



**Evaluation in rural development:
definitions, discourses and
lessons from evaluations.**

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Abbreviations and acronyms

AfDB	African Development Bank
AGRA	Alliance for a Green Revolution in Africa
AIARD	Association for International Agriculture and Rural Development
BMZ	German Ministry for Economic Cooperation and Development
CGIAR	Consultative Group for International Agricultural Research
CSFD	French Scientific Committee on Desertification
CSR	Corporate Social Responsibility
DFID	Department for International Development
FAO	Food and Agriculture Organisation of the United Nations
GDP	Gross Domestic Product
GDPRD	Global Donor Platform for Rural Development
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
HCD	Human Capacity Development
IBI	International Biochar Initiative
IE	Impact Evaluation
IFAD	International Fund for Agricultural Development
IFPRI	International Food Policy Research Institute
MDG	Millennium Development Goal
NAADS	National Agricultural Advisory Service Programme in Uganda
NRM	Natural Resources Management
ODA	Official Development Assistance
OECD	Organisation for Economic Cooperation and Development
PPP	Public-Private Partnership
SMART	Simple, measurable, achievable, relevant, time-bound
SWAp	Sector-Wide Approach
TIRDEP	Tanga Integrated Rural Development Programme
UNCCD	United Nations Convention to Combat Desertification
UNDP	United Nations Development Programme
USD	US Dollar
WBI	World Bank Institute

Executive summary

In 2013/14 the Monitoring and Evaluation Unit of the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) will implement independent evaluations of a random sample of its projects in the rural development sector. GIZ's independent evaluations take place either at the closure of an intervention (end-of-project evaluation) or two to five years later (ex-post evaluation). They are coordinated by the Section Central Evaluation of the Monitoring and Evaluation Unit, which contracts research institutions or consulting firms to carry out one or more evaluations in the sample. Before commencing with the 2013/14 cycle, the Evaluation Unit contracted an external consultant to carry out a desk study with the purpose of providing orientation on the state of evaluation in the rural development sector, thereby enhancing the preparation and quality of the independent evaluations.

In Chapter 2, the study suggests working definitions for the selected thematic areas, or sub-sectors, in which the selected evaluations are located, and investigates how the discourse on rural development evolved over the past decades. Rural development practice and evaluation have evolved, from a clearly agriculture and productivity-based paradigm towards more complex concepts, in which agriculture is one of several components of the rural development complex. Likewise, evaluation practice has migrated from measuring outputs to assessing impacts - which implies a host of methodological challenges, such as gauging the attribution of observed change to given development interventions. It is therefore not surprising that solid evidence of impact is scant in general and variable at best.

Chapter 3 starts with exploring objectives and indicators of rural development operations, including a generic rural and agriculture development intervention logic with indicators that can serve as reference framework (Appendix 2). A synopsis on the intervention logic of agricultural and rural development and an associated list of indicators provide guidance to evaluators (Appendices 3 and 4). The core part of Chapter 3 then presents lessons from key evaluations in the following thematic areas: (i) rural development; (ii) agriculture and agricultural development, (iii) agricultural policy and administration, (iv) natural resources management, and (v) capacity building in agriculture. At the end of each section, a list of lead evaluation questions for each area is provided.

In Chapter 4, the importance accorded to cross-cutting issues (e.g. gender, poverty reduction, reduction of carbon emissions and climate change mitigation, and desertification) is highlighted. Chapter 5 provides a set of conclusions and general recommendations for the subject-matter focus and the methodological design of independent evaluations in the 2013/14 cycle. The main practical references are the lead questions per thematic area, results logic and lists of indicators.

1. Introduction

In 2013/14 the Monitoring and Evaluation Unit of the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) will implement independent evaluations of a random sample of its projects in the rural development sector. GIZ's independent evaluations take place either at the closure of an intervention (end-of-project evaluation) or two to five years later (ex-post evaluation). They are coordinated by the Section Central Evaluation of the Monitoring and Evaluation Unit, which contracts research institutions or consulting firms to carry out one or more evaluations in the sample. Before commencing with the 2013/14 cycle, the Evaluation Unit contracted an external consultant to carry out a desk study with the purpose of providing orientation on the state of evaluation in the rural development sector, thereby enhancing the preparation and quality of the independent evaluations.

The purpose of the study is to familiarise the members of the Evaluation Unit in charge of backstopping the evaluations, as well as the consultants that will carry out the evaluations in regard to current discourses in the rural development sector and the sector-specific state-of-the-art in evaluation. To do so, this document examines the most important policy papers of and evaluations carried out by bilateral and multilateral agencies in the rural development sector, as well as relevant studies and evaluation guidelines and handbooks.

Rural development is a thematic priority of the German Federal Ministry of Economic Cooperation and Development (BMZ). The sector encompasses many thematic areas, or sub-sectors, and comprises of a diversity of interventions. Congruently, GIZ implements projects and programmes tackling a variety of issues, including land management, climate change, food security and agricultural value chains, amongst others. The interventions to be independently evaluated in a specific sub-sector were chosen by random sampling, before being scrutinised by the Evaluation Unit and the agriculture department in view of their potential for stimulating learning processes and innovation. For the 2013/14 cycle on rural development the selected sample consists of GIZ projects and programmes in the following thematic areas: rural development, agriculture and agricultural development; agricultural policy and administration; natural resources and capacity building in agriculture. The desk study, although cognisant of general trends, shall focus on these areas.

The document investigates the following questions:

1. How has the rural development discourse in development cooperation evolved over the past ten to fifteen years (competing approaches, paradigm shifts)?
2. What are key questions for evaluation and measurement of results in rural development? What are key indicators? What are methodological challenges?
3. What are the most relevant evaluations in the rural development sector in German and international development cooperation in the last ten to fifteen years? What were

the central questions and focus? Which hypotheses were analysed? Which results were found? Which evaluation criteria and designs were employed?

4. How are cross-cutting issues (e.g. gender, poverty reduction, reduction of carbon emissions and climate change mitigation, and desertification) implemented and respective results measured?

Based on the analysis, the study provides a set of conclusions and general recommendations for the design and implementation of the independent evaluations in the 2013/14 cycle.

2. Rural development discourse and paradigms

2.1 Working definitions

The use of the working definitions put forward in the following meaning is confined to this document for the sole purpose of clarifying the terminology used. Importantly, in the framework of this study, “rural development” is considered an overarching term, and not a sub-sector next to others¹.

Rural development

The importance of the development of rural areas is due to the fact that out of the two billion of the poorest people, three quarters live in rural areas. There, poverty is not only equivalent to low incomes. Rather, there is also a lack of access to clean drinking water, education, health and support by the state in general². As BMZ puts it, the development of rural territories requires a holistic policy approach in the partner countries to be supported by donor agencies. The mere promotion of agriculture is insufficient. What is required are comprehensive reform processes focusing on the creation of functioning institutions, the development of human resources, the building of performing infrastructure and on the management of natural resources driven by transparency, sustainability and crisis prevention³.

In the context of crisis prevention (and recovery), special attention may be warranted for fragile states because key functions of modern statehood are affected, i.e. security, welfare and legitimacy/rule of law⁴. These are particularly relevant for rural development due to the typical remoteness and structural weakness of rural areas. According to a recent OECD report⁵,

¹ This is a necessary preliminary remark, because BMZ assigns different support area codes for rural development and agriculture, for instance.

² GIZ. Advisory services, rural development, Eschborn, 2011.

³ BMZ. Entwicklung ländlicher Räume und ihr Beitrag zur Ernährungssicherung, Konzept, BMZ-Strategiepapier 1/2011.

⁴ Internationale Weiterbildung und Entwicklung GmbH (Inwent). Fragile Staaten, Dokumentation & Bibliothek, Themendienst, Stand August 2010.

⁵ OECD. Fragiles States 2013, Resource flows and trends in a shifting world, DAC international network on conflict and fragility, OECD 2012.

out of the countries considered by the GIZ 2013/2014 evaluation cycle, the following have been tagged as fragile states: Nepal, Pakistan, Kenya, Niger and Bosnia and Herzegovina. The same source states that fragile states are more vulnerable to internal or external shocks than more stable countries and are home to one-third of the world's poor,. Not one of these countries has achieved a single Millennium Development Goal (so far).

Summing up, area development forms the necessary parenthesis in order to provide a meaningful framework for the below thematic areas considered in this document.

Agriculture and agricultural development

Agriculture, also called *farming* or *husbandry*, is the cultivation of plants, fungi, and other life forms for food, feed, fibre, biofuel and other products used to sustain human life⁶. Together with mining, fisheries and forestry, agriculture forms the primary sector in national statistics and accounts and is used for international comparisons. In the framework of this document, agriculture includes plant and animal production, as well as the management of natural resources, but excludes forestry and fisheries in the strict sense. It covers the entire range between predominately subsistence and commercial farming, serving both informal and formal markets.

Two thirds of the world's agricultural value added is created in developing countries. In agriculture-based countries, it generates on average 32% of the gross domestic product (GDP) and employs 65% of the labour force⁷. Beyond its function as an economic activity, agriculture is a source of livelihoods for an estimated 86% of rural people. It provides jobs for 1.3 billion smallholders and landless workers, "farm-financed social welfare" when there are urban shocks, and a foundation for viable rural communities. Of the developing world's 5.5 billion people, 3 billion live in rural areas - nearly half of humanity. Of these rural inhabitants, an estimated 2.5 billion are in households involved in agriculture, and 1.5 billion are in smallholder households. Overwhelmingly, efforts made by development aid agencies focus on smallholder agriculture that operate within a structure of a household or family run unit⁸. Large-scale and corporate farming operations are only exceptionally the target of international development cooperation undertakings.

Within this array, emphasis tends to shift away from food security (availability, access and use of food⁹), typical for subsistence farming, to food safety in more commercial production systems. This includes the guaranteed right to innocuous food that is produced without harming the environment and fully traceable to its original producer. Along this trend, the weight of the consumers is increasingly felt, of which the Global Food Safety Initiative is the converg-

⁶ Derived from: International Labour Office (1999). *Safety and health in agriculture*. International Labour Organization, p. 77.

⁷ World Bank. *Agriculture for Development*, .World Development Report 2008.

⁸ Ibidem.

⁹ See definition of food security at: <http://www.who.int/trade/glossary/story028/en/>.

ing interface¹⁰. The Global Food Safety Initiative is also driven by Corporate Social Responsibility (CSR).

Agriculture has thus ceased to be an activity confined to the producers, their input suppliers and produce purchasers; it has become a complex with explicit rights of the consumer and society at large. This development may be incipient in developing and transition countries, but it is progressing fast, such as in India¹¹. Within this context, agricultural development is not limited to increasing output, but includes and aims at strengthening the technical and management skills of the farmer, i.e. at human capacity development (HCD). Without this dimension, it would be impossible to satisfy the mentioned and steadily growing intangible requirements. The proliferation of standards and labels are an expression of this trend, and they present a growing challenge for agricultural development.

Agricultural policies and administration

Agricultural policy describes a set of laws and other directives relating to domestic agriculture. It may include the regulation of sector-relevant foreign trade relations as well.

One key policy issue is how much of a national budget is allocated to agriculture and rural development. This has for instance been recognized by the African Heads of State in 2003 who pledged, in the so-called Maputo Declaration, the allocation of at least 10% of national budgetary resources to agriculture and rural development policy implementation within five years¹². Globally, recent research is also devoting attention to financial resource allocation to agriculture, as this is a major expression of political will¹³.

