3ie's Agricultural Innovation Evidence Programme: summary from our learning workshops

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Workshop report

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3 International Initiative for Impact Evaluation

Note to readers

The International Initiative for Impact Evaluation (3ie) through the 3ie Agricultural Innovation Evidence Programme, funded thirteen impact evaluations and one formative evaluation of programmes supported by the Alliance for a Green Revolution in Africa (AGRA) and the International Fund for Agricultural Development (IFAD). As the evidence programme came to a conclusion, 3ie organised two learning workshops in partnership with AGRA and IFAD to share the findings, lessons and policy implications of the studies conducted.

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Workshops' summary

Nairobi, Kenya | 28-29 November, 2019

Rome, Italy | 13-14 February, 2020

The International Initiative for Impact Evaluation (3ie) has been supporting an evidence programme to identify effective approaches to supporting farmers in adopting new technologies, with the aim of contributing to environmental sustainability and improving farmers' agricultural production and socioeconomic well-being. Through the 3ie Agricultural Innovation Evidence Programme, 3ie funded thirteen impact evaluations and one formative evaluation of programmes supported by the Alliance for a Green Revolution in Africa (AGRA) and the International Fund for Agricultural Development (IFAD).

As the evidence programme came to a conclusion, 3ie organised two learning workshops in partnership with AGRA in Nairobi, Kenya and IFAD in Rome, Italy to share the findings, lessons, and policy implications of the studies conducted. These workshops convened researchers, practitioners and policymakers engaged in promoting agricultural innovation. This report summarises the workshops' sessions.

Link to Nairobi workshop documentation:

https://www.dropbox.com/sh/nsmn6m7a4tvbsjd/AAC-m_KdMzo0w-Pkuw98CfmTa?dl=0

Link to Rome workshop documentation:

https://www.dropbox.com/sh/m3xm3pztj80ka0y/AAAGUgZvyEgQGc4OuPhdWS6Ma?dl=0

Highlights from the learning workshops

- 1. Evaluators should collaborate closely with implementing agencies to agree on an evaluation's scope, objectives, and approach before conducting impact evaluations. A culture of collaboration and consultation while designing impact evaluations is key to ensure the evaluation is suited to the programme and can inform decisions in a meaningful way.
- 2. This coordination between implementers and evaluators should continue throughout the life of a programme, especially because programme designs are often subject to change as implementers adapt their strategies. Evaluators and implementers should seek ways of adapting the evaluation to fit shifts in programme strategy while maintaining the evaluation's rigour.
- 3. It is very important to understand the needs and constraints of intended beneficiaries while designing programmes. Without proper needs assessments, programmes risk targeting the wrong problems.
- 4. Impact assessments are often gender blind. Incorporating gender into impact evaluation must go beyond measuring women's participation and use gender-responsive research methods that are sensitive to the barriers that often prevent women from benefitting from well-intentioned interventions.
- 5. Two kinds of evidence that are crucial for decision-makers are frequently missing from impact evaluations: the mechanisms by which programmes function and cost and cost-efficiency data about programmes. This gap needs to be remedied if evaluations are to fulfil their potential of informing policy and programming.

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1. 3ie-AGRA workshop: Learning from 3ie's Agricultural Innovation Evidence Programme

Nairobi, Kenya

28-29 November 2019

1.1 Session 1: Promoting extension services to increase productivity

1.1.1 Moderator:

Nicholas Obare, Regional Monitoring and Evaluation, AGRA, Tanzania

1.1.2 Participants:

- 1. Shyamal Chowdhury, Associate Professor, University of Sydney
- 2. Tereza Varejkova, Research Manager, Center for Evaluation and Development
- 3. Rufaro Madakdze, Senior Program Officer, Extension and Capacity, AGRA

1.1.3 Highlights:

- 1. Identifying barriers to technology adoption is important. Simple behaviour change interventions and effective communication strategies can help in eliminating psychological barriers.
- 2. To maximise the impact of agricultural extension services, programme implementers must consider ways of increasing exposure of the intended beneficiaries to the programme activities.

1.1.4 Main summary:

In this session, representatives from research teams and implementing agencies reflected on lessons from designing, implementing, and evaluating interventions that leverage agricultural extension services to increase productivity. To enhance the capacity of farmers and farmer organisations (FOs), East Africa Market Development Associates (EAMDA), funded by AGRA, trained farmers and (FOs) in land preparation and planting, seed selection, weed control, harvesting, grading, post-harvest handling and record keeping. Chowdhury presented lessons from an impact assessment of the intervention. The programme's theory of change assumes that targeted training to remove particular barriers to technology adoption can help in reduction of those barriers. However, identification of those barriers is equally important. Information and expectation of marketing services can influence cropping decisions. However, farmers should not be left with false expectations. Simple behavioural interventions such as goal setting can play important role in removing mental barriers between intention and action.

The Center for Evaluation and Development (C4ED) together with the University of Mannheim conducted an impact evaluation of the Scaling-Out Integrated Soil Fertility Management Technologies to Improve Smallholder Farmers Livelihood in Burkina Faso (SISFeM) programme. The SISFeM programme's overarching goal was to improve food security and increase revenues of smallholder farmers in the regions of Sanmatenga and Gnagna in Burkina Faso. Varejkova's presentation focused on major lessons from this evaluation. It found that agricultural extension services, and demonstration plots in particular, can lead to higher technology adoption rates and higher yields. To maximise the impact of agricultural extension services, the programme implementers must consider ways of increasing exposure of the intended beneficiaries to the programme activities. To properly measure impacts, the evaluation teams must carefully design appropriate survey instruments. Varejkova concluded that the issue of barriers to technology adoption needs to be addressed through better communication strategies.

