Welcome to the AgriFoSe2030 end of Projects Workshop

The AgriFoSe2030 programme is now approaching the end of its 2nd phase (2020-2023) so we welcome you to Nairobi to share and reflect on the key changes realized through the programme. The workshop will also provide a platform for knowledge exchange and networking, which is critical for future research and development initiatives.

Objectives:

The objectives of the workshop are to:

- Foster knowledge exchange and networking among project teams involved in the programme.
- Harvest and showcase the outcomes of the AgriFoSe2030 programme.
- Reflect on the changes realized through the projects and their impact.
- Discuss the lessons learned from the programme and their implications for future research and development initiatives.
- Strengthen collaborations with stakeholders and improve the profile of the programme in the media

Expected Participants:

The expected participants of the meeting are:

- Project teams from across the 17 projects in SSA and Southeast Asia
- Development practitioners and policymakers
- Representatives from civil society organizations and the private sector
- Funding partners, donors and SIDA funded projects In the East African Region

Format:

The meeting will be organized as a 3-day physical event, conducted in English.

- The first day will focus on outcome harvesting, where participants will present and showcase the outcomes of the programme.
- The second day will focus on reflections on the changes realized through the programme and discussions of the lessons learned.
- On the third day, in conjunction with the Swedish International Agricultural Network Initiative (SIANI), we plan to have a learning and networking event to share knowledge between AgriFoSe project teams, SIANI network members, policy makers and leading agriculture institutions and experts. The event will provide an opportunity for stakeholders in the agriculture sector to share experiences and explore potential collaborations and partnerships.

Arrival Day

TIME	ACTIVITY	Location	Description
Arrival Day- Sunday 12th November 2023			
2.00-5.00 pm	Arrival and check-inn	Park Inn hotel, Westlands	
5.00-6.00pm	Pre-workshop Networking	Lounge: First floor of hotel	Meet and network with colleagues
6.00-7.30pm	Dinner	Dining Area	Enjoy a special meal with colleagues
7.30-8.30pm	Socializing (Optional)	Hotel Grounds	
End of Arrival Day			

Workshop Agenda

TIME	ACTIVITY	Location	Description
DAY 1 – Monday 13th November 2023			
8.00– 8.30am	Registration of participants -Susanne Pettersson, Agnes Bondesson	Registration Desk- Conference Room 1	Get your name tag and conference material
8.30 – 8.35am	Safety protocols - Hotel staff	Conference Room 1	Emergency procedures
8.35– 9.00am	Welcome & Overview of the Workshop - Cecilia Onyango & Sofia Boqvist	Conference Room 1	GDPR, reimbursements
9:00 – 10.15am	Quick fire presentations by projects Moderators: Johanna Wetterlind and Ylva Nyberg	Conference Room 1	Overview of projects within the AgriFoSe2030 programme
10.15 – 10.30am	Group Photo - Ngendo Machua & Agnes Bondesson	TBA	
10.30– 11.00am	Networking/Coffee/tea break	TBA	
11.00 – 11.20am	Quick-fire presentations of courses (Maximum 3 slides, 4 minutes each)	Conference Room 1 & Breakout Rooms	Overview of the courses within the AgriFoSe2030 programme

	-Policy mentorship: David Jakinda Otieno - Systematic review – Cecilia Onyango -Translating science into policy- Judith Nagasha -Comments on the courses in Asia- Dr Duong Nguyen Khang Moderator: Madelene Ostwald		
11.20am - 12.45pm	Outcome harvesting Theme: Researcher capacity building **Lead:** Isabel Vogel **Facilitators:** Elisabeth Rajala, Johanna Wetterlind, Ylva Nyberg, Veronica Brodén Gyberg, Fredrik Fernqvist, Heather Mackay **Co-facilitators:** Madelene Ostwald, Magnus Jirström, Sofia Boqvist, Irish Baguilat , Ivar Virgin, Willis Kosura	Conference Room 1 & Breakout Rooms	Participants reflect on the capacities that are needed for science translation, how they have developed theirs and capacity gaps that remain. 6 groups- one leader for each group Gwendolyn Varley: Move between groups and capture gendered aspects
12.45pm -2pm	Lunch and collection of original reimbursement receipts	ALL	