Various forms of agricultural administration are required to implement agricultural policies and its instruments. Core sector functions such as research, agricultural advisory services (extension)¹⁴, agricultural statistics, the use of subsidies as a key policy instrument and the enforcement of food safety and animal welfare standards are all part of the complex of agricultural administration. It may include interfaces with the private sector in some core functions, such as research and extension. Conditions that must be met in order to lead to successful policy implementation have been extensively analysed¹⁵ and will guide Chapter 3 in particular.

Agricultural and rural development policies have frequently been substantiated by Poverty Reduction Strategy Programmes (PRSP) in many countries as a means of accessing debt

¹⁰ <http://www.mygfsi.com/>.

¹¹ The Times of India. "March 15, 2009: Supreme Court stands up for rights of consumers", March 25, 2012.

¹² <http://www.nepad.org/nepad/knowledge/doc/1787/maputo-declaration>.

¹³ FAO. Financial resource flows to agriculture, A review of data on government spending, official development assistance and foreign direct investment, ESA Working Paper 11-19, Rome, December 2011

¹⁴ Research and extension are mentioned here because they form significant parts of agricultural administration set-ups. Their capacity building dimension is reviewed in Section 3.6.

¹⁵ FAO. Investing in Agriculture for a Better Future, state of Food and Agriculture 2012, Rome, 2012.

relief schemes. Poverty alleviation is thus one of the major policy goals for agriculture and rural development¹⁶.

Another aspect of agricultural and rural development policies is how governments regulate and protect land and ownership rights and whether relatively recent phenomena such as “land grabbing” are tolerated to emerge and spread. This issue is addressed in Section 3.4.

Natural resources management (NRM)

The growing recognition that accelerating environmental degradation is eroding the natural asset base of poor rural people has promoted the fact that sustainable management of natural resources is increasingly present in the agriculture and rural development arena¹⁷. The explicit inclusion of NRM in agriculture and rural development reflects the growing “green” dimension of the subject matter and, at the very centre, the concern for sustainability¹⁸.

As such, agro-forestry (using the interactive benefits from combining trees and shrubs with crops) and agrosilvopastoral systems¹⁹ (implying the combination or deliberate association of a woody component, trees or shrubs, with cattle in the same site) are part of the relevant interventions.

In a wider sense, however, NRM includes issues such as the reduction of carbon emissions, climate change mitigation and the fight against desertification and agro-biodiversity loss. The resources included in NRM are soil, water and all types of vegetation cover and the combined potential of these to produce food, feed, fibre and fuel (wood) as well as their potential to serve as a carbon sink. Their link to rural development is consequently extremely strong as they are at the core of livelihood of all rural populations depending on them.

Capacity building in agriculture

Strengthening local capacities and institutions remains a major challenge for the effective design and implementation of agricultural and rural development programs and policies in developing countries. Sustainable capacity development is also central to making aid work on the ground²⁰. In essence, the thrust for capacity building in agriculture and rural development responds to the imperative of enabling the human resources in farming households to

¹⁶ <http://www.worldbank.org/en/topic/poverty>.

¹⁷ IFAD. Environment and natural resource management policy - Resilient livelihoods through the sustainable use of natural assets, Rome, 2012.

¹⁸ BMZ. Förderung einer nachhaltigen Landwirtschaft. Entwicklungspolitisches Konzept, BMZ-Strategiepapier 3/2013, Eschborn, 2013.

¹⁹ Richard o. Russo. Agrosilvopastoral Systems: A Practical Approach Toward Sustainable Agriculture, Journal of Sustainable Agriculture, Volume 7, Issue 4, 1996.

²⁰ InWent Capacity Building International and the International Food Policy Research Institute, Feldafing, Germany, November 2008.

face the growing challenges of agricultural development as described in the relevant section above.

In line with the international state-of-the-art, GIZ has defined its capacity development policy, building on three investment thrusts: (i) people; (ii) organisations and (iii) institutions and policies²¹. The term capacity building, however, is confined to the first dimension of human capacity development at the level of individual people. In a holistic capacity development approach, supporting individuals to gain knowledge and skills is complemented by efforts of organisational development and improving the policy framework, in which individuals operate.

For the purpose of this study, the following working definition of capacity building is proposed: (i) formal agricultural education and training, including on-the-job education and training, ranging from vocational to academic levels, (ii) informal education and training in the form of extension, including farmer-to-farmer extension, training, training-of-trainers, follow-up and coaching, and (iii) support to education and training institutions in the sense of educational and training management.

2.2 Paradigm shifts over the last fifteen years

Rural development is a recognised policy issue with underlying commitments

As early as 1974, the Director of the World Bank's Agricultural and Rural Development Department identified key factors of rural development. Accordingly,

“the first and most significant factor is political, and the national commitment to a policy of making the rural sector more productive and, especially, involving small farmers in development. One indication of the degree of such commitment is the amount of budgetary allocations for rural development”²².

It took African Heads of State close to 30 years to substantiate this commitment into the Maputo Declaration (see also Section 3.3).

²¹ GTZ. Capacity development for sustainable development, Policy Paper No. 1, Strategic Corporate Development Unit, Policy and Strategy Section, Officer responsible: Dr. Ricardo Gómez, Chief Economist, Eschborn, March 2003

²² Yudelman Montague. Integrated rural development projects: the Bank's experience, Washington DC, 1974

Farming is not the only solution to improving rural livelihoods...

Another reference traces paradigm shifts in rural development in the period from 1950 to 2000²³. The authors sustain that the sequence of paradigms and switches in this period were: (i) modernisation and dual economy, (ii) raising yields in efficient small farms, (iii) process, participation and empowerment, and (iv) sustainable livelihood approaches. The article concludes that sustainable livelihood approaches potentially permit the cross-sectorial and multi-occupational character of contemporary rural livelihoods in low-income countries to be placed centre-stage in efforts to reduce rural poverty. The authors sustain that new rural development paradigms would entail that agriculture takes its place alongside a host of actual and potential rural and non-rural activities that are important to the construction of viable rural livelihoods - without undue preference being given to farming as the unique solution to rural poverty. The earlier paradigms were marked by the Green Revolution, which was progressively enriched by a closer look into farming systems and sustainable agriculture. Most recently, the paradigm shift evolves toward agriculture that is resilient, foremost to climate change.

...but a renewed focus on agriculture is needed nevertheless!

However, some authors who have suggested the need for a new paradigm also maintain that agriculture is essential in any rural development strategy²⁴:

“The fundamental role that agriculture plays in development has long been recognized. In the seminal work on the subject, agriculture was seen as a source of contributions that helped inducing industrial growth and a structural transformation of the economy. However, globalization, integrated value chains, rapid technological and institutional innovations, and environmental constraints have rapidly changed the context for agriculture’s role. We argue that a new paradigm is needed that recognizes agriculture’s multiple functions for development in that emerging context: triggering economic growth, reducing poverty, narrowing income disparities, providing food security, and delivering environmental services. Yet, governments and donors have neglected these functions of agriculture with the result that agriculture growth has been reduced, 75% of world poverty is rural, sectorial disparities have exploded, food insecurity has returned, and environmental degradation is widespread. Mobilizing these functions requires shifting the political economy to overcome anti-agriculture policy biases, strengthening governance for agriculture, and tailoring priorities to country conditions”.

²³ Ellis Frank and Biggs Stephen. Evolving Themes in Rural Development 1950-2000, Development Policy Review, 2001, 19 (4) 437-448.

²⁴ Derek Byerlee, Alain de Janvry, and Elisabeth Sadoulet. Agriculture for Development: Toward a New Paradigm, Washington DC, 2009.

Another critical contribution on Official Development Assistance (ODA) to agriculture and rural development is equally recent²⁵, this time looking back on over 35 years of ODA in favour of agriculture and rural development. After a “golden era” from the early 1970s to the late 1980s, both DAC countries and multilateral agencies committed more than USD 13 billion in 1987 to this field. This commitment bottomed out around 2003 at a level of USD 6.5 billion and recovered back to USD 9 billion (all figures in 2009 constant prices). The paper mentions several overriding factors that drove these trends, one of them the declining agricultural commodity prices, which made agricultural and rural development investment unattractive. Between 1980 to 2000, world prices of 18 major export commodities declined by 25% in real terms with more severe collapses for cotton (47%), coffee (64%), rice (61%), cocoa (71%) and sugar (77%). It has also been suggested that lobbying by producer groups in developed countries who argued that giving aid to agriculture in developing countries increased competition and reduced the viability of their farms may also have influenced donors to cut back on committing aid, especially for agriculture in developing countries.

Agriculture is multifunctional

An important characteristic of a modern definition of agriculture is its “multi-functionality”. The OECD associates multi-functionality with particular characteristics of the agricultural production process and its outputs. These are, first, the existence of multiple commodity and non-commodity outputs that are jointly produced by agriculture. Commodities are the produced tangible outputs, i.e. produce, while non-commodities are mostly intangibles such as environmental protection, the maintenance of attractive landscapes or the preservation of intact family farms and thus the reduction of rural exodus. Some of the non-commodity outputs may exhibit the characteristics of externalities or public goods, such that markets for these goods function poorly or are non-existent²⁶. An example of such a public good with a political significance is the goal of “food sovereignty”, for instance declared by several developing countries (Bolivia, Ecuador). Thus, multi-functionality applies to developing economies as well.

Comprehensive and rights-based perspectives shape the current paradigm

In 2005, the Global Donor Platform for Rural Development (GDPRD) produced a joint donor narrative on the role of agriculture and rural development in achieving the Millennium Development Goals. It concludes by stating what can be considered the currently prevailing rural development paradigm today:

²⁵ Admos Chimhowu. Aid for agriculture and rural development in the global south; A changing landscape with new players and challenges, WIDER Working Paper No. 2013/0, February 2013.

²⁶ <http://stats.oecd.org/glossary/detail.asp?ID=1699>.

“Every human being is entitled to live in dignity with adequate food, shelter, education and health. The rural poor are denied that fundamental right. Basic human rights are being violated and individual and collective potential to act on their own behalf is not being recognized. Unless action is taken to reduce poverty by increasing agricultural productivity, the prospects for economic and social development will be lost. Hunger spawns social and political instability, rising crime, civil war and terrorism, and environmental destruction”²⁷.

On the level of a global, right-based commitment, the Millennium Development Goals (MDGs) are part of the present discourse on rural development, whereby MDG 1 (Eradicate extreme poverty and hunger) and MDG 7 (Ensure environmental sustainability) are directly relevant for rural development and agriculture. In this context, it is noteworthy that no major expert opinion advocates the abolition of family farming systems and the shift towards large-scale commercial agriculture based on wage labourers. Quite on the contrary, institutions such as the International Food Policy Research Institute (IFPRI) perceive no alternative to family farming because small farms dominate the agricultural landscape in the developing world, providing the largest source of employment and income to the rural poor²⁸.

The role of the policy level continues to gain weight...

With a study on sector-wide approaches (SWAs) in agriculture and rural development in 2007, the GDPRD intended to contribute to more effective agriculture and rural development programmes and to enrich the discussion on new aid modalities²⁹. The study acknowledges that SWAs have been an important part of the global effort to deliver sustainable development results for more than a decade. However, they were relatively new in agriculture and rural development at the time of publication. Because SWAs are more consistent with the Paris Declaration on Aid Effectiveness³⁰ than project or programme-based development interventions it can be assumed that they will continue to gain importance in the design and implementation of donor interventions in agriculture and rural development. It is however unlikely that they will completely replace standalone projects.