Madakadze presented AGRA's work in agricultural extension and capacity building. He spoke of challenges to current extension services in Africa and AGRA's approach to capacity building, and provided examples of how extension services are implemented.

1.2 Session 2: Using information and communication technologies (ICT) for information dissemination

1.2.1 Moderator:

Ezra Anyango, Senior Program Officer, AGRA

1.2.2 Participants:

- 1. Martins Odendo, Senior Research Scientist, Kenya Agricultural & Livestock Organization
- 2. Fred Dzanku, Research Fellow, University of Ghana
- 3. Reuben Gicheha, Program Officer, Inclusive Finance

1.2.3 Highlights:

- 1. ICTs are potentially superior to traditional modes of delivering information to farmers, as they are cheaper, more scalable, and are easier to deliver at exactly the right time when the information is needed.
- 2. Before conducting impact evaluations, researchers/ evaluators should collaborate with the implementing agency to agree on the evaluation's scope, objectives, and approach. Ongoing coordination between implementers and evaluators is especially important because programme designs are often subject to change as implementers adapt their strategies.

1.2.4 Main summary:

The focus of this session was to understand how several grant teams made use of ICT tools for the information dissemination components of their interventions, as well as challenges faced in the process of implementation and evaluation. Odendo detailed evaluation lessons from a project focused on Integrated Soil Fertility Management (ISFM). The evaluation measured impacts and cost-effectiveness of two extension approaches used by Kenya Agricultural & Livestock Research Organization (KALRO) to improve agricultural practices and to increase the adoption of locally relevant agricultural technologies in western Kenya. Evaluation findings suggested that farmer field days had positive effects on participating farmers and that technology adoption requires a holistic approach and is a slow process. An emerging need highlighted by Odendo was to improve provision of public agricultural extension services for improved technology adoption. There is also a need to customise existing information to be specific to ISFM. These could be achieved by fully implementing Comprehensive Africa Agriculture Development Programme's (CAADP) recommendations.

Dzanku's presentation described results from an evaluation of a programme in Mali, implemented by Association Malienne d'Eveil au Développement Durable (AMMEDD), to strengthen the capacity of aggregators (i.e. farmer cooperatives and private aggregators) to provide adapted services to smallholder grain farmers. The theory of change focused on linking these farmers to bulk output buyers through contracts by improving farmers' knowledge of appropriate pre- and post-harvest handling practices through training and provision of inputs. The programme uses reminder voice messages to reinforce the information imparted through face-to-face trainings. Shifts in the programme's implementation plan forced the evaluation team to reduce the scope of the evaluation from the entire programme to just the voice reminder component.

One of Dzanku's main takeaways was to adopt a flexible approach to evaluation design. Before conducting impact evaluations, researchers/evaluators should collaborate with the implementing agency to agree on the evaluation's modalities because even if the project begins, the design could be subject to change. The evaluation found that repetition of information could be key to farmers' long-term retention of training components. It also found that timely voice reminders had a positive impact on harvesting. For future research, Dzanku proposed to compare farmers who receive training versus those who do not. This would enable better understanding the effects of one-time face-to-face training, for which evidence of impact is limited.

Gicheha emphasised the importance of ICT in information dissemination as it is an end-toend solution in the realm of social services. He spoke of a few emerging issues when implementing ICT models which include: pilots that never fail but never scale, lack of clear business case and service delivery models, users not willing to pay for the information, integrity and reliability of the data, how to monetise big data, trust, and how to balance between high- and low-touch models.

In the discussion following the presentations, questions from the audience probed whether providing information is enough to promote adoption. Dzanku noted that it depends on the intervention, while Gicheha said that human centred design is the new emerging discipline that allows for iterative feedback, which could be adopted to change behaviour. Another set of questions sought potential solutions to challenges of farmers' willingness to pay for information and information relay mechanisms. Dzanku said that using ICT platforms alone, as they are cheaper, might be enough because face to face trainings are expensive. The language in which information is relayed should be local since it is important for information dissemination. Gicheha notes that input providers and seed companies have come up with abundant solutions that consider price and specific value chains so that farmers do not have to pay for information.

1.3 Session 3: Ensuring evaluation design is suited to the programme

1.3.1 Moderator:

Willis Kosura, Professor, University of Nairobi

1.3.2 Participants:

- 1. Joseph Hella, Associate Professor, Sokoine University of Agriculture
- 2. Madeleen Husselman, Country Director Ghana, Innovations for Poverty Action
- 3. Martins Odendo, Senior Research Scientist, Kenya Agricultural & Livestock Organization
- 4. Kodjo Kondo, Regional Monitoring and Evaluation, Burkina Faso and Mali
- 5. Bell Okello, Director and Principal Consultant, ETC Consulting

1.3.3 Highlights:

- 1. Many programme implementers, researchers, and policymakers give too little attention to theories of change while developing an intervention or a programme. However, theories of change are at the core of any programme.
- 2. It is important to be clear on what one can learn and what one cannot learn from impact evaluations.

