Reviewing and Refining the CGIAR Research Program on Livestock and Fish Theory of Change

Report of a Workshop, Nairobi, 15-16 January, 2013

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Background

The Livestock and Fish CGIAR Research Program Theory of Change (ToC) workshop was held on 15th and 16th of January 2013, at the Nairobi ILRI campus. Participants were drawn from ILRI, ICARDA, CIAT, and WorldFish. The key objectives of the workshop were to:

1. Develop a common understanding of the program design and the envisaged pathways to outcomes and impact,
2. Review and refine the Livestock and Fish program impact evaluation strategy,
3. Get clarity on program M&E/IA related activities including evaluation, impact assessment, learning, logic frameworks, impact pathways, program monitoring, and outcome monitoring.

The desired outputs of the workshop included:
1. Reviewed, refined and agreed upon Livestock and Fish program Theory of Change narrative and a plan to finalize it.
2. Reviewed program impact evaluation plan and strategy.
3. Worked through examples of impact pathways and indicators of change that can be adapted across program target value chains/countries.
4. List of candidate studies and potential indicators to use to monitor program outcome (short-term and intermediate).
5. Inputs into program monitoring and evaluation / impact assessment work plan.

Documentation from the workshop is online at http://livestock-fish.wikispaces.com/TOCworkshop2013

Welcome and introductions

The workshop was opened with participants engaging in what the facilitator referred to as a speed dating exercise in which participants introduced themselves to each other in pairs. Thereafter, the facilitator (Peter Ballantyne) asked each participant to write down their expectations of the workshop and their most preferred program Impact Pathway(s).

Expectations of the workshop

- Clarity (clear formulations) on program theories of change and impact pathways
- Agreement on fundamental principles as to the way change happens and therefore how to engage with this partner
- Understand capacity development needs
- Clarity on program monitoring and evaluation plan
- Develop generic impact pathway(s) for value chains which will be used to develop value chain specific impact pathways
- Understand and internalize the big program logic
- Harmonized understanding of what impacts we expect to evaluate and how to evaluate them
- Defining and clarifying improved value chain performance
- Ensure that evaluation framework is linked to rapid value chain assessment approaches. For instance, develop similar indicators

Preferred impact pathway(s)

- Improving food security through empowering actors in the value chain with knowledge to improve practice
- Production leading to income security
- Animal Source Foods for the poor at scale
- Delivering through effective development partners
- Market-led research interventions (alias value chain pathway)
- Pathways will vary – but goals need to be common across program
- Market led development working through and partners
- Impact through value chains actors e.g. gender, youth, value addition and distribution of benefits
- Through ICT and learning across the value chains
- Market led development to increase incomes and affordability of target livestock and fish products
- Dairy technology research leading to Improved productivity leading to adoption of technologies by smallholders leading to increased income and nutrition

Review of program design, theory of change and evaluation framework

Tom gave an overview of how the workshop objectives and expected outputs fit into the overall program design (presentation online).

In his brief overview, he reiterated the need to develop outcomes indicators to guide program's learning since learning will be an important component on which the program will be evaluated.

He therefore mentioned that the program has two key elements of Monitoring and Evaluation: 1) the project M&E which will mostly focus on tracking project specific outputs and 2) program M&E which will focus on tracking program's progress towards achieving impact or assessing whether the program is delivering change the way it is support to. This M&E element will also require that baselines/benchmarking studies and impact assessments for individual projects under the L&F program are used for program-wide learning and assessing whether the program is on track to delivering changes among beneficiaries. In addition this process learning will contribute to building a body of evidence to support our research and development intervention after around 8 years. However it should also be made clear that this piecemeal building of evidence will not constitute program-wide impact evaluation. For instance, the impact evaluation activities currently happening at the project level are aimed to collect bits and pieces of evidence before piloted technologies are scaled out. Individual project monitoring and evaluation activities will only contribute to assessment of program's progress towards achieving the Intermediate Development Outcomes (IDOs). He further mentioned that fully commissioned ex-post impact assessments will only be done once technologies go to scale when the program has mostly turned into a knowledge partner. At that stage, program-wide impact assessments for instance of the RCTs nature might then be designed to evaluate program's achievement of the Intermediate Development Outcomes (IDOs).