²⁷ GDPRD. The Role of Agriculture and Rural Development in Achieving the Millennium Development Goals, A joint donor narrative, prepared by Axel Wolz, Bonn, Germany, Bonn, September 2005.

²⁸ IFPRI, Michael Lipton. The Family Farm in a Globalizing World, The Role of Crop Science in Alleviating Poverty, Washington DC, June 2005.

²⁹ GDPRD. Formulating and Implementing Sector-wide Approaches in Agriculture and Rural Development: A Synthesis Report, Bonn, November 2007

³⁰ OECD. The Paris Declaration on Aid Effectiveness (2005) and Accra Agenda for Action (2008), Paris, 2008, followed by the Busan Partnership for Effective Development Cooperation, 2011, (<http://www.effectivecooperation.org/files/Busan%20Partnership%20Document.pdf>)

The above mentioned study underlines that the “entry conditions” for a SWAp clearly matter. The literature suggests that the most important conditions include: a sound macroeconomic framework, a basic agreement on strategy and policy between government and donors, the possibility of participation by key stakeholders, including the political leadership and private sector in SWAp formulation processes, and a donor community that is committed to moving towards common and aligned approaches.

... while micro-level approaches are equally pervasive

The third European Forum for Rural Development in Palencia hold in March 2011³¹ invited David Navarro, the UN Special Representative on Food Security and Nutrition. He confirmed the above by stating that international policies should not isolate individual problems like food and gender but create an integrated approach that includes all stakeholders, the farmers, the private and public sector and civil society. To make policies more efficient, donor countries need to coordinate their efforts more. Most importantly, however, one crucial component of agriculture and rural development must come into focus much more: the farmer.

The above mentioned aspects such as sustainable livelihoods, people-centred development and local governance have substantiated into a concept called community-driven rural development³². The seminal work of Robert Chambers³³ is another cornerstone of the foundations on which self-help, participatory and decentralized rural development is built. These trends, which are under way for the last thirty years, are not without controversy. Susanne D. Mueller³⁴ has published a critique with a very explicit core message:

“Donors have developed new micro-level and local paradigms to address rural development, environmental sustainability, and poverty alleviation to bypass, ignore, and substitute for badly functioning and corrupt States. Yet, states still set the macro-economic, legal, and policy parameters or “rules of the game” within which other entities operate, and many non-state actors are only nominally independent. Hence, technical initiatives stemming from these paradigms, aimed at growth and equity, are often theoretically misconceived and tend to fail when implemented. The paper critically discusses the new paradigms, including decentralization, civil society, micro-entrepreneurship, and capacity building, among others, mainly using African examples”.

³¹ <http://ruralforum.worldpress.com/category/rural-development/>, 20.04 2011

³² <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTSOCIALDEVELOPMENT/EXTCDD/0,,menuPK:430167~pagePK:149018~piPK:149093~theSitePK:430161,00.html>
<http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTARD/0,,contentMDK:21362950~pagePK:210058~piPK:210062~theSitePK:336682,00.html>

³³ Chambers Robert. Putting the Last First, Publisher John Wiley and Sons, 1983.

³⁴ Mueller Susanne D. Rural Development, Environmental Sustainability, and Poverty Alleviation: A Critique of Current Paradigms, DESA Working Paper No. 11, ST/ESA/2006/DWP/11, January 2006

Summing up, and despite some controversies, the present discourse on rural development is right-based, comprehensive and policy driven, on the one hand. Simultaneously, it is strongly anchored at the local, or micro, level. As such, both paradigm shifts are a significant departure from what was assumed to be at the core of the challenge when international development cooperation started: the modernisation and productivity increase of (small) farms. At both levels, overarching concerns such as sustainability and resilience to climate change have been integrated. This means that partner countries' policies are required to recognize the role of agriculture and rural development by allocating more resources in the first place. Over and above budgetary resources, approaches need to transcend mere agriculture and farming, and include value chain, environmental, capacity building, empowerment and territorial development dimensions.

3. Relevant evaluations in the rural development sector

3.1 Introductory methodological remarks

Most development agencies have standardised sets of evaluation criteria, in many cases applying the five OECD-DAC evaluation criteria: relevance, effectiveness, impact, efficiency and sustainability. Agencies, including IFAD³⁵ and GIZ³⁶, then go on to recommend a set of guiding questions that help capturing the essence of each evaluation criterion.

There is also a consensus that success is mainly measured through indicators and that indicators must be objectively verifiable. A good measure of this condition is the compliance with the so-called SMART criteria of indicators, i.e. they must be specific, measurable, achievable, relevant, and time-bound³⁷.

Over the last decade, most the leading development agencies have adopted principles of results-based management. In many cases, project management uses the logical framework (logframe) as a tool for planning and monitoring. For example, IFAD has prepared a comprehensive evaluation manual in which the logframe is the key reference concept³⁸. GIZ has also published extensively on its understanding of results. However, it uses a specific results model that is then transferred into different formats for project management, like a results matrix for its main client BMZ³⁹. GIZ defines its understanding of the terminology and determinants of results in its results model, including aspects such as system boundaries, the steps in a process, or theory, of change, the results hypotheses and the intervention levers (instruments, activities). For the management of BMZ-funded projects, GIZ uses the structure of a results matrix, which is similar to the logframe, for example in that it uses indicators of success for measuring change. For the planned independent evaluations in the rural development sector, it is assumed that the audience of this study has appropriate knowledge and experience at hand and that no further explanations regarding the M&E guidelines and routines of GIZ are required.

However, it is important to point out that it is expected that the selected rural development projects and programmes will be evaluated on the basis of their respective design features that were in use at the moment of project conception. A “retro-engineering” exercise towards the now valid results model may shed additional light on the consistency of the designs at stake.

³⁵ IFAD. Evaluation Manual, Methodology and Processes, Office of Evaluation, Rome, April 2009.

³⁶ GIZ. Schluss- und Expost-Evaluierungen, Hauptbericht mit Annotierungen und Anlagen, Eschborn, 2012.

³⁷ SMART Indicators. .

³⁸ IFAD. Evaluation Manual, Methodology and Processes, Office of Evaluation, Rome, April 2009.

³⁹ GIZ, Stabsstelle Monitoring und Evaluierung. Das wirkungsorientierte Monitoring der GIZ, Orientierungsrahmen, Eschborn, 2010.

There are methodological difficulties in connection with the evaluation of impact. Not all observed changes at impact level can be attributed to a given development intervention. In order to shed light into the extent of such attribution gaps, baseline and final impact surveys are required that capture impact relevant livelihood data, meaning that such surveys must focus on the populations that are the target of a development undertaking. An accepted method of gauging attribution gaps is to compare situations before and after the intervention, and with and without the intervention. This implies the necessity of including control or at least comparison groups outside the range of influence of the intervention, in the baseline and final impact surveys alike.

There are activities, outputs, outcomes and impacts, as well as the related indicators that can be presented in a generic way for agriculture and rural development (Appendix 2). They infer that the measurement of most indicators at outcome and impact level must build on baseline and impact surveys. This is rather the exception than the rule with rural development projects, while baseline and impact surveys with control groups are required to measure effectiveness and impact with an objective possibility of attributing effects and impacts to a given project. Moreover, Appendix 2 relates to a hypothetical, but exemplary, rural development operation with a strong orientation to agricultural production, post-harvest management and value addition. More specific indications related to key aspects and lead questions are given in the Sections 3.3-3.7 below related to the selected sub-sectors.

Appendix 2 infers that the underlying logical sequence is characterized by the following essence per level in the results framework:

- Activities and resources concentrate on building human capacities, especially training and coaching of female and male producers and their organisations.
- Outputs are expressed by the adoption of improved methods and techniques and the ability to perform organisational functions, such as maintenance of equipment.
- Outcomes are substantiated by enhanced productivities, market access, value addition and food security.
- Impacts exhibit progress in terms of income and assets, better employment opportunities, higher market participation and improved social development, such as diminished child malnutrition.

A working document of the EC External Services Evaluation Unit⁴⁰ proposes, on merely one page each: (i) a synopsis on the intervention logic of agriculture and rural development and (ii) a checklist of key indicators for this subject matter area. The latter are focusing on outcomes, intermediary impacts and impacts of key domains in agriculture and rural develop-

⁴⁰ European Union, EC External Services Evaluation Unit. Outcome and Impact Level Indicators in Agriculture & Rural Development, Working Paper: Draft -October 2009

ment. These two documents are reproduced in Appendices 3 and 4 as they are concise and reflect good practice advocated by the GDPRD.

For the practical purpose of project evaluation, a preliminary set of questions should be asked in order to be able to enter into the matter:

- Is the project design **consistent with the intervention's results logic**?
- Are planning documents complete, including **SMART indicators**?
- Are **conceptual commitments**, such as gender-sensitivity or climate-smart interventions, reflected in the planning documents?
- Are indicators measured, published in routine reporting and used as **management tools** in everyday practice?
- Have **baseline and impact surveys** been carried out?
- If yes, did they include meaningful **control groups (counterfactuals)**?
- Have the results of baseline and impact surveys found their way into the **final project or programme reports**?

3.2 Evaluation lessons on rural development

To begin with, evaluations of “integrated rural development” operations deserve some mention despite the fact that such projects and programmes are much less *en vogue* than they used to be (see working definitions for rural development in Section 2.1). In 2005, the BMZ commissioned an ex-post evaluation of the Tanga Integrated Rural Development Programme (TIRDEP) in Tanzania⁴¹. In its management response, the BMZ summed up the key findings of this evaluation:

“TIRDEP is a good example of the paradigm change in development cooperation that has taken place during the lifetime of the project in the 70s and 80s. It started as a top-down planning process in the early 70s producing a heavyweight planning document that was out of date by its publication date. It continued investing in infrastructure for a while, then changed its focus to institutional capacity building and ended as a bottom-up participatory effort aimed at improving the situation of the population. Whereas the implementation of the first three paradigms did not result in lasting effects and impact – because of severe deficiencies and an adverse political environment – the fourth one seems to have impacted positively on the target group. This is due, however, not only to the participatory methods employed but also to the im-

⁴¹ BMZ. Country Case Study “Tanga Integrated Rural Development Programme (TIRDEP), Tanzania” Summary Ex-post Evaluation –Sustainability of Regional Rural Development Programmes (RRD). Bonn, 2005.

proved enabling environment at both the economic and the administrative level since the mid-80s.

Even taking the favourable political development into account and also the fact that Tanga was always one of the better-off regions in Tanzania and that some TIRDEP activities have been continued under new and separate projects since the termination of the programme, the assessment of TIRDEP by the ex-post evaluation team is positive to a striking degree. Thus, we learn that the bad reputation, which such large rural regional development projects have, is not justified. If they have a certain momentum, use the right methods and enjoy an enabling environment, they have a positive impact.

This type of project has long since been abandoned and has been replaced by support to assist the Tanzanian authorities in their efforts to develop their country and to implement their poverty reduction programmes. There were therefore some initial doubts within the BMZ's regional division about the usefulness of the ex-post evaluation. However, it is now seen as a valuable piece of information, even if it does not provide that many lessons for our day-to-day work".

Equally in 2005, BMZ published an ex-post evaluation to the sustainability of four rural development programmes in Indonesia, Sri Lanka, Tanzania and Zambia⁴². The methodical procedure was based on three key analytical steps: (i) assessment of the situation at three points in time/time frequency, (ii) "funnel approach" (recording of all changes with subsequent investigation of their relationship with project interventions, and (iii) observation of three impact fields: impact on the part of the target groups, impact on the sector and/or cross-sectorial results, and impact on the part of state executing organisations. The four evaluations identified a great number of changes that have occurred in the course of the projects. In their analysis the evaluators have demonstrated that a number of identified changes are highly plausible to have been effected by the projects. All in all, the living conditions of the target groups have improved in all four project regions. The four case studies came to the conclusion that a significant part of these improvements was the result of project interventions. Significant results were achieved also at the sectorial and cross-sectorial level by the projects. They consist mainly of innovations in agriculture/diversification, development of new technologies, extension services, an expansion of the economic and social infrastructure (roads, health facilities and schools) and the promotion of the private sector. These components were essential factors in bringing about an improvement in the standard of living. However, only some of the self-help groups and cooperatives established still continued to be

⁴² BMZ, Summary Ex-Post Evaluation Sustainability of Regional Rural Development Programmes (RRD) Synthesis Report of Four Country Case Studies, Berlin, July 2005.

active. The rate of success was highest where emphasis was placed on the private sector aspect.

In the long term, however, there are factors which jeopardise the sustainability of the positive results achieved. In particular, maintenance of the infrastructure should be mentioned in this context. Also, in some cases the intensification of economic activities has adverse ecological effects such as acidification of the soil or overfishing. Sustainability at the level of state executing organisations is low in all the projects. In hindsight, it would appear that integrated rural development programmes may have been somewhat better than their reputation. The biggest challenge with regards to such programmes seems however to be their sustainability.

Incidentally in the same year, USAID Armenia⁴³ commissioned a paper summarising findings from more than 17 studies on the successes and failures of the integrated rural development projects funded by various donor organisations over the last 30 years. Over this period, the original excitement development practitioners had that they could transform undeveloped rural settings into cohesive communities with profitable productive opportunities and where members enjoyed basic public and social services has settled into a realisation that outside-initiated transformation does not come easily. Keen practitioners have learned that target communities - not their national, neither regional governments, nor even just their village headmen - must have true ownership over this process and they must have the capacity to sustain and manage new infrastructure and operational and maintenance systems (sometimes even these are ignored at the onset) that are established. Realizing that necessary community mobilization requires intensive work, that donor resources are limited, and that often the real causes of underdevelopment are systemic, e.g. based on governmental policies, more development experts focus on programmes that target systemic reforms that put into place the proper institutions and incentives for development rather than work in integrated rural development. Indeed, in the most recent experiences of USAID, integrated rural development efforts that take place after large systemic changes, e.g. Israeli withdrawal from Southern Lebanon or change of a repressive regime in Afghanistan, have shown promise.

Related issues that should catch the eye of the evaluator are:

- Do programme-built infrastructures have **adequate maintenance mechanisms** that work without external inputs?
- Are **programme institutions integrated** into national or regional set-ups, budgetary planning and funding flow procedures?
- Are the human and social capital and the **empowerment of local governments and community-based organisations** strong enough for sustaining the programme

⁴³ USAID Armenia. Integrated Rural Development: Lessons Learned, Erevan, 2005.

And more generally:

- Is the intervention a typical area development programme or rather **a support intervention in favour of systemic reforms?**
- Are there non-agricultural, or non-rural, components that would infer **that the intervention transcends mere agricultural development?**

3.3 Evaluation lessons on agriculture and agricultural development

The 2008 World Development Report is a good source of evaluative insight into the role of agriculture for rural development. The report argues that the way agriculture works for development varies across countries depending on how they rely on agriculture as a source of growth and an instrument for poverty reduction. The contribution of agriculture to growth and poverty reduction can be seen by categorising countries according to the share of agriculture in aggregate growth over the past 15 years, and the current share of total poverty in rural areas, using the USD 2-a-day poverty line. This perspective produces three types of countries, or three distinct “rural worlds”:

- **Agriculture-based countries** – Agriculture is a major source of growth, accounting for 32% of GDP growth on average - mainly because agriculture is a large share of GDP - and most of the poor are in rural areas (70%). This group of countries has 417 million rural inhabitants, mainly in Sub-Saharan countries. 82% of the rural Sub-Saharan population lives in agriculture-based countries.
- **Transforming countries** - Agriculture is no longer a major source of economic growth, contributing on average only 7% to GDP growth, but poverty remains overwhelmingly rural (82% of all poor). This group, typified by China, India, Indonesia, Morocco, and Romania, has more than 2.2 billion rural inhabitants. 98% of the rural population in South Asia, 96% in East Asia and the Pacific, and 92% in the Middle East and North Africa are in transforming countries.
- **Urbanized countries** - Agriculture contributes directly even less to economic growth, 5% on average, and poverty is mostly urban. Even so, rural areas still have 45% of the poor, and agribusiness and the food industry and services account for as much as one third of GDP. Included in this group of 255 million rural inhabitants are most countries in Latin America and the Caribbean and many in Europe and Central Asia. 88% of the rural populations in both regions are in urbanized countries.

The FAO State of Food and Agriculture 2012 Report shows that farmers are the largest investors in developing countries' agriculture and argues that therefore farmers and their investment decisions must be central to any strategy aimed at improving agricultural invest-

ment.⁴⁴ Many other sources concur with what the Global Donor Platform, the World Bank and FAO are implying: agriculture is indeed a driver of rural development and of entire economies. This, however, bears the seed of diminishing relative importance of agriculture itself on the path of development. Progress on this path depends on a climate conducive for investments where farmers play a central role, appropriate governance, the creation of public goods and improved performance of public expenditure. Thus, the quality of public policies and a consistent policy implementation are critical for the evolution along the “three rural worlds”.

A joint evaluation conducted by the African Development Bank (AfDB) and IFAD on their performance in agriculture and rural development in Africa⁴⁵ is, to some extent, a reality check of the above premises for development: overall, only 55% of projects have a satisfactory or moderately satisfactory poverty impact; impact was good in agricultural production and physical assets; impact was less positive in promoting access to markets, strengthening government institutions, and natural resource management; sustainability is the area of greatest concern; weak performance for both IFAD and AfDB as well for the borrowers.

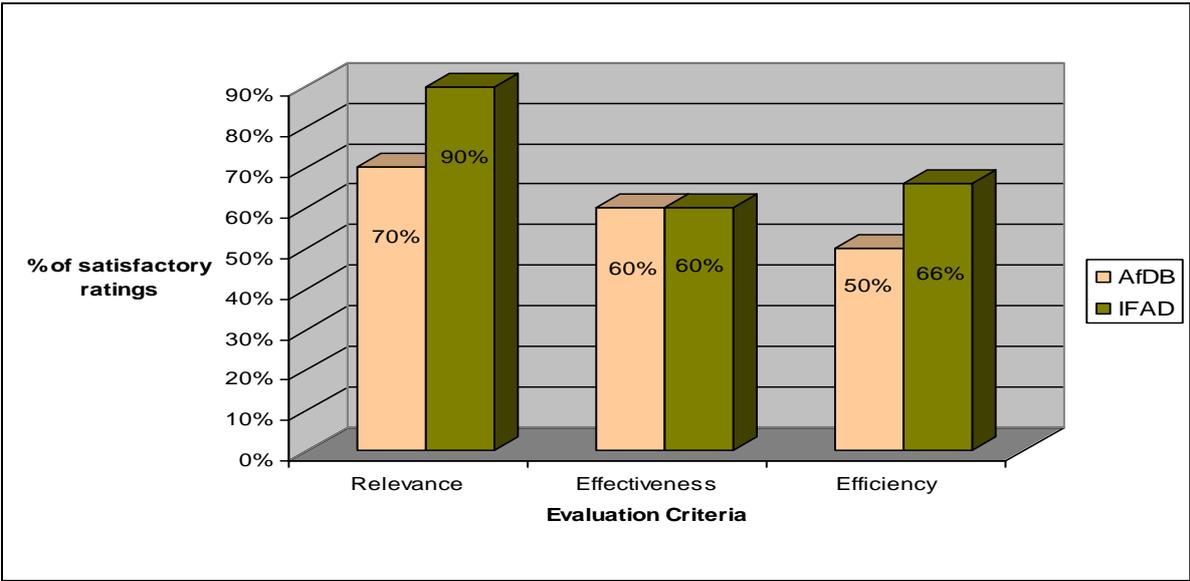


Figure 1: Past Performance: AfDB & IFAD Projects (Evaluations 2003-07)

⁴⁴ FAO. The State of Food and Agriculture: Investing in a agriculture for a better future, Rome, 2012.

⁴⁵ AfDB-IFAD. Joint Evaluation of Agriculture and Rural Development in Africa: Draft Final Report, Consultation Meeting with African Governments, 29 September 2009, Bamako Mali.

Key questions are:

- Can the state of agriculture in a given country be characterised along the **“three worlds” metaphor**, and does this convey added evaluative value?
- To what extent are the **key conditions for successful investments in agriculture** according to the 2012 FAO State of Food and Agriculture Report met in a given project context?
- Is impact in terms of **rural poverty reduction** of projects in agriculture and agricultural development relevant and if yes, it is documented?
- Are indicators in a given context limited to agricultural production and productivity, or do they include aspects such as **access to markets, value chains, strengthening government institutions, and natural resource management**?

3.4 Evaluation lessons on agricultural policy and administration

A relatively straightforward way of evaluating agricultural policies is to assess the extent to which governments are living up to their policy commitments. The commitments of the Maputo Declaration of 2003 - to reach an allocation of at least 10% of national budgetary resources to agriculture and rural development policy implementation within five years - have been monitored. The results are sobering: by 2011, the commitments have been honoured by only eight out of 53 African countries⁴⁶. This fact sheds a revealing light on what the GDPRD is stressing in its concluding statement, i.e. that the rural poor are denied their fundamental rights to food, shelter, education and health (see Section 2.C.).

IFPRI has long argued that spending on agricultural research constitutes a sound investment in poverty reduction and agricultural and economic growth, through improvements in productivity⁴⁷. This argument is based partly on the reported evidence of high rates of return to agricultural research, typically believed to be in the range of 40 - 60% per year. Yet there continues to be controversy over whether these figures are to be believed, and over what they actually indicate. A study published in 2000 already⁴⁸ represents the first attempt to take a comprehensive look at all the available evidence on rates of return to investments in agricultural research and development since 1953, and the only attempt to do so in a formal statistical fashion. The average reported rate of return is much higher than is commonly understood, and the range is much greater. Some systematic patterns emerge. For example, rates of return to research may be higher when the research is conducted in more developed

⁴⁶ <http://www.scidev.net/en/news/most-african-countries-still-not-investing-enough-in-agriculture>, html.

⁴⁷ Investment in agricultural research is one of many indicators of the capacity for policy implementation and complying with commitments such as the Maputo Declaration.

⁴⁸ IFPRI. A Meta-Analysis of Rates of Return to Agricultural R&D: Ex Pede Herculem?, Washington DC, 2000.

countries. Rates of return also vary by problem focus - returns were lower for research on commodities with longer production cycles, for instance - and with the characteristics of the research evaluation itself. In addition, the report shows that there is no evidence to support the view that rates of return have declined over time.

Countries with substantial budgetary allocations to agriculture and rural development will tend to invest even more into agricultural research. IFPRI and the Syngenta Foundation however contend that public investment alone is no longer a means of addressing changing realities on a large scale⁴⁹, thus requiring public-private partnerships (PPPs). Based on their analysis, successful PPP requirements are: clear objectives that both parties agree (without this at some point there will be disagreement about intent); both parties contribute something other than money (if it's only cash, it's a contract not a partnership); clear definition of who does what (separation is good, but not absolutely essential); single project plan with milestones; pre-agreed clear governance mechanism, including mechanism to resolve differences.

Other significant contributions to agriculture by private sponsors can be mentioned, such as the Alliance for a Green Revolution in Africa (AGRA) funded by the Bill and Melinda Gates Foundation, the Rockefeller Foundation and DFID. AGRA pursues the goal of reducing food insecurity by 50% by the year 2020, of doubling the incomes of 20 million smallholders and to enable a Green Revolution in 15 countries, which favours smallholder farmers, protects the environment and supports climate change adaptation.

The World Bank has recently published a book establishing the state-of-the-art in agricultural extension services⁵⁰. The purpose of this book is to provide information on how to transform and strengthen pluralistic agricultural extension and advisory systems in moving toward the broader goal of increasing farm income and improving rural livelihoods. The focus of this book is primarily on the technical knowledge, management skills, and information services that small-scale farm households will need to improve their livelihoods in the rapidly changing global economy. In addition, the book also includes information on how extension should help all types of farmers in dealing with escalating natural resource problems, including climate change. It is the most comprehensive and up-to-date reference for this subject matter today. One of the key messages is to devise policies that are central with transforming a top-down, technology-driven extension system into one that is more decentralised, farmer-led, and market-driven.

⁴⁹ Von Braun Joachim, IFPRI and Ferroni Marco, Syngenta Foundation. Public-Private Partnerships in Agricultural Research Towards best practice and replicable models, "Scaling-up Public-Private Partnerships in Agricultural Research to Benefit the Poor", The World Bank, October 30, 20

⁵⁰ The World Bank. Strengthening Agricultural Extension and Advisory Systems: Procedures for Assessing, Transforming, and Evaluating Extension Systems, Agriculture and Rural Development Discussion Paper 45, Washington DC, 2010.

Not unlike in agricultural research, there have been attempts to privatise, partly or completely, agricultural extension services. One such example has been analysed in Pakistan⁵¹, with the conclusion that most advisory services today are being provided by the private sector, which has effectively replaced the public extension service. Farmers seem to trust the information from the private sector more, as they find it more relevant, up-to-date, accurate and timely for their situations. Other compelling evidence on pluralistic rural advisory systems is reported in an impact evaluation of the National Agricultural Advisory Service Programme (NAADS) in Uganda⁵², which is particularly valuable because of a baseline and an impact survey including control groups.

Despite widely spread criticisms on inappropriate land policies, i.e. insecure land tenure, outdated regulations, and dysfunctional land institutions that constrain private investment and undermine local government's ability to raise taxes in many countries, there are some highlights in this respect. Ethiopia has, over a short time period, distributed certificates to more than 20 million plots in a much decentralized process⁵³. On the other hand, serious concern by development agencies is expressed about land grabbing as it threatens the very existences of millions of rural poor, particularly in Sub-Saharan Africa^{54,55}.

With regards to policies, key questions include:

- What is the **financial flow to the agricultural sector** in a given country and does it comply with the Maputo Declaration in the case of Africa?
- Does sector allocation reflect **openness to reform** in general and **capacity to implement reform policies** in particular?

For agricultural administration aspects, evaluation question are:

- Are **allocations to agricultural research known** and do they leverage contributions from third parties, including the private sector?
- Are there **public-private partnerships** in areas of agricultural research and/or agricultural extension?
- Are **extension systems pluralistic** and are they decentralized, farmer-led, and market-driven?
- Does **land policy and administration protect smallholders' rights**?
- Is there a **modern land registry and cadaster** in place?
- Is **"land grabbing" a public issue** and/or effectively taking place?

⁵¹ Riaz Muhammad. The role of the private sector in agricultural extension in Pakistan, Agridea-International, Rural Development New 1/2010.

⁵² International Food Policy Research Institute (IFPRI). Assessing the Impact of the National Agricultural Advisory Services (NAADS) in the Uganda Rural Livelihoods, IFPRI Discussion Paper 00724, October 2007

⁵³ Deininger Klaus. Implementing Low-Cost Rural Land Certification: The Case of Ethiopia, Agricultural and rural Development Notes, Land Policy and Administration, Issue 34, February 2008.

⁵⁴ BMZ. Investitionen in Land und das Phänomen des „Land Grabbing“, Herausforderungen für die Entwicklungs politik, BMZ-Strategiepapier 2/2012.

⁵⁵ The World Bank. Rising Global Interest in Farmland, Can it yield sustainable and equitable benefits? Washington DC, 2011.

3.5 Evaluation lessons on natural resources management (NRM)

On the basis of varied analyses and evaluations, IFAD's very recent environment and NRM policy⁵⁶ sets forth ten good practice principles:

- Scaled-up investment in multiple-benefit approaches for sustainable agricultural intensification,
- Recognition and greater awareness of the economic, social and cultural value of natural assets,
- 'Climate-smart' approaches to rural development,
- Greater attention to risk and resilience in order to manage environment- and natural-resource-related shocks,
- Engagement in value chains to drive green growth,
- Improved governance of natural assets for poor rural people by strengthening land tenure and community-led empowerment,
- Livelihood diversification to reduce vulnerability and build resilience for sustainable natural resource management,
- Equality and empowerment for women and indigenous peoples in managing natural resources,
- Increased access by poor rural communities to environment and climate finance,
- Environmental commitment through changing its own behaviour.

The World Bank conducted impact evaluations (IEs) on a number of interventions in agriculture, *inter alia* in NRM⁵⁷. The evidence for NRM technology interventions is mixed, as several IEs show non-positive results. IEs reporting positive results involved projects that promoted technology that subsequently changed the structure or composition of the soil. The positive impacts reported suggest that productivity and food production can be increased through improved NRM that use simple but effective technologies, such as traditional practices like contour stone bunding (a soil water conservation technique), hedgerows, crop rotation, green manure, contour tillage, crop residue mulching, and minimum and zero tillage, among others. Non-positive results indicate that interventions had negative impacts or the evaluation could not establish a significant impact of the interventions.

⁵⁶ IFAD. Environment and natural resource management policy - Resilient livelihoods through the sustainable use of natural assets, Rome, 2012.

⁵⁷ IEG (Independent Evaluation Group). 2011. Impact Evaluations in Agriculture: An Assessment of the Evidence. Washington, DC: World Bank.

Lead questions for operations including NRM are:

- Does the development intervention exhibit explicit traits of **green growth**?
- Are the **ten good practices of IFAD relevant** in the specific project context?
- Are the project design and its indicators geared towards **area expansion or productivity increase**?
- Does productivity increase build on the long-term enhancement of **soil fertility, sustainable water management and systematic recycling of residues**?
- Are management modes in places that are **consistent with agroforestry, agrosilvopastoral systems and wetland management**?
- **Is there any evidence of impacts of NRM?**

3.6 Evaluation lessons on capacity building in agriculture

The Department of Agricultural and Extension Education of the Pennsylvania State University published a study on the evaluation of international education and extension projects⁵⁸. It is based on comparisons of before project situations, the objectives of change and effective achievements, i.e. fairly consistent with the logic of a results framework.

Indeed, comprehensive evaluations on the impact of capacity building in agriculture are scant. This is echoed by an FAO input to the Annual Conference on Building the Capacity to Transform the Food Security Landscape contribution of the Association for International Agriculture and Rural Development (AIARD)⁵⁹. The contribution in question limits its core message to the statement that capacity building is “easy to deliver, but more difficult to achieve impact”. If this is so, it is evident that it must be even more difficult to document such impact.

An exception is the recent systematic review on the impacts of capacity building in agricultural research systems funded by the British Department for International Development (DFID)⁶⁰. The study screened, according to a peer-reviewed protocol, 35,000 references and selected 73 publications for a detailed review. All publications reported positive results for the immediate outputs and outcomes: researchers received training and gained new skills and knowledge, new management tools and approaches were introduced, and organisations and other actors in research and innovation systems improved their collaboration. Evidence on the impact on agricultural research for development is less consistent. Only a few studies

⁵⁸ Rama B. Radhakrishna, The Pennsylvania State University, Department of Agricultural and Extension Education. Evaluating International Agricultural Education and Extension Projects: Problems, Challenges, and Strategies, Outstanding paper presented at the 17th Annual Association for International Agricultural and Extension Education Conference, Baton Rouge, LA, April 4-7, 2001

⁵⁹ AIARD. Capacity Building in Agriculture and Food Security, Association for International Agriculture and Rural Development (AIARD) to Annual Conference on Building the Capacity to Transform the Food Security Landscape, 5–8 June 2011, Washington DC, USA.

⁶⁰ Helena Posthumus, Adrienne Martin, Timothy Chancellor. A systematic review on the impacts of capacity strengthening of agricultural research systems for development and the conditions of success, University of Greenwich, January 2013.

reported cases where the strengthened capacity was used to address needs or opportunities in the agricultural sector resulting in considerable impact. For example, capacity strengthening of biotechnology research has led to the adoption of new crop varieties in Asia, and a seaweed industry was developed in Tanzania on the back of PhD research.

Few evaluations attempted to estimate the cost-effectiveness of capacity strengthening. The impact pathway was easier to trace in the case of strengthening biotechnological research where new crop varieties or husbandry practices led to higher animal and crop productivity. Five evaluation studies estimated internal rates of return between 11 and 74% based on such linear impact pathways, but these high rates of return cannot be taken as representative for all capacity strengthening interventions. The impact pathway of capacity strengthening of research organisations or systems is typically non-linear, explaining why most evaluation studies only reported on outputs or outcomes and not on impact.

Lead questions include:

- How can **access to these systems be assessed**, e.g. by access rates, comparing cohorts with educational and training needs and attended populations by age group?
- What are other formal parameters, **such as repetition and drop-out rates**?
- **How is quality measured**, by initial and final tests, or tracer studies?
- What are **the system costs** (e.g. unit cost per graduate, net of repetition and drop-outs cost, including salaries and depreciations)?
- Are capacity building objectives and contents formulated in a **demand-driven manner**?
- Is the system confined to technical issues or does it **include organisational and marketing** issues?
- Does it include monitoring and evaluation dimensions, such as satisfaction surveys?
- Is there a **critical mass of proper efforts and contributions** by the concerned institutions?
- Is the **external support a genuine value added**?
- Are **exit strategies** in place early on?

4. Cross-cutting issues in rural development

4.1 Gender

Based on evolving analyses of the gender factor in agriculture and rural development, several development agencies have issued gender policies and strategies. The GDPRD has issued a policy brief on gender and agriculture⁶¹ based on the recognition that the economic empowerment of women farmers, livestock keepers, fisher folk, processors, and traders is critical to the creation of effective and efficient agricultural programmes and policies. Decades of research demonstrate that women play a major role in food and farming in developing countries. Currently, the proportion of women in production and post-harvest processing ranges from 20% to 70%, and their involvement is increasing in many countries.

The 2010-2011 FAO State of Food and Agriculture Report is essentially devoted to the theme: women in agriculture – closing the gender gap for development⁶². The report presents compelling facts and figures on the issue: The yield gap between men and women averages around 20 – 30% and most research finds that the gap is due to differences in resource use. Bringing yields on the land farmed by women up to the levels achieved by men would increase agricultural output in developing countries between 2.5 and 4%. Increasing production by this amount could reduce the number of undernourished people in the world in the order of 12–17%. According to FAO's latest estimates, 925 million people are currently undernourished. Closing the gender gap in agricultural yields could bring that number down by as much as 100–150 million people.

In the same vein, the World Development Report 2012 chose the leading topic of gender equality and development. The main message is the following: gender equality is a core development objective in its own right. It is also smart economics. Greater gender equality can enhance productivity, improve development outcomes for the next generation, and make institutions more representative.

With such overwhelming evidence on the advantages of better gender balance, agricultural and rural development projects routinely profess gender sensitivity. However, making gender issues visible is a first challenge. Displaying and consequently using gender differentiated facts and figures is still the exception rather than the rule. IFAD's Uganda Country Programme Evaluation⁶³, for instance, notes that several projects of the portfolio are well designed with relevant gender strategies and approaches, as well as with gender-disaggregated indicators. However, adequate gender disaggregation is missing in the M&E

⁶¹ GDPRD. Gender and Agriculture, Platform Policy Brief No. 3/December 2010.

⁶² FAO. FAO. State of Food and Agriculture 2010-2011, Women in agriculture – closing the gender gap for development, Rome, 2011.

⁶³ IFAD. Uganda Country Programme Evaluation, Rome, June 2012.

systems and in baseline surveys. Such deficiencies defy the purpose of tracing effective gender involvement in development interventions.

Given the above signalled significance of women, each and every evaluation of agricultural and rural development projects should include a battery of pertinent evaluation questions such as:

- Does the intervention at stake have a **clear vision on gender** and manage gender disaggregated data systematically, e.g. in reporting?
- Are **gender-related commitments formalised** with indicators in its planning documents?
- Are **gender-disaggregated questions** asked in baseline and impact surveys?
- Do gender-specific indicators capture **the quality** of women's participation (e.g. representation in governing bodies of community-based organisations) and their share of access to resources (e.g. to land, water, credit, inputs and advisory services)?

4.2 Poverty reduction

The 2008 World Development Report⁶⁴ is an abundant source of evidence on how poverty reduction mechanisms work. Accordingly,

“agricultural growth can reduce poverty directly, by raising farm incomes, and indirectly, through labour markets and by reducing food prices. The poverty-reducing effect of increasing farm incomes depends on the participation of poor smallholders in the growth process. Agricultural growth also reduces poverty to the extent that it creates employment opportunities for the poor. In South Asia and Latin America, 25% of the active rural males, usually the poorest, are primarily employed as wage labourers in the agricultural sector. Increasing productivity of those staple foods that are non-tradable reduces food prices to poor consumers. In addition to the urban poor, more than half of poor rural households are typically net food buyers benefiting from lower prices. Studies from India show that, in the long term, the food price effect has the largest influence on poverty reduction”.

Poverty reduction is not only an expression of policies, but of the aspirations and strategies of the poor themselves. A refreshing metaphor describes the three strategies of “hanging in,

⁶⁴ World Bank. Agriculture for Development, .World Development Report 2008, © 2007 The International Bank for Reconstruction and Development / The World Bank.

stepping up and stepping out”⁶⁵ as being instrumental for the behaviour of rural poor in the face of poverty challenges. The authors infer that the understanding of poverty and of ways in which people escape from, or fall into poverty, has become more holistic. This should improve the capabilities of policy analysts and others working to reduce poverty, but it also makes analysis more complex. The paper describes a simple schema which integrates multidimensional, multilevel and dynamic understandings of poverty, of poor people’s livelihoods, and of changing roles of agricultural systems. The paper suggests three broad types of strategy pursued by poor people: “hanging in”, “stepping up” and “stepping out”. This simple schema explicitly recognises the dynamic aspirations of poor people; diversity among them; and livelihood diversification. It also brings together aspirations of poor people with wider sectorial, inter-sectorial and macro-economic questions about policies necessary for the realisation of those aspirations.

Poverty alleviation is the very essence of desired impact in many agricultural and rural development operations. Consequently, the following lead questions are suggested:

- Is the intervention at stake clearly **pro-poor in its design and practice**?
- How is **poverty defined ex ante**?
- Are the required **baseline studies** at hand to support such definition?
- Do they include **control groups**?
- Do the related indicators focus on **income and assets** only or do they also include **food security, nutritional, health and educational aspects**?
- Is the metaphor of **“hanging in, stepping up and stepping out”** useful in the evaluation of the development intervention?

4.3 Reduction of carbon emissions and climate change mitigation

The World Development Report 2010⁶⁶ is a monumental document presenting a comprehensive picture of the present state of knowledge and assumptions regarding climate change and development. For agriculture and rural development, Box 8 “The role of land use, agriculture, and forestry in managing climate change” is worth to be consulted by planners and evaluators of agriculture and rural development alike. It shows, in a generic way, where potentials are present, prominently in improved management of soil organic carbon.

⁶⁵ Dorward A., Anderson S., Nava, Y., Pattison, J., Paz, R., Rushton, J. and Sanchez Vera, E. Hanging In, Stepping up and Stepping Out : Livelihood Aspirations and Strategies of the Poor, Centre for Environmental Policy, Imperial College London, 2006.

⁶⁶ World Bank. Development and Climate Change, World Development Report 2010, © 2010 The International Bank for Reconstruction and Development / The World Bank.

There are as per now only few evaluations on the involvement of development projects involved in the reduction of carbon emissions. But there are emerging initiatives around this subject matter. One example is a World Bank pilot project promoting a new methodology to encourage smallholder farmers in Western Kenya - and potentially worldwide - to adopt improved farming techniques, boost productivity, increase their resilience to climate change, and earn carbon credits. Farmers in Western Kenya experience the dire effects of climate change first hand every day, through drought and the decline of soil fertility that can be so severe as to seriously threaten their livelihoods. Essentially, the farmers are increasing soil carbon and organic matter through mulching, cover crops, manure and plant waste management. The pilot project, involving more than 60,000 smallholders who are farming 45,000 hectares of land, is supported by the World Bank's BioCarbon Fund.

Carbon farming by incorporating organic matter into agricultural soils works, but it has to be repeated every year with annual inputs of more than ten tons per hectare. This is due to the degradation of organic matter and the concurrent release of carbon dioxide into the atmosphere. A solution would be the carbonisation of waste biomass and the production of so-called biochar, because charcoal is very recalcitrant to degradation, over hundreds and thousands of years. The International Biochar Initiative (IBI)⁶⁷ and Cornell University are working with the World Bank to identify biochar projects in developing economies. A first result of this work has been submitted to the World Bank⁶⁸. It bears substantial promise for making this technology accessible to small farmers in developing countries. As a matter of fact, biochar is displayed prominently in the 2010 World Development Report (Box 3.7).

The World Bank Institute (WBI) is actively involved in issues of climate change adaptation. Its arguments for their commitment to the subject matter at stake are⁶⁹:

- Food and water will become scarce commodities because of population growth, increasing climate variability and environmental degradation. At the same time, the poor rely heavily on natural resources to cover their most basic needs. In most developing countries, agricultural water accounts for the largest share of water use.
- Developing new water resources is expensive, and the performance of existing infrastructure needs to be improved through sustainable agricultural water management. This requires more effective partnerships between governments, farmers, and the private sector.
- Climate risk management needs to be integrated into water, agriculture, and natural resource management strategies. Improved water management, hydrological maintenance of watersheds, and enhanced soil fertility benefit our society and help to make

⁶⁷ <http://www.biochar-international.org/>

⁶⁸ http://www.biochar-international.org/sites/default/files/IBI_Survey_5-11-11_online.pdf

⁶⁹ World Bank Institute (WBI). Climate Adaptation for Water, Agriculture, and Natural Resource Management, Climate Change Practice of the World Bank Institute, Washington DC, non-dated.

countries more resilient to climate change. So, there is a need to share these innovative management approaches between countries and regions.

There is considerable movement among development agencies to introduce climate change adaptation criteria into their project design routines. IFAD has published an occasional working paper on climate-smart smallholder agriculture⁷⁰. It evolves around the question: what really is different about ‘climate-smart’ smallholder agriculture that goes beyond regular best practice in development? The paper suggests three major changes:

- First, project and policy preparation need to reflect higher risks, where vulnerability assessments and greater use of climate scenario modelling are combined with a better understanding of interconnections between smallholder farming and wider landscapes.
- Second, this deeper appreciation of interconnected risks should drive a major scaling up of successful ‘multiple-benefit’ approaches to sustainable agricultural intensification by smallholder farmers. These approaches can build climate resilience through managing competing land-use systems at the landscape level, while at the same time reducing poverty, enhancing biodiversity, increasing yields and lowering greenhouse gas emissions.
- Third, climate change and fiscal austerity are reshaping the architecture of public (and potentially private) international development finance. This calls for: (i) new efforts to enable smallholder farmers to become significant beneficiaries of climate finance in order to reward multiple-benefit activities and help offset the transition costs and risks of changing agricultural practices; and (ii) better ways to achieve and then measure a wider range of multiple benefits beyond traditional poverty and yield impacts.

On a general plane, UNDP has prepared a guidebook with the title: “Preparing Low-Emission Climate-Resilient Development Strategies”⁷¹. Therein, key steps in preparing a low-emission climate-resilient development strategy are proposed, together with the respective flow charts. More specific for the rural sector, FAO’s concept of climate-smart agriculture makes the case that climate smartness is a trilogy between: (i) “sustainability increases productivity and income”, (ii) “strengthening resilience to climate change and variability” and (iii) “reduces agri-

⁷⁰ IFAD. Climate-smart smallholder agriculture. What is different? Rome, 2011

⁷¹ UNDP. Preparing Low-Emission Climate-Resilient Development Strategies, A UNDP Guidebook — Version 1, New York, April 2011.

culture's contribution to climate change by reducing greenhouse gas emissions and increasing carbon storage on farm land". Of particular interest is the Ex-ante Carbon Balance Tool to provide design estimations of the impact of agriculture and forestry development projects on greenhouse gas emissions and carbon sequestration and indicate their effects on the carbon-balance.

Specific lead questions should include:

- Is the country in question a signatory to the **Kyoto Protocol to the United Nations Framework Convention on Climate Change (UNFCCC)**?
- Does the development intervention include components with potential **for reducing carbon emissions**?
- If yes, at what level: **policy, technologies, capacity building**?
- Does the development intervention include components that contribute to **climate change mitigation and adaptation**?
- If yes, at what level: **policy, technologies, capacity building**?
- Is the aspect of **smallholder farmers' resilience** against the consequences of climate variability and climate change a major concern in a development operation?
- Are components dealing with reducing carbon emissions designed as **environmental services** for which the participating farmers are financially rewarded?

4.4 Desertification and agrobiodiversity loss

Desertification, in conjunction with climate change and the loss of biodiversity, were identified as the greatest challenges to sustainable development during the 1992 Rio Earth Summit. Established in 1994, the United Nations Convention to Combat Desertification (UNCCD)⁷² is the sole legally binding international agreement linking environment and development to sustainable land management. The Convention addresses specifically the arid, semi-arid and dry sub-humid areas, known as the drylands, where some of the most vulnerable ecosystems and peoples can be found. The convention presently has 191 signatories⁷³.

Long before the set-up of the UNCCD, i.e. for more than 35 years, scientists of the Consultative Group of International Agricultural Research (CGIAR)⁷⁴ and partners have been harnessing global knowledge to combat desertification and alleviate its negative impacts on food, nutrition, and income security of poor people, while promoting the sustainable man-

⁷² <http://www.unccd.int/en/about-the-convention/Pages/About-the-Convention.aspx>.

⁷³ http://www.desertwatch.info/index.php?option=com_content&view=article&id=93%3Aunccd&catid=34%3Aproject&Itemid=66

⁷⁴ <http://www.cgiar.org/web-archives/www-cgiar-org-impact-global-desertification-html/>.

agement of important natural resources such as biodiversity, forests, soils, and water. The results and benefits of these science-based efforts include:

- **Hardy crops:** New, high-yielding, stress- and disease-resistant crop varieties of beans, cassava, corn, grass pea, orange-fleshed sweet potato, pearl millet, rice, sorghum and wheat have been developed.
- **Improved management of natural resources: Protecting the biophysical foundations of agriculture - biodiversity, forests, livestock, soils, and water - is critical to meeting the threats posed by desertification. New techniques such as applying small amounts of fertilizer, or micro-dosing, are increasing grain yields by 30 to 50% in West Africa. By expanding cactus cultivation in the Maghreb region, poor farmers are increasing their incomes while generating additional sources of feed for animals, preventing wind erosion and stabilising sand dunes.**
- **Improved policies: Knowledge-brokering, policy dialogue and consultation are key elements of CGIAR efforts to combat desertification.**

The French Scientific Committee on Desertification (CSFD in French) has prepared methodological guidelines and a matrix of local impact indicators for projects to combat land degradation and desertification, which are useful for the design, practice and evaluation of projects and programmes dealing with desertification⁷⁵.

In relation with the loss of agrobiodiversity, the International Treaty on Plant Genetic Resources for Food and Agriculture signed in 2009⁷⁶ pursues the objectives of the conservation and sustainable use of plant genetic resources for food and agriculture and the fair and equitable sharing of the benefits arising out of their use, in harmony with the Convention on Biological Diversity, for sustainable agriculture and food security.

The following questions should be asked:

- Is the country in question a signatory of the **International Treaty on Plant Genetic Resources for Food and Agriculture**?
- Are indicators, e.g. such as the ones proposed by the **French Scientific Committee on Desertification**, in use in such projects and programmes?

⁷⁵ CSFD. Local impact indicators for projects to combat land degradation and desertification, Montpellier, November 2012.

⁷⁶ FAO. International Treaty on Plant Genetic Resources for Food and Agriculture, Rome, 2009.

Appendix 1: Bibliography (in order of citation)

- International Labour Office (1999). *Safety and health in agriculture*. International Labour Organization. pp. 77–. ISBN 978-92-2-111517-5.
- ¹World Bank. Agriculture for Development, .World Development Report 2008, © 2007 The International Bank for Reconstruction and Development / The World Bank.
<http://stats.oecd.org/glossary/detail.asp?ID=1699>.
<http://www.nepad.org/nepad/knowledge/doc/1787/maputo-declaration>.
- FAO. Investing in Agriculture for a Better Future, State of Food and Agriculture 2012.
- IFAD. Environment and natural resource management policy - Resilient livelihoods through the sustainable use of natural assets, Rome, 2012.
- BMZ. Förderung einer nachhaltigen Landwirtschaft. Entwicklungspolitisches Konzept, BMZ-Strategiepapier 3/2013, Eschborn, 2013.
- InWent Capacity Building International and The International Food Policy Research Institute, Feldafing Germany, November 2008. <http://www.ifpri.org/event/capacity-development-agriculture-and-rural-sectors-lessons-and-future-directions>.
- GIZ. Schluss- und Expost-Evaluierungen, Hauptbericht mit Annotierungen und Anlagen, Eschborn, 2012.
- GIZ. Advisory services, rural development, contact person: Armin Klöckner, Eschborn, 2011.
- BMZ. Entwicklung ländlicher Räume und ihr Beitrag zur Ernährungssicherung, Konzept, BMZ-Strategiepapier 1/2011.
- Internationale Weiterbildung und Entwicklung GmbH (Inwent). Fragile States, Dokumentation & Bibliothek, Themendienst, Stand August 2010.
- OECD. Fragile States 2013, Resource flows and trends in a shifting world, DAC international network on conflict and fragility, © OECD 2012.
- Yudelman Montague. Integrated rural development projects: the Bank's experience, Washington DC, 1974
<http://www.who.int/trade/glossary/story028/en/>.
<http://www.mygfsi.com/>.
- Ellis Frank and Biggs Stephen. Evolving Themes in Rural Development 1950-2000, Development Policy Review, 2001, 19 (4) 437-448.
- Derek Byerlee, Alain de Janvry, and Elisabeth Sadoulet. Agriculture for Development: Toward a New Paradigm, Washington DC, 2009.
- Admos Chimhowu. Aid for agriculture and rural development in the global south; A changing landscape with new players and challenges, WIDER Working Paper No. 2013/0, February 2013.

GDPRD. The Role of Agriculture and Rural Development in Achieving the Millennium Development Goals, A joint donor narrative, prepared by Axel Wolz, Bonn, Germany, Bonn, September 2005.

GDPDR. On Common Ground – A Joint donor concept for Rural Development, Bonn, November 2006.

IFPRI, Michael Lipton. The Family Farm in a Globalizing World, The Role of Crop Science in Alleviating Poverty, Washington DC, June 2005.

GDPRD. Formulating and Implementing Sector-wide Approaches in Agriculture and Rural Development: A Synthesis Report, Bonn, November 2007

OECD. The Paris Declaration on Aid Effectiveness (2005) and Accra Agenda for Action (2008), Paris, 2008.

Busan Partnership for Effective Development Cooperation, 2011,
<http://www.effectivecooperation.org/files/Busan%20Partnership%20Document.pdf>

Mueller Susanne D. Rural Development, Environmental Sustainability, and Poverty Alleviation: A Critique of Current Paradigms, DESA Working Paper No. 11, ST/ESA/2006/DWP/11, January 2006

SMART Indicators. http://en.wikipedia.org/wiki/SMART_criteria.

European Union, EC External Services Evaluation Unit. Outcome and Impact Level Indicators in Agriculture & Rural Development, Working Paper: Draft -October 2009

IFAD. Evaluation Manual, Methodology and Processes, Office of Evaluation, Rome, 2009.

GIZ. Schluss- und Expost-Evaluierungen, Hauptbericht mit Annotierungen und Anlagen, Eschborn, 2012.

FAO. The State of Food and Agriculture: Investing in agriculture for a better future, Rome, 2012.

IFAD. Uganda Country Programme Evaluation, Rome, June 2012.

World Bank. Agriculture for Development, .World Development Report 2008, © 2007 The International Bank for Reconstruction and Development / The World Bank.

Dorward A., Anderson S., Nava, Y., Pattison, J., Paz, R., Rushton, J. and Sanchez Vera, E. Hanging In, Stepping up and Stepping Out : Livelihood Aspirations and Strategies of the Poor, Centre for Environmental Policy, Imperial College London, 2006.

World Bank. Development and Climate Change, World Development Report 2010, © 2010 The International Bank for Reconstruction and Development / The World Bank.

AfDB-IFAD. Joint Evaluation of Agriculture and Rural Development in Africa: Draft Final Report, Consultation Meeting with African Governments, 29 September 2009, Bamako Mali

<http://www.scidev.net/en/news/most-african-countries-still-not-investing-enough-in-agriculture.html>.

IFPRI. A Meta-Analysis of Rates of Return to Agricultural R&D: Ex Pede Herculem?, Washington DC, 2000.

Von Braun Joachim, IFPRI and Ferroni Marco, Syngenta Foundation. Public-Private Partnerships in Agricultural Research Towards best practice and replicable models, “Scaling-up Public-Private Partnerships in Agricultural Research to Benefit the Poor”, The World Bank, October 30, 20

The World Bank. Strengthening Agricultural Extension and Advisory Systems: Procedures for Assessing, Transforming, and Evaluating Extension Systems, Agriculture and Rural Development Discussion Paper 45, Washington DC, 2010.

Riaz Muhammad. The role of the private sector in agricultural extension in Pakistan, Agridea-International, Rural Development New 1/2010.

Deininger Klaus. Implementing Low-Cost Rural Land Certification: The Case of Ethiopia, Agricultural and rural Development Notes, Land Policy and Administration, Issue 34, February 2008.

IFAD. Environment and natural resource management policy - Resilient livelihoods through the sustainable use of natural assets, Rome, 2012.

IEG (Independent Evaluation Group). 2011. Impact Evaluations in Agriculture: An Assessment of the Evidence. Washington, DC: World Bank.

ISNAR, Horton Douglas. Planning, Implementing, and Evaluating Capacity Development, Bridging Paper 20, July 2002

AIARD. Capacity Building in Agriculture and Food Security, Association for International Agriculture and Rural Development (AIARD) to Annual Conference on Building the Capacity to Transform the Food Security Landscape, 5– 8 June 2011, Washington DC, USA.

Helena Posthumus, Adrienne Martin, Timothy Chancellor. A systematic review on the impacts of capacity strengthening of agricultural research systems for development and the conditions of success, University of Greenwich, January 2013.

BMZ. Country Case Study “Tanga Integrated Rural Development Programme (TIRDEP), Tanzania” Summary Ex-post Evaluation –Sustainability of Regional Rural Development Programmes (RRD). Bonn, 2005.

BMZ. Country Case Study – “Integrated Rural Development Programme (IRDP), North Western Province, Zambia”, Summary Ex-post Evaluation – Sustainability of Regional Rural Development programmes (RRD), Bonn, 2005

USAID Armenia. Integrated Rural Development: Lessons Learned, Erevan, 2005.

GDPRD. Gender and Agriculture, Platform Policy Brief No. 3/December 2010.

FAO. FAO. State of Food and Agriculture 2010-2011, Women in agriculture – closing the gender gap for development, Rome, 2011.

<http://www.biochar-international.org/>

http://www.biochar-international.org/sites/default/files/IBI_Survey_5-11-11_online.pdf

World Bank Institute (WBI). Climate Adaptation for Water, Agriculture, and Natural Resource Management, Climate Change Practice of the World Bank Institute, Washington DC, non-dated.

IFAD. Climate-smart smallholder agriculture. What is different? Rome, 2011

UNDP. Preparing Low-Emission Climate-Resilient Development Strategies, A UNDP Guide-book — Version 1, New York, April 2011.

<http://www.unccd.int/en/about-the-convention/Pages/About-the-Convention.aspx>.

<http://www.cgiar.org/web-archives/www-cgiar-org-impact-global-desertification-html/>.

CSFD. Local impact indicators for projects to combat land degradation and desertification, Montpellier, November 2012.

FAO. International Treaty on Plant Genetic Resources for Food and Agriculture, Rome, 2009.

Chambers Robert. Managing Rural Development, Research Abstract, Rural Kenya, 1971-1973.

Scotland Rural College. Rural Development for Scotland: How can the new SRDP deliver? Policy Briefing, December 2012.

Hyder Consulting (UK) Ltd. Ex-post Evaluation of England's Rural Development Programme, Bristol, December 2008.

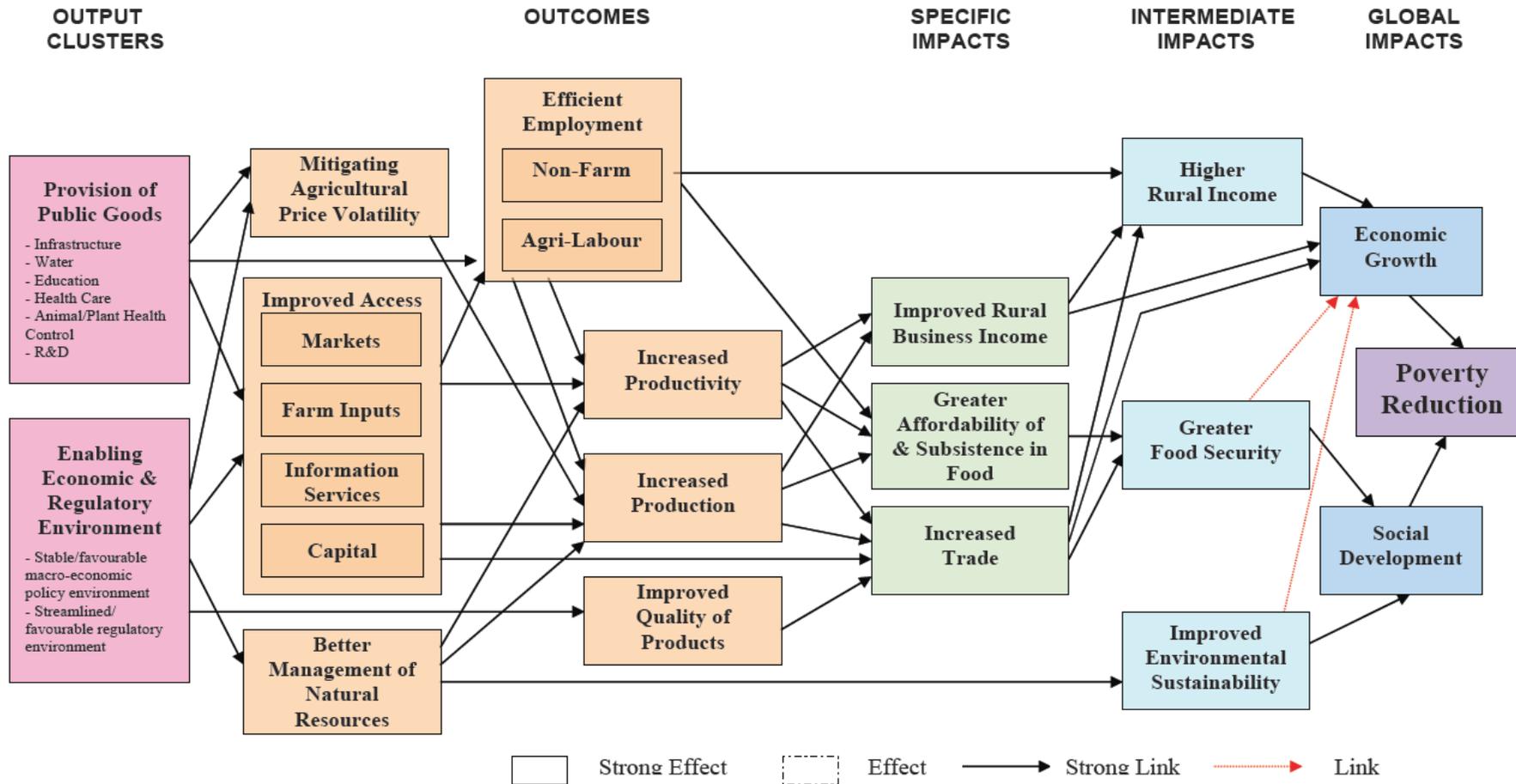
Appendix 2: Exemplary rural and agricultural development reference framework with indicators

Logical level	Typical achievements	Related indicators
Impacts	Poverty reduction among the project population (MDG 1A)	Poverty prevalence among the project population as measured by baseline and impact surveys at the start and the end of the project (household income and assets).
	Increase of employment opportunities (MDG 1B)	Employment rate and nature as measured by baseline and impact surveys at the start and the end of the project.
	Increased sales of agricultural produce	Share of agricultural produce sold as measured by baseline and impact surveys at the start and the end of the project.
	Reduction of child malnutrition (derived from MDG 1C)	Acute and chronic malnutrition measured by anthropometric methods in baseline and impact surveys at the start and the end of the project.
Outcomes	Increased area and labour productivity as well as animal performance	Area (yield) and labour productivities per key crop and animal unit outputs as measured by baseline and impact surveys at the start and the end of the project
	Reduction of specific unit production costs	Per output unit production costs as measured by baseline and impact surveys at the start and the end of the project
	Improvement of access roads to markets	Number of km of access roads built, rehabilitated and regularly maintained and number of people served as measured by baseline and impact surveys at the start and the end of the project
	Increasing volumes of produce with improved post-harvest management and value addition	Numbers, types and volumes of produce undergoing improved post-harvest management and value addition as measured by baseline and impact surveys at the start and the end of the project
	Improved food security	Number of food-secure months per year in project household as measured by baseline and impact surveys at the start and the end of the project

Outputs	Increased adoption of improved plant and animal production methods	Annual adoption rates of involved producers of specific production methods
	Establishment of functioning road maintenance committees at community level	Number, size and activity frequencies of road maintenance committees as improved road sections get into service.
	Progressive adoption of improved post-harvest and value-addition techniques	Annual adoption rates of involved producers of specific improved post-harvest management and value-addition techniques.
	Progressive adoption of mother and child nutrition and health methods by women	Annual adoption rates of mother and child nutrition and health methods by women.
Activities and inputs	Creation and operation of a farmer training and extension scheme	Resources
	Capacity building for rehabilitating rural access roads and set-up, training and coaching of road maintenance committees	Resources
	Selection and support of post-harvest management and value-addition technologies and equipment with concomitant training and coaching	Resources
	Training of women groups in mother and child nutrition and health methods	Resources

Appendix 3: Generic intervention logic in agriculture and rural development

AGRICULTURE & RURAL DEVELOPMENT INTERVENTION LOGIC



Inputs: financial, human and material resources etc. Activities: funding, planning, monitoring, technical assistance, construction etc

Appendix 4: Checklist of key indicators for agriculture and rural development

<p>Price Volatility Outcomes</p> <ol style="list-style-type: none"> Consumer vulnerability to short-term price changes <ul style="list-style-type: none"> Availability to food aid, cash transfers, or work fare programmes Farmer vulnerability to short-term price changes <ul style="list-style-type: none"> Food staples covered by long-term fixed price contracts; eligibility to business loan and risk insurance coverage; storage facility capacity in months and key food staples <p>Improved Access Outcomes</p> <ol style="list-style-type: none"> Access to road transportation <ul style="list-style-type: none"> Unit cost for transportation of agricultural products Access to land <ul style="list-style-type: none"> Land area/agricultural households where there is legally recognised land tenure Access to water <ul style="list-style-type: none"> Irrigated land; use of rain harvesting Access to seeds and fertilisers <ul style="list-style-type: none"> Fertiliser consumption; production, cost & use of seeds Access to improved breeds of animals/fish <ul style="list-style-type: none"> Percentage coverage/change in improved breed stock Access to extension services <ul style="list-style-type: none"> Farmers that have knowledge, use advice & are satisfied with extension services Access to information on markets <ul style="list-style-type: none"> Percentage of farmers aware of key market information Availability of credit <ul style="list-style-type: none"> Rural population using financial services (formal & non-formal); are eligible for a business loan; that have risk insurance policies Investment in rural areas <ul style="list-style-type: none"> Increase in private sector investments (agriculture & non-farm) Establishing a rural business <ul style="list-style-type: none"> Average time/cost in setting up a rural business <p>Natural Resources Outcomes</p> <ol style="list-style-type: none"> Preservation of natural resources <ul style="list-style-type: none"> Land/sea/lake area established as a protected area Sustainable management practices <ul style="list-style-type: none"> Knowledge/use of sustainable crop practices, technologies and inputs; capture fish production as % of stock; area of sustainable forest management; levels of agro-chemical pollution; rates of pesticide poisoning Environmental services <ul style="list-style-type: none"> Growth/value of rural environmental services; value of carbon trading schemes <p>Employment Outcomes</p> <ol style="list-style-type: none"> Non-farm employment <ul style="list-style-type: none"> Non-farm labour force Agricultural Labour <ul style="list-style-type: none"> Agricultural labour force; rural labour force underemployed or unemployed <p>Productivity Outcomes</p> <ol style="list-style-type: none"> Land productivity <ul style="list-style-type: none"> Yields of major crops/livestock; yield gap; yield per livestock unit; water use per unit of aquaculture production Labour productivity <ul style="list-style-type: none"> Agricultural added value per worker Capital productivity <ul style="list-style-type: none"> Tractors per 100sq of arable land; Farmers who are members of collective organisations (enhancing capital productivity) 	<p>Production Outcomes (contd.)</p> <ol style="list-style-type: none"> Production <ul style="list-style-type: none"> Food production index; land area under permanent crops; aquaculture/timber production Type of Production/diversification <ul style="list-style-type: none"> Increase in production of high-value agriculture products <p>Quality Outcomes</p> <ol style="list-style-type: none"> International marketing standards <ul style="list-style-type: none"> Value/number of agricultural products that meet minimum international marketing standards <p>Profitability Specific Impacts</p> <ol style="list-style-type: none"> Agricultural prices <ul style="list-style-type: none"> Producer price index for food items; value at farm-gate Growth in agricultural businesses <ul style="list-style-type: none"> Gap between start-ups and bankruptcy; sales/turnovers; growth in agricultural added value Growth in rural non-farm businesses <ul style="list-style-type: none"> Gap between start-ups and bankruptcy; sales/turnovers <p>Affordability/Subsistence Specific Impacts</p> <ol style="list-style-type: none"> Affordability of food <ul style="list-style-type: none"> Consumer price index for food; % of household income spent on food Subsistence in food <ul style="list-style-type: none"> Household food needs covered by subsistence farming <p>Trade Specific Impacts</p> <ol style="list-style-type: none"> Agricultural trade <ul style="list-style-type: none"> Trade balance; exports as a % of total value added; value and volume of trade Rural non-farm trade <ul style="list-style-type: none"> Trade balance; value and volume of trade <hr/> <p>Rural Income Intermediate Impacts</p> <ol style="list-style-type: none"> Rural income <ul style="list-style-type: none"> Rural population living below \$1 day, or below national poverty line; rural poor as a % of total poor; growth in household from non-agricultural activity <p>Food Security Intermediate Impacts</p> <ol style="list-style-type: none"> Undernourishment <ul style="list-style-type: none"> Prevalence of underweight children under 5 years old; under-nourished rural population <p>Environmental Sustainability Intermediate Impacts</p> <ol style="list-style-type: none"> Land sustainability <ul style="list-style-type: none"> Soil loss from watersheds; land area covered by forest; deforestation Sustainable extraction of water <ul style="list-style-type: none"> Water balance sheet; water withdrawal for agriculture as a % of total freshwater withdrawal Adapting to climate change <ul style="list-style-type: none"> Farm under risk of flood/drought
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