1.3.4 Main summary:

In this session, speakers reflected on times when evaluation design needed changes or alterations due to change in programmatic needs. Speakers also spoke of practices and activities that might facilitate coordination between implementing agencies and evaluators. Hella presented on the potentials of organic cotton production in Tanzania and emerging challenges. He presented on a programme in southern Tanzania that aimed to stimulate agricultural development and increase food security through a value chain development approach. The approach integrated various areas of intervention, such as development of farmer organisations, improved access to inputs through agro-dealer networks, extension, and access to output markets through contracting with processors. Some of the challenges faced included insufficient staff training, insufficient research on agro-ecology, lack of smart production initiatives and underdeveloped infrastructures.

Okello provided perspectives from field experiences to explain how to ensure an evaluation design is suited to the programme. To make an appropriate design of a programme, one needs to understand the rich picture, which is the complex of all components and their interactions (positive or negative), their interrelations within that space, and often beyond (externalities). In this process, evaluation design must be considered during programme design. He emphasised the importance of trying and using new methodologies, such as outcome harvesting, which is an evaluation approach in which evaluators identify, formulate, verify, analyse and interpret 'outcomes' in programming contexts where relations of cause and effect are not fully understood.

Husselman shared a presentation on lessons learnt from the Conservation Agriculture Evaluation (CAgE) in northern Ghana. The study set out to evaluate the Ghana Agricultural Sector Investment Programme (GASIP) and assess its impacts on knowledge dissemination and the adoption of conservation agriculture practices among local smallholder farmers. However, the initial evaluation design was not aligned with partners' interests. The timing of the study was not suitable as it is crucial to conduct an impact evaluation only when the intervention/ programme is ready for one. She emphasised the need for flexibility in terms of relationships with partners, wherein implementers collaborate with evaluators for designing and learning from evaluations. She concluded that all partners involved in a particular programme should view evaluations as a learning process and accept mistakes to understand what could be done differently if evaluation findings are different from what was expected.

Odendo presented learnings from a randomised control trial (RCT) in western Kenya. In partnership with KALRO, the study evaluated the impacts of two extension approaches that aim to increase the adoption of locally important agricultural technologies. The study sought to investigate the market for local agricultural information in western Kenya, the effectiveness of institutional arrangements that could support the creation of local knowledge, and the impact of obtaining this information on farmer's knowledge and

agricultural practices. To ensure use of generated evidence, Odendo mentioned that policymakers and other involved stakeholders should be in support of impact evaluations. A culture of collaboration and consultation while designing RCTs is needed to ensure all stakeholders are on board and in congruence.

Kondo presented an example from his research work on adoption and impact of improved cassava varieties in Ghana. He spoke about attribution issues when matching outcomes of an intervention to its objectives and how estimation of valid counterfactuals is at the heart of all evaluation methods.

The audience had questions about the next steps towards designing evaluations and theories of change. Okello said that there are several outputs to an evaluation. He noted that different stakeholders such as academicians, implementers and so on view impact evaluations differently, whereas in practice, impact evaluations have different outcomes than envisioned. Hella's recommendation to 3ie was to avoid funding individuals outside the agriculture and evaluation realm to conduct evaluations in this sector. Evaluations should not be conducted based on programmes completed three years ago, but based on indicators that have evolved along with the programme, for instance, indicators that have developed over the course of three years.

1.4 Session 4: Gender and equity in agricultural innovation programmes

1.4.1 Moderator:

Barbara Bamanya, Monitoring and Reporting Specialist, UN Women

1.4.2 Participants:

- 1. Joseph Hella, Associate Professor, Sokoine University of Agriculture
- 2. Shyamal Chowdhury, Associate Professor, University of Sydney
- 3. Tereza Varejkova, Research Manager, Center for Evaluation and Development
- 4. Rahma Adam, Gender and Development Specialist (CIMMYT)

1.4.3 Highlights:

- 1. Issues pertaining to equal pay for equal work could be due to problems in implementation and not due to lack of policy provision.
- 2. There is a need to eradicate poverty, promote balanced socio-economic growth and achieve food security hand-in-hand with gender equity to transform the agricultural sector.

1.4.4 Main summary:

This session broadly focused on how gender and equity feature in agricultural innovation programmes. Adam presented her research on Sustainable Intensification of Maize-Legume Cropping Systems for Food Security in Eastern and Southern Africa (SIMLESA): Gender Equitable Benefits through Agricultural Innovation Platforms (AIPs) in Rwanda. This study integrated several methodologies such as focus group discussions, historical recounting, in-depth case studies, observation and photography. Through her presentation, Adam spoke of the Agricultural Innovation Systems (AIS) analytical framework. AIS is an analytical framework, which is suitable for analysing innovation through a gender lens because of its emphasis on institutions and actors that create "gendered" patterns of interaction. The Government of Rwanda has facilitated equitable benefit sharing through AIPs. This is because the Government notes that each gender is

entitled to equal pay or compensation for similar work. There is a sense of policy awareness on this matter among key actors. Adam mentioned that issues regarding equal pay for equal work are usually a problem of implementation, not lack of policy.

Chowdhury presented lessons from using a gender lens in the impact assessment of East Africa Market Development Associates' (EAMDA) banana initiative in Kenya to increase technology adoption by smallholder farmers. Technology related training influenced female farmers to allocate slightly more land for banana cultivation and adopt modern varieties of banana plantlets than male farmers.