In his concluding remarks, Tom mentioned that the program's strategy is to work with the value chains framework and to assume that addressing the whole value chain is a necessary condition for uptake of innovations at scale. Our strategy is to start research with partners, identify the best bet technologies, build the evidence, attract more partners to invest in the technologies, and then go to scale. Once the technologies go to scale then we become knowledge partners.

Key discussion issues arising out of Tom's presentation
- When will the actual impact assessments begin, especially those commissioned by the consortium?
  - According to Tom, key value chain specific indicators will be generated and used in individual project baselines to mainly focus on meeting individual project needs but also ensuring that overall program impact assessment needs are provided for. For instance, the Irish-AID program in Tanzania, moreMIlk in Tanzania (moreMilkiT), is not the core value chains project but its baseline will be used to provide initial diagnostic assessments for program learning and experimentation. In each value chain, individual

interventions will be uniquely and adequately tested to provide evidence for scaling up and out.

- Value chain approaches are not new especially within CG centres, what new things are we introducing to expect a new outcome and new result?
  o The integrated way in which the program is intervening in the value chains and the way the program is getting interventions implemented at large scale and with partners, taking an example of how EADD was implemented, has not been done before.

Designing the Program's Theory of Change

Nancy's presentation gave a brief background on the program's status with respect to designing the Impact evaluation framework (presentation online).

). Nancy mentioned that the program will be accountable for certain impact pathways and we have to provide evidence that we are contributing to changes in our target population along those principle impact pathways. Nancy emphasized the need for identifying and reviewing existing theories as the Impact pathways are developed. She also mentioned that it is important to involved stakeholders early in the process of developing the program Theory of Change (ToC). Moreover, the quality of program ToC will largely depend on the diversity of stakeholders involved in the process. The ToC should highlight the assumptions the program is making and providing evidence in support of those assumptions. Nancy's presentation provided a good foundation for group work aimed to review a draft program Impact Pathway and its research and development outcomes. Participants were placed in three groups and feedback on group work was thereafter presented.

Group work presentations

The first group consisting of Amos, Jane, Kate, An, Jens Peter and Birthe submitted the following feedback:
- There was no clarity on distinction between research and development outcomes. The group further wondered whether the distinction was necessary, after all.
- Program outputs needed to be reviewed and reworded.
- The Impact Pathway was highly linear and more details were needed to justify the arrows and result chains.

The second group constituting of Isabelle, Acho, Kathy, Epi, Michael and Yigezu submitted the following feedback:
- The IP was silent on the process of generating the International Public Goods (IPGs).
- The IP lacked clarity on how the IDOs were chronologically linked.
- Presentation of IDOs needed to include a time dimension and also how the IDOs related to each other.
- To avoid messiness, the IDOs could be presented in a single box and then the details of the interactions between them presented in the impact pathways narrative.
- There is a need to clearly illustrate the piloting phase in the draft impact pathways.
- The impact pathway(s) needs to be linked to the System Level Outcomes (SLOs).
- It was not clear why value chain performance and women's assets were left hanging and not linked to any other outcomes or outputs.
- The generic impact pathways did not include any learning feedback loops. These should be included at both at the testing and piloting stage as well as after the scale-up or scale-out of technologies.
- The difference between program and component outputs was not clear.

The third group consisting of Stuart, Mwai, Phil, James, Malcolm and Iddo provided the following submissions:
- The Impact Pathways lacked clarity, logic, and looked messy.

- There was agreement that the impact pathways should be clear about how the program will get from one level to the other.
- The wording of outputs did not reflect them as outputs, especially in regard to project/program planning language. Specifically, it was not clear whether a given set of activities would directly lead to any of the suggested outputs in the draft impact pathways.
- The Impact pathways should reflect what we should be doing and whether it will lead to any changes among our target group. However, there was no clear evidence that what was presented would logically lead to the desired change.

Key discussion issues arising out of the presentation
- What are the reasons for developing a ToC yet we already have a funded proposal and are in its second year of implementation? Are we not out of sequence?
    - Many of the responses to this question suggested that what we were doing was to review program proposal and program's initial assumptions. These assumptions need to be articulated and tested for the purpose of learning and evaluation. By reviewing the program ToC, we are attempting to reconstruct the proposal in a more logical and practical manner. This process entails working backwards from development outcomes and tracing the paths through which development outcomes will be achieved.

Setting the scene for developing generic value chains impact pathways

This session involved five presentations: 1) introduction to Outcome Mapping and Theories of Change, 2) summary of EADD Theory of Change development, 3) practical application of EADD Theory of Change in Tanzania, 4) use of Impact Pathways in planning and evaluating the IEIDEAS project in Egypt, and 5) introduction to Value Chains Analysis approach.

Stuart presented an introduction to the concepts of Outcome Mapping and Theories of change (presentation online).

Key discussion issues arising out of the presentation
- In developing our ToC we will need to start with the blue print approach and adapt it to the various situations.
- We need to have clear descriptions of the expected outcomes.

Isabelle presented an overview of how EADD Tanzania Theory of Change was developed

Key discussion issues arising out of the presentation
- What determined the intervention strategy?
- EADD Intervention strategy was largely driven by a combination of the need to address the problem statement and donor interests. However, EADD's Interventions needed to be crafted around the extent to which the project was solving a problem and not just responding to requests from donors. Also, the project needed to be built on selected practical approaches that ILRI would adopt to influence the process and the design of the project. There was also an overreliance on lessons learned while implementing the project, for instance the need to identify who would be influenced to have results achieved.
- There was general consensus that a good documentation of EADD advancement from Phase I to Phase II, particularly on how the project engaged partners, would be an important guide for the Livestock and Fish learning and evaluation process.

Amos Omore presented an Illustration of how EADD generic Theory of Change and Impact Pathways have been applied for the planning process for Tanzania's Irish funded more MilkiT project. Amos mentioned that the project first applied outcome mapping to zero in on key interventions and partners required to achieve the desired outcomes (presentation online).

Key issues discussed
- Where is the research in this project?
  - According to Amos, the project's research issues centre on developing innovative arrangements for mitigating dairy farmers' risk. The project for instance, investigates why the milk cooling hub approach should be adopted and why it seems to work in certain places and fails in others. It also investigates what needs to be in place to get to mitigate farmer's risk The project relies on participatory approaches (with partners) in having end results achieved and inputs in identifying pathways to achieving results.

- Participants again emphasized the need to engage stakeholders right from the start of the program. It is important to let stakeholders be involved in developing the impact pathways since the process requires continuous integration of lessons learned. It should also be emphasized that acknowledgement of failure is an International Public Good (IPG) in itself since as a program we may want to reflect on the key factors influencing failure or success.

Malcolm presented an overview of how Impact Pathways were used in planning and evaluating the IEIDEAS project in Egypt using the M4P approach (presentation online).

Key discussion issues arising out of the presentation

- Which key policies affecting uptake of technologies was the project promoting?
  - At the sector level, the project assesses key sectoral issues, threats, and competitiveness and how they affect the value chain. The assessments are then used to guide program implementation.
- What kind of studies were undertaken to provide evidence on supply-demand dynamics and on the impact of the project on employment?
  - It was suggested that ex-ante analyses/ studies should become the basis for providing evidence on ex-ante performance of program interventions.

Hikuepi presented an introduction to Value Chain Analysis (VCA) approach and VCA framework. Hikuepi mentioned that the framework is composed of a) value chain performance assessment, b) value chain mapping, and c) a description of the methodological approaches to the analysis and the data needed for the analysis (presentation online).

Key discussion issues arising out of the presentation

- The current framework is a collection of several methods and approaches for implementing the VCA.
- Value chain development involves focusing on productivity drivers and organization structures and strategies needed for the development of any value chain.
- The current framework includes performance indicators and can act as a basket of indicators for meeting several needs including value chain analysis and impact assessment.

Day two

Day two begun with a recap of the previous day's group work and then an agenda for the day's sessions was refined. The day's activities included continuation of group work, focusing on developing examples of generic value chain impact pathways and mapping program outputs into the desired outcomes.

Group work: developing generic value chain impact pathways

This session involved participants developing generic examples of value chains impact pathways. Three groups were formed. The first group worked on developing a generic Impact Pathway for an imaginary dairy value chain, the second group worked on developing an impact pathway for an imaginary fish value chain, and the third group focused on reviewing and revising program outputs.

Group 1: Generic dairy value chain developed by Acho, Isabelle, Michael, Birthe, Mwai and Yigezu

- The group identified two levels of preconditions; the second level consisting of mostly enablers of the first level preconditions.

- It was noted that unlike with group 2, in group 1 policy featured significantly in the early stages of the pathway probably because policy environment an important factor in developing the dairy value chain.
- The group noted that technology adoption will not only happen at the farmer level but also among many other value chain actors, and this needs to be emphasized in the Impact Pathway(s).
- There was consensus that group 1 mostly concentrated on describing the upper stages of the impact pathway whereas group 2 concentrated on the lower stages-largely at the activity level of the impact pathway. Group 1 concentrated on the process of moving from outcomes to goals.

Key discussion issues arising out of the presentation
- How do we plan to engage stakeholders around policy issues since these issues manifest as central and highly country specific?
  - There is need to emphasis the generation of evidence within the program i.e. working with the right partners to market, generate outputs, and effectively communicating the evidence. The ToC should be clear on how to engage the policy makers in the different countries/value chains.
- It was noted that group 1's model was less adaptive and lacked a strong learning component. In addition, the generic model developed by the group needs adaptation to the various value chains /countries.
- There was lack of clarity on the distinction between research and development outcomes and whether distinction was needed.
- It was noted that the group's Impact Pathway was silent about IPGs.
- Mechanisms of change, the how and whether we are doing it, were absent. They are important for assessing progress towards impact.

Group 2: Generic fish value chain developed by Kathy, Jens Peter, Kate, Jane, Epi and Malcolm
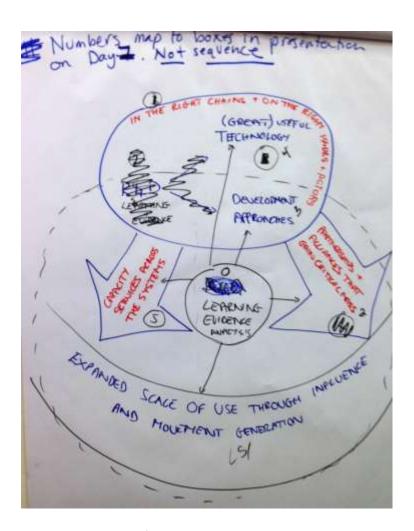

The group's approach was to start with the System Level Outcomes (SLOs), map IDOs into the SLOs, and then identify the preconditions for the achieving IDOs.

Key discussion issues arising from the presentation
- Need to distinguish between assumptions and risks.

- Need to emphasize that assumption should include more than just the IDOs. Additional assumptions need to be developed during the process of developing the program ToC.
- Need to add narratives that are specific to the value chains.
- Next steps will include appraisal of existing body of evidence to support the assumptions.
- Emphasis on partners is an important issue but was not well highlighted in the proposal.
- Research and development are not well integrated in generic fish value chain.

Group 3: Refining program outputs by Nancy, Iddo, Phil, Stuart, An and Tom

Group 3 applied the following logic to review the program outputs. That generation of the right technology and identification of right partners, leads to creating a critical mass of partners for scaling up, however, there will be learning via evidence creation, which will interact with the enhanced capacity for both partners and the program to promote the technologies and approaches. The five preconditions identified in the logic, the right technology, the right partners, learning, capacity, strategies for scaling up, will interact leading to an expanded scale of technology use.

Key discussion issues arising from presentation

- The conceptual framework should be presented with a simplified diagram. Otherwise, the current framework is hard to comprehend.
- We are making big assumptions about identifying the right space and the right actor however it is nearly impossible to achieve these assumptions. What mechanisms do we have for creating the right environment of people with the right motivation and the right actors?
  - It was mentioned that this is actually achieved through implementing quality value chain assessments
- There was consensus that the presentation could be adopted as conceptual framework for the program ToC.

Mapping planned outputs into desired outcomes

Michael Kidoido presented an overview of how program outputs were mapped into the desired outcomes (document online).

Key discussion issues arising from the presentation

- On whether the program outputs were needed, it was clarified they were created on request from the CG to develop program overarching outputs.
- Capacity development and communication outputs were missing.
- Program outputs need to be reworded and clarified.
- It was agreed that group 3's framework should guide the rewording of the current program outputs.
- The distinction between program outputs 3 and 4 should be clarified.
- We need clear definitions of outputs to develop clear indicators. We need to get the left hand side of the impact pathway right. It can be achieved by starting with component outputs and mapping them back into program outputs

Group work: Identification of candidate studies for building a body of evidence

Working in groups, participants were asked to identify the evidence needed to support the impact pathways and how this evidence would be generated in each focus value chain.

Group 1: Dairy value chain by Acho, Isabelle, Michael, Birthe, Mwai and Yigezu

The group submitted the following as the evidence needed:

- Change in productivity levels: presented by gender and/income categories,
- Change in consumption level (gendered/income category),
- Increase in range of available dairy products,
- Change in demand patterns in the value chains,
- Competitive and efficient pricing in the value chain,
- Equitable distribution of benefits along the value chains,

- Increased uptake of improved technologies,
- Increased investment in dairy sector/business,
- Increased number/type of profitable value chain organisations/actors,
- Feedback in influencing development of new technology/research focus (could be hard to generate indicators for this change),
- New/positive/enabling legislations or laws,
- Increased skill and knowledge levels.

The group also presented the following as key approaches for building the evidence:
- Baseline surveys, situation analyses, and ex-ante analyses
- Workshops
- Impact assessments
- Periodic evaluations
- Outcome journals
- Pilot testing
- Knowledge, Attitudes, and Practices (KAP) surveys
- Final project evaluations
- Demand studies
- Market integration studies

Key discussion issues arising out of group presentation
- Most evidences are indicators therefore we need strategies for incorporating them in the process of developing the Impact Pathway(s).
- We also need to consider other methodologies that are not necessarily episodic, for instance the use of platforms for monitoring and evaluation.
- We need to strongly consider continuous testing of technologies.
- We also need to adapt approaches that can allow us to measure the changes as we progress i.e., real time monitoring and evaluation.

Group 2: Fish value chain by Kathy, Jens Peter, Kate, Jane, Epi and Malcolm
The group presented both evidence and approaches in one presentation and are described below:
- Impact Assessments – using primary and secondary data and baselines.
- Learning will require capacity development, active research, and good M&E.
- Learning (by consortium, donors etc.) from the Independent Evaluation Arrangement, CRP outputs, working groups, science leaders, publications.
- Impact Assessments including the use of primary and secondary data.
- Baselines: household level data, experimental matrices.
- Learning: both experimental and interactive learning.
- Dissemination through journals and workshops.
- Evidence generated by collecting primary data (surveys) or literature reviews (previous research) to understand past learning.

Key discussion issues arising from group presentation

- We need to reduce the total number of IDOs and this will translate into reduced M&E burden,

Review of program outputs by Nancy, Iddo, Phil, Stuart, An and Tom

The group presented the following as the evidence needed and the approaches for building the evidence:

- Characterization/assessment/ex-ante studies to demonstrate that we have the right value chains, are dealing with the right issues and right actors. In other words, that we are prioritizing.
- Assessments of partnerships through Knowledge, Attitudes, and Practices (KAP) surveys among key stakeholders.
- Evidence of engagement with target stakeholders and policy makers.
- Assessing program's impact on IDOs.
- Policy change analysis

Way Forward: Monitoring and Evaluation/Impact Assessment in the Program

The way forward was presented by Tom and his presentation is summarized below.