2.00-5.30pm (coffee break: 4-4:15pm)	Outcome harvesting **Theme:** Project outcomes and cross cutting issues **Lead:** Isabel Vogel **Facilitators:** Madelene Ostwald, Heather Mackay, Elisabeth Rajala, Johanna Wetterlind, Ylva Nyberg, Veronica Brodén Gyberg, Fredrik Fernqvist, Magnus Jirström Challenge leaders to tease out the cross cutting issues during discussions	Conference Room 1 & Breakout Rooms	Participants share key outcomes from their projects and map these to the ToC and crosscutting issues. Champions for crosscutting issues: Listen in during group discussions and share initial reflections. **Poverty:** Magnus Jirström, Irish Baguilat. Stephen Muchiri **Climate & Biodiversity:** Ingrid Öborn, Madelene Ostwald, Ivar virgin **Gender:** Gwendolyn Varley, Heather Mackay, Sofia Boqvist
5:30-5:45	Announcements and information on exhibition of outputs and dinner -Ng'endo Machua	Conference Room 1	C&E team gives updates on media showcase event and exhibition of key outputs
END OF DAY 1			
DAY 2- Tuesday 14th November 2023			
7:00-8:30	Setting up exhibition area	Lobby	Projects set up the key outputs they wish to exhibit.
8.30– 10.30am	Media Showcase/Promotional event • ***See page 7***	Conference Room 1 Lobby will be used for exhibition.	Media engagement and exhibition of key outcomes from the AgriFoSe programme
10.30 – 11.00am	Networking/Coffee/tea break	ALL	
11:15am – 12.45pm	Lessons learned from the AgriFoSe2030 programme including reflection on institutional capacity building.	Conference Room 1 & Breakout Rooms	Participants share lessons from their projects, courses, and other engagements

	Leads: Magnus Jirström and Isabel Vogel **World Café Facilitators**: Angela Ondago, Frank Mugagga, Le Thi Hoa Sen, Josias Sanou, Samuel Omondi, Flordeliz Dacuyan **Co- Facilitators:** Challenge Leaders		within the AgriFoSe2030 programme
12.45 -2.00pm	Lunch	ALL	
2.00-2:30pm	Summary of lessons learned. **Moderator:** Magnus Jirström	Conference Room 1	Participants summarize lessons and reflect on the overlaps and differences in experiences.
2:30- 4.00pm	Sustainability–Opportunities and challenges for retaining the programme's outcomes. **Facilitators:** Sofia Boqvist, Elisabeth Rajala **Co-facilitators:** Johanna Wetterlind, Ylva Nyberg, Veronica Brodén Gyberg, Fredrik Fernqvist, Heather Mackay, Magnus Jirström, Madelene Ostwald	Conference Room 1 & Breakout Rooms	Participants reflect on AgriFoSe2030's value for their work now and in the future.
4.00-4:15pm	Announcements including update on airport transport for 15th November. -Ng'endo Machua	Conference Room 1	
4:15-4:45pm	Summary and Closing remarks. - Ingrid Öborn - Sofia Boqvist	Conference Room 1	
6.00pm	Dinner with entertainment -All	All	
END OF DAY 2			
DAY 3- Wednesday 15th November 2023. AgriFoSe + SIANI Learning & Networking Workshop			

8.30am – 4pm	AgriFoSe2030 + SIANI Learning & networking workshop **Theme:** Partnerships and collaborations for food system transformation • ***See page 9***	Conference Room 1	AgriFoSe2030 shares lessons on science translation and collaborations with stakeholders
12.00pm – 1.30pm	Advisory board lunch meeting with management team and challenge leaders	TBA	
END OF DAY 3			

Media Showcase and Promotional Event (14th November 2023)

Theme: Leveraging scientific research and local knowledge for agricultural sustainability

Event Objective:

The objective of this event is to raise awareness about the AgriFoSe2030 programme, its way of working through capacity building and practical change projects as well as how it deploys its theory of change methodology for guiding activities and measuring outcomes. The event also presents the opportunity for researchers to showcase their work, practically demonstrate new approaches and ideas and share knowledge with the media, invited stakeholders and relevant agricultural sector actors.

Event Venue: ParkInn Hotel, Conference Room 1

Programme Outline

TIME	ACTIVITY
8:30am	Arrival, Networking and exhibition session
9.00am	Welcome Address - Prof. Cecilia M. Onyango (UoN) - AgriFoSe2030 Deputy Programme Director
9.10am	Presentation of AgriFoSe programme Illustrative Video session – Prof. Sofia Boqvist, AgriFoSe2030 Programme Director
09.20am	Keynote Address – Joseph Karugia, Principal Scientist (International Livestock Research Institute)
09.40am	The role of universities and researchers in translating science to policy and practice - Prof. Eli Katunguka Rwakishaya (Vice Chancellor, Kyambogo University)
09.50am	The role of university alliances in promoting evidence-based research - Prof. Stephen Gitahi Kiama (UoN)- (Vice Chancellor, University of Nairobi)
10.00am	Panel discussion • Paul Mukwaya • Nothando Dunjana • Irish Baguilat
10.30am	Closing remarks – Ulrika Åkesson, Lead Policy Specialist Environment and Climate Change, Sida- TBC
10.40 – 11.15am	Parallel sessions: a) Press conference (10:40-11:00) Moderator: Ng'endo Machua • Sofia Boqvist

	• Prof. Stephen Gitahi Kiama • Stephen Muchiri • Jeninah Karungi-Tumutegyereize b) Networking and exhibition session (lounge)

* **Moderator: Cecilia Onyango**

*** The event will be broadcasted live

SIANI-AgriFoSe2030 Workshop– 15th November

Theme: Partnerships and collaborations for food system transformation

The event aims to provide an opportunity for the participants working towards transformation of the agri-food system to identify challenges, share knowledge, experiences and best practices, as well as to explore potential collaborations and partnerships for making the transition towards a sustainable food system a reality.

Proposed agenda outline

TIME	ACTIVITY	Location
Introduction		
08.30 - 08.50am	Arrival and mingle	Coffee available
08.50 - 09.00	Welcome & Introduction – question on Menti, Security brief *Madeleine Fogde*	Conference Room 1
09.00 - 09.10 am	Presentation of SIANI 4 *Madeleine Fogde (and Jonna Wiklund)*	Conference Room 1
Inspirational Presentations Part 1		
09.10 - 09.20am	Small-scale agribusiness and youth perspective on collaborations for food system transformation *John Mugonya, Regional Program Manager, Agripreneurship Alliance*	Conference Room 1
09.20 - 09.30am	Collaborations with private sector actors for food system transformation • *TBD*	Conference Room 1
09.30 - 09.40am	The role of civil society actors in collaborations for food system transformation. *Monica Nderitu, Vi Agroforestry*	Conference Room 1
09.40 - 09.50am	Local government perspectives on collaborations for food system transformation	Conference Room 1

	Patrick Muiruri (Food Systems Director, Nairobi County)	
09.50 -10.10	Panel with the speakers - Q&A from audience	
10.10-10.15am	Quick break/energizer	Conference Room 1
Inspirational Presentations Part 2		
10.15 – 10.20	Welcome back – show results from Menti	
10.20-10.30am	Farmer's perspectives on collaborations for food system transformation *Stephen Muchiri, East African Farmers Federation*	Conference Room 1
10.30- 10.40am	Researcher's perspectives on the role of science in food system transformation *Jane Mutune, AgriFoSe*	Conference Room 1
10.40 - 10.50am	• TBD	Conference Room 1
10.5 - 11.10am	Panel with the speakers • *Stephen Muchiri, Jane Mutune, IFAD, Private sector representative, SIDA (Ulrika)*	Conference Room 1
11.10 – 11.40	Networking/Coffee/tea break	
Intergenerational Dialogues		
11.40- 12.15pm	Looking back and looking forward on the role of researchers in development: Reflections from two generations of researchers Ingrid Öborn, Swedish university of Agriculture Charles Niwagaba- Makerere university Dennis Mulupi (Maseno University) Allan Mueke (Mount Kenya University)	Conference Room 1
12.15am-12.30pm	Instructions for round table discussions and end of session for virtual audience	Conference Room 1

	• *Moderators*	
12..30pm -1.30pm	Lunch	Conference Room 1
Round Table Discussions		
1.30 – 2.45pm	Roundtable discussion • *Facilitators: Jonna Wiklund, Madeleie Fogde, Ivar Virgin, Ng'endo Machua,* Charles Niwagaba, *Jane Mutune, Dennis Mulupi*	Conference Room 1
2.45-3.00pm	Reporting back from round table discussions • *Moderators*	Conference Room 1
Summing up		
3.00- 3.10 pm	Key reflections and the way forward (Menti)	Conference Room 1
3.10-3.15pm	Closing remarks • *Madeleine Fogde*	Conference Room 1
3.15-5.00pm	Networking & exhibition with coffee	Hotel Grounds
End of day		

* **Moderator: Madeleine Fogde**

*** The event will be broadcasted live

Main facilitation guide

1. Event and Venue: AgriFose2030 End of Phase event and Outcome Harvest

2. Objectives for Outcome Harvest:

- Enable project teams to capture and make sense of the changes supported across the programme
- To exchange learning about what's worked and why for translating science to policies and practice
- Create energy to build network connections amongst AgriFoSe2030 researchers.

3. Learning questions to guide the Outcome Harvest

- What capabilities have we collectively built?
- What changes have we helped to influence and why are they important?
- What was it about our ways of working that helped to influence them?
- What can we learn from each other about effective approaches?

3. Participants

Project teams	30
Challenge Leaders	4
Deputy Challenge Leaders	4
Course leaders	2
Advisory Committee, inc SIDA	4
C&E team	4
Management team	2
New projects	2

Total - **65 people**

4. Materials

Pre-harvested and prepared outcomes – on cards or A5 pieces of paper
Briefs for all the facilitation roles: Challenge Leaders; Cross-Cutting Champions; Steering Committee members; World Café hosts and supporters;

5. Technology

TBC

6. Full facilitation plan

Day and Time	Session	Method	Notes
Day 1			

11.20am - 12.45pm (1 hr and 25 mins)	Outcome Harvest Part 1. Research translation capacities	Framing: What capabilities have we collectively built? (5 mins)
		
		Small group work:
		50 mins – Brainstorm and mapping capacities
		Part 1 (25 mins):
		
		• Discuss in the group:
		  ○ What capacities did the team bring to the work?
		  ○ What capacities did they have to build?
		  ○ How did you have to build your capacities for cross-cutting issues?
		
		• Map the capacities to the Programme ToC.
		  ○ Observe the patterns and clusters
		  ○ What are common themes across the teams?
		
		Part 2 (25 mins):
		• How, and how far, did AgriFoSe contribute to these capacities?
		• What more is needed for you and others to continue to work with science translation in your settings?
		
		Part 3: - 30 mins – Plenary Discussion
		
		1 key point from each group.
		
		Plenary guiding questions:
		
		• What are the similarities? Where are the differences/gaps?
		• What about cross-cutting issues?
		• What can AgriFoSe do to build additional capabilities?
			Groups:
			
			Pre-assign groups: the whole group of 30 + into 6 groups of 7 people, plus AG members.
			
			Regional focus for the groups, not challenge.
			
			Facilitators x 6: Each group led by 1 CL: Elisabeth, Johanna, Ylva, Veronica, Frederick and Heather.
			
			Co-facilitators: Willis, John, Sofia, Ivar, Madelene and Magnus.
			
			Each group has a flip chart and post-its, and a print-out of the Prog ToC.

		• What can teams do to build additional capabilities?	
12.45- 2 pm	Lunch		
2.00- 4.30 pm (2.5 hrs)	Outcome Harvest Part 2: Challenge and Project outcomes	Framing: What outcomes have been achieved within challenges and projects? Learning questions: • What changes have we helped to influence and why are they important? • What was it about our ways of working that helped to influence them? Part 1: Challenge Level ToC – 15 mins Challenge Leader talks through the Challenge ToC. Discussion and questions. Part 2: Mapping of outcomes – 40 mins • **In groups (25 mins):** Groups of 4 review and discuss outcomes. • Allow a few mins to read, although we will circulate in advance. • Groups discuss similarities and differences - are there any surprises? Can you see clusters of similarities? • Decide where the outcomes fit onto the Challenge pathway, but don't map yet. **In whole Challenge group** (15 mins): • Group reps come up to the Challenge pathway and stick the pre-harvested outcomes to the Challenge ToC. • Each group rep shares what they have discussed re similarities and differences, and why placing where they are. • Whole groups reviews and discusses – where are we seeing large clusters? Where are there gaps.. (this feeds into the next session..)	Groups: Challenge groups x 4, 8-10 people, 2 groups per challenge The ways of working are captured in the earlier session on capabilities, so we need to be able to make links between the sessions.

		Part 3: Analysing and interpreting (sense-making) (inc cross-cutting issues) – 60 mins **Whole challenge group together** Analysing patterns (40 mins): Challenge Leaders prompt: **LQ 1: What changes have we helped to influence?** • What patterns are we seeing? What seems to be showing up? E.g. common outcomes, common stakeholder groups. • Where are there similarities, where are there differences? • Can we do some counting, #outcomes, # stakeholders, #settings where change has been seen. • What's missing that you were expecting to see? E.g. key group not really showing up. • Why might be these patterns be occurring? **LQ 2: What was it about our ways of working that helped to influence the outcomes? (link back to previous session).** • What seemed to make the difference? Cross-cutting issues (15-20 mins): Ensure you have time for a discussion on these, or they can be interwoven into the main flow. • How are cross-cutting issues showing up? What are the patterns around these? • What outcomes were observed in relation to cross-cutting issues? • What's the significance of these? • How did the teams deal with cross-cutting issues – did they need new capacities? **Synthesise and summarise – 30 mins**	Cross-cutting issues are a bit of a problem, as these champions are facilitating their Challenge discussions. Options are to listen to the synthesising and feedback, and just reflect on them in the plenary. Do a bit of gathering in the coffee break?

		5 mins - ask people to move around, go up to the Impact pathway and have a look – what are their 3 main take-aways? Then back to whole group. Challenge Leaders prompt: • Are there clear themes or commonalities emerging, in terms of approaches, stakeholders, outcomes? • What are the glaring gaps? • What ways of working were effective in the Challenge? • What are the 3-5 most significant things we learned about our challenge? • Cross-cutting issues – how did they show up?	
4.30-4.45	Coffee break		
4.45 - 5.30		Plenary discussion across Challenges (40 mins) Presentations from Challenges x 4 - 20 mins Discussion and more sense-making – 10 mins Prompt for insights on Cross-Cutting issues - 10 mins Wrap up – 5 mins - Isabel	Project teams

Day 2

Materials:

- Six medium sized tables – two tables have the same topic, so we have Topic 1 Green & 1 Blue, Topic 2 Green & 2 Blue, Topic 3 Green &3 Blue (participants will stick to the tables in their assigned colours)
- Flip chart sheets x 3 spread on the table.
- Table Discussion Topic on a large card or a flip chart stand, with some talking points as prompts.
- Flipcharts, post-it notes and coloured pens
- For Plenary: 1 Large whiteboard or wall for capturing lessons, with a mind map format (Isabel to prepare and facilitate)

Preparation: C&E Team will gather any relevant points from the previous day and use as Talking Points.

The detailed facilitation process is below.

Day and Time	Session	Method	Notes
Day 2			
11.15 – 12.45	Lessons Learned – World Cafe	Framing: What can we learn from each other about effective approaches? Learning Questions: • What can we learn from each other about effective approaches? Part 1: Warm up reflection 10 mins – What three things inspired you from yesterday? Part 2: World Cafe conversations, x 3 rounds – 11.25-12.45, 20-25 mins per conversation. 6 x 2 tables, one conversation topic per 2 tables: **Topic 1:** What have we learned from our science translation projects? **Topic 2**: What have we learned about researcher capacity strengthening? **Topic 3:** What have we learned about institutional capacity strengthening for science translation? • Tables are set up with flip charts on the table. • Participants choose which table to start on, ensuring equitable numbers. • Participants sit at the table. • Host introduces the topic and sub-questions. • Participants talk and contribute. • Then participants change tables; try not to move as a group but spread out, ensuring that you get to all three tables. • (Over lunch) Hosts and supporters synthesise main themes from their table conversation.	World Café style – see https://www.fsg.org/wp-content/uploads/2021/08/World-Cafe-Method_0.pdf **Facilitators:** Isabel **Roles:** 6 x PIs/Partners are hosts of each topic, with support from Challenge Leader/Deputy CLs and a note-maker. Isabel to lead and float around. **Groups- we want about 5 people per table for each round of conversation. So participants ned to be assigned to Green tables or Blue tables.**

12.45- 2 pm	Lunch		
2 – 2.30	Report back from World Cafe	Report back process: • Participants silently reflect on their small group conversation(s) for 2-3 minutes. • Each table host x 6 is invited to share a few (just 2-3) ideas, insights, or other responses to the guiding question(s) with the large group. (Additional participants may contribute to this report-out, as appropriate.) • Facilitators' capture the room's responses to the guiding question(s) at the front of the room, using a whiteboard, flipchart. • Responses are grouped together, highlighting patterns, key topics, and insights. Plenary reflections: • Implications of the lessons learned for future research translation initiatives. • Discuss what lessons we want to take forward • Other key things PI's want on share • Next steps: how will the information be used etc.	**Materials:** Will need a wall with large post-its. Visual like a mind map, or similar to enable an overview and linkages between them. **Facilitators:** Isabel and assistant(s) cluster and group key themes on the wall visual, discussion can add to this. Magnus to lead the lessons learned.
2.30- 2.45	Coffee break		
2.45 – 4 pm (1 hr and 15 mins)	The way forward for the AgriFoSe programme	Framing: How can the AgriFoSe programme's impact, methodology and way of working continue or outlive the direct involvement of the consortium? Flip chart topics: • Opportunities • Challenges • Way forward People move round silently for 15-20 mins adding post-its to the flipcharts.	**Facilitators:** Sofia and Magnus to facilitate the plenary. Three facilitators hold the three flip chart boards. Process: three discussion boards, participants circle around. Steering Committee members share their thoughts on their role and how it can be optimised.

		• Facilitators cluster and group the post-it notes, with assistance from participants (10 mins) Plenary (45 mins): • Flip chart hosts report back 3-5 key points. • Guided plenary discussion on the key themes. • Next steps identified.	
Close		Isabel / Sofia	

AgriFoSe2030

Agriculture for Food Security 2030
Translating Science Into Policy & Practice

Challenge Leaders – Capacities Outcomes Facilitation Briefing

This is a guide for **Challenge Leaders** and **Deputy Leaders** to facilitate the Capacities Outcome Harvest for their session.

Role: Challenge Leaders, Deputy CLs are guiding and leading the discussion on researcher capacities and how these have changed as a result of the combined activities of the programme.

- Facilitators x 6: Each group led by 1 CL: Elisabeth, Johanna, Ylva, Veronica Frederick and Heather.

- Co-facilitators: Willis, John, Sofia, Ivar, Madelene and Magnus. Support by being in each of the groups, helping to organise and capturing.

Supporting role:
- Advisory Group are kindly asked to provide prompts to the discussion, clarify questions.
- Cross-cutting Champions – listen to plenary discussions and capture reflections on your X-cutting issue.

Materials:
- Programme ToC printed out on A2 and up on a board.
- Learning question on two flip charts
- Several printed capacity outcomes from each project, approx. 50 in total.
- Flipcharts, post-it notes and coloured pens

The detailed facilitation process is below.

Session facilitation plan

Day and Time	Session	Method	Notes
Day 1			
11.20am - 12.45pm (1 hr and 25 mins)	Outcome Harvest Part 1. Research translation capacities	Framing: What capabilities have we collectively built? (5 mins) Small group work: 50 mins – Brainstorm and mapping capacities **Part 1** (25 mins): - Discuss in the group:	Groups: Pre-assign groups: the whole group of 30 + into 6 groups of 7 people, plus AG members.

		○ What capacities did the team bring to the work? ○ What capacities did they have to build? ○ How did you have to build your capacities for cross-cutting issues? - Map the capacities to the Programme ToC. ○ Observe the patterns and clusters ○ What are common themes across the teams? **Part 2** (25 mins): - How and how far did AgriFoSe contribute to these capacities? - What more is needed for you and others to continue to work with science translation in your settings? **Part 3:** - 30 mins – Plenary Discussion 1 key point from each group. Plenary guiding questions: - What are the similarities? Where are the differences/gaps? - What about cross-cutting issues? - What can AgriFoSe do to build additional capabilities? - What can teams do to build additional capabilities?	Regional focus for the groups, not challenge. Facilitators x 6: Each group led by 1 CL: Elisabeth, Johanna, Ylva, Veronica Frederick and Heather. Co-facilitators: Willis, John, Sofia, Ivar, Madelene and Magnus. Each group has a flip chart and post-its, and a print-out of the Prog ToC. Plenary discussion – bring the prog ToCs with post-its into the main room for plenary.
12.45- 2 pm	Lunch		

Project Outcomes: Challenge Leaders Facilitation Briefing

This is a guide for Challenge Leaders and Deputy CLs to facilitate the Outcome Harvest for their session.

Role: Challenge Leaders and Deputy CLs should be guiding their project groups to i) gather and map their outcomes to the Challenge ToC; ii) make sense and analyse the patterns.

Support: Isabel will float around the groups and make sure instructions are clear.
Course Leaders will assigned to a Challenge Group and can help with prompts.
AG members assigned to a Challenge Group and asked to capture and reflect on their X-Cutting issue.

Materials:

- Challenge ToC printed out on A2 and up on a board.
- Learning questions on two flip charts
- Several printed outcomes from each project, between 30-40 in total per challenge.
- Flipcharts, post-it notes and coloured pens

The detailed facilitation process is below.

Day and Time	Session	Method	Notes for Challenge Leaders
12.45- 2 pm	Lunch		
2.00- 4.30 pm (2.5 hrs)	Outcome Harvest Part 2: Challenge and Project outcomes	Framing: What outcomes have been achieved within challenges and projects? Learning questions: • What changes have we helped to influence and why are they important? • What was it about our ways of working that helped to influence them? Part 1: Challenge Level ToC – 15 mins Challenge Leader talks through the Challenge ToC. Discussion and questions. Part 2: Mapping of outcomes – 40 mins • **In groups (25 mins):** Groups of 4 review and discuss outcomes.	Groups: 1 large Challenge Group, form 2 sub-groups per Challenge groups, of 4 people in each, plus additional people like Advisory Committee members, up to 6-7 group members max. Ask groups to choose 2 feedback people. AG members assigned to the right group.

		• Allow a few mins to read, although we will circulate in advance. • Groups discuss similarities and differences - are there any surprises? Can you see clusters of similarities? • Decide where the outcomes fit onto the Challenge pathway, but don't map yet. **In whole Challenge group** (15 mins): • Group reps come up to the Challenge pathway and stick the pre-harvested outcomes to the Challenge ToC. • Each group rep shares what they have discussed re similarities and differences, and why placing where they are. • Whole groups reviews and discusses – where are we seeing large clusters? Where are there gaps.. (this feeds into the next session..) Part 3: Analysing and interpreting (sense-making) (inc cross-cutting issues) – 60 mins **Whole challenge group together** Analysing patterns (40 mins): Challenge Leaders prompt: **LQ 1: What changes have we helped to influence?** • What patterns are we seeing? What seems to be showing up? E.g. common outcomes, common stakeholder groups. • Where are there similarities, where are there differences? • Can we do some counting, #outcomes, # stakeholders, #settings where change has been seen. • What's missing that you were expecting to see? E.g. key group not really showing up.	The ways of working are captured in the earlier session on capabilities, so we need to be able to make links between the sessions. Make sure someone needs to capture emerging insights on flipcharts.

		• Why might be these patterns be occurring? **LQ 2: What was it about our ways of working that helped to influence the outcomes? (link back to previous session).** • What seemed to make the difference? • What can we learn from each other? Cross-cutting issues (15-20 mins): Ensure you have time for a discussion on these, