollinated? How can we account for such outcomes with respect to RCS effectiveness?

A close look at the outcome of each of the 19 cases reveals a compelling differentiation that provides evidence as to when a certain framework, approach or method is used. Comparatively, cases that consistently used the same linear approaches and methods demonstrated some level of numerical outcome in terms of awareness, project uptake and increased information access and knowledge acquisition. For example, the EAAPP evaluation shows that 138 new agricultural technologies for new varieties of crop production are developed, contributing to the rate of increase in information and knowledge transfer across the East African boarders. Equally, data from the KHETI evaluation indicates that the deployment of rural mobile phone communication services in Madyha Pradesh, India, increased communication from 2 percent to 31 percent between farmers and the NGO Sironj Crops Producers Company Limited (SCPCL). More than 75 percent of the farmers viewed mobile phone assisted services as useful; more than 86 percent viewed KHETI services as faster; and 13 percent viewed it as much faster than other services before the introduction of the innovation. Around 96 percent of the farmers used more agricultural advice after they were exposed to KHETI. Evidence also indicated that disadvantaged farmers and poorer communities gained more from the ICT-assisted intervention than more advantaged ones. These results are remarkable but not sufficient when it comes to achieving the true impact of rural communication services. RCS are not only about facilitating access to information and knowledge, and as such it is important to understand

how the knowledge was generated so that it can be applied in a sustainable and adaptable way. Moreover, RCS are about dealing with social exclusion, building a sense of ownership and integrating adaptive learning into the evaluation processes to enhance sustainability. This implies that by asking the stakeholders a bunch of predefined questions to demonstrate effectiveness and numerical accountability, which is what drives most of the linear or vertical methods, may not achieve these objectives.

At the other end of the spectrum, some initiatives tend to cleverly jump out of the linear entanglements, while others dilute genuine participatory processes by integrating some elements of linear methods to satisfy donor's accountability conditionality. As previously mentioned, this is done by cross pollinating methodologies. This inconsistency in methodologies is not helpful either; it only balances the development prospect of RCS towards the donors along the power continuum of donor funders and target groups. Indeed, the outcomes of the majority of the initiatives that used inconsistent evaluation methodologies in this respect show no convincing evidence of true RCS achievements (Table 5, Appendix I). In initiatives such as ARRPA, RUFORUM-ICT, ENRAP AND RCS-STRV, the rhetoric or ambition outweighs the expected outcome of RCS. Issues such as gender disparity, inappropriate coordination approach, limited stakeholder inputs and resource constraints were reported as underlying problems for the successes of most initiatives. For instance, ARRPA highlights that the lack of female hosts, presenters and female voices in general hindered the project's ambition. In the case of ENRAP, the overall programme activities were limited to project management units, falling short of enabling the communities themselves to access and integrate ICTs into their everyday practices.

Logically, problems of such nature may be easily averted by altering project planning, implementation and evaluation framework from vertical to horizontal approaches. This is exemplified by initiatives that built evaluation methodologies either partially or wholly on participatory and adaptive learning frameworks. Initiatives such as ALL in CBNRM, Tradenet and CBNRM that adopted some elements of the horizontal approach demonstrated evidence of adaptive learning, individual capacity building and equitable access to improved knowledge and information. By closely looking at the data, remarkable outcomes of RCS successes emerged from projects that have the entire design and evaluation based on horizontal approaches. Of the 19 cases, Starfish and eBario achieved this level of success. Starfish's participatory and reflexive evaluation methods enable project participants themselves to define the results of the initiative, leading to sustainable outcomes. In the case of eBario, the participatory action research approach increased community ownership and sustainability of the initiative. The project outcomes exceeded expectations, generating a widespread popularity and replication in other settings.

Clearly, based on the analysis of the 19 cases, providing true causal evidence of RCS initiatives anchors on the methodologies adopted in the design and evaluation of outcomes. It can be concluded that projects that adopted participatory approaches for project design and evaluation documented stronger evidence in enhancing sustainable rural livelihoods compared to linear approaches.

4.5 **REPORTING FORMAT TO DEMONSTRATE OUTCOMES**

In order to create wider change and influence, RCS evaluation results must be communicated with a larger audience. More important than scale is the appropriate targeting of specific audiences for evaluation reporting, which is inherent in the approach being vertical or horizontal, or both. In an RCS initiative that is true to the nature of Communication for Development, all key stakeholders should also be key audiences for evaluation results. This requires reporting in suitable formats for each stakeholder group.

The 19 cases studied reported the evaluation results through a variety of methods and platforms (Table 6), reflecting their different aims (as set out in Table 3) to target different audiences. Those with a heavy focus on formative evaluation, such as Tradenet and CBNRM, reported findings throughout the process, as participants were heavily involved in the evaluation. ARRPA also had a strong emphasis on formative evaluation and with the VOICE evaluation tool embedded in radio programming, broadcasters could evaluate their work without being dependent on receiving formal evaluation reports.

Formal project reports, however, featured heavily across the cases, which reflects the near ubiquity of summative evaluation for donors. ARRPA provided a very detailed report of the evaluation and this has been made freely available, creating a sense of accountability. In contrast, the personally (not donor-) funded PhD research that evaluated the RCS-STRV project in Bangladesh led to the publication of a journal article but no project report was made available.

For integration of RCS into policy, it is particularly important that evaluation results regarding the power of Communication for Development be shared appropriately. The studies that reported the most success in taking their RCS initiatives to scale had well-developed public awareness strategies, often publishing results using multiple media and channels of communication. Two examples from the Asia-Pacific region are eBario Sarawak and Tradenet. Both projects disseminated their evaluation findings widely, through reports, policy briefs and academic journal papers. The results were publically available on their websites and were presented at symposia, conferences, and publicized through local news media. This multimodal dissemination strategy proved effective in these cases, attracting local policy makers' and international attention. Dissemination of findings led to the replication of eBario Sarawak in other rural communities in and outside Malaysia, and the replication of Tradenet in Sri Lanka and Zambia.

The FNC & MMF initiatives were well-positioned to influence policy. As Colombia's largest non-governmental and rural, federated membership organization, FNC has a tried and true national network for agricultural extension and rural outreach with strategic partnerships with organizations such as MMF, a locally active and relevant organization. As an integral stakeholder for Colombia's agricultural and rural development policy and programming, their work resonates at the policy level where government and private sector interests are implicated. For the MEAS study (an independent evaluation of FNC & MMF), in particular, in addition to its preliminary workshops and mass media use that served to pre-test and distribute the evaluation results, FNC produced a brief video in Spanish on the evaluation exercise.

Table 7. Reporting methods and platforms

Africa		
ARRPA	Overall project report open access on internet	
EAAPP	Bi-annual Joint Review Meetings and through regional online portals	
e.RAILS	Very little reported	
SSU	Each evaluation produced a report and all are publically available on the internet. Findings also presented at public forums	
RUFORUM-ICT	Online reports, monthly newsletters, and biennial conferences to share experiences and achievements	
	Asia-Pacific	
ENRAP	Reports, website, policy brief, symposiums, conferences, academic book and local news media	
eBario Sarawak	Report, policy brief and academic journals, and on a website, presented findings in symposiums, conferences, and to local news media	
Tradenet	Report, book chapter, website, symposiums, academic journals, local news media, publicity on large NGO websites. Also, action research meant findings were constantly fed back into the project to improve it	
iREACH	One journal article published	
KHETI	Poster paper presented at a conference	
STRV	Journal article, news article, conference paper	
CBNRM	Sharing with participants through the process, workshops to share results, web and print publications publically available.	
FFS	Journal article published	
ALL in CBNRM	Workshops and face-to-face knowledge sharing venues, print publications, web- based platforms	
Latin America and the Caribbean		
Starfish - her infinite impact	Metrics of its outputs on its website, frequently asked questions (FAQs) in an accessible format, academic reporting	
AIDESEP	Seminars and observatories for immediate network, website for public, audio- visual materials, academic analysis in peer-reviewed journal articles	
El Chambita Medidor	Documents and resource information on the process online, Project Appraisal Document. It is not clear what internal reporting was provided. Reports by FAO, strategic communication framework published	
FNC & MMF	Workshops with its members, reports to national policy stakeholders, mass media use (pre-test and distribute the evaluation results), brief video (in Spanish), presentation and a fact sheet for USAID, USAID website, multiple media presentations on website, peer reviewed journal article underway.	
OECS Telecommunications and ICT Development Project	Results shared executing agency, borrower nations, and World Bank, and regional and thematic policy dialogues, World Bank e-repository and project relies on intermediaries (journalists, scholars and NGOs) to pick up on findings and share them with rural communities.	

Seven of the 19 case studies did not explicitly aim to influence policy through demonstrating the power of Communication for Development, and the dissemination strategies of these cases are lacking the capacity to do so. For the most part, EAAPP did not exploit communication media for the sharing of findings and recommendation of successful communication approaches. E.RAILS developed an operational framework for further scaling but there was no evidence of dissemination of evaluation findings, which would likely assist them to garner support for implementation. Firstly, the language used in the e.RAILS project report should be critically addressed; the farmers were referred to as 'primary stakeholders' but the credibility of this claim is called into question when they are also referred to as 'beneficiaries.' Discourse analysis might be used in future studies to check on inconsistencies in M&E policies and views.

4.6 STREAMLINING RCS EVALUATION IN POLICY

As a needs-based social intervention, RCS is a work in progress. It has to evolve with the dynamic social transformations occurring among people, communities and institutions through time. To enable RCS to do this, it needs empirical data about the shifting needs and demands of rural populations. It also needs to see how RCS processes are progressing; what aspects of RCS work and do not work; and solid evidence that it is effective, in terms of project results, outcomes and impacts. Therefore, evaluation needs to be streamlined in planning processes of initiatives, and hence in policy.

Evidence-based results of RCS are necessary to demonstrate how it makes a difference in the lives of poor, marginalized, and underserved sectors of the community. RCS evaluation can become much more meaningful if it can be included in policy statements at the local, regional, or international level. There are several strategies to initiate streamlining of RCS evaluation into policy:

- Develop a resource describing principles and practices on how to establish and evaluate RCS to ensure quality indicators and assessment. Such a resource could be shared and distributed across relevant users locally and worldwide – academe, research institutions, NGOs, people's organizations, and private sectors with corporate social responsibility. Ideally the resource should be introduced through training workshops to build capacity to design, implement and report context specific evidence-based approaches.
- 2. Advocate for funding from development oriented donor agencies to incorporate RCS evaluation activities that assess effects, outcomes or impacts, and to build capacity to design, implement and report RCS evaluation. The evidence can contribute to knowledge building and create awareness, appreciation, and action among development planners and decision makers to support RCS evaluation.
- 3. Compile attractive publications reporting on evidence-based approaches and results of RCS and distribute widely through print, online, or other forms to gain support and establish appreciation for the value of RCS through its documented effects, outcomes, or impacts. Policy briefs on RCS evaluation can be prepared and used as a platform for policy advocacy. RCS evaluation can be included on the agenda of international Communication for Development, policy level conferences and a resolution or agreement to adopt RCS evaluation in Communication for Development can be aimed for.

Chapter 5 CONCLUSION AND RECOMMENDATIONS

The overarching focus of this study was to document ways of generating convincing evidence of the contribution of communication towards sustainable rural development, with the view of influencing policy makers to invest in rural communication services and the required human resources. The study explored main trends and key issues in evaluation methodologies and examined 19 cases of rural communication services with well documented evaluation methodologies. It needs to be noted here that most of the initiatives represented by the cases were not specifically designed as "Rural Communication Services", as the conceptualisation of RCS is quite recent. The study team had to select initiatives that were mature enough, if not completed, to have undertaken and documented some solid evaluation processes. In addition, the cases needed to comply with (most of) the criteria defined for RCS. However, very few of the initiatives were designed as RCS and the analysis above will have to be perceived in that context.

The following sections highlight the main conclusions drawn from the analysis of the evaluative frameworks, approaches and methods applied by the 19 cases to understand how impact, or lack of it, has been effectively captured and can be utilized to inform policy, followed by a set of recommendations.

THE DOMINANCE OF VERTICAL EVALUATION APPROACHES AND METHODS

There is a strong tradition in programme evaluation frameworks to use vertical, results-based approaches and methods that respond to donor demands of accountability, although a tendency is visible towards the inclusion of learning-based approaches that evidence a wider spectrum of change. The majority of RCS cases reviewed in this study used approaches involving quantitative or mixed methods to focus on the attribution of communication interventions on behaviour and social change. Most of the cases attempted to capture the extent to which economic, social, political and environmental capacities of stakeholders were improved as a result of the RCS initiatives, and some attempted to illustrate how the communication processes had specifically contributed to change.

Undoubtedly, most cases documented convincing evidence of RCS effectiveness in both quantitative and qualitative terms. However, the majority of the cases failed to appropriately

assess and account for long-term and sustainable impact, as evaluation methodologies were strongly linked to project (and funding) lifecycles. Consequently, this will favour the measurement of immediate outputs and outcomes but make assessment of long-term impact very challenging unless additional resources are allocated. Longer term impact assessment processes that apply a learning-based approach can provide a mechanism to sustain change; however, funding structures and policies will have to be adapted to accommodate activity beyond the usual project lifecycle.

RHETORIC AND REALITY OF PARTICIPATORY RCS EVALUATION

While it is important to develop the right design and implementation strategy for evaluation of RCS initiatives, it is also imperative for key stakeholders to participate in project evaluation if evaluation processes are to be seen as a way of learning and adaptive management. This provides a means of generating a nuanced outcome of the project and also serves as a way to develop confidence and a sense of ownership among stakeholders. Importantly, it provides the means to generate good communication and build the stakeholders' capacity to enhance long-term sustainability. Having this broad conception in mind, the majority of the 19 cases see it as advantageous to integrate some elements of participatory communication approaches even if the project is designed and implemented based on a results-based logic model.

More broadly, there is a trend towards cross-pollinated evaluation approaches and methods. For instance, in both programme Theory of Change and reflexive approaches there is a trend towards combining quantitative with qualitative methods of data collection and analysis. The survey is the most used method and often combined with FGD and key informant interviews; observation and discussion methods are also commonly used. To a large extent, this seems to be another form of rhetoric embedded in rural development communication practices that is driven by competing interest in results-based versus stakeholder-based.

The analysis clearly shows a persistent challenge in providing the true benefits of RCS which are anchored on competing interests as well as the inconsistency in evaluation framework, approaches and methods. The need to overcome the observed challenges means an RCS initiative, in terms of planning, implementation and evaluation, has to be consistently built on stakeholders' participation, effective communication and social learning approaches. The analysis presented in this paper documented convincing evidence in this regard based on cases, such as eBario and Starfish, that used participatory communication approaches for planning, implementation.

In all the evidence demonstrated, it is clear that for RCS initiatives to drive sustainable rural development, efforts need to turn not only to how initiatives are implemented, but also how they are evaluated. This point is further expanded in the following section presenting some policy recommendations.

POLICY RECOMMENDATIONS

A broad aspect of rural development in the developing world is built on agricultural productivity. Agriculture provides an important means by which many rural populations sustain their livelihood. A recent focus on family farming as the future driver for sustainable rural agricultural development and economic growth means that more efforts are needed to develop clear policy frameworks and institutional configuration to guide development partners and funding mechanisms. There is also the need to enhance the communication and information capacity of rural family farmers and populations to amplify their voices in policies and enhance full participation in rural development processes.

Evidence demonstrated in the 19 cases shows increasing trends towards these policy, communication and information needs of rural populations. As discussed earlier, initiatives characterised as Rural Communication Services that are solely based on stakeholders' participation accounted for positive outcomes such as social learning and equitable access to relevant livelihood information and services.

At a more specific level, the outcome of this study offers some initial food for thought to inform the dialogue on how the evidence-based approaches for RCS can help shape up new services linking different sub-sectors, such as rural advisory services (RAS), FFS, telecoms, community media and ICT4D. To harness these potentials, however, requires carefully orchestrated agricultural policies and institutional configurations, including different funding timelines and mechanisms. In this regard, this study recommends that agricultural policies and funding priorities encourage and make possible user-driven evaluations that are designed in the early stages of an initiative and last beyond the operational phases to support stakeholder involvement and sustained processes of change.

A policy focus on rural development revolves around investing in technological interventions or communication services that are believed to improve rural livelihoods. Based on the evaluation of the 19 cases, there is an imbalance in terms of how these initiatives are planned, implemented and evaluated. Policy commitment and funding possibilities are often limited beyond the implementation phase of most RCS initiatives. It is common to see that the evaluation of the initiatives are left in the hands of external consultants, with focus on generating information that specifically accounts for the value of money invested in the initiatives.

What this study has further shown is that project evaluations are equally important at the planning and implementation stages. In particular, evaluations that are configured to facilitate adaptive or social learning processes involving project stakeholders. It shows that only when evaluation approaches are configured in this way, then the possibility of participation, effective communication and access to equitable information and knowledge becomes a true reality of RCS.

In the light of this, the following policy recommendations are suggested:

- 1. Evaluation strategies should be defined during the early planning phase of an RCS initiative, including the type of evidence being sought for formative evaluation and summative evaluation. Formative evaluation occurs within the lifecycle of the initiative and summative evaluation occurs after the investment, with attention to effects (immediately after to one year); outcomes (within 2-5 years); and impacts (after 5 years or longer). Early planning can help prioritize targets, best manage resources, and design the most cost-effective evaluation approaches.
- 2. Evaluation strategies must themselves be evaluated, which is one of the major lessons learned within large development organizations such as the World Bank.
- 3. RCS evaluation should include primary stakeholders and also expand to include project leaders and managers, as they have the power to influence policy and introduce reforms based on the evaluation. The use of diverse formats for reporting to clearly target different stakeholders is vital.
- 4. The goal for policy interventions should focus on all stages of RCS planning, implementation and evaluation. It should emphasize the development of frameworks and approaches that target human capacity development, participation, equitable and gender-sensitive access to information and services. Once these approaches are embedded in project planning and evaluation, the likelihood of long-term sustainability could be increased.
- **5.** The nature of any RCS intervention is that its outcomes and impacts can spill over and reach beyond the individual intended participants of development projects, programmes and even sectoral policies. Evaluation, therefore, must also cover the larger system where the participants belong, i.e. their organizations and communities. Findings at these levels provide a clearer picture of the RCS net impact. This implicates moving beyond simple evaluation to complex systems thinking.
- 6. Obviously, an accountability framework cannot be completely abolished as it is required to streamline operational matters. Nonetheless, if the goal is to conduct a programme theory evaluation to produce causal, results-based evidence, the research design should be a randomized experiment over descriptive or ex ante/ex post analysis. This, however, requires more resources for effective design, as well as continually updated data management and availability of these potentially limited resources should be considered. There is likely to be a trade-off between quality of evaluation and resource-use.
- 7. Mixed methods provide relevant options in RCS evaluation. Quantitative and qualitative data and analysis have different functions. Often, quantitative methods provide the breadth, while qualitative methods provide the depth. Together, they may generate a more solid evidence base. It is, however, important that when adopting a mixed methods approach, the design should aim at eliciting in-depth knowledge to generate good communication and strengthening rural knowledge institutions and people's participation.
- 8. For evidence to be considered for incorporation in rural development policy and practice, a public awareness strategy for the dissemination of evaluation findings should target audiences at all levels, from participants, wider rural communities, project staff, through to policy makers, using appropriate media and platforms.

9. Sharing of evidence-based results could be supported through development of a community of practice (CoP) for RCS evaluation within countries, regions and globally. Findings, methods and strategies could be exchanged and results published online, not only within journal articles, dissertations, or conferences. Donors and policymakers should be active participants within the CoPs. Open access CoPs should encourage engagement of rural communities as they have the biggest stake in evaluation results. ICTs and community media may be configured appropriately to support knowledge sharing and communication about good RCS. Communication within development evaluation processes rarely receives attention among policymakers and evaluation researchers. However, the outcome of this study shows that policy makers need to turn their attention to user-driven evaluation approaches in RCS if the aim is to achieve sustainable rural development.

Part of these policy and institutional efforts can also be extended to building the capacity of farmers and rural population, not only to adapt RCS to their needs, but also for them to become self-reliant in the operation of the RCS beyond a project or initiative. One way to attain this is through social entrepreneurship. Given that most RCS are donor driven, there is likelihood that a majority of these services would stop functioning once the funding ends or project life-cycle comes to an end. This is evident in the failure of a rural telecentre initiative in Wu'an, China due to the lack of assets such as management skills and funds to cover the running cost (Soriano, 2007). Therefore, it is imperative for long-term sustainability of RCS policy to also focus on a social entrepreneurship model that enhances the financial capability of rural people to continue to provide the needed RCS services.

Despite its limitations in terms of case selection and desk-top methodology, this study has collated a relative wealth of experiences and provided a range of pointers and recommendations to feed into further dialogue on the issue of evidence-based approaches informing policy. Future studies that involve a more in-depth analysis of specific cases through primary data collection methods can contribute further to the understanding of what should be done to provide good evidence of RCS initiatives that can effectively inform policy towards planning and implementation of these RCS in the larger sustainable development context. In addition, the results of such studies should be actively presented at major academic and policy forums to further dialogue and inform policy, practice and theory building.

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APPENDIX I

LIST OF RCS CASES INCLUDED IN THE STUDY

Ini	tiative	Responsible organization	Region and countries	
1.	African Rural Radio Programme Analysis (ARRPA)	Farm Radio International (FRI)	Africa	Cameroon, Ghana, Malawi, Kenya, Tanzania
2.	East African Agricultural Productivity Programme (EAAPP)	Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA)		Uganda, Tanzania, Kenya, Ethiopia
3.	e.rails – The African Portal on Agriculture (eRAILS)	Forum for Agricultural Research in Africa (FARA)		Africa
4.	Shamba Shape Up (SSU)	Mediae		Kenya, Uganda, Tanzania
5.	RUFORUM Information & Communication Technology Programme (RUFORUM-ICT)	Regional Universities Forum for Capacity Building in Agriculture (RUFORUM)		22 African countries
6.	Knowledge Network for Rural Development in the Asia-Pacific Region (ENRAP)	International Fund for Agricultural Development (IFAD) and International Development Research Centre (IDRC-Canada)	Asia-Pacific	Asia-Pacific
7.	eBario Project— Sarawak	University Malaysia Sarawak (UNIMAS)		Malaysia
8.	Tradenet	Dialog Axiata PLC, LIRNEasia, IDRC-Canada, Govi Gnana Seva and USAID		Sri Lanka
9.	Informatics for Rural Health and Community Health (iREACH)	Cheal Sim University of Kamchaymear		Cambodia
10	. Knowledge Help Extension Technology Initiative (KHETI)	Sironj Crops Producers Company Limited (SCPCL)		India
11	. Rural Communication Services on Saline- Tolerant Rice Varieties (RCS-STRV)	Bangladeshi government agricultural extension service		Bangladesh

Initiative	Responsible organization	Region and countrie	s
12. Community-based Natural Resource Management (CBNRM)	Nine national RCS providers, including government organizations, universities, research institutes and NGOs	Asia-Pacific	China, Vietnam, Philippines, Mongolia
13. Farmer Field Schools (FFS)	Thai Department of Agriculture Extension (DOAE)		Thailand
14. Adaptive Learning and Linkages in Community-Based Natural Resource Management (ALL in CBNRM)	College of Development Communication, University of the Philippines Los Baños (UPLB) and IDRC-Canada		Cambodia, Lao PDR, Thailand, Philippines, Vietnam
15. Starfish – her infinite impact	Starfish	Latin America and the Caribbean	Guatemala
16. Interethnic Association for Development of the Selva of Peru (AIDESEP)	Interethnic Association for Development of the Selva of Peru (AIDESEP)		Peru
17. El Chambita Medidor	Government of El Salvador		El Salvador
18. Colombian Coffee Growers Association & Manuel Mejía Foundation (FNC & MMF)	Colombian Coffee Growers Association & Manuel Mejía Foundation		Colombia
19. Telecommunications and ICT Development Project	Organization of Eastern Caribbean States (OECS) Secretariat		Eastern Caribbean

APPENDIX II CASE DESCRIPTIONS

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AFRICAN RURAL RADIO PROGRAMME ANALYSIS (ARRPA)

CAMEROON, GHANA, KENYA, MALAWI AND TANZANIA - AFRICA

INSTITUTIONAL AND DEVELOPMENT CONTEXT

Radio continues to have a broad reach in Africa. However, documented analysis of broadcasting conditions and production practices is limited. Farm Radio International (FRI) is an NGO that provides scripts and other resources to rural radio stations in 38 African countries to support them in delivering more effective radio programmes. In 2011, FRI launched the African Rural Radio Programme Analysis (ARRPA) project to investigate farmer radio programmes in Sub-Saharan Africa.

Stakeholders

The primary stakeholders of farmer radio programmes are farmers. Secondary stakeholders include radio programme producers, other radio station staff and FRI. FRI's work is funded by a variety of individuals, groups, corporations, foundations and government groups.

Aims

FRI aims to "help African radio broadcasters meet the needs of local small-scale farmers and their families in rural communities." Rural radio programmes aim to support communication for rural innovation in stand-alone programmes as well as part of multi-media efforts of rural organizations, institutions and projects.

Approach

RCS INITIATIVE

Rural Radio stations broadcast at times convenient for farmers, in local languages, and have the ambition to enhance access to rural innovations and information. FRI develops broadcaster resources and training, impact programming (for specific development challenges) and promotes gender equality through all initiatives.

Achievements

The ARRPA evaluation confirms once again the relevance of rural radio. Although the ambition to align with farmers' needs is high on the agenda, dedicated but un-trained staff and the lack of transport and means of ICT communication most often hinder materialization of such ambitions. The contextual evaluation provided below highlighted the lack of female hosts, presenters and female voices in general.

Aims and audience

The ARRPA evaluation aimed to fill a knowledge gap as "little was known about the circumstances in which African farm broadcasters operate, and there was little documentation or analysis of the production practices used in farmer radio programmes, and on whether farmer programmes broadcast by radio stations in sub-Saharan Africa effectively serve listeners' needs." As well as identifying needs and providing practical recommendations to radio stations in sub-Saharan Africa, ARRPA aimed to assess FRI's services to rural radio programming and recommend areas for improvement.

ARRPA reviewed the main farmer radio programmes, which were regularly produced and broadcasted by 22 radio stations in Cameroon, Ghana, Kenya, Malawi and Tanzania in mid-2011. Radio stations and programme producers participated through collaboration with researchers. The evaluation presented an opportunity to gain insight into their radio programmes and to be involved in a process of reviewing and learning about radio production more broadly.

Approach to collecting evidence

The ARRPA report reflects an action research approach towards improvement of farmer radio programmes and station service delivery. The full research project is guided by a thorough understanding of the practice of radio production. The evaluation moves away from focussing only on the impact of a radio programme on a single audience towards recognizing technicalities and professional accountability of contemporary radio production. The exploration is based on detailed descriptions of programme specifics provided by the stations. Focus group discussions with farmer audiences (listening groups) evaluated experiences as well as suggestions for improvement. To assess the programme quality, the novel VOICE evaluation tool was tested. The VOICE model was not used to define absolute standards but to facilitate a relative and comparative assessment. VOICE represents:

Value	valuing farmers
Opportunity	providing opportunity for farmers' voices to be heard
Information	broadcasting information which is relevant, credible, and timely
Convenience	offering convenient broadcasting services
Entertainment	airing engaging and entertaining radio

Evidence and learning

The VOICE tool allowed a differentiation between higher and lower quality programmes and an identification of which elements were "easier and more difficult to meet". The relationship between station resources and programme quality was also studied. The evaluation strategy explored and recognized the wide diversity in production practices while at the same time developing a common framework for the quality of radio production. Some key lessons were:

- 1. The ARRPA evaluation approach started with a well-articulated focus on the production of farmer radio programmes and their relevance for farmers. It thereby highlighted professionalization and accountability of producers, presenters and funders.
- 2. The evaluation moved away from considering farmers' participation as a somehow vague social concept to understanding that participation provides an operational understanding of audience context. This way, participation was viewed as a direct indicator of relevancy.
- 3. ARRPA's focus on the multi-actor *setting* of radio production led to important findings. The collaborative approach of the evaluation highlighted challenges that radio stations and RCS providers, both governmental and non-governmental, have in working together. These groups must agree on common goals and ambitions to enhance effectiveness. The evaluation also highlighted the need for interdisciplinary training in radio production and in the field of communication for rural innovation.
- 4. Although the existing business models of farmer radio programmes and rural radio stations present financial challenges and constraints, the evaluation cannot be read as a plea for (donor) support. The evaluation presents a critical review of conventional organizational procedures of radio stations to discuss that they are not favourable to innovate on existing programming and financial management.

Effectiveness of reporting

The ARRPA project report provides, in full detail, the design and implementation of the project and is available under creative commons on the Internet. This case description is based on the report. The ARRPA project (report) creates a sense of accountability towards the relevancy of farmer radio programmes. The report focuses on sharing the results on the production and relevance of the programmes in a learning perspective. Recommendations provided to radio stations effectively consider the radio stations' organizational capacities, the wider agricultural context and farmers' needs and wishes.

POLICY IMPLICATIONS OF EVALUATION APPROACH

The ARRPA evaluation provides an exemplary model to evaluate farmer radio programmes. The VOICE evaluation tool provides evaluators, who once asked "how do you evaluate the content of the radio programme", with a standardized framework to use across programmes. VOICE was recently used in a 2015 extension and advisory radio assessment in Mozambique.

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EAST AFRICAN AGRICULTURAL PRODUCTIVITY PROGRAMME (EAAPP)

UGANDA, TANZANIA, KENYA AND ETHIOPIA - EAST AFRICA

INSTITUTIONAL AND DEVELOPMENT CONTEXT

The East African Agricultural Productivity Programme (EAAPP) was conceived as a Regional Agricultural Research for Development initiative. The programme provides RCS through enhanced collaboration in agriculture training and technology dissemination, and especially in facilitating increased transfer of agricultural technology, information and knowledge across national boundaries. It is implemented as a regional partnership of the governments of Ethiopia, Kenya, Tanzania and Uganda with the Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA) and the World Bank.

Stakeholders

Primary stakeholders were farmers producing cassava in Uganda, dairy in Kenya, rice in Tanzania and wheat in Ethiopia. ASARECA is a not-for-profit sub-regional organization of the National Agricultural Research Systems of 11 member countries. It was created to enhance regional collective action in agricultural research for development, extension, training and education, and coordinates the monitoring and evaluation of the planned activities under EAAPP. The M&E officers of the Regional Centres of Excellence (RCoEs) ensure effective monitoring, data collection and reporting. ASARECA has developed the M&E framework for the project and provided training for partners to facilitate evidence-based and adaptive management through the Performance Monitoring Plan (PMP). The PMP is based on the ASARECA M&E framework, which is in line with the Comprehensive Africa Agricultural Development Programme (CAADP) framework that is adopted by many of the Africa Union (AU) member states. ASARECA also has an ongoing ole in ensuring that the result targets for the project are monitored and achieved, in collaboration with the team members from all the four Centres of Excellence. Each RCoE has developed its own PMPs. The PMP lays out the monitoring and evaluation system that ASARECA and the RCoEs will implement to determine the programme's success.

Aims

RCS INITIATIVE

EAAPP aims to enhance regional specialization in agricultural research, enhance collaboration in agriculture training and technology dissemination, and facilitate increased transfer of agricultural technology, information and knowledge across national boundaries. EAAPP is a ten-year programme with two phases.

Approach

Phase I, approved in 2009, focused on capacity building with the establishment of the RCoEs through construction/improvement of infrastructure and human resource development, technology generation and dissemination, and improving seeds and breeds availability. This phase also involved development of communication strategies within each country.

Achievements

As far as the rate of increase in information and knowledge transfer across national boundaries is concerned after phase I, the regional centres of excellence have developed 138 new technologies. Many of these technologies are new varieties of cassava, rice, wheat and forage crops. Twenty-three new technologies have been disseminated across national boundaries. The project has produced a large volume of dissemination materials in the form of leaflets, booklets, posters and manuals. All countries have prepared communication strategies. The project is yet to exploit the full potential of digital and other communication approaches.

The PMP describes relationships between (i) the approaches, indicators, milestones and targets described in the Project Appraisal Document; (ii) the activities described in the same document work plan; and (iii) Country Project Implementation Plans (PIPs). The PMP presents and defines project-specific objectives, terminology, beneficiary populations, indicators, measurements, and targets. It also develops the monitoring and evaluation system to be used for data collection, analysis and reporting.

Additionally, ASARECA commissioned the Natural Resources Institute (NRI) of the University of Greenwich in partnership with Africa Innovations Institute (AfrII) to conduct an end-of-project evaluation, including Economic Analysis and Impact Assessment focusing on outcome-level evaluation of the implementation of EAAPP phase I. The overall evaluation objectives were to: critically undertake an economic analysis and assess achievements of the implemented projects; critically assess the performance of EAAPP in meeting its development objective; and generate key lessons to inform the design of the next potential phase of EAAPP.

Approach to collecting evidence

- 1. *Desk Review* of all relevant project documents was used to guide site selection, stakeholder interviews, site/field visits and farmer interviews, and as a benchmark for outcomes (verified during the evaluation). Secondary data and literature were also researched to inform Goal and Purpose indicators, including FAOSTAT data.
- 2. Key informant interviews were carried out during field visits to projects in the four EAAPP countries (Uganda, Tanzania, Kenya, and Ethiopia). Interviews specifically targeted stakeholders from public agricultural research and extension institutions, agricultural R&D specialists, policy makers, donors, EAAPP staff, NGOs, private sector, farmer organizations, Universities and other stakeholders involved in the implementation of the project. Similarly, officials from government ministries were interviewed to assess any changes in policy harmonization with respect to cross-border transfer of germplasm, knowledge and information, capacity development of scientists, partnership and sustainability issues.
- 3. Focus group discussions were utilized to collect qualitative primary data by soliciting information from groups of people whose views related to EAAPP beneficiary assessment. The FGD had the advantage that the participating members were able to state how they benefitted from the project and had the opportunity to suggest ways of improving service delivery.
- 4. *Beneficiary impact assessment* was based on structured questionnaires administered to 1 239 households in the four project countries, of which 671 were direct EAAPP project beneficiaries and 568 non-beneficiaries, as a control. Non-beneficiaries were selected with similar socio-economic characteristics to beneficiaries.

Evidence and learning

There is not much evidence to show that the project has exploited the full potential of communication approaches. Nor has it supported activities that document and share learning on the situations where a particular communication approach has proved to be valuable. Nevertheless, there are sub-projects that compare the use of different extension approaches, which have been reported on regional online portals.

Effectiveness of reporting

To ensure effective performance monitoring, bi-Annual Joint Review Meetings (Portfolio Reviews) are held with RCoE Coordinators and M&E Officers. These meetings provide a platform for collective assessment of progress against milestones (the Annual Workplan and Budget). These reviews are targeted to lead to management decisions about programme and project implementation and feedback.

POLICY IMPLICATIONS OF EVALUATION

This case demonstrates a systematic and transparent way of integrating M&E. EAAPP M&E systems are well designed and managed, providing timely results for project management. However, it is resource intensive and focused on the PMP, which has a large number of quantitative indicators which require frequent follow up. As the programme moves to a new phase more attention is needed on lesson learning, evaluation and sharing best practices.

The documentation on this case also concluded that evaluation and monitoring requires due attention to all societal groups, particularly women and youth who tend to be underrepresented in programmes as well as in M&E, thereby being fully overlooked.

Source

Wellard, K., Chancellor, T., Okecho, G., Ndagire, S. (2015). End of Phase 1 Evaluation of the East African Agricultural Productivity Programme – EAAPP. Final Report. Natural Resources Institute (NRI) University of Greenwich with Africa Innovations Institute (AfrII), March 2015. Retrieved from: http://www.asareca.org/~asareca/sites/default/files/ publications/EAAPP%20Eval%20-%20Format%20FINAL%20%282%29.doc

E.RAILS – THE AFRICAN PORTAL ON AGRICULTURE (E.RAILS)

AFRICA

INSTITUTIONAL AND DEVELOPMENT CONTEXT

The Forum for Agricultural Research in Africa (FARA) is a continent-wide organization responsible for coordinating and advocating for agricultural research for development (R4D). FARA serves as the technical arm of the Africa Union Commission on matters concerning agriculture science, technology and innovation. FARA also plays a key role in representing the agricultural R4D sector, and brings a strong African voice to global forums such as the G-8 and the Global Forum on Agricultural Research (GFAR). The Regional Agricultural Information and Learning System (RAILS) is one of the projects implemented by FARA and functions as a Rural Communication Service. E.RAILS is the online portal of RAILS that offers a decentralized online agricultural information and knowledge platform. The web site is for everybody working for agricultural and rural development in Africa. Those living and working in Africa can request an account to create web sites and pages to promote activities and share information free of charge.

Stakeholders

- The primary stakeholders of RAILS are African farmers. RAILS is managed by the Sub-Regional Organizations (SROs) and implemented by the National Agricultural Research Systems (NARS) in 34 countries in Sub-Saharan Africa.
- In implementing its strategy, FARA mobilizes stakeholders around a portfolio of continent-wide programmes and projects jointly developed with the stakeholders, to address specific challenges or opportunities.
- FARA involves all its stakeholders in project implementation, evaluation and management through creating enabling policy environments and networks but also works with independent evaluators.
- The initiative is funded by the African Development Bank (AfDB).

Aims

The overall goal of RAILS is to develop an African platform for agricultural information and learning systems, in which e.RAILS serves to enhance access, retrieval and use of agricultural information and technologies by African agricultural research for development stakeholders in the global knowledge exchange arena through an online portal.

Approach

- Give farmers a voice establish dialogue in a bottom-up approach between the farming community, NARS and other stakeholders to identify needs and opportunities.
- Enhance the knowledge management capacity of the RAILS Learning Teams, especially to mediate between farming communities and NARS.
- Improve sharing of information between countries, making research findings available and accessible to farming communities and data from rural areas available to researchers.
- Contribute to the regional database on experts, institutions, programmes and projects.
- Develop an operational framework for scaling.

Achievements

Nineteen communities and farmers organizations, 76 field and local data entry agents, 1116 pilot farmers, 12 national knowledge management experts, 96 subject matter specialists (experts) and 8 national facilitators (young professionals) have actively collaborated in the delivery and documentation of 1 434 services. A total of 1 116 requests and answers with 9 371 images, 2 360 links to relevant web-resources and 565 documents with additional information were published on the Internet in near real time.

All farmers who raised a problem received a printed answer from an expert. Field agents explained the answers to them and to the other farmers attending the meeting (2.8 on average) bringing the total number of direct beneficiaries to 4 370. On average, application of the proposed solution was reported by farmers to increase their yields by 40% in the subsequent season and the advice was shared with five neighbouring farmers. This diffusion rate suggests that an estimated 25 000 could be reached in the first year of the project.

RCS INITIATIVE

FARA accounts for the effects and impacts of its work to: (a) Report against the FARA Strategic Plan (SP), Medium Term Operational Plan (MTOP) and the Results Framework (RF) they contain in accordance with the FARA Theory of Change and guidelines articulated in the FARA Monitoring and Evaluation Strategy and the Performance Monitoring Guidelines; (b) Provide accountability for the funds, staff time and other inputs; (c) Monitor the performance of FARA and partners, as to whether the inputs are being applied appropriately to achieve the desired results, and to trigger an appropriate management response; (d) Create an evidence base, including baselines, to enable evaluation of the MTOP as a whole, in the mid-term and at the end of the MTOP period, and an on-going plan for impact assessment; (e) Methodically capture lessons learned from successes and failures on how FARA investments contribute to strengthen Africa's human capital, agricultural research capacities and agricultural development and; (f) Generate data and information for corporate reporting on Programme/Unit performance, managing risk and overall progress towards achieving the FARA strategic objectives, outcomes and impact.

The FARA M&E strategy for 2014-18 does not always read as being based on a critical review of the organization and the forward planning statement at the end of the documents. Instead, it provides a circular reference. It states that 'the M&E strategy should include a framework that allows active participation of farmers, civil society and the private sector in the review and evaluation of these programmes, in accordance with the principles set out in [larger development] agenda documents [...].'

Approach to collecting evidence

FARA traces the impact of its investments at three levels – (1) FARA Secretariat, (2) The FORUM Network of institutions, (3) Wider agricultural network (including the national agricultural research systems (NARS), farmers and their organizations, private sector and civil society. FARA places a strong emphasis on the innovative use of ICTs to underpin the M&E process. FARA developed the documents, M&E Strategy 2014-2018 and Performance Monitoring Guidance Manual.

The M&E Unit collects, analyses, manages, and reports on data and information, embedding a Theory of Change focussing on: (a) developing a simple, technology-enabled monitoring approach that supports managers at multiple levels to capture, analyse, visualize and report on progress in delivering work and achieving results, (b) significantly increasing the number of evaluations in programmes and projects through a managed regular cycle of outcome and impact monitoring and evaluation, (c) producing evaluative knowledge products, (d) providing coaching, mentoring and capacity building to support staff and selected partners to manage and develop their skills in monitoring and evaluation, and, (e) increasing staff skills in commissioning and managing high quality evaluations.

Evidence and learning

FARA recognizes that to change complex conditions and a system, "failure" is a natural part of the learning process. If a strategy does not achieve the desired threshold of change over time, the organization, investment level, processes, capacity and implementation will be assessed. In cases where these were at an appropriate level to achieve change but changes in outcomes did not occur, it will be necessary for FARA to recognize that the strategy may not have been the right one to bring about the desired improvements. By working collaboratively with stakeholders and partners through this process, FARA can better determine if the components in the Theory of Change make sense and reflect the best knowledge and experience available.

Effectiveness of reporting

Very little is reported in terms of evaluation results on the various websites and no publications are mentioned.

POLICY IMPLICATIONS OF EVALUATION

Based on the experiences and lessons learned from e.RAILS, an operational framework for further scaling was proposed, in an iterative process involving representatives of all stakeholder groups. In a first step towards implementation, an action plan for the development of a regional agricultural technology platform was developed by the national facilitators, representatives of the RAILS team, the SROs and FARA.

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SHAMBA SHAPE UP (SSU)

KENYA, UGANDA AND TANZANIA – EAST AFRICA

INSTITUTIONAL AND DEVELOPMENT CONTEXT

Shamba Shape Up (SSU) is an edutainment television reality show created by Mediae, a media company for education and development with offices in Kenya and the UK. SSU was first broadcast on Citizen Television in Kenya in 2012. Series 2 and 3 aired in 2013, series 4 in 2014 and series 5 in 2015. In 2015, the producers launched iShamba, which is Shamba Shape Up's mobile platform that offers all the best tips from the show, along with weather alerts, market price information and special offers.

Shamba Shape-Up initially received funding from the African Enterprise Challenge Fund (AECF), a privatesector organization, which had to be matched with other funding sources. Other sponsors and collaborators that have come on board include several research institutes, a range of agribusiness companies, and donor agency such as DfID and USAID.

Stakeholders

Shamba Shape Up is aimed at East Africa's rural population (primary stakeholders), with the filming taking place in Kenya, and episodes aired across Kenya, Uganda and Tanzania. The production team from Mediae work with farming families to explore a farming issue and invite researchers from national and international research institutes or consultants from private agribusiness companies to provide expert advice.

Aims

The television show aims at "giving both farmer and audience the tools they need to improve productivity and income on their farms."

Approach

INITIATIVE

RCS

Each week, the SSU team visits a different farm (approximately 4 days spent on each farm) with a film crew and experts from partner organizations, relevant to the specific needs of the farmer. Episodes cover a range of livelihood and agriculture issues, such as livestock, poultry, crops, soil fertility, financial planning, solar power and rainwater harvesting. At the end of each show, viewers can SMS their names and addresses, to receive a leaflet on the topics covered in the weekly show. There is a Facebook page with updates and video clips.

Achievements

Shamba Shape Up's estimated audience in the first series was around 5 million, rising to 10 million by the end of series 5 in the whole of East Africa (and 5 million in Kenya alone).

The University of Reading found in 2014 that the overall number of households specifically reporting that they had made changes to their maize or dairy practices as a result of the programme, or who reported that they had benefited from SSU through increased profit or improved household food security, is estimated to be 428 566. Households who reported making specific changes in their farming practices as a result of SSU are estimated to be 218 562 households for maize and 65 063 for dairy. From these two enterprises, the estimated net economic impact in the 25 counties was US\$24 718 648; this comes mostly from dairy enterprises.

Mediae, on their website, indicate that their programming is driven by evidence and research, and each evaluation includes lessons learned for future series. Mediae have invited several evaluations since the inception of SSU:

- 1. Series 4 Knowledge, Attitude and Practices (KAP) Survey (2014) by Research Guide Africa: This study involved national pre-and post-intervention KAP surveys of farmers. Findings are analysed with some reflection on the research done by the University of Reading, including reflection on methodological changes needed in future studies.
- 2. Assessing the Impacts of SSU (2014) by the University of Reading, with Kenyan Research Partners Research Guide Africa, Adaptive Research Centre Africa, and Howard and Crowe Consultants with guidance from Wageningen University's Centre for Development Innovation (CDI). This study was commissioned by the funding body AECF, to study the impact of SSU on small scale agriculture in Kenya, and how the show influences farmer activities. The research was based on a theory of change (mass media and society, agricultural and rural extension, and innovation systems thinking). Two questionnaires were combined with detailed study at selected areas using participatory tools, including participatory budgets, focus group discussions, and key informant interviews.
- 3. Series 1 Impact Study of SSU Pilot Series (2012) by Research Guide Africa: The evaluation is based on pre-and post-broadcast surveys done in 2012. Respondents were selected according to a set of criteria based on their decision-making in farming, television ownership, the importance of crop and livestock sales to their income, and quantity and quality of land cultivated.
- 4. SSU Series 2 & 3 KAP Study (2013) by Research Guide Africa: This evaluation involved national pre- and post-intervention KAP surveys conducted in 2013 prior to and immediately after the broadcast of Series 2 & 3. Surveys were conducted with viewers and non-viewers. Surveys were conducted in 11 rural areas in Kenya, including those with high potential farming areas and low potential farming areas.
- 5. Series 1 Development Benefit Report (2013) by African Centre for Applied Research (ACAR): Commissioned by AECF to assess the cumulative impact of SSU on development benefits and systemic benefits. This was conducted after the broadcast of Season Two (prior to the post-broadcast KAP survey for Season Two). Research was based on home interviews with farmers in three regions of Kenya, secondary data, a self-completed postal survey of viewers in Kenya (from a sample of those who had previously requested leaflets during the show), and observation of systemic changes noted by Mediae and other implementing partners.

Approach to collecting evidence

The goals for the different pieces of research are to understand the changes that SSU has been able to cause in areas where it is viewed. The KAP studies focus on changes in knowledge, attitudes and behaviour resulting from the broadcast of each series of SSU. The larger-scale study conducted by the University of Reading explored how to quantify the impact of SSU, and the dynamics on different target agricultural and livelihoods sectors in Kenya.

Evidence and learning

Some reports include reflections on changes that have been made in response to findings from previous evaluations.

Effectiveness of reporting

Mediae present reports on their website. Mediae directors, staff and researchers also present findings from their studies, and reflections on the research process, at public forums. Each of these could bring the results into the realm of research and policy.

POLICY IMPLICATIONS OF EVALUATION

Research findings are directly tailored to building upon project activities. Over the course of the series, SSU has expanded from a shorter series in Kenya to a longer series filmed and broadcast in three countries. While the findings of the study may have limited policy relevance, they do have significant programme relevance as they have been able to highlight interesting, and sometimes unexpected, areas of impact. They have also suggested areas for future programming, to build on areas in need of continuous capacity development.

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RUFORUM INFORMATION & COMMUNICATION TECHNOLOGY PROGRAMME (RUFORUM-ICT)

AFRICA

INSTITUTIONAL AND DEVELOPMENT CONTEXT

The Regional Universities Forum for Capacity Building in Agriculture (RUFORUM), established by ten Vice Chancellors in 2004, is a consortium of 46 African universities operating within 22 countries spanning the African continent. RUFORUM is coordinated by a Secretariat hosted by Makerere University in Kampala, Uganda. RUFORUM's work responds to the African development challenges and particularly towards overcoming the challenges of engaging African universities with development processes. RUFORUM's work responds to the African development challenges of engaging African universities with development processes.

Stakeholders

Primary stakeholders are staff and students at participating universities and the wider community who access information made available by the universities.

Aims

The RUFORUM Information & Communication Technology (ICT) Programme focuses on strengthening the ICT capacity at the RUFORUM Secretariat and supporting the RUFORUM member universities to effectively harness the ICT opportunities. RUFORUM wants to achieve change through postgraduate education and courses for lecturers of member universities.

Approach

The programme covers the following areas:

- 1. Building the secretariat capacity to manage the information needs of the RUFORUM Secretariat and Network.
- 2. Supporting member universities to implement technology-mediated learning, teaching and research.
- 3. Supporting the member universities to create and use open educational resources.
- 4. Using ICT to publish and disseminate agricultural information and knowledge effectively.

Achievements

The RUFORUM Secretariat undertook several assessments on ICT use and e-readiness of the member universities. The analysis of existing ICT infrastructure and readiness for e-learning in four RUFORUM universities in 2007 revealed that the universities visited were aware of the potential benefits of e-learning yet a coordinated approach to implementing e-learning was clearly lacking. The ICT situation analysis of two member universities in 2009 found that 86% of the RUFORUM universities had campus backbones, 80% were active in National Research & Education Networks, 58% had ICT Policies in place and 60% had central ICT units to manage and monitor ICT projects. However, the Colleges of Agriculture were lagging behind in use of ICT for teaching, learning and research compared to others in the same university.

The e-learning maturity analysis of 29 universities in 2011 revealed that 59% member universities had placed the rationale for e-learning within an explicit institutional plan, 45% had distinct e-learning policies (26% in 2009) and 32% had specific e-learning units to implement e-learning. Teaching content from the Colleges of Agriculture was almost negligible on institutional learning management systems.

A review of the status of sharing and publishing of agricultural information and knowledge in 2012 by the 30 RUFORUM member universities revealed that 12 universities had institutional repositories (41%). However, these repositories contained very small percentages of agricultural information and knowledge.

The Planning, Monitoring, Evaluation & Learning Unit (PMEL) at RUFORUM is responsible for monitoring and evaluation. Evaluation proves that RUFORUM investments are yielding results among the beneficiaries. Impact is traced at three levels:

- 1. RUFORUM Secretariat
- 2. RUFORUM Network, including member universities, champions, strategic partners, national forums and governance bodies.
- 3. Wider agricultural network, including national governments, farmers and other stakeholders.

Approach to collecting evidence

Outcomes and impacts are measured through regular studies, field visits and grantee reports. Programme units at the Secretariat are engaged to make sure that data collection from the field meets the expected standards in terms of quality and consistency. Studies are carried out at three levels: baseline, midterm and end-of-project evaluation. Results from these studies are used as evidence to inform learning, improvement and accountability to stakeholders.

RUFORUM also uses independent evaluations.

Evidence and learning

EVALUATION

RUFORUM's PMEL Unit collects, analyses, manages, and reports on data and information that is used to:

- Monitor progress towards outcomes.
- Inform the management about research and training investments.
- Facilitate the testing of key assumptions within the AGRA strategy, programmes, and grants.
- Methodically capture lessons learned from successes and failures.
- Evaluate how RUFORUM's investments contribute to strengthening the human capital and research capacities of the member universities, national research systems and agricultural development to improve the lives of smallholder farmers.
- Manage risk.

Effectiveness of reporting

The publicly available RUFORUM website has a section "Our Impact", which, however, does not report much more than the strategy of evaluation and a list of very broad key achievements. Detailed information is available in annual reports available through the online repository. Monthly newsletters are produced to report on activities and results. Biennial conferences are organized that provide a platform for more detailed sharing of experiences and achievements.

POLICY IMPLICATIONS OF EVALUATION

- 1. Articulated policies and statements on evaluation and monitoring may not lead directly to good M&E practices, but they do contribute to an articulated and conducive environment.
- Technology mediated learning; teaching and research are on the agenda of all African agricultural universities. Initial activities and pilots are undertaken; the embedding in the university system also requires developing e-learning policies and regulations.
- 3. Capacities to create and use open educational sources must be developed with a focus on quality and innovation. The concept of 'E-readiness' might be useful to operationalize.
- 4. Pilots such as with MOOCS need to be carefully evaluated.
- 5. Enhanced ICT based knowledge and information management requires due ICT infrastructures and systems.

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KNOWLEDGE NETWORK FOR RURAL DEVELOPMENT IN THE ASIA-PACIFIC REGION (ENRAP)

ASIA-PACIFIC

INSTITUTIONAL AND DEVELOPMENT CONTEXT

ENRAP was designed in 1998 by IFAD in collaboration with the International Development Research Centre (IDRC). Through knowledge-sharing and networking using Information and Communication Technologies (ICTs) the project aims to bridge the information, communication and knowledge gaps among selected IFAD-supported rural agricultural development programmes and projects, in order to foster networking and improved poverty alleviation in the Asia-Pacific region. This is facilitated through the use of virtual sharing and face-to-face communication at country and regional level in the Asia-Pacific region. ENRAP works at regional, national and rural levels and therefore involves national governments in the region.

Stakeholders

- The primary stakeholders are selected IFAD-supported projects' management units and poor rural households and communities in project areas. These stakeholders are brought together to form a knowledge network and encourage the documentation of their experiences and sharing of knowledge on good practices. ENRAP is developed, funded and implemented by IFAD and the International Development Research Centre (IDRC).
- The impacts of the programme were accounted for through the measurement and evaluation of the project outcomes by external evaluators in collaboration with the project's implementation and funding partners. External evaluators were proposed by IFAD's Office of Evaluation and Studies and the IDRC Office in Singapore. ENRAP, IFAD officers and the Steering Committee developed the terms of reference for the evaluators.

Aims

- 1. To build strong communication networks and nurture the culture of knowledge and experience sharing that would lead to the increase in productivity and effectiveness of the projects in all rural communities.
- 2. The expected outcomes of the pilot phase (phase 1) were creating awareness and building the capacity of projects and partner staff in knowledge production. The expected outcomes of the second and third phase included increased training, utilization and institutionalization of ICTs for horizontal communication, a self-sustained network of collaboration and sharing of new agricultural techniques and practices between community-based organizations (CBOs) and projects, within and between countries.

Approach

The project was implemented in three phases:

- 1. Building ICT usage capacity and raising awareness about the need for ICTs.
- 2. Building on the outcome of phases, strengthen and deepen networking and sharing of knowledge on good practices at all levels for the benefit of rural communities.
- 3. Increase a sustained sharing of knowledge and information to facilitate the reduction of rural poverty.

The activities of the initiative included building ICT infrastructure, improving internet connectivity, training in ICT use and digital video documentation, and organizing regional and national workshops on knowledge sharing.

Based on the evaluation documents, the stakeholders are only involved in the implementation and evaluation stages. Their inputs involved participating in implementation activities and responding to evaluation questions. ENRAP also initiated regional networking between IFAD projects' countries through several face-to-face and other networking activities, including regional meetings, exposure visits and the formation of electronic groups.

Achievements

The project resulted in a sustained increase in awareness and commitment of IFAD-funded projects in sharing information using ICT tools, and an enhanced culture of learning and knowledge sharing among network members. This increased commitment to knowledge sharing was reflected in rising project contribution to funding of activities. A core network of IFAD projects and partners was built, sharing knowledge on regular basis to learn and apply lessons was established.

- Increased awareness of national governments, rural community and staff.
- Adoption of the multi-level systematization process (knowledge generation, distribution) by Indian and Philippine governments.
- Enhanced capacity of project and partner staff to produce and share knowledge using ICTs.
- The overall programme activities were limited to project management units, falling short of enabling the communities themselves to access and integrate ICTs into their everyday practices.

Aims and audience

EVALUATION

- The evaluation aimed to provide evidence to funding partners on the progress of the project, identify strengths, weaknesses and opportunities at each stage of the project, with the view of improving the effectiveness and sustainability, and to inform policy for adaptation or scaling up. The evaluation targets a large audience including IFAD, IDRC, national governments, IFAD-funded project management units, CBOs and the broader rural communities in 18 Asia-Pacific countries.
- It was hoped that the evaluation would influence policy and public awareness.

Approach to collecting evidence

- The evaluation was guided by the objectives and guidelines of ENRAP in alignment with the strategic framework of IFAD, producing a linear logic model of change based on two-dimensional processes: 1) Evaluation of ENRAP's impact on individual interventions; 2) Evaluation of impact across different levels (projects, local government units, partner NGOs and broader rural communities).
- Mixed methods were used (interviews, field observations, questionnaires, and review of monitoring and annual reports, project-specific literature, website and digital videos), to ensure a broad coverage of all stakeholders and their different levels of engagement.

Evidence and learning

All three evaluation documents only highlighted some key shortcomings and recommendations for improvement.

Effectiveness of reporting

- The outcomes of the project evaluation were reported mainly through report format. However, other
 formats such as website, policy brief, symposiums, conferences, academic book and local news media
 were used to report the outcome and success of the project.
- The formats were chosen to convey evidence on return of investment in acceptable and credible formats. Another reason was to reach a wider audience in order to gain attention and establish credibility of the success of the ENRAP initiative in the Asia-Pacific region.

POLICY IMPLICATIONS OF EVALUATION

The outcome of the evaluation has both policy and practical implication in terms of how rural communication services are introduced and operationalized. At policy level, the evaluation showed that the operationalization of rural communication services required different levels of commitment at institutional, organizational, community and individual levels. IFAD nurtured a culture of sharing ideas, experiences and learning among its funded projects and communities in project areas. This environment enabled them to seize the potential of ICTs to overcome communication challenges. The success of the initiative gained significant recognition in the Asia-Pacific region, leading to its expansion from five countries to eighteen countries in the region. However, in terms of practice, the evaluation approaches offered very limited opportunity to the local people to share their experiences and redirect the programme in their favour. Their participation in the evaluation was predominantly based on responding to predefined evaluation questions. This weakness contributed partly to the failure of the local people to fully integrate ICTs into their everyday livelihood.

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EBARIO PROJECT—SARAWAK MALAYSIA - ASIA

INSTITUTIONAL AND DEVELOPMENT CONTEXT

The eBario Project was launched in 1999 as part of building a knowledge-based economic strategy embodied in the Malaysian Government's vision for 2020. The government acknowledged the particular challenges for the Kelabit people living in a remote region of Sarawak in accessing knowledge and economic opportunities.

Stakeholders

- eBario was a community project initiative established and run by and for isolated communities of the Kelabit people living on the remote Borneo island of Malaysia's northern Sarawak province.
- The project implementation partners were the research team from the University of Malaysia Sarawak (UNIMAS) in collaboration with the Bario rural community members and IT specialists.
- The project was primarily evaluated by a research team from UNIMAS, but its success and popularity attracted attention from UNDP, ITU, and PANAsia Telecenter Learning & Evaluation Group's (PANTLEG). It also featured in local Malaysian press.
- The project was funded by the Canadian International Development Research Council (IDRC) and the Malaysian Government grant under the Demonstrator Application Grant Scheme, which seeks to maximize the benefits of proven ICT-based projects.

Aims

The overall goal of eBario was to tackle isolation issues, stimulate local economy, and empower and improve the quality of life of the people living in remote, rural, isolated communities in the Sarawak province. The objectives, based on a participatory needs assessment, were to: Increase information access and communication capability to address isolation issues and social exclusion, promote cultural activities to attract tourism opportunity, and explore and identify new economic opportunities to improve the quality of life.

Approach

RCS INITIATIVE

The project was systematically implemented through a participatory action research (PAR) approach, with three phases:

- 1. Preparation The project team conducted a community needs assessment and baseline study to inform the development and evaluation of the project. The community participated to agree on the project objectives and activities.
- 2. Training and Awareness-building Project managers and potential users were offered information technology familiarization and skills training. Awareness was built among community members about potential project benefits.
- 3. Strengthening Local Ownership Local steering and management committees were developed to manage the project. The local team were engaged as evaluators to monitor the progress and identify new opportunities for maximizing the benefit of the project.

Achievements

The PAR approach increased community ownership and sustainability of the initiative. The project led to increases in: ICT knowledge, skills and infrastructure (e.g. computer laboratory, community telecentre and solar powered electricity), communication within and outside the community, tourism and stimulation of the local economy, employment (and reduced urban migration for young people), local ownership and financial sustainability (beyond project end). The project exceeded expectations with widespread popularity and replication in other settings.

The evaluation had several aims including exploring ways to maintain sustainability, further improve quality of life and adapt and scale up the process, thus informing policy. The evaluation also provided evidence for funders and the broader development community on participatory rural development. The evaluation targeted a large audience including IDRC, the Malaysian Government, local and international development institutions, researchers and academia.

Approach to collecting evidence

The evaluation utilized the PAR model with community members and other stakeholders heavily involved, interviews and a survey. The guiding questions were based on project objectives and the 2020 vision of a knowledge-based economy. The evaluation was designed by the UNIMAS team, funders and local stakeholders.

Evidence and learning

The PAR evaluation process contributed significantly to the success and sustainability of the project. The process empowered local communities to participate in the ongoing development of the project, leading to an increased sense of ownership and feeling of responsibility.

Effectiveness of reporting

The evaluators published findings in a report, policy brief and academic journals, and on a website, and presented findings at symposiums, conferences, and to local news media. This multimodal dissemination strategy proved effective in that it attracted policy and international attention leading to the replication of the project in other rural communities in and outside Malaysia.

POLICY IMPLICATIONS OF EVALUATION

The evaluation, showing project process and outcomes, influenced policy and attracted local and international attention. This led to the introduction of the project into other rural districts in Malaysia and the development of a proposal for establishing a rural communication research centre, the Centre for Rural Information Technology and Development (CRITAD).

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TRADENET SRI LANKA – ASIA

INSTITUTIONAL AND DEVELOPMENT CONTEXT

In Sri Lanka and many developing countries rural smallholder farmers are vulnerable to being exploited by intermediaries because of information asymmetry. Market volatility and lack of access to information also make it difficult to match supply with demand for optimal livelihood outcomes. The Sri Lankan government, Dialog Telekom and 'Govi Gnana Seva' (GGS) launched Tradenet in 2009 to respond to these issues. GGS is the agriculture research arm of South Asian think-tank LIRNEasia. Tradenet operates as a project under the South Asian/Sri Lanka agricultural research policy and GGS initiative.

Stakeholders

- The project's direct stakeholders were smallholder farmers in major rural agricultural districts in Sri Lanka.
- Implementation partners included Dialog Axiata PLC, LIRNEasia, International Development Research Centre (IDRC), Govi Gnana Seva and USAID
- The project evaluators were LIRNEasia researchers who were involved in the development and implementation of the project.
- The project was partly funded by the Sri Lankan Government, USAID and parts of the research by IDRC. The project operational costs were provided by Dialog Axiata PLC.

Aims

The overall goal of the project was to improve price transparency and collaborative trading of agricultural products among famers and traders through a multi-information platform. The objectives were thus to increase smallholder access to real time agricultural commodity price information via mobile phones in order to enable farmers to integrate supply and demand information and to eradicate intermediaries between smallholders, the market and other trading partners by bringing farmers, enterprises of varying sizes, aggregators, and trade associations or cooperatives together. These objectives were chosen based on the outcomes of baseline research conducted by the implementing partners. It was expected that the decision-making capacity, financial and physical capital of farmers would increase and the project would enhance the social and functional network of farmers.

Approach

INITIATIVE

RCS |

The Tradenet market platform was designed and coordinated by Dialog and LIRNEasia. GGS and Dialog collected and transferred real-time market information via WAP-enabled mobile phones to the Tradenet server. Data collection methods were then improved and research was conducted to expand the project into other markets.

The project implementation involved the use of a network of 'infomediaries' who served as digital evangelists in their communities in order to increase adoption. These infomediaries, 5000 social entrepreneurs, were given training on social etiquette, public speaking and community engagement by Dialog and the International Finance Corporation in Sri Lanka.

Smallholders were involved in the baseline study and given in-depth training on the appropriate use of the Tradenet platform with their mobile phones, computers or the call centre, shortly after the baseline study. They were also involved in the Action Research Pilot (ARP) project evaluation process.

Achievements

Tradenet led to significant changes in livelihood assets, including financial, social and human capital over the course of the research. Stronger social networks developed among farmers, traders, relatives and neighbours. Farmers developed greater knowledge and understanding of commodity price trends. Realtime information alerts became available, reducing the vulnerability of farmers to intra- and inter-day price movements, and farmers were more involved in livelihood decision-making (cultivation, harvesting, selling). There was a slow change in the dynamic of the relationship (bargaining power) between farmers and traders.

The purpose of the evaluation was to determine the project impacts on farmers' livelihoods and to use findings to improve the project as well as foster accountability and raise awareness of the value of rural communication services. The evaluation targeted a large audience including IDRC, Dialog, the Sri Lankan Government, local and international development institutions, researchers and academia.

Approach to collecting evidence

Following the implementation of the project, an Action Research Pilot (ARP) approach was adopted. Ongoing evaluation was thus embedded in the project. The primary evaluation question of the ARP was 'how an ICT intervention to bridge the information asymmetry between what the farmer produces and what is required by the wholesale buyer could impact farmer livelihoods'. The ARP was designed by implementing partners and involved workshops/information sessions, household questionnaire-based survey, in-depth focus group discussions and interviews.

EVALUATION

Evidence and learning

The evaluation highlighted successes but also highlighted areas for project improvement, such as a problem with achieving consistent real-time access to price information partly owing to inconsistent mobile telephone network services in the region. There was also less Tradenet activity around forward trading. The report emphasizes the need to strengthen the ICT infrastructure in order to maintain consistent real-time information access. In addition, the report notes that the activities around Tradenet have created an incentive for the telecom operators to improve the network quality in participating areas. Furthermore, the report highlights that national uptake of Tradenet will increase the adoption of forward trading.

Effectiveness of reporting

The evaluation was presented through a report, book chapter, website, symposiums, academic journals and local news media. The reporting formats were suitable in the sense that they attracted local policy-makers and international attention leading to the documentation of the project success on large development organization websites and replication of the project in other rural communities outside Sri Lanka, such as Zambia.

POLICY IMPLICATIONS OF EVALUATION

The evaluation influenced policy and attracted local and international attention. As major financial and implementation stakeholders in this initiative, the success of Tradenet was a major milestone for the Sri Lankan Government. The evaluation generated and reinforced positive discussions and support for the use of ICT-based intervention to address rural information asymmetry and improve livelihoods in the Asia sub region and beyond. The initiative was adopted within other countries in the sub region.

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INFORMATICS FOR RURAL HEALTH AND COMMUNITY HEALTH (IREACH)

CAMBODIA – ASIA

INSTITUTIONAL AND DEVELOPMENT CONTEXT

Rural areas are often underserved with regards to infrastructure, and lack access to information and communication technologies (ICTs). ICTs are recognized as an important driver of rural economies. They can also enable communities to harness their human potential and facilitate their own development. The iReach programme, a community informatics initiative, was designed to apply information and communication technologies for development (ICT4D) to capacity development, empowerment and sustainability.

Stakeholders

The primary stakeholders were teachers, NGO employees and volunteers, youth, farmers, fisher folk, women, small business owners, village leaders, and commune council members. The secondary stakeholders were Cheal Sim University of Kamchaymear, and community facilitators. The three-year programme was funded by IDRC-Canada.

Aims

The goals of iREACH were to: 1) build community capacity through training in ICT use; 2) pilot test a community-driven system of blended technologies (wireless, solar energy, wind power and community radio); and 3) explore how capacities and technologies, along with content development, contribute to social, economic, and cultural development.

Approach

RCS INITIATIVE

iREACH disseminated information using a range of channels and facilitated information exchange between farmers and community facilitators. Public access to information and training were provided through community-driven telecentres, called hubs. Hubs were established in publicly accessible buildings, delivering free internet access and training in ICT, agriculture, health, English and project management.

Achievements

The iREACH project produced 5 key outcomes: 1) expanded choice and application of farming methods; 2) health benefits with improved air quality and increased agriculture yield; 3) poverty reduction through less commercial inputs and reduced farm costs; 4) reduced pollution of the environment; 5) dematerialization with use of less harmful agrochemicals.

The iREACH project played a role in introducing and enhancing sustainable community-led development through the use of agro-ecological techniques.

The research aimed to: 1) understand what difference iREACH had made to the lives of people within its catchment areas; 2) explore whether and how iREACH had contributed to capabilities, empowerment, and sustainability; and 3) develop a framework or model integrating capability approach, ICTs, and sustainability of environment to guide ICT system design and evaluation and to influence policy on community access to ICTs.

Approach to collecting evidence

The evaluation utilized the case study approach with a longitudinal perspective (2009-2010) and assessed the micro-, meso-, and macro-levels. The methods included survey, structured and unstructured interviews, and focus group discussions.

Twenty two FGD groups in 2009 and 19 in 2010 participated in semi-structured focus group sessions. Each FGD had 4 to 9 participants aged 18 and above. The study included one specific women's group for each site. Women made up 42% and 50% of the participants in 2009 and 2010. Only half of the participants comprised the same individuals for both years as the rest were unavailable. In 2010, 120 randomly selected respondents were interviewed face-to-face in a survey for data triangulation.

Evidence and learning

The evaluation led to a deeper understanding of the innovation process; while ICTs can facilitate exchange of information through its ability to take advantage of knowledge developed in other places, it was not ICTs alone that paved the way for adoption of new agricultural practices, but also knowledge and activities undertaken by those involved, facilitated by convenient access to ICTs.

Through its venues where farmers could meet, iREACH encouraged intermediation between modern science and participatory forms of local knowledge co-production. Those who did not frequent the ICT hubs could participate in this process indirectly by observing those who experimented and subsequently adopt the methods they perceived as beneficial.

Effectiveness of reporting

A journal article was published to report the evaluation results of iREACH (*The Journal of Community Informatics*, Vol. 10, No. 2, 2014). Prior to this, a doctoral dissertation reported on the evaluation outcomes. While the doctoral dissertation has not been published, the journal article will potentially reach academics, researchers, extension workers, policy makers, and students.

POLICY IMPLICATIONS OF EVALUATION

- 1. The challenge is how to harness benefits arising from emergent adaptive systems at the local level to a magnitude where they might realize economies of scale and scope.
- 2. An understanding of the linkages between the micro-, meso- and macro- levels is important, as a patchwork of individual local emergent adaptive systems is unlikely to scale efficiently. At the macro-level, the capacity to grasp such opportunities might be limited. The meso-level is better equipped to take into account local needs and priorities and may also be better able to foster ecological land use.
- 3. With more studies exploring such common ground between the CA/ICT4D and the ICT/environment discourses, it might be possible to produce a critical mass of empirical evidence pointing to the potential of telecentres to become one of several ICT tools for climate change adaptation and mitigation, supplementing their roles as First Mile options.

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KNOWLEDGE HELP EXTENSION TECHNOLOGY INITIATIVE (KHETI)

MADYHA PRADESH, INDIA - ASIA

INSTITUTIONAL AND DEVELOPMENT CONTEXT

The NGO Sironj Crops Producers Company Limited (SCPCL) in Madyha Pradesh, India, provides its farmers with information on agricultural techniques and market prices. Before this project, SCPCL could not satisfy all the farmers' needs as it had only one agricultural expert who covered 40 villages, and farmers could not travel during peak harvest nor afford costs involved to visit SCPCL for information. The Knowledge Help Extension Technology Initiative (KHETI) project involved a mobile phone technology-assisted agricultural service delivery system for poor and marginalized farmers. It provided rapid communication of audio-visual dialogue between farmers and agriculture experts through local youths (*Munnas*) and special mobile phone technology.

Stakeholders

The primary stakeholders consisted of poor and marginalized farmers of the NGO Sironj Crops Producers Company Limited (SCPCL) in Madyha Pradesh, India. Other stakeholders include agricultural scientists, agriculture communication specialists, and other SCPCL communities. The service was free of charge to farmers and the project was funded by the UK Engineering and Physical Science Research Council (EPSRC).

Aims

The goal of KHETI was to speed up communication among stakeholders in the extension service delivery system. It aimed to enable the delivery of timely advice to farmers, which directly responded to their information needs.

Approach

KHETI primarily assisted SCPCL in their approach. Assistants to agricultural specialists (called *Munnas*) travelled to villages and used mobile phones to create Short Dialogue Strips (SDSs) with farmers. SDSs included audio-visual images on any local agricultural problems, issues and knowledge the farmers wished to convey to specialists. The *Munnas* passed on SDSs to appropriate agricultural specialists on behalf of farmers. Finally, the *Munnas* conveyed the solution back to farmers using the special mobile phones. This allowed agricultural specialists to answer farmer queries without needing to go to the field and farmers did not need to physically access specialists.

Achievements

The mobile phone technology was useful, faster, and of better quality than the original services, whereby an agricultural expert would visit each farm personally. Data showed that queries answered within a day increased from 2% to 31% under KHETI. This indicates a massive improvement in the communication between farmers and SCPCL. The majority of farmers used more agricultural advice from this new innovation compared with previous services. Farmers exposed to KHETI used more extension services than before the project. More than 75% of the farmers viewed mobile phone assisted services as useful; more than 86% viewed KHETI services as faster; and 13% viewed it as much faster than other services before the introduction of the innovation. Around 96% of the farmers used more agricultural advice after they were exposed to KHETI. Evidence also indicated that disadvantaged farmers and poorer communities gained more from the ICT-assisted intervention than more advantaged ones.

Aims and audience

The general aim of the evaluation was to measure the direct and indirect impacts of KHETI on extension service delivery and on farmers' knowledge, awareness and attitude to new technology.

Approach to collecting evidence

An experimental design was applied in the evaluation. It used randomized survey data with treatment group and control group before and after the intervention. Reflexive comparison was used as a method for impact measurement. A baseline survey of participants was done before the intervention and a follow-up survey was done after. A Double Difference (DD) method was used to compare the treatment and control groups before and after the intervention.

Evidence and learning

KHETI was an action research project that used ex-post evaluation to reliably identify its impacts. Both quantitative and qualitative indicators were used to measure the direct and indirect impacts of mobile phone technology on the extension services delivery. A quality index (QI) indicator was also used to measure quality of service delivery. Other indicators such as farmers' knowledge, attitude to new technology, awareness, and contact intensity were also used to measure impacts. Increased knowledge and awareness are generally considered prerequisites to the adoption of new practices and technologies.

Effectiveness of reporting

A poster paper was used to report the outcomes of the KHETI project at the International Association of Agricultural Economists (IAAE) 2012 Triennial Conference. However, only a little evidence was provided in the poster paper on changes in awareness and knowledge of farmers as well as attitude to new technology. A poster presentation may be complemented with other communication materials, methods, and approaches to influence practice or policy.

POLICY IMPLICATIONS OF EVALUATION

- 1. Evidence from the KHETI project suggests that ICT-assisted intervention can generate significant developmental effects for the poor. This achievement of the project may be to certain extent due to the choice of an appropriate technology, the mobile phone technology, instead of more advance networked internet system in the poorest part of India.
- 2. Future research studies should determine how mobile phone technology supports efficient and competitive farm practices among small and marginalized farmers.
- 3. Appropriate policy should target these factors to ensure better access of the disadvantaged groups to resources. The maximum success from an intervention like the ICT enhanced extension services delivery lies not only in the better method but also in the capacity of the target group to use information.

Sources

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RURAL COMMUNICATION SERVICES AND SALINE-TOLERANT RICE VARIETIES (RCS-STRV)

BANGLADESH – ASIA

INSTITUTIONAL AND DEVELOPMENT CONTEXT

Agricultural land in saline areas around Bangladesh's coast is of very poor quality as the salinity affects the critical stage of crop growth. Several varieties of saline-tolerant rice have already been released in the target area. However, experience shows that the adoption of STRV is often slower than expected, prompting a critical analysis of RCS for STRV technology in Amtali, Barguna District, Bangladesh.

Stakeholders

Direct stakeholders in RCS associated with STRV are farmers from Amtali, Barguna District, Bangladesh. Secondary stakeholders are RCS providers involved in the STRV technology, which include professional institutions in government, academia, media, non-government (NGO) and the private sector. The evaluation project was doctoral research and no funding was declared.

Aims

RCS initiatives aim to encourage and enable farmers to successfully adopt and appropriately use STRV technology.

Approach

RCS INITIATIVE

The delivery of STRV technology is implemented through the government agricultural extension service at the upazila (sub-district) level. Activities include trainings, seminars, group meetings and field demonstrations.

Achievements

Success of RCS for STRV uptake has been sub-optimal; farmers plant STRV only once a year and use less than one hectare of land for STRV. Farmers in Amtali only started planting STRV in 2012 though it was already available in 2008, and farmers adopt only some of the recommended practices. Problems encountered in adoption included lack of capital, small farm size, unavailability of farm inputs, and a lack of credit facilities. The largest constraint on adoption of STRV was financial capital. Providers have not been coordinating their STRV RCS and have inadequate resources.

Aims and audience

EVALUATION

The study aimed to determine the relationship between RCS delivery used and the mode of STRV adoption, and develop an RCS model that would enhance the delivery and adoption of STRV among the farmers. The study aimed to: 1) describe the socio-demographic characteristics and farm-related profile of STRV farmers; 2) map and profile the various RCS providers of STRV farmers; 3) analyse the RCS for delivery of STRV among farmers; analyse the farmers' mode of adoption of STRV; 5) determine the relationship between RCS delivery used and the mode of STRV adoption; and 6) develop an RCS model that would enhance the delivery and adoption of STRV among the farmers.

Approach to collecting evidence

The RCS evaluation used surveys (to get representative responses across the STRV farmers' sector), focus group discussions (to draw in depth responses on issues) and social network analysis (to determine the group dynamics involved in the delivery and adoption of STRV). The driving questions were:

- 1. How does RCS work in the delivery of saline-tolerant rice variety (STRV) among farmers? Indicators: type of communication services provided, information shared, modalities used, social networks
- 2. How does RCS promote adoption of STRV among farmers? Indicators: size of farmland devoted to STRV, frequency of STRV planting in a year, year started planting STRV, saline tolerant rice varieties planted, mode of adoption, problems encountered in adoption
- 3. How does RCS delivery of STRV technology relate to farmers' adoption of STRV? Indicator: Results of statistical test (Fisher's exact test) on relationship between service delivery and adoption of STRV.

Evidence and learning

The study found that farmers' greatest demand from RCS was for training and that government extension was the most accessed RCS provider. Government extension services were the most trusted RCS provider, followed by NGOs. Information received was considered useful and was shared with fellow farmers, even if they were not STRV adopters. Group meetings for training were positively associated with the extent of adoption.

The evaluation allowed a deeper understanding of constraints on STRV uptake and the pros and cons of previous RCS strategies. This allowed a new RCS model to be proposed, to enhance STRV delivery and adoption in Bangladesh. The model built on elements that were shown to work:

- 1. In order to enhance the delivery and adoption of STRV, the policy makers and the RCS providers are encouraged to formulate policies by putting the STRV farmers in a position to access the information and services and obtain the skills and knowledge to obtain the information.
- 2. The STRV farmers should be considered as the client of the services and as the co-creator of knowledge.
- 3. Policy needs to exist that enables productive communication between research, advisory services and farmers' organizations.
- 4. There needs to be policy to empower farmers by providing them with a legitimate voice through farmers' organizations, and to ensure their participation in policy formulation and all communication related activities.

Effectiveness of reporting

Evaluation outcomes were reported in a journal article (to contribute to the body of knowledge of RCS) and a news article was published, to inform other development practitioners and communication researchers of the role of RCS in the adoption of food security and climate change adaptation technologies. Additionally, the evaluation was presented at an international conference in December 2015.

POLICY IMPLICATIONS OF EVALUATION

Given that this is a very recent study, it is still too early to say whether the conclusions will have any implication on policy.

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COMMUNITY-BASED NATURAL RESOURCE MANAGEMENT (CBNRM)

CHINA, VIETNAM, PHILIPPINES, MONGOLIA - ASIA

INSTITUTIONAL AND DEVELOPMENT CONTEXT

Cross-learning and sharing of information have been limited in various parts of Asia where organizations are attempting to document the processes and results of capacity development in community-based natural resource management (CBNRM). CBNRM is the process whereby communities work together to manage natural resources in a sustainable way.

Stakeholders

The primary stakeholders are the communities that will benefit from CBNRM.

Secondary stakeholders for this case study included the nine RCS providers:

- 1. China Agricultural University, China
- 2. Jilin Agricultural University, China
- 3. Hue University of Agricultural Forestry, Vietnam
- 4. ALL in CBNRM Network, Asia-wide, Philippines-based
- 5. Farmer-Centered Research Network, China
- 6. Tarlac College of Agriculture, CIP-UPWARD Asia, Philippines
- 7. CBNRM Learning Center, Philippines
- 8. International Institute of Rural Reconstruction, Philippines
- 9. Ministry of Nature and Environment, Mongolia

RCS providers have a large range of funders and contributors. The International Development Research Centre provided financial and technical support for the evaluation initiative.

Aims

The RCS providers aim for the capacity development of communities in order to enable the people who work closely with natural resources to work with them knowledgably. It encourages individuals, communities and governments to develop skills and experiences that will help them better solve problems in the future.

Approach

The nine studies represent a diversity of capacity development experiences, although the teams responsible for the studies have certain elements in common: an interest in community-based approaches, strong and long-term relationships with local communities, the use of participatory action research and development methods and tools, the forging of new forms of collaboration that include multiple social actors, an intention to link research to policies and the exploration of new information and communication technologies. Capacity development in these cases often took place through a 'learning by doing' method. Fieldwork linked theory to practice.

Achievements

In various parts of Asia, organizations are attempting to document the processes and results of capacity development in CBNRM. However, cross-learning and sharing of information have been limited. This has hindered the identification of lessons, as well as the design of pathways for scaling out and up.

Aims and audience

Research and development organizations routinely monitor and evaluate their capacity development efforts, but these are mainly in the form of assessing immediate outputs, e.g. in-training M&E of changes in knowledge, distribution and readership of publications/knowledge products. These M&E studies often do not adequately track changes beyond the level of outputs of capacity development activities. More than simply evaluating case studies, a new project, Evaluating Capacity Development (ECD) in CBNRM sought to strengthen regional networking for learning on the effective use of monitoring and evaluation in CBNRM capacity development. ECD aimed to:

- 1. Develop and pilot methodologies for evaluating processes and outcomes of capacity development;
- 2. Promote the effective use of evaluation by organizations engaged in capacity development efforts; and
- 3. Facilitate wider learning and use of evaluation in capacity development.

Approach to collecting evidence

Each of the nine case studies were evaluated according to the following questions:

- 1. What are various stakeholders learning from their involvement in capacity development efforts, individually and organizationally?
- 2. Are capacity development efforts contributing to more equal and learning-oriented relationships among stakeholders?
- 3. Have capacity development efforts contributed to desired CBNRM outcomes in terms of improved livelihoods, more equal access to natural resources, more sustainable use of natural resources, empowerment, and supportive policy changes?
- 4. What are the strengths and weaknesses of different capacity development modalities, such as working groups, learning communities, networks, organizational partnerships?

Additionally, ECD sought to determine how CBNRM capacity development efforts could best be effectively and meaningfully monitored and evaluated.

Towards building capacity thorough the evaluation, the ECD initiative supported a variety of learning, collaborative research, and knowledge-sharing experiences within and among the partner organizations. Several intensive regional workshops or "write-shops" encouraged cross-learning to help participants assess capacities developed in themselves and each other and to draft case studies, which were revised several times later.

Evidence and learning

ECD achieved its goal of creating regional networks for evaluation and developed recommendations:

The three research networks indicated that their new learning included changes in knowledge, partnering skills, and better-quality institutions or projects for end users including farmers and other stakeholders. The community-based organizations, on the other hand, said that they improved capacities in terms of understanding, developing, and implementing CBNRM-related policies.

In all nine cases, there was an emphasis on a strong commitment to learning collaboratively in and from the field — to make research more relevant and to learn through practice.

In terms of outcomes and impact, there seems to be a need to do a better job in making the written case studies richer, as details are often missing from documents and explanations.

From the nine cases, it became obvious there was no single way to integrate M&E into learning processes. However, it is worth experimenting with a variety of methods and tools, adapting one's practice along the way while keeping a critical eye on the time and energy spent on M&E. Regular M&E can contribute to better outcomes, but, just as important, it can also improve the quality of the learning process.

Effectiveness of reporting

Reporting formats included print and web-based publications (see Campilan et. al 2009 as an example) as well as face-to-face workshops with participants from the nine case studies. Participants involved in the evaluation learned through the process. The formal reporting formats are deemed appropriate as most of the participants were academic professionals and research and development practitioners. The publisher of the working paper, the Sweet Potato Centre (CIP) says "publications contribute important development information to the public arena". The publication is Open Access online.

POLICY IMPLICATIONS OF EVALUATION

A key lesson that emerged is that evaluative learning frameworks contribute to understanding and enhancing capacity development strategies, including scaling up, sustainability, and institutionalization. Such frameworks consist of a clear definition of context, content, capacity, the capacitated, and capacity development. Collaborative learning provides a platform for those seeking to evaluate capacity development, by enabling them not only to conduct evaluation, but also to develop their capacity to learn from the evaluation process. It also allows participants to draw on their individual and collective experiences to build a practice-informed theory on evaluating capacity development. The effectiveness of evaluation can be greatly enhanced if it is built into and becomes integral to the capacity development process and is fully embraced by all those involved. An adaptive mode of learning is likewise critical to successful evaluation, as continuous conceptual and methodological refinement occurs with increased understanding of the contexts and purposes of evaluation.

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FARMER FIELD SCHOOLS (FFS) THAILAND – ASIA

INSTITUTIONAL AND DEVELOPMENT CONTEXT

The Department of Agricultural Extension (DOAE) in Thailand implemented the FFS as early as 1992 to address rice farmers' excessive and injudicious use of pesticides. Excessive use of pesticides has been found risky to human health and the environment. Since public funds are being used to support this strategy, it demands accountability to show evidence that the FFS investment is worthy and efficient. Past impact analyses of FFS, however, have focused on short-term impacts and their data were limited to two observation points only: before and after. This did not allow for good counterfactual scenarios because there was no control group and parameters were limited to knowledge, pesticide use and yield but did not include impact on the environment. Hence, this study is meant to overcome the weaknesses of earlier ones in terms of improving the research methodology by using the multi-period panel data model.

In Thailand, FFS have been used as a group-based learning process for promoting Integrated Pest Management (IPM). In FFS, farmers work together with a trained facilitator in their local environment, to learn and experiment with different farming practices. Integrated Pest Management is a system of integrating pest management methods to prevent the excess use of pesticides and to reduce the risk of harm to human health and the environment.

Stakeholders

The direct stakeholders are rice farmers from five rice-producing provinces in Thailand (names of provinces not specified in paper). The secondary stakeholder is the Department of Agriculture Extension (DOAE) in Thailand, which implemented the FFS project.

Aims

The aim of the FFS is to reduce the amount of pesticide used by farmers, and to encourage the use of IPM to create economically viable and environmentally sound pest management systems.

Approach

INITIATIVE

RCS

Farmers involved in FFS carry out experiential learning activities that help them understand the ecology of their field. This includes simply experiments, field observations and group analysis. This allows farmers to make their own decisions about the best practices to use for their crops.

Achievements

FFS were found to be effective in reducing farmer reliance on and use of chemical pesticides and encouraging farmers to use more environmentally benign methods of pest management.

Farmers who participated in Farmer Field Schools retained their knowledge and continued to practice improved IPM practices.

Growth rates of pesticide expenditures and environmental impacts are significantly reduced by FFS training both in the short and long term. On the other hand, farmers not trained in FFS tend to continue non-judicious ways of using chemical pesticides.

No significant change in rice gross margin was indicated.

Aims and audience

The evaluation had three aims:

- 1. Accountability: To demonstrate that public investments in FFS as applied in Integrated Pest Management (IPM) have good rates of return.
- 2. Adaptive management: To measure environmental and economic impacts of FFS on crop and pest management in rice.
- 3. Advocacy: To encourage policy makers and decision makers to support FFS as an effective method to reduce uneconomical use of chemical pesticides and encourage farmers to apply more environmentally benign pesticide use practices.

The target audience for the evaluation was:

- Academics: use research results for teaching, theory building, and adding to the body of knowledge on RCS.
- Researchers: use results to recommend more effective practices of extension and communication services.

Approach to collecting evidence

The study used the Difference in Differences (DD) approach in a multi-period panel data model. The study also used panel data from 241 farm households on three occasions over a period of four years (10 rice growing seasons) in five rice-producing provinces of Thailand.

Evidence and learning

Using DD models to panel data reveals the factors that cause a change in pest management technologies; however, the evaluation model used highlighted weaknesses in the indicators used. The direct economic benefits of farmers expressed in terms of gross margins are difficult to detect and may be small. This could be due to small possible gains in advanced rice farming systems, or due to pesticide accounting for a low share of the variable costs and therefore gross margin differences.

Effectiveness of reporting

A journal article was released, targeted to academics and researchers.

POLICY IMPLICATIONS OF EVALUATION

The evaluation study, using a rigorous (DD) model, produced strong evidence that FFS led to reduction in farmers' reliance on pesticide, both in the short- and long-term. A sequel report in 2007 by the same authors indicated that the FFS is now part of DOAE's policy procedures. However, government support in terms of more substantial funding is still wanting. Also, there is still a need for the Thai extension workers to shift their mind set from viewing the farmers as 'beneficiaries' of their service, to 'partners' in the innovation process.

Sources:

EVALUATION

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ADAPTIVE LEARNING AND LINKAGES IN COMMUNITY-BASED NATURAL RESOURCE MANAGEMENT (ALL IN CBNRM)

CAMBODIA, LAO PDR, PHILIPPINES, THAILAND, VIETNAM – ASIA

INSTITUTIONAL AND DEVELOPMENT CONTEXT

ALL in CBNRM evolved from its earlier phases, the Isang Bagsak Pilot Phase and Isang Bagsak Southeast Asia, and focused on adaptive and social learning among CBNRM practitioners in the region. ALL in CBNRM was a regional capacity building and networking programme for researchers and field workers implementing CBNRM initiatives in forestry, coastal, and wetland ecosystems.

Stakeholders

The learning programme covered six countries in Southeast Asia: Cambodia, Indonesia, Lao PDR, Philippines, Thailand, and Vietnam. Key stakeholders were teams of researchers and extension workers in natural resource management sector from the participating countries. Community participants comprised of small-scale farmers, fisher folk and indigenous groups. The project was implemented by College of Development Communication, University of the Philippines Los Baños (UPLB) and the International Development Research Centre (IDRC-Canada), in cooperation with the CBNRM Learning Centre (CBNRM LC), International Institute for Rural Reconstruction (IIRR), International Potato Centre-Users' Perspectives with Agricultural Research and Development (CIP-UPWARD), and the Regional Community Forestry Training Centre for Asia and the Pacific (RECOFTC)

Aims

ALL in CBNRM aimed to build capacity and networks for:

- 1. Better outcomes from CBNRM research and participatory development initiatives through collaboration among researchers, practitioners, and other stakeholders;
- Enhanced understanding of CBNRM work through the sharing of lessons and experiences in participatory approaches;
- 3. Enhanced ability to influence policy processes;
- 4. Partnership building with regional institutions in CBNRM for better sharing of information and capacity-building materials and resources in participatory development approaches.

Approach

Participants formed learning groups. While the nature of the programme's learning groups were varied, all of the nine learning groups served the role of intermediaries, linking communities with the government and/or scientific organizations. ALL in CBNRM focused on participatory development approaches, specifically participatory research and development, participatory development communication, participatory monitoring and evaluation, social and gender analysis, and participatory policy advocacy. ALL in CBNRM uses a social learning approach where various stakeholders learn together and from each other and collectively work at addressing complex CBNRM issues. It also applies an adaptive learning approach that emphasizes the cycle of action-reflection-sharing.

Achievements

Evidence reported included:

- Improved capacity in individuals. Changes in knowledge, attitude and practices.
- Improved capacity in groups. Strengthened teamwork/improved group processes.
- Improved capacity in organizations. Improved organizational performance vis-à-vis mandates. Development outcomes included increased community capacity-building, improved livelihoods, and conserved natural resource base.

The reach of ALL in CBNRM programmes to the level of local communities, including farmers, fisher folk, women, and children, however, is yet to be tracked systematically.

Aims and audience

The objectives of the evaluation study were to:

- Determine changes in capacity of the learning groups and partner institutions in participatory approaches developed through ALL in CBNRM;
- 2. Assess the strengths and weaknesses of various capacity development strategies for participatory development used in the programme, and;
- 3. Analyse how changes in participatory development capacities have contributed to CBNRM outcomes.

The primary targets of monitoring and evaluation activities were the participants and organizations they represent in the learning groups.

Approach to collecting evidence

Data were gathered using both quantitative and qualitative methods: survey questionnaire, most significant change (MSC) technique, focus group discussion, and participatory story building.

Evidence and learning

EVALUATION

In a network setting, the evaluation study should be sensitive to varying organizational contexts of the members of the network. Evaluation methods used for one learning group may be different from the others.

Effectiveness of reporting

Three methods of reporting the evaluation outcomes were used:

- 1. Workshops and face-to-face knowledge sharing venues
- 2. Print publications

3. Web-based platforms

The reporting formats were designed so that the publications could be used for funding agencies and potential partners in the programme's subsequent stages.

Development outcomes were highlighted by the publications so as to convince funding agencies to support the next phase of ALL in CBNRM.

POLICY IMPLICATIONS OF EVALUATION

Some groups indicated that there was a gradual move toward institutionalizing the participatory development approaches that they had learned from the programme. Successes of ALL in CBNRM, documented through evaluation, have also provided a platform for the five implementing partner organizations to further institutionalize the gains and benefits from this partnership through collaborative projects. While both learning groups and implementing partners asserted that the evaluation period was too short a time to see long-term impacts at the level of the communities, they observed that in a span of two years, their participation in ALL in CBNRM appeared to contribute to changes in their organizational programmes and strategies for participatory communication and research.

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STARFISH – HER INFINITE IMPACT

GUATEMALA – LATIN AMERICA

INSTITUTIONAL AND DEVELOPMENT CONTEXT

The mission of Starfish is to unlock and maximize the potential of young women to lead transformational change, towards empowerment, equality and opportunity for all. This is done through formal and non-formal education and mentorship initiatives. The historical context of Starfish's work is an essential aspect of its impact pathway. The extreme violence of the Guatemalan Civil War that lasted from 1960-96 resulted in over 600 massacres and the killing of more than 200 000 people, most of whom were Mayan living in rural areas (Sanford, 2009). Additionally, the Starfish website describes how only 14% of rural indigenous girls in Guatemala completed 6th grade, 3 out of every 5 of indigenous Guatemalan women are illiterate and Mayan girls are at the bottom of every measurement of human development.

Stakeholders

- The direct stakeholders of Starfish are girls in Guatemala, primarily those from rural Mayan communities in the Lake Atitlan area.
- Starfish is a non-governmental organization that has investment (financial), innovation (expertise), implementation (on the ground) and 'pay it forward' (recipient) partners. Recipient partners are smaller women- and/or youth-focussed organizations in Guatemala.
- Starfish is funded by a large suite of individual investors, family foundations and institutions.

Aims

The objectives of Starfish are for participants to achieve economic autonomy and mobility, educational attainment, live a choice-filled life, and to be empowered to empower through leadership. As they are process-driven, Starfish focuses less on specific objectives than it does on values, vision, mission and goals of their work. The programmes are premised as follows:

- 1. Access: A scholarship is provided covering two-thirds of school-related costs to each participant (referred to as a 'Girl Pioneer'). Innovative academic tutoring from full-time tutors is also provided to ensure each girl's success in her schooling. Progress of each participant is monitored.
- 2. *Support:* Guidance from respected and relatable professional mentors is provided. Mentorship groups meet weekly for the duration of secondary school process of the participants and monthly home visits and parent meetings are conducted.
- 3. *Knowledge:* A unique "Empowerment Curriculum" is offered through the weekly mentorship meetings, which was developed in partnership with several leading NGOs. This includes subjects such as Vocal Empowerment, Leadership Training, Reproductive Health, Financial Literacy and IT Orientation. Girl Pioneers conduct formal internships with other organizations and small businesses to gain formal job experience.

Approach

Starfish states its theory of change as follows: "We believe that by changing the lives of the indigenous girl population of this generation, we will create catalysts for reversing the embedded cycle of poverty for generations to come." It uses a tagline "Her infinite impact..." to succinctly state and commit to its impact pathway.

Starfish uses a value-based approach to its work. It operates through solidarity and teamwork and is facilitated through well-designed interpersonal and intergroup communication processes. The organization emphasizes commitment and responsibility on behalf of the participants as well as the mentors. Justice, equality and ethical integrity underlie the notions of access within its programmes. Its participatory approach includes initiatives such as the Vocal Empowerment workshops. In these workshops, young women are trained using the approach outlined in Beth Osnes' book, *Theatre for Women's Participation in Sustainable Development* (2014), which details how 'applied theatre' can amplify voices from within the community. This approach builds upon the experiences of Guatemala's *Teatro Vivo* movement of the 1960s (Shillington, 2002) and Augusto Boal's critically reflexive 'image theatre.' Popular theatre workshops have brought forward the voices of poor women to express their concerns, gain confidence in the public area of the stage and roleplay their individual acts of self-awareness and autonomy as well as actions collectively taken within their communities.

Achievements

Starfish's education programme is individualized and focused realizing its 140th graduate in 2015. Data collection and analysis of Starfish's programmes have been reported. Results indicate that recent Starfish graduates embark on a different trajectory from previous generations. Among the 2011 graduates of Starfish:

- All were above the national average income and 53% of graduates are currently earning enough to place them above the national poverty line.
- All have achieved 15+ formal years of schooling and 75% of all graduates have continued their studies after graduating from high school (university or formal vocational training)
- Currently, 93% of Starfish Girl Pioneers continue to delay marriage and pregnancy.
- Seventy-five percent are employed in social-impact organizations, and half currently hold or have held elected positions of leadership. Nearly 20% of all graduates are currently involved in a social impact organization or hold formal positions of leadership.

Aims and audience

Starfish has an integrated M&E system that tracks and reports its impact, serving both formative and summative purposes. Summative evaluation serves the purpose of accountability to donors and advocacy for girls' education. The project website reports the findings and compares them against national-level data. The formative component of the M&E system informs the collaborating organizations to guide adaptive project management. As well as reflexive evaluation during the training events, Starfish partnered with Osnes (2014) for an academic critique of their work.

An additional function of M&E has emerged where monitoring results are used to dialogue strategically with local leaders. In one blogged narrative, for example, a Starfish student had been raped in Pana and persistent concerns about women's safety had affected the programme and its mentoring support programme. The mentors decided to meet with the mayor of Pana and the director of education in Solola. The report explained, "though the official frustratingly laid the responsibility for action back on the women themselves, saying such change has to begin in the home, it was still powerful to let him know the concerns. Also the press was there to do a story on the visit which helps to spread the concern for women's safety further." This also implicates the aim to use dialogue with local officials and media interaction to raise awareness on sensitive, strategic issues within the communities.

Approach to collecting evidence

Starfish's evaluation methods are participatory and reflexive. Osnes (2014) describes the participatory workshops, which are part of the applied theatre approach used by Starfish. In this activity reflexive M&E emerges within the activity (individual role-playing and group interaction). This method enables participants themselves to define the results of their communicative acts.

Evidence and learning

Learning for its participants, achievement of its organizational goals and its contribution to sustainable development are intrinsic to Starfish. Its experience to date has indicated areas where Starfish considers moving in future (e.g. to establishing its own high school). From 2012-15, Starfish has shared it experiences with 18 other women or youth focused organizations in Guatemala. It makes strategic connections with other development organizations (e.g. the 10-year old community-based organization *Limitless Horizons*, which works with the Ixii community in Chajul supporting youth development, artisanal enterprises and the *Sabir Sin Limites* 1400 community library users and reading club).

Effectiveness of reporting

Starfish captures the basic metrics of its outputs on its website, where it also uses frequently asked questions (FAQ) to report its results in a clear, concise format for accountability. It also has a fact sheet on which its organizational goals are stated. Starfish's willingness to collaborate in scholarly analysis by Osnes (2014) suggests that it recognizes the value of third-party (external) evaluation. This type of academic reporting provides important historical context, comparisons to the wider body of knowledge and potentially, knowledge that can inform scaling up and policy interventions.

EVALUATION

POLICY IMPLICATIONS OF EVALUATION

Starfish is an important case of the type of rural communication services that can be offered in contexts of violence and conflict where fear, mistrust and weak social structures are ongoing challenges. Starfish's mission is explicitly "to unlock the potential of young women to lead transformational change" and this specific focus, no matter how small or focused its outputs may appear, offers significant impact for sustainably influencing future generations of social change. Meaningful M&E in such situations involves deep engagement with beneficiaries and definitions of achievement from the perspective of the local community. Comparisons to national and generational change are still possible. Collaboration in academic analysis can support deliberation on lessons learned and contextualize M&E results.

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INTERETHNIC ASSOCIATION FOR DEVELOPMENT OF THE SELVA OF PERU (AIDESEP)

PERU – LATIN AMERICA

INSTITUTIONAL AND DEVELOPMENT CONTEXT

Respect of indigenous peoples' rights is one of the pillars for environmentally sound and socially just mitigation and adaptation in the LAC region. AIDESEP emerged in the 1980s in response to violations of the rights of indigenous peoples of the Amazonian region of Peru. It has had strategic alliances with the International Work Group for Indigenous Affairs (IWGIA) and since 1989, DANIDA supported AIDESEP with a major grants. Activities have included land inscription, demarcation and titling processes, indigenous-controlled protected areas and fundamentally, communication and 'quiet advocacy' support for over 40 local associations and 200 indigenous communities by the end of the 1990s (Garcia Hierro, *et al.*, 1998). The organization now represents nearly five times this number of communities. Up to the present day AIDESEP continues to facilitate policy dialogue and knowledge-sharing events, community mapping tools and documentation.

One of AIDESEP's major activities has been as Peru's main indigenous federation for "Indigenous REDD+" or holistic territorial management, which recently received commitments of almost \$20 million from the World Bank's Forest Investment Programme. REDD (Reducing Emissions from Deforestation and Forest Degradation) has been highly criticized for failed communication and specifically, rigorous consultation processes (Dooley *et al*, 2011).

Stakeholders

- AIDESEP is an indigenous federation in Peru and its direct stakeholders are the indigenous peoples
 of Peru. The work of AIDESEP encourages the integration of indigenous movements while developing
 partnerships with all excluded social sectors and international processes that embrace the rights
 of peoples. As of 2014, the organization is composed by 57 federations and territorial organizations,
 which represent the 1 350 communities where 350 000 indigenous people live, gathered in 16 language
 families.
- AIDESEP has combined efforts with other organizations that share its strategic objectives such as Indigenous Association of the Amazon (COICA including Radio Amazonica), Landless Workers' Movement (MST or *Movimento dos Trabalhadores Sem Terra*, Brazil) and Indigenous Association of Central America (CICA).

Aims

RCS INITIATIVE

AIDESEP aims to network with its members and create dialogue around *Buen Vivir*. As an evolving concept, *Buen Vivir* is not limited to one meaning but is commonly translated as 'Good Living,' 'Living Well' or 'Full Life.' *Buen Vivir* represents development alternatives based on indigenous traditions, rather than the previously dominant Eurocentric tradition, and a movement of indigenous peoples who are taking responsibility for their own development. Indigenous communication and advocacy are intrinsic to the effective and transparent systems of good governance throughout the region (AIDESEP, 2012).

Approach

- The emerging Latin American approach to communication for development based on Buen Vivir appreciates the principles of the Andean world view whereby collective rights are exercised as territorial, political, cultural and spiritual. This has been a perspective shared with wider communication networks including CIESPAL which with the Friedrich Ebert Foundation (FES) organized the First International Congress on Communication, Decolonialization and Living Well (I Congreso Internacional: "Comunicación, Decolonización y Buen Vivir") 16-18 Sept. 2015 in Quito, Ecuador.
- AIDESEP uses a regional seminar or observatory process to discuss and advocate platforms such as the Right to Consultation of Indigenous Peoples, and to engage in policy processes. A key example is networking with regards to environmental sustainability and climate change within the region (e.g. through REDD/REDD+) including action by groups such as the Indigenous Andean Council of Peru (CIAP). AIDESEP networks on regional and global processes of advocacy and policy negotiation (e.g. the World Social Forum, UNFCCC COP20 in Lima in December 2014).

Achievements

AIDESEP's largest achievements have been to speak out against the abuse of human rights in the Amazonian region and to create a solid network that represents the rights and knowledge of indigenous peoples, their communities and associations, particularly within policy-making processes. In the 1980s, Danish anthropologist Svørn Hvalkof drew the Peruvian authorities' attention to the enslavement of indigenous peoples and urged response at the global level. AIDESEP's formation and efforts over 25 years have supported processes of collecting evidence in the form of testimonials, census data, mapping and by the end of the 1990s, land titling of over 1500 ha (three times the size of title initiatives completed anywhere else in Peru). As explained in Garcia Hierro *et al* (1998:213), "land titling programmes involve constant discussions with AIDESEP about the rights of indigenous peoples and as the titles become recognized, and the communities realize their potential, the whole complexion of the area has changed." AIDESEP has enabled community-led documentation of flora and fauna that have redirected policy for socio-economic development and sustainability in the region.

Aims and audience

As an organization focused on the rights of indigenous peoples', AIDESEP has approached evaluation as intrinsic to its advocacy work. In a recent report it states: "As pointed out by United Nations recently, the criminalization of indigenous movements has become a major problem worldwide, associated with the growing trend of systematic violation of the rights of indigenous peoples." AIDESEP therefore monitors and evaluates not itself but rather the national governments that are responsible for upholding the rights of all citizens, including indigenous peoples. AIDESEP and members of its networks have collaborated extensively with the academic community (Vanhulst & Beling, 2014).

Approach to collecting evidence

Buen vivir is the theory of change pursued by AIDESEP. Its perspective reflects many contemporary discourses aimed at transformative change in society as well as the prevailing production and consumption patterns to make them compatible with both social and ecological sustainability.

The approach used is continual and deep discussion-based interaction that engages the AIDESEP membership and networks. Evaluation instruments such as surveys are not used but testimonials may be gathered and presented in radio and video format. Indicators are not apparent.

Evidence and learning

Evidence of AIDESEP's monitoring and evaluation work is reported at its seminars and observatories as well as on its website. Its evidence is aligned with its objectives, as confirmed by third party academic analyses (Vanhulst & Beling, 2014).

It is not clear if there is any direct link between the AIDESEP and its networks' efforts and negative or unintended effects of their advocacy work. The risk of criminalization of indigenous movements is apparent. Two indigenous leaders - Edwin Chota, an Ashaninka from Peru and Jose Isidro Tendetza Antun, a Shuar from Ecuador, were killed in their struggle against logging and mining, as discussed in the Lima COP Indigenous People's Pavilion and at the Cumbre de los Pueblos (Peoples' Summit for Climate Justice).

Effectiveness of reporting

Evaluation results are shared through dialogue (seminars/observatories), on the website and as audiovisual materials. Further, academic analysis appears in peer-reviewed journal articles. Journal articles have potential for reaching policy analysts and the wider development community.

POLICY IMPLICATIONS OF EVALUATION

AIDESEP and its associated indigenous peoples' associations have over 25 years of experience in communication for sustainable development in the Amazonian region of Peru. It has influenced national policy and had significant implications with respect to delivering on major global policies (e.g. REDD+). Its evaluation of policy and/or practice informs rural communication services which seek to engage with indigenous peoples.

RCS INITIATIVE

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EL CHAMBITA MEDIDOR EL SALVADOR – LATIN AMERICA

INSTITUTIONAL AND DEVELOPMENT CONTEXT

Over the last four decades, various governments in El Salvador have sought to address the issue of sustainable, long-term agricultural and rural development through land redistribution and titling. The Peace Accord mandated land transfers which were supported by international donors. Successive government administrations have led four phases of land reform since the 1980s, transferring more than 300 000 ha of expropriated large farms to collectively owned cooperatives and individual beneficiaries. More than half a million families are target beneficiaries. The Land Administration Project (LAP), or *Chambita Medidor*, of El Salvador began its operations in 1997 with the aim of establishing the National Registry Council (NRC) and regularizing land registration for millions of rural and urban people (1.8 million parcels). The first phase of the activity, LAP I, was considered in the region as a best practice, particularly from a communication perspective. A second phase, LAP II, ended in 2012.

Of interest to this study of rural communication is how the LAP I initiative used a communication campaign based on the story of the character, *El Chambita Medidor* (the small Salvadoran who measures or the Salvadorian surveyor). Of specific interest is the long term impact of this communication strategy. The narrative itself involves a young man who travels the countryside measuring the land for registration. A jingle and song were written about the character to help explain to stakeholders what measurement would take place, when and why. The song was part of various radio programmes with an information 'hot line'. In addition, printed materials including a comic book for children were provided. The radio announcements covered the whole country and the media campaign was vastly successful. Field communication activities reinforced the message to ensure that when the measurement-staff arrived, owners or occupants of all land parcels were present, with any necessary documentation.

Stakeholders

Approximately 533 000 smallholder families are key stakeholders of this initiative. A land market has been realized in the country, so the private sector in agriculture and rural development are also stakeholders. The Government of El Salvador are key stakeholders with a system of land registration and records that support economic planning and rural development investments. The extension and rural media system in El Salvador are the implementers of the *El Chambita Medidor* programme.

Aims

The aim of the *El Chambita Medidor* programme is to support the communication and knowledge sharing of the land registration process in El Salvador. The wider LAP initiative aims to "improve land tenure security and land transactions by providing efficient, equitable, and accessible land administration services. This will facilitate better land-related investments and more productive and environmentally sustainable land use" (World Bank, 2005).

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Santucci (2005) explains the activity and M&E approach of El Chambita Medidor as follows: "The first phase of diagnosis and analysis [for the campaign] begins about 30 days before the technical staff comes to the area. The promoter scouts the area, checks the correspondence with existing maps, verifies that roads and streets are accessible, takes note of crops, speaks with people about what is going on, introduces himself or herself to local residents. He or she begins to hang the posters in visible places and distributes leaflets. On another day, not necessarily the following one, the promoter goes again to the same area, sometimes accompanied by other personnel, sometimes with a supervisor or NRC staff, to visit the local leaders (mayors, clergy, health operators, presidents of neighbourhood council, teachers, police, etc.) in order to ask for their support. Meetings are organized for the entire population. In the second phase (local promotion) for four days during the week before the measurement, staff are devoted to intensive interpersonal communication in the area. The aim is to ensure that all owners, occupants or empowered relatives, will be present on the measurement days, ready with their documents (if they have any) and willing to cooperate. The promotion consists of several meetings, previously organized with local leaders, with groups or individuals, to explain the reasons and benefits, reduce the fear of new taxation, define the timing of operations and get names and telephone numbers. All this information is given to the supervisor. The fifth day coincides with the first day that the technical staff come to the area and the promoter accompanies the supervisors and technical staff. The car with a loudspeaker goes throughout the area announcing that registration has begun.'

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Achievements

RCS INITIATIVE

For more than 40 years, El Salvador has been involved in land reform processes which lie at the core of sustainable agriculture and rural development in the country. The World Bank has played a key role in funding these processes and ensuring support for the use of communication for development approaches and tools. Land reform has been shown to be most beneficial when it is cost-effective and contributes to equity objectives. By the end of the 1990s, El Salvador had 40% of land nationwide registered (90% of these titles were rural holdings) and its achievement laid the foundation for rural poverty reduction potential (World Bank, 1998). El Salvador is now a recognized leader in titling and registering rural land, including its use of communication for development to inform, educate and engage with rural communities (Norton, 2004).

Aims and audience

The approach or theory of change that directed this evaluation was based on the World Bank's logic model (input-output-outcomes).

Approach to collecting evidence

This case featured in the World Bank's Development Communication Division's use of the *Strategic Communication for Rural Development* Monitoring and Evaluation approach. The evaluation method involves regularly monitoring the communication activities and output (radio transmissions, posters, information in the dailies, field activities, etc.). Then in 2001, a formal evaluation of the communication activities was carried out, interviewing about 3 000 people in the departments of Ahuchapan, Santa Ana and San Salvador.

LAP I's experience has provided many valuable lessons which were to be reflected in LAP II (World Bank, 2005). The M&E was integrated into the *Chambita Medidor* programme (Grenna *et al*, 2006). Santucci (2005) explains that field agents were asked to record what they feel and see while talking with the people, supervisors and the measurement personnel. The hotline operators took note of the typology of questions. Using focus groups and surveys beneficiaries had input into monitoring and evaluation. The ongoing M&E of *Chambita Medidor* is now integrated into the wider e-government strategy of the Institute of Property Legalization (Instituto de Legalización de la Propiedad or ILP).

Evidence and learning

While awareness knowledge of the *Chambita Medidor* programme was high, its ultimate impact, in terms of land registration for the poor is low to modest. The initial evaluation of the communication campaign indicated that awareness was quite high (70 percent in San Salvador) and that 76 percent knew that CNR was measuring the parcels. Santucci (2005) reports that the *Chambita Medidor* was known by 81 percent of the people (86 percent in San Salvador). A quantitative survey was conducted and findings indicated that the vast majority of respondents attributed their knowledge to radio spots (88 percent). What people remembered about the message was also measured and 62 percent still remembered it. The radio message was considered easy to understand (86 percent) and very much appreciated (71 percent); 65 percent liked the song and 77 percent suggested making no changes.

Following the quantitative study, a focus group method was used in order to validate the suggested changes, before their implementation, with one group from the rural area and another one from the urban area. It seems this method was included because earlier messages were not gender aware - changes were made to the radio spots to introduce some female characters, and a woman also appears on the posters. Efforts were made to reduce costs including unused materials. Santucci (2005) explains "the NCR logo appears on posters, t-shirt, caps and other gadgets. Furthermore this allows the same materials to be used by all firms, with evident scale economies. Positioning of posters in public places has improved and radio transmissions are better timed to meet the highest number of listeners. Leaflets are printed on cheaper paper, only in black and white, and in much larger quantities." The unintended negative effects of the programme lie in the fact that the communication campaign was part of a wider challenge that was susceptible to possible mismanagement of resources, time delays and difficult coordination. The World Bank (2005) acknowledged the overarching weak culture of information sharing, transparency, property rights, and security that will benefit the final beneficiaries. An entertaining and educational (edutainment) campaign was insufficient in itself. As recognized by the World Bank's evaluation (2005), coordination and poor governance of the land titling process was responsible for low to modest overall performance of the initiative. The long term impact should be studied.

EVALUATION

Effectiveness of reporting

Documents and resource information on the land registration process, including regular updates are available online at ILP's website. For the second phase (LAP II), World Bank (2005) reporting format was the standard Project Appraisal Document. It is not clear what internal reporting was provided. Various reports were produced by FAO (Grenna *et al*, 2006) as well as the strategic communication framework by Santucci (2005).

POLICY IMPLICATIONS OF EVALUATION

Popular media suggests that the process has also been long and challenging. Coordination through the programme has continued to be a struggle, as recognized by the World Bank's project appraisal for LAP II in 2005. LAP II ended in 2012. Although communication and knowledge about rural land reform has greatly improved in El Salvador, the process of land registration and titling continues. In 2014, the director of the National Registration Center (CNR), Enrique Argumedo, said that registration had processed some 45 200 titles to families who had waited over 20 years for their title. In the previous 20 years, only 35 000 were granted. ILP has now incorporated this case study within the e-government strategy of El Salvador.

The communication strategy of *Chambita Medidor* was successful, but the overall achievements of land registration were hindered by several problems. From the standpoint of the communication strategy, positive implications were an appropriate mix of mass media and interpersonal communication methods and continuous monitoring and periodic evaluations. All stakeholders participated in the evaluation and contributed with their opinions and suggestions. It remains unknown if there was a better and more cost-effective strategy to be produced.

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COLOMBIAN COFFEE GROWERS ASSOCIATION & MANUEL MEJÍA FOUNDATION (FNC & MMF)

COLOMBIA – LATIN AMERICA

INSTITUTIONAL AND DEVELOPMENT CONTEXT

The Colombian Coffee Growers Association (FNC) may be the largest rural non-governmental organization in the world. Established in 1927, it represents more than 500 000 farming households (*cafetores*) in Colombia. The sheer size of this organization and its outreach work to the local level of rural communities across Colombia's coffee-growing zones is significant, particularly from a policy-making and implementation perspective.

FNC is a globally recognized organization largely due to its Colombia growers' trademark "Juan Valdez Café." Based on fundamental principles of democratic representation and collective action, FNC continually engages with its members and holds coffee elections across the country every four years. FNC also manages the National Coffee Fund whose contributions are made exclusively by Colombian coffee growers for the benefit of the coffee growers themselves. These funds are also used in partnership with the Manual Meija Foundation (MMF) which provides support for capacity development for FNC members and various rural communication, media and learning initiatives with various audiences from children and youth to coffee growers.

Knowledge mobilization and communication are used to address development challenges facing cafetores, local and national sustainability of the coffee production, these include:

- Ensuring that coffee provides a decent quality of life; that the coffee farm is profitable and stopping the outmigration of youth from rural to urban
- Managing in a context of on-going narcotic trade-related conflicts and peace settlements
- Responding to changing global coffee value chains including product differentiation, market segmentation and technical innovations
- Use of new ICTs for extension and communication with rural members, and outreach to youth in a context of reduced public extension and communication services
- Responding to climate change

Stakeholders

- The direct stakeholders of FNC's work represent 2.2 million rural residents for whom coffee is the primary source of income.
- Coffee is a major national export for Colombia representing about 17% of the agricultural output. The Colombian Government is a major stakeholder including the Ministry of Agriculture (includes Rural Development) and SENA (Colombia's service learning institute).
- Many local, national and international private sector companies in the coffee value chain (including the National Coffee Commission), international development donors (USAID, Spain) and NGOs collaborate with FNC (including fair trade networks).
- FNC and its partners in MMF have approximately 1 000 rural outreach communicators, teachers and extension workers.
- The role of women coffee growers in FNC has expanded and 30% of FNC extension workers are female.
- CENICAFE (FNC research institute) plays an important role in knowledge generation and communication particularly on sustainability issues.

Aims

FNC aims "to ensure coffee growers purchased at transparent prices, develop scientific research projects, transfer new technologies to coffee fields, position Café de Colombia as the richest coffee in the world, and implement social programmes in alliances in which the national and local governments, certain clients, the multilateral development banks, and international cooperation agencies participate". MMF aims to contribute to the well-being of smallholder coffee producing families through flexible learning, participation in technical capacity development activities, rural sustainability and market competency and competiveness. Its vision is to achieve personal, social, economic, environmental and institutional learning and development opportunities for the coffee-growing regions of Colombia.

Approach

FNC and MMF engage in extensive and intensive outreach to the *cafetores*. FNC uses a system of field-level extension workers to listen to, collect information and exchange knowledge with its members individually and in groups. They apply the following approaches:

- Mass media including radio and print, and more recently video and television broadcasts at regional and national stations. The character "Professor Yarumo" is used as a symbolic character for information sharing.
- Interpersonal communications through farm visits, telephone, written correspondence and meetings at FNC office premises.
- Group methods including workshops, contests, videos, dialogues, meetings of local leaders.
- A virtual online classroom covering various social, economic and environmental topics. Forty-five
 rural public schools in the coffee region of Colombia are carrying out an ICT-based rural education
 project which implicates collaboration with three levels of government. The "Virtual School" initiative
 is introducing computers, educational software and Internet into government schools. Learning from
 previous failed ICT projects for schools, FNC and MMF place the emphasis less on computers than on
 pedagogical processes and training. Also, schools are obliged to seek funding for the hardware and the
 Internet connection on their own, which requires the support of both the community and the teachers.
- Use of new mobile technologies and social media to support FNC extension and communication activities.

Taken together these approaches enable teamwork with stakeholders, among communities, among FNC members, between the *cafetores* and extension workers and among FNC and MMF extension and outreach workers themselves.

Achievements

The efforts of FNC support "one of the oldest and most comprehensive private extension systems in the world" (MEAS, 2014: xi). With over 50 years of experience in working in community development MMF's and FNC's rural communication services are notable because of the length of time over which they have been able to develop their methods and achieve various outcomes. These include:

- A membership-driven programme of information and knowledge sharing for *cafetores*, labour leaders, youth, adults, families, teachers of educational institutions, women's groups referred to as 'community mothers' and scientists and other professionals involved in the promotion of agricultural and livestock activities, as well as employees of companies in the coffee guild
- Various training programmes have been developed and implemented by FNC and MMF in 32 departments in Colombia. In 2013 programmes covered 813 municipalities one of the largest non-formal education programmes in Latin America
- Important conflict resolution initiatives in rural Colombia including "Footprints of Peace" which since 2011, when the peace convention began, have provided 13 800 people with physical protection, jobs and interpersonal communication for effective economic, social, cultural, political and civil rights in 18 municipalities (departments of Antioquia, Cauca, Nariño and Valle del Cauca)
- Social programmes include workshops and courses for organizational development of agricultural producers, rural women (over 850 trained), rural youth (approximately 820 trained) and child-welfare (37 500 urban and rural displaced families supported)
- Environmental sustainability courses include "preserving biodiversity" and "contributing to the mitigation and adaptation to climate change"
- Economic and production courses include consulting services conducted with the Chamber of Commerce of Bogotá and training for workers to strengthen productivity.

Aims and audience

EVALUATION

FNC has conducted M&E for many decades. This case study examines the specific results of one recent study conducted in 2014 in response to the recent challenges facing Colombia's coffee sector. Wanting to consider new directions in rural outreach, FNC commissioned a qualitative evaluation by MEAS (2014). As such, it is important to note that this was a user-driven evaluation which recognized that other conventional M&E was not providing information that would inform a forward-looking analysis for FNC and its partners such as MMF. The aim of the evaluation was to provide an internal organizational diagnosis with a review of relevant extension and communication approaches used elsewhere in Latin America and the world. FNC and its members were the main stakeholders of the study. The second audience were its stakeholders in government and partners such as MFF, who would be influenced by FNC policy and programme considerations. A further audience were international donors (e.g. USAID, Spain) or partners in agricultural value chains and social equity, conflict resolution and environmental sustainability issues (e.g. Dutch coffee companies supporting corporate social responsibility programmes) in Colombia.

Approach to collecting evidence

- FNC commissioned an external review contracted to Monitoring, Evaluation and Advisory Services (MEAS) involving two researchers from the University of Illinois at Champaign-Urbana and Cornell University.
- A mixed-methods approach was applied involving:
 - A survey based on the Human Action Model (HAM) that ranked the six elements characterizing the strengths and weaknesses of an organization (meaning, mission, structure, existence, power, resources) and using a survey tool deployed in the field with a sample of 300 FNC coffee growers and nearly 60 of its 1 000 extension agents to explicate the strengths, weaknesses, opportunities, and threats (SWOT analysis) of FNC.
 - A sub-sector analysis among primarily extension programmes in coffee and cacao with an international best practices survey from 20 organizations in over 16 countries.
- Preliminary findings were shared in face-to-face workshops with members of the Colombian Government and the private sector members of the National Coffee Commission and feedback solicited. A final report was produced by MEAS (2014).

Evidence and learning

Results of the HAM/SWOT analysis indicate that all respondents feel that FNC rural outreach services are necessary. The nearly 300 cafetores interviewed reported that they could not completely develop their work without the accompaniment of the services. One reference identified the necessity of "personalized attention, help in applying for loans and financial assistance, expert technical assistance, training and education, timely and quality information, time spent with growers, constructive dialogue, friendship and confidence" (MEAS, 2014:10). At the same time the respondents asked for more services, including call centres, as well as greater amounts of time spent in face-to-face discussions. In one statement it was noted, "The extension staff need to adjust to our needs. They need to visit us more, more support for the women's groups and our organizational development. We need more extension staff in our area. We need more office time with them" (MEAS, 2014:12).

One of the most significant findings was that key leaders of the FNC central administration, extension agents and coffee producers are all drawing the same conclusions – that the future is to build a stronger social capital network both within the organization and across the coffee sector communities. The efforts of MMF to provide more training (for cafetores, FNC affiliated local organizations and new hires at the Ministry of Agriculture) is one strategy proposed to address the issue of inadequate coverage of farm visits and office administrative tasks. Making use of ICT is another. The final assessment encouraged "decisive action to improve channels of communication and strengthen trust in the FNC" (MEAS, 2014:25).

Social networking of producers and extension staff was thought to help to create channels of communication, from the bottom up to central administration decision makers, and to use technology and ICTs to create and strengthen virtual learning and knowledge mobilization communities. An example cited was growers and agents who are engaged in specialty coffee projects (different local origins/conditions/blends) who convene via internet-based blogs, chats, social media and video conferencing to share information and strategize.

FNC indicated that this evaluation was useful and innovative because it differed from the use of consulting firms to complete large evaluation surveys (MEAS, 2014).

Effectiveness of reporting

Over its many years of work, FNC often reported results of its M&E through workshops with its members, and reports to national policy stakeholders (e.g. National Coffee Commission).

For the MEAS study, in particular, in addition to its preliminary workshops and mass media use that served to pre-test and distribute the evaluation results, FNC produced a brief video (in Spanish) on the evaluation exercise. MEAS and FNC provided a presentation and a fact sheet for USAID. USAID made the evaluation results available on its Global Development Laboratory website. Multiple media presentations were also archived on the MEAS website. A peer reviewed journal article is in the process of completion.

POLICY IMPLICATIONS OF EVALUATION

As Colombia's largest non-governmental and rural, federated membership organization, FNC has a tried and true national network for agricultural extension and rural outreach with strategic partnerships with organizations such as MMF, a locally active and relevant organization. As an integral stakeholder for Colombia's agricultural and rural development policy and programming, their work resonates at the policy level where government and private sector interests are implicated. This model of collaboration is symbiotic – one organization which is more extension-oriented in terms of linking to economic and technical information, knowledge and communication collaborates with an organization involved in more holistic personal, social, cultural, environmental and economic issues, including a focus on specific social groups such as women and youth or in communities facing conflict. The MEAS evaluation results implicate the beneficial use of qualitative methods alongside the conventional use of quantitative data collection. The MEAS approach also made important contributions to ensuring that results is another possible policy direction. Engagement with beneficiaries and definitions of achievement from the perspective of the local community can be considered in relation to the future programming initiatives.

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TELECOMMUNICATIONS AND ICT DEVELOPMENT PROJECT

EASTERN CARIBBEAN – THE CARIBBEAN

INSTITUTIONAL AND DEVELOPMENT CONTEXT

Rural communication services are challenging in small island developing states such as nine nations that make up the OECS: Anguilla; Antigua and Barbuda; the British Virgin Islands; the Commonwealth of Dominica; Grenada; Montserrat; Saint Lucia; Saint Kitts and Nevis; and Saint Vincent and the Grenadines. These islands are considered among the most vulnerable in the world due to the frequency and intensity of natural disasters, low economic capacity of small tourism and agricultural based economies and population increase and outmigration. Over half the population of OECS Member States lives in rural areas. Poverty is predominantly a rural phenomenon and the result of highly concentrated wealth. The process of developing telecommunications so that ICTs can be used for sustainable development and programmes such as e-government is a long-term process. Connecting underserved, rural areas at affordable rates is an objective of what is referred to as Universal Access or Universal Service.

Beginning in the late 1990s, five country members of OECS (Dominica, Grenada, St. Kitts and Nevis, St. Lucia, and St. Vincent and the Grenadines) embarked on a liberalization process that eventually made commitments to achieving Universal Service. This involved institutional change processes including facilitating the adoption of ICTs, and specifically mobile technologies, passing new telecommunications acts, terminating monopoly rights, establishing the first regional telecommunications regulatory authority in the world called the Eastern Caribbean Telecommunications Authority (ECTEL, previously ECTA) and enabling environment for investment. This case study of rural communication services draws upon the reporting requirements of the major donor agency (the World Bank) and the new regulatory structures (ECTEL) have documented their return on investment (ROI). The Project has also generated project evaluation results from the Independent Evaluation Group (IEG), which has oversight responsibilities for the World Bank programming. Other reports (e.g. OECS, 2011) that point to enhanced community resilience to respond to adverse effects of climate change and disasters have noted the importance of enhanced telecommunications and educational media.

This large and financially significant case study of policy reform for Universal Services, which implicates rural access to ICTs, had four components implemented over seven years, including a two year extension period (2005-11):

- Support for Legal and Regulatory Reforms (US\$0.84 million).
- Universal Access review and establishing a Universal Fund, which is to increase access to services among residents by increasing the availability of telecommunications in public locations including more remote, rural areas (US\$1.27 million).
- Adoption of Information and Communication Technologies (US\$1.03 million) to improve growth and competitiveness in ICT enabled services through utilization of broadband infrastructure by government and the private sector.
- Project Management (US\$0.245 million).

Stakeholders

- Member States of OECS, at the regional and international level are the main stakeholders.
- Regional organizations such as the inter-governmental Caribbean Centre for Development Administration (CARICAD) and the University of the West Indies, which are involved in the promotion of e-government and the launch of a virtual local governance specialization course for the Caribbean. This is aimed at directors, managers, local politicians and community leaders of CARICOM, Eastern Caribbean Trading and Agriculture Development Organization (ECTAD) and Caribbean Network for Integrated Rural Development (CNIRD).
- International donors and organizations supporting Small Island Developing States (SIDS) and action plans including those proposed in the 2014 International Year of Small Island States, the World Summit on the Information Society (WSIS), CTA and FAO.
- Emergency Disaster Management services and Early Warning Systems infrastructure, from regional initiatives on information centres such as those organized by the Caribbean Disaster Emergency Management Agency (CDEMA) to Community Alerts Programme involving local community-based radios, district committees and individual amateur radio operators.
- NGOs, SMEs and wider private sector as users of ICTs or promoting them for e-government and socioeconomic development.
- Rural households or individual ICT users are indirect beneficiaries of Universal Service.

Aims

The initiative aims to improve the access, quality and use of ICT services to achieve socio-economic development in the OECS. The structural, regulatory and legal reform measures are required to overcome the high costs, inefficiencies and lack of investment incentive associated with monopoly within the telecommunications market that results in lack of access to ICT services in underserved, mainly rural areas.

Approach

RCS INITIATIVE

The approach of rural ICT access to implement projects that overcome market failures in broadband access including community-based networks used in other rural regions of the world. The approach includes institutional change including ensuring the creation and good management of a Universal Service Fund that supports "last mile" (first mile) technological development.

Achievements

- The initiative resulted in the establishment of the ECTEL, which by 2014 resulted in improved wireline and wireless broadband services in OECS and improved licensing with competitive Internet providers and better monitoring of telecommunications including improved media penetration of commercial and community radio, local and international television.
- Over the past 15 years, there was rapid ICT uptake in the Eastern Caribbean, including among rural households and businesses; indicators of achievements include increased subscriber television revenue, technological advancement including 4G/HSPA+ mobile broadband series technologies launched in Member States; 87 400 subscriptions to fixed broadband services representing a modest but significant fixed broadband penetration rate of 17.2 per cent.
- ECTEL has produced a 2015 Broadband Access and Use Survey in partnership with the Central Statistical Offices (CSOs) of the Eastern Caribbean Member States. It found that half of the respondents had only mobile phone service and 1 in 3 had both fixed and mobile phone service. It also produced a report on small business use of ICTs. Together these reports confirm the rapid growth in access to ICTs in Member States and growing use of ICTs among children and youth.
- There have been significant reductions in rates for fixed to mobile and mobile to mobile calls as providers competed and services efficiencies (e.g. bundling of ICTs) were achieved to some extent; at least two services were available in all Member States by 2014.
- Social and economic development services are using online services; some e-government objectives are being met; reports point to need for telecommunications for reducing vulnerability and improved emergency disaster management efforts (OECS, 2011).
- Affordability of broadband services is good in St. Kitts and Nevis and Grenada. Affordability of fixed broadband remains a challenge in Saint Lucia, St. Vincent and the Grenadines and Dominica; rural areas are still reporting accessibility and affordability challenges although across the Member States surveyed by ECTEL (2015) less than 5 per cent of respondents were fixed line only households.

Aims and audience

The evaluation addressed in this case study was completed by and for the World Bank and for OECS. The ICT Development Project was conducted by the Bank's Independent Evaluation Group (IEG) in 2011. It was directed to the purpose of accountability, and adaptive management within the World Bank and within future OECS regional initiatives. The evaluation result users were, therefore, (1) WB staff and investors, and (2) regional stakeholders including OECS. The results inform related future WB and donor investments.

Approach to collecting evidence

The World Bank Group is the largest producer of impact evaluations among all development institutions. To achieve impact evaluations a standardized system of project evaluations is employed. World Bank uses a causal chain analysis leading from the project activities to the achievement of outputs, outcomes and objectives (efficacy and efficiency) as outlined in the Project Appraisal Document (PAD). An Implementation Completion Report (ICR) evaluates the project against the targets of the PAD. Subsequently, the IEG reviews the project, which is referred to as an ICR Review (ICRR). Differences in findings are reported and the ratings of the project (outcomes, risks, performance of borrower and Bank, and quality of the ICR) are compared. Using a results-based management process IEG scales up its evaluation tools.

Evidence and learning

The outcomes of the ICT Development Project are summarized in World Bank (2011). Overall the project was considered at the end-stage of the ICRR to have relevant objectives and design. Evidence of improved access and quality of telecommunications and ICT services in the Eastern Caribbean by 2009 were rated as substantial. However, the third sub-objective which focused on the improved use of ICT was rated modest due to lack of evidence. Project efficiency was assessed as modest. The overall outcome according to the ICRR is 'moderately satisfactory'. Given the continuation of the work by ECTEL and the importance of improved telecommunications in the Eastern Caribbean region, particularly for vulnerable rural and small island communities, several learning points can be identified from the evaluation such as:

- ECTEL should continue to provide legal and technical advice to National Telecommunication Regulatory Commissions on the implementation of Universal Service projects in rural areas.
- OECS member states and partners in donor agencies as well as the private sector are implementing subsequent phases of ICT development including investing in operation and maintenance of services; these changes should continue to be monitored by ECTEL.

While causal analysis may find that outputs, outcomes and objectives are achieved, these targets are based on the initial project appraisal and design document. Projects such as this case study are implemented over a number of years, often extended due to project delays. As a result initial targets no longer seem ambitious. This lesson is important and particularly with respect to Universal Service in rural areas more ambitious targets must be identified and addressed; also in this respect, the World Bank could consider its role in reporting on targets and setting future investment targets that it will consider; this could also help to create dialogue among cross-sectoral international development agencies and relevant organizations in the Member States involved in refreshed targets.

 Based on the available documentation of this project, local communities do not appear to have input into World Bank ICR and ICRR processes; the borrowers (OECS Member States) should identify a process for this input.

Effectiveness of reporting

Project evaluation reporting is effective because it is standardized and includes attention to the performance of the project implementing agency as well as the performance of the World Bank team itself. Project evaluation results and IEG comparative analysis results are shared within the executing agency, borrower nations and within the World Bank as explained in IEG (2014). In exceptional circumstances it may not be made publicly available. Meta-analysis of ICRs is reported in regional or thematic policy dialogues. The World Bank e-repository makes its evaluations accessible to interested users but the reporting does not necessarily reach the level of rural communities unless there are intermediaries such as journalists, scholars or NGOs that share these findings.

POLICY IMPLICATIONS OF EVALUATION

World Bank's causal analysis approach provides an important example of a methodology for comprehensive M&E of rural communication services. Evidence reported at the ICR stage is examined and compared with findings of the independent evaluators (IEG). These results are scaled up into impact evaluations also commissioned by IEG. As this case study suggests, policy aimed at developing a national or regional rural communication service or system may implicate large investments in ICT infrastructure, possible regulatory reform, multiple media and many stakeholders in the public and private sectors, including non-governmental organizations and community-based actors. Project evaluations are important but, as this case finds, so too are independent confirmations of the findings, and more broadly, impact evaluations. Together all these M&E efforts provide evidence to inform decision-making and enhance policy development. Such integrated evaluation approaches also have the potential to inform cross-sectoral policymaking and longer-term development investments (e.g. Disaster Management Systems).

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INCLUSIVE RURAL COMMUNICATION SERVICES

BUILDING EVIDENCE, INFORMING POLICY

This publication is the first scoping study aimed at compiling existing evaluation cases in the field of Communication for Development as applied to agricultural and rural development initiatives. It draws on a literature review and 19 cases across Africa, Asia-Pacific, Latin America and the Caribbean comparing evidence of evaluative approaches, methods and outcomes of communication programmes and rural communication services. It also provides clear indications about the need to build evidence that inform policy to advance inclusive rural communication services.

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