He reminded participants that the program M&E component should inform program implementers of how the program should be evaluated and not just what the consortium wants to be adapted for the Research for Development (R4D). The M&E and Learning component in the program proposal was designed on the spirit of doing research on our Theory of Change (ToC), in other words, validating the assumptions we make about the program progress towards achieving impact. For most part of the initial lifespan of this program, however, we have failed to achieve this, largely because of a lack of good impact assessment capacity. As per the program proposal, learning is an overarching hypothesis and we should be focusing on learning and being able to feedback into the process of developing innovative approaches. In the proposal, our intentions were never to follow the usual arrangements, where M&E simply becomes a management tool and not a research tool, by having the M&E unit hosted in one of the program components. Nevertheless, it has been noted that the M&E unit needs to link better with other CG centres and being under a specific component has not helped in achieving this. What we are now about to try is to place the Impact Assessment Component under management but being cautious of not letting it slide into picking on a management function. The program coordinator will be charged with undertaking the project M&E function and the Impact Assessment unit will concentrate on generating rigorous evidence to support key program hypotheses and interventions. A final decision will be operationalized during the next management committee meeting.

Key discussion issues arising from of the presentation
- Next steps for the IA unit will be to formalize the IDOs and identify indicators.
- Stuart and Michael will ensure that the IA plan is developed and implemented.
- The attribution process needs to be carefully developed.

Synthesis, wrap-up and implications for program IDOs process

Nancy presented an overview of program M&E/IA related commitments, particularly regarding reporting requirements, looking forward, next steps, and ownership of the agenda (presentation online).

The following were the key highlights of her presentation:
- We will need to begin on building a data base of all on-going and planned evaluation studies. This will be a key to identifying existing evaluation gaps.
- We will need to compile a list of studies to undertake in all value chains/countries.
- We will need to review evaluation studies already implemented to assess the evidence base.
- The IDOs will be used for ex-ante studies and evaluation of technologies and interventions.

Next steps

What	Who	When	Follow up
Review program IP	Michael and Nancy	Next few days	Send out to workshop participants
VC level IPS with 2-3 page narrative	Value chain coordinators	2 weeks from generic IP	Send out to workshop participants
Finalize IP and ToC for program	Tom and Michael	ISPC Schedule	Will involve interaction across the CRP
VC level IP/ToC revision	Stuart and Michael	Q1/2	
Finalize program and component output mapping	Tom and Michael		
IPG Impact Pathway	Michael, Tom, Stuart		
Evidence generation	Component leaders and M&E focal people	Send studies to Michael in 2 weeks	
CRP commissioned schedule	Component leaders report to Tom	Q1 to be reviewed by SPAC	
Research quality indicators	Research, uptake and communication, Program coordinators report to Tom		
Indicators follow-up	Michael and the VC out working group		
M&E 'task force'	Michael		
M&E 'unit'	Tom, PPMC		

Workshop participants

Participants	Institution
1. Kate Longley	World Fish
2. Malcolm Dickson	World Fish
3. Yigezu Yigezu	ICARDA
4. Iddo Dror	ILRI
5. Stuart Worsley	ILRI
6. Michael Kidoido	ILRI
7. Birthe Paul	CIAT
8. Kathleen Colverson	ILRI
9. Amos Omore	ILRI
10. James Rao	ILRI
11. Phil Toye	ILRI
12. Kathleen Colverson	ILRI
13. Amos Omore	ILRI
14. James Rao	ILRI
15. Jens Peter Tang Dalsgaard	World Fish
16. Tom Randolph	ILRI
17. Jane Poole	ILRI
18. Nancy Johnson	ILRI
19. Isabelle Baltenweck	ILRI
20. Peter Ballantyne	ILRI
21. An Notenbaert	ILRI
22. Iheanacho Okike	ILRI
23. Hikuepi Katjiuongua	ILRI
24. Mwai Okeyo	ILRI
25. Amanda Wyatt	IFPRI