Hella's presentation focused on lessons learnt from evaluating the Integrated Project to Increase Agricultural Productivity (IPIAP) that are relevant to gender equity. Like most African countries, Tanzania has a history of state control over marketing in the agricultural sector. While state control has decreased over time, private-sector marketing is still rudimentary. Within this context, IPIAP intended to stimulate the production of staple food crops (maize, rice, soy, and beans) through a value chain approach built around the strengthening of farm organisations.

An evaluation of IPIAP found that although women play an essential role in agricultural production in the southern highlands of Tanzania, there is no equity with male counterparts in many household and agriculture-related variables measured in the study. A general lack of economic and financial parity norms and cultural issues pertaining to women's role have been detrimental to their participation in decision-making. Given these findings, Hella concluded that there is a need to eradicate poverty, promote balanced socio-economic growth and achieve food security hand-in-hand with gender equity to transform the agricultural sector.

Varejkova's presentation focused on gender and equity themes pertaining to an evaluation of the Scaling-Out Integrated Soil Fertility Management Technologies to Improve Smallholder Farmers' Livelihood in Burkina Faso (SISFeM) programme. This evaluation was conducted by the Center for Evaluation and Development (C4ED) together with the University of Mannheim. The SISFeM programme's overarching goal was to improve food security and increase revenues of smallholder farmers in the regions of Sanmatenga and Gnagna in Burkina Faso. The evaluation found that female-only farmer organisations had significantly higher participation rates in agricultural demonstrations. Female-headed households have indeed less access to capital-intensive agricultural inputs such as fertiliser and improved varieties. Female-headed households are not less likely to adopt labour-intensive technologies, however. Further insights from focus group discussions raised the possibility of having female extension workers work with female farmers.

1.5 Session 5: What policymakers demand: using research evidence to improve agricultural policy

1.5.1 Moderator:

Marie Gaarder, International Initiative for Impact Evaluation

1.5.2 Participants:

- 1. Madeleen Husselman, Country Director Ghana, Innovations for Poverty Action
- 2. Liston Njoroge, Program Officer, Policy and Advocacy, AGRA Tanzania
- 3. Joseph Kamau, National Project Coordinator, Ministry of Agriculture

1.5.3 Highlights:

- 1. It is important to present evidence in a way that is conducive for policymakers' consumption. As such, it is vital to engage non-researchers with evidence.
- 2. There is a need to understand bureaucratic channels to ensure use of research in policymaking.

1.5.4 Main summary:

This session focused on how research evidence could be used to inform agricultural policy. The session discussed the needs and demands of policymakers, including how research evidence could aid in policy decisions. Husselman stressed that evidence needs to be presented in an easier way for policymakers' consumption. She highlighted ways to engage non-researchers with evidence. Research often zooms into a very particular issue or tests one (or a few) potential solutions to one specific problem, but the real world is holistic and both issues and their potential solutions should not be viewed in isolation of the many other factors that influence decisions. Hence, stand-alone studies do not allow for iterative learning – decision makers and researchers need to become thought partners. The main takeaway from her presentation is to engage all relevant stakeholders (such as government, NGOs, research partners) through co-creation of projects and research.

Njoroge emphasised that it is important for policymakers to use research evidence throughout the policy cycle. He provided an example from Tanzania where research evidence was used to inform agricultural policy facilitated by a process called Regulatory Impact Assessment (RIA). RIA is a process of systematically identifying and assessing the expected effects of regulatory proposals, using a consistent analytical method, such as benefit/cost analysis. He highlighted that there is an ingrained belief among bureaucrats that engaging with researchers might mean undermining sovereignty and that there is a need to understand bureaucratic channels to ensure research evidence can be utilized in policymaking.

Kamau spoke of the connection between policymakers and researchers. It is crucial to understand the needs and requirements of policymakers so that research evidence can be generated accordingly. In many cases, research evidence is used opportunistically to back up pre-existing political decisions/opinions.

1.6 Session 6: Way forward: evidence gaps in agriculture

1.6.1 Moderator:

Mark Engelbert, Evaluation Specialist, International Initiative for Impact Evaluation

1.6.2 Participants:

David Ameyaw, President/CEO, International Centre for Evaluation and Development; Jennifer Mutua, Chair & Founder, Evaluation Society of Kenya

1.6.3 Highlights:

- 1. In addition to impact evaluations with long follow-up periods, decision-makers require needs assessments and consistent feedback through monitoring data.
- 2. Two kinds of evidence that are crucial for decision-makers are frequently missing from impact evaluations: the mechanisms by which programmes function and cost and cost-efficiency data about programmes.

1.6.4 Main summary:

The session reflected on existing evidence and evidence gaps in agriculture and focused on the way forward in terms of evidence generation for agricultural policymaking.

Engelbert opened the session by sharing insights from 3ie's Evidence Gap Map on agricultural innovations. The gap map illustrates that there is considerable evidence on the impact of interventions to promote adoption of improved inputs and agricultural techniques. On the other hand, there is very little evidence on the effects of information and communication technologies (ICTs), and almost no evidence on the effects of agricultural innovation interventions on environmental outcomes, particularly greenhouse gas emissions.

Ameyaw's presentation discussed the history of evidence generation and use in international development. This began with the original "evidence revolution" of the 1990s, which focused on establishing indicators to measure the performance of government agencies and multilateral institutions. This was followed by the rise of rigorous impact evaluations and systematic reviews in the early 2000s. More recently, knowledge brokering has become more prominent as the field has realised the importance of institutionalising evidence use.

In conversation and in response to audience questions, the panel discussion focused on what has been learned from the existing evidence base on agricultural innovations. There was consensus that creating impact through agricultural innovation programmes takes time, and that evaluators therefore need to employ a variety of approaches to deliver needed evidence for short-, medium-, and long-term decision-making. In addition to impact evaluations with long follow-up periods, decision-makers require needs assessments and consistent feedback through monitoring data.

Participants also emphasised that two kinds of evidence that are crucial for decisionmakers, namely the mechanisms by which programmes function and cost and costefficiency data about programmes, are very frequently missing from impact evaluations. This gap needs to be remedied if evaluations are to fulfil their potential of informing policy and programming.

2. 3ie-IFAD workshop: Learning from IFAD Impact Assessments and 3ie's Agricultural Innovation Evidence Programme

Rome, Italy

13-14 February, 2020

2.1 Session 1: Farmers' groups for oil seed adoption in Uganda

2.1.1 Moderator:

Romina Cavatassi, IFAD-RIA

2.1.2 Participants:

- 1. Mariapia Mendola, Associazione Centro Studi Luca d'Agliano, Italy
- 2. Jacopo Bonan, Associazione Centro Studi Luca d'Agliano, Italy
- 3. Henrik Franklin, IFAD-ESA; Aissa Toure, IFAD-ESA
- 4. Alessandra Garbero, IFAD-RIA

2.1.3 Highlights:

- 1. It is better to opt for phase-in designs when evaluating a project that has already been set up by the government.
- 2. It is necessary to involve researchers early on during the design phase of an intervention.

2.1.4 Main summary:

The session consisted of the grant team presentation on lessons from an evaluation of the Vegetable Oil Development Project - Phase 2 (VODP2). After the presentation by the grant team, IFAD staff and experts provided their comments on the evaluation. The VODP2 paid services interventions include technical services for increased oilseed production and productivity, and market information. The core objective of the programme was to encourage farmers to switch from subsistence to commercial farming. This was done through providing knowledge, marketing and business skills to farmers and bundling technical and marketing information.

From the evaluation results, there seem to be relatively small but significant increases in adoption and expected price. There were no major effects on input use (small positive impact) and no impact on labour supply whereas hired labour increased. In terms of market linkages, there seems to be a higher probability of selling, more specifically, selling in bulk. There was some impact on productivity, which could probably be attributed to the technical extension component of the intervention. Major lessons included opting for phase-in designs when evaluating a project of the government that has already been set up and involving researchers early on during the design phase of an intervention. The session concluded with an understanding that there needs to be an increase in the buy-in for ex-ante studies.

2.2 Session 2: Savings groups to improve livelihoods in Zambia

2.2.1 Moderator:

Athur Mabiso, IFAD-RIA

2.2.2 Participants:

- 1. Markus Frölich, University of Mannheim, Germany
- 2. Michael Mbulo, Rural Finance Expansion Programme, Zambia
- 3. Mauro Martini, IFAD-Sustainable Production, Markets and Institutions (PMI) Division
- 4. Aslihan Arslan, IFAD-RIA

2.2.3 Highlights:

- 1. There is a need to generate trust among customers towards financial institutions before they are willing to open group bank accounts.
- 2. For the future of evaluations, it is important to improve the quality of M&E data.

2.2.4 Main summary:

The grant team presented lessons and findings from an evaluation of the Rural Finance Expansion Programme (RUFEP) in Zambia. After the presentation by the grant team, IFAD staff and experts provided their comments on the evaluation. RUFEP in Zambia aimed at improving the livelihoods of the rural poor through sustainable economic growth. To this end, RUFEP set up Village Savings and Loan Associations (VSLAs) to foster rural financial intermediation. The objective was to develop precautionary savings for insurance in the event of health shocks. This was done through establishing links to the financial sector by opening group bank accounts.

Results of the evaluation showed that there was a 9 percentage point increase in the number of bank accounts being opened by groups. However, there were no effects on: trust on security of funds, amount of savings, loan activity, coping strategies, or perceived vulnerability to shocks. A few highlighted lessons from this evaluation were that formal registration of bank accounts turned out to be a burden and that there is a need to generate trust among customers towards financial institutions before they are willing to open group bank accounts. The session concluded with a few recommendations on increasing knowledge about the national regulatory framework, building trust among savings groups and Banks and targeted financial literacy programs. With regard to the future of evaluations, Asliharan emphasised on the importance of improving the quality of M&E data.

2.3 Session 3: Using technology to improve extension services in Cambodia

2.3.1 Moderator:

Aslihan Arslan, IFAD-RIA

2.3.2 Participants:

- 1. Alan de Brauw, IFPRI, USA
- Boreth Sun, Agriculture Services Programme for Innovation, Resilience and Extension (ASPIRE), Ministry of Agriculture, Forestry and Fisheries (MAFF) and IFAD Cambodia
- 3. Teresa Molina, University of Hawaii, USA
- 4. Fabrizio Bresciani, IFAD Asia and the Pacific Region (APR) Division

2.3.3 Highlights:

- 1. It is crucial to understand the demands of farmers before designing extension service programmes.
- 2. ICT is a potential solution if farmers have smartphones with strong connectivity to reproduce videos and if the data costs are cheap.

2.3.4 Main summary:

The grant team presented its lessons from an impact evaluation of interventions to improve extension programmes in ten provinces of Cambodia. The interventions were facilitated through tablet based delivery of extension services and through sending voice messages. The evaluation did not detect significant effects of either intervention on agricultural production. A major takeaway from the presentation is to understand the demands of farmers before designing the extension services. It is also essential that the extension service staff is properly incentivised. Panellists suggested that although extension services are expensive, ICT is a potential solution if farmers have smartphones with strong connectivity to reproduce videos and if the data costs are cheap. Overall, it is imperative to ensure good MIS and M&E systems to track results.

2.4 Session 4: Choosing the right evaluation design: opportunities and challenges of field experiments, RCTs and ex-post designs

2.4.1 Moderator:

Rossana Polastri, IFAD

2.4.2 Participants:

- 1. Juan Bonilla, American Institutes for research
- 2. Alan de Brauw, IFPRI
- 3. Romina Cavatassi, IFAD-RIA
- 4. Rikke Oliveira, IFAD-ECG

2.4.3 Highlights:

- 1. It is important to identify the components of a programme that are most suitable for evaluation, and evaluators must learn to be flexible and creative so as to adapt to changing situations.
- 2. While RCTs are good for testing especially innovative interventions at a small scale, there is a possibility to combine small RCTs with ex-post designs on a larger population.

2.4.4 Main summary:

In Kenya, the Smallholder Dairy Commercialisation Programme (SDCP) was designed to reach smallholder dairy farmers in several counties. The intervention focused on training groups to organize and keep accounting records, provide extension services regarding best practice in production and cleanliness, and to organize groups to engage in the markets. The goal was to reduce transaction costs, build capacity, and increase knowledge among smallholder farmers. In terms of this programme's evaluation results, there was an observed increase in the practice of zero grazing, regular monitoring of cattle, access to artificial insemination, and access to health and vaccination services. More services have become available as a result of the programme.

In Madagascar, the Projet d'Appui au Développement du Menabe et du Melaky (AD2M) implemented irrigation, land titling, and related rural development programmes in western Madagascar. The intervention focused on promoting new cash crops, increasing access to agricultural equipment, and increasing access to markets and better irrigation practices. The intervention gave land rights and titles to farmers and built or rehabilitated irrigation systems.

Evaluation results found that farmers are 17% more likely to plant crops in two or more seasons. Gains were observed from an increase in the number of harvest and farmers were more likely to receive water on time and good quality water. After the presentation by the grant team, IFAD staff and experts discussed main takeaways. Major highlights of the discussion emphasised on the importance of making choices on the components that would be suitable for evaluation and how evaluators must learn to be flexible and creative so as to adapt to changing situations (such as changes in intervention design, sampling, implementation plans and so on).

It was concluded that different evaluation methods have different purposes. While RCTs are good for testing, especially innovative interventions, there is a possibility to combine small RCTs with ex-post designs on a larger population. Additionally, the missing link between data use and data internalisation needs to be bridged.

2.5 Session 5: Way forward: evidence gaps in agriculture

2.5.1 Moderator:

Richard Caldwell, Gates Foundation

2.5.2 Participants:

- 1. Mark Engelbert, 3ie (Presentation: Mapping the evidence on agricultural innovations)
- 2. Sara Savastano, IFAD-RIA
- 3. Gari Samba and Kodjo Kondo, AGRA

2.5.3 Highlights:

- 1. There is an increasing acknowledgement of the importance of impact assessment as a tool to generate evidence.
- 2. Given the importance of extension services, there is an increasing need for more clear evidence on efficacy and effectiveness of extension services systems.
- 3. There is a need to emphasise knowledge dissemination and institutional dissemination of research evidence.

2.5.4 Main summary:

Speakers in this session shared their views on evidence gaps in the agriculture sector and ways forward. Caldwell spoke of the history of impact assessment in agriculture. Impact assessment evidence in agriculture dates back only recently, but since 2009 the field has grown. According to these ongoing experiences, four main challenges have arisen:

- 1. Agriculture is a wide sector and it covers a diverse array of topics;
- 2. Ensuring the external validity of impact assessments is not straightforward;
- 3. Temporal, spatial and cultural variation of the project context make generalising difficult;
- 4. Impact assessment studies are generally expensive.

He concluded that there is an increasing acknowledgement of the importance of impact assessment as a tool to acquire evidence, but that it is important to

- 1. Keep promoting rigorous impact evaluation within investments;
- 2. Keep promoting impact research initiatives;
- 3. Increase collaboration and partnership between actors (e.g. shared learning agencies, co-funding).

Engelbert presented 3ie's evidence gap map on agricultural innovation, detailing priorities for investments in new evidence. Engelbert opened the session by sharing insights from 3ie's Evidence Gap Map on agricultural innovations. The gap map illustrates that there is considerable evidence on the impact of interventions to promote adoption of improved inputs and agricultural techniques. On the other hand, there is very little evidence on the effects of information and communication technologies (ICTs), and almost no evidence on the effects of agricultural innovation interventions on environmental outcomes, particularly greenhouse gas emissions.

Savastano stressed that the importance of using evidence to inform policy is growing, especially from the perspective of donor countries and institutions. There is also an increasing acknowledgement of the contribution of impact assessments to improve these institutions' actions and to tailor them to context specificities. She concluded that systematic reviews and evidence gap maps should inform two aspects in particular:

- 1. To what extent can interventions be scaled up; we need a variety of methods and analyses to establish the transferability of studies across contexts?
- 2. To what extent is meta-analysis appropriate for comparing coefficients across methods and areas?

Samba and Kondo felt that there is a lack of synthesis of all necessary information that is required to understand the total picture of a given research topic (for instance, there is limited evidence regarding the effectiveness of extension services). Given the importance of extension services, there is an increasing need for more clear evidence on efficacy and effectiveness of extension services systems (public or private system). They mentioned that there is a need to emphasise youth empowerment in agriculture, which needs to be done in a gender-responsive way.

2.6 Session 6: Key takeaways and future directions for policy, implementation and research

2.6.1 Moderator:

Alessandra Garbero, IFAD-RIA

2.6.2 Participants:

- 1. Michael Mbulo, RUFEP, Zambia
- 2. Boreth Sun, ASPIRE, MAFF and IFAD Cambodia
- 3. Antonio Rota, IFAD-PMI
- 4. Ndaya Beltchika, IFAD-ECG

2.6.3 Highlights:

- 1. There has been growing interest in building evidence, especially in the livestock sector. However, the evidence on the impact of livestock interventions is still low compared to the impact of crops interventions.
- 2. A robust M&E system is imperative for good intervention designs. However, M&E systems must be complemented by the analytical capacity to use and interpret data.
- 3. Impact assessments are often gender blind. Transformative solutions must extend beyond women's participation. Women's empowerment is key and should be measured in impact assessments.

2.6.4 Main summary:

In this session, speakers shared key takeaways from the workshop and future directions for policy, implementation and research. Mbulo shared that the evidence generated from the RUFEP evaluation has allowed programmes and projects to change their implementation processes and services offered to beneficiaries. He also found that working groups were useful in summarising and synthesising lessons learned and suggestions for project stakeholders to revise agricultural policies.

Sun spoke of the need to build a conducive environment for youth to participate in the production sector. Rota felt that there has been a growing interest in building evidence, especially in the livestock sector. However, the evidence on the impact of livestock interventions is still low compared to the impact of crops interventions. As a beginning, a global database on evidence in the livestock sector is being developed for wider dissemination by IFAD.

Bletchika emphasised two aspects for future directions.

- 1. Communication and uptake strategy: buy-in from local stakeholders is key to conducting a successful impact assessment. Also, communication strategies and uptake strategies could be improved to become more actionable.
- 2. Gender: impact assessments cannot continue to be gender-blind, but must consider intended and unintended consequences for women.

Garbero stressed the importance of good M&E, along with formal processes for analysing and using M&E data. Given the increasing role of the private sector, she opined that it might be useful to evaluate additional dimensions added by the private sector. She also spoke of how strengthening the capacities of implementation agencies should be a priority as they are on-ground champions.

The session concluded with remarks that there is a need to continue involving new technologies and innovations in future endeavours.

Appendix A: Agenda for the 3ie-AGRA learning workshop

3ie-AGRA workshop: Learning from 3ie's Agricultural Innovation Evidence Programme

Nairobi, Kenya 28-29 November, 2019

Thursday, 28 Novembe	Thursda	ay, 28	Novem	ber
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Time	Session number	Session name	Participants
08:00-08:30	-	Registration	AGRA
08:30 - 08:45	-	Introduction and overview	3ie
08:45 - 09:00	-	Remarks and official opening	Agnes Kalibata, President, Alliance for a Green Revolution in Africa (AGRA)
09:00 - 10:30	1	Promoting extension services to increase productivity	Nicholas Obare, Regional Monitoring and Evaluation Officer, AGRA, Tanzania (Chair) Shyamal Chowdhury, Associate Professor, University of Sydney Tereza Varejkova, Research Manager, Center for Evaluation and Development Rufaro Madakadze, Senior Program Officer, Extension and Capacity, AGRA
10:30 - 11:00	Break		
11:00 - 12:30	2	Using ICT for information dissemination	 Ezra Anyango, Senior Program Officer, AGRA (Chair) Martins Odendo, Senior Research Scientist, Kenya Agricultural & Livestock Research Organization Fred Dzanku, Research Fellow, University of Ghana Reuben Gicheha, Program Officer, Inclusive Finance, Valentine Miheso, Program Officer, Partnerships AGRA
12:30 - 13:30	Lunch		
13:30 - 15:00	3	Ensuring evaluation design is suited to the programme	 Willis Kosura, Professor, University of Nairobi (Chair) Joseph Hella, Associate Professor, Sokoine University of Agriculture Madeleen Husselman, Country Director Ghana, Innovations for Poverty Action Martins Odendo, Senior Research Scientist, Kenya Agricultural & Livestock Research Organization Kodjo Kondo, Regional Monitoring and Evaluation, Burkina Faso and Mali Bell Okello, Director & Principal Consultant, ETC Consulting

Time	Session	Session name	Participants
	number		
15:00 - 15:30	Break		
15:30 - 17:00	4	Gender and equity in	Barbara Bamanya, Monitoring and Reporting Specialist, UN Women (Chair)
		agricultural	Joseph Hella, Associate Professor, Sokoine University of Agriculture
		innovation	Shyamal Chowdhury, Associate Professor, University of Sydney
		programmes	Tereza Varejkova, Research Manager, Center for Evaluation and Development
			Rahma Adam, Gender and Development Specialist (CIMMYT)

Friday, 29 November

Time	Session number	Session name	Participants
09:00 - 10:30	5	What policymakers	Marie Gaarder, International Initiative for Impact Evaluation (Chair)
		demand: using	Madeleen Husselman, Country Director Ghana, Innovations for Poverty Action
		research evidence to	Liston Njoroge, Program Officer, Policy and Advocacy AGRA Tanzania
		improve agricultural	Joseph Kamau, National Project Coordinator, Ministry of Agriculture
		policy	Isaiah Okeyo, Director, Agricultural Information Resource Centre, Min. of Agriculture and Irrigation
10:30 - 11:00	Break		•
11:00 - 12:00	6	Way forward:	Mark Engelbert, 3ie (Chair)
		evidence gaps in	David Ameyaw, President/CEO, International Centre for Evaluation and Development
		agriculture	Jennifer Mutua, Chair & Founder, Evaluation Society of Kenya
12:00 - 13:00	Lunch	•	

Appendix B: Agenda for the 3ie-IFAD learning workshop

3ie-IFAD workshop:

Learning from IFAD Impact Assessments and 3ie's Agricultural Innovation Evidence Programme

Time	Session name	Participants	
8:30 - 9:00	Registration	Participants to proceed to Qatar Room, Library, Ground Floor for registration	
9:00 - 9:15	Welcoming remarks	Sara Savastano, Director, IFAD Research & Impact Assessment (RIA) Division	
		Mark Engelbert, International Initiative for Impact Evaluation (3ie)	
		Sara Mbago-Bhunu, Director, IFAD Eastern & Southern Africa (ESA) Division	
9:15 - 9:45	Background on 3ie's Agricultural	Alessandra Garbero, IFAD-RIA	
	Innovation Evidence Programme	Mark Engelbert, 3ie	
9:45 - 10:55	Farmers' groups for oil seed	Chair	
	adoption in Uganda (1004)	Romina Cavatassi, IFAD-RIA	
		Grant team	
		Mariapia Mendola, Associazione Centro Studi Luca d'Agliano, Italy	
		Jacopo Bonan, Associazione Centro Studi Luca d'Agliano, Italy	
		Other participants	
		Henrik Franklin, IFAD-ESA	
		Aissa Toure, IFAD-ESA	
		Alessandra Garbero, IFAD-RIA	
10:55 - 11:10	Break		
11:10 - 12:20	Networking session	Participants are encouraged to use this time for interacting and networking with other participants	
		in attendance.	
12:20 - 13:20	Lunch		
13:20 - 14:30	Savings groups to improve	Chair	
	livelihoods in Zambia (1025)	Athur Mabiso, IFAD-RIA	
		Grant team	
		Markus Frölich, University of Mannheim, Germany	
		Michael Mbulo, Rural Finance Expansion Programme (RUFEP), Zambia	

Thursday, 13 February

Time	Session name	Participants	
		Other participants	
		Mauro Martini, IFAD-Sustainable Production, Markets and Institutions (PMI) Division	
		Aslihan Arslan, IFAD-RIA	
14:30 - 15:40	Using technology to improve	Chair	
	extension services in Cambodia	Aslihan Arslan, IFAD-RIA	
	(1013)	Grant team	
		Alan de Brauw, IFPRI, USA	
		Boreth Sun, Agriculture Services Programme for Innovation, Resilience and Extension	
		(ASPIRE), Ministry of Agriculture, Forestry and Fisheries (MAFF) and IFAD Cambodia	
		Other participants	
		Teresa Molina, University of Hawaii, USA	
		Fabrizio Bresciani, IFAD Asia and the Pacific Region (APR) Division	
15:40 - 16:00	Break		
16:00 - 17:30	Choosing the right evaluation	Chair	
	design: opportunities and	Rossana Polastri, IFAD	
	challenges of field experiments,	Grant teams	
	RCTs, and ex-post designs (1008,	Juan Bonilla, American Institutes for Research	
	2.01 and 2.02)	Alan de Brauw, IFPRI	
		Other participants	
		Romina Cavatassi, IFAD-RIA	
		Rikke Oliveira, IFAD-ECG	
		Rob Delve, IFAD-PMI	

Time	Session name	Participants
09:00 - 10:00	Way forward: evidence gaps in	Chair
	agriculture	Richard Caldwell, Gates Foundation
		Panelists
		Mark Engelbert, 3ie
		Daudi Sumba, AGRA (TBC)
		Jane Njuguna, AGRA
		Sara Savastano, IFAD-RIA
10:00 - 10:30	Break	
10:30 - 12:00	Key takeaways and future	Chair
	directions for policy,	Sara Savastano, IFAD-RIA
	implementation and research	Panelists
		Michael Mbulo, RUFEP, Zambia
		Boreth Sun, ASPIRE, MAFF and IFAD Cambodia
		Antonio Rota, IFAD-PMI
		Alessandra Garbero, IFAD-RIA
		Ndaya Beltchika, IFAD-ECG
12:00 - 12:30	Concluding remarks	Sara Savastano, IFAD-RIA
12:30 - 13:30	Lunch	

Friday, 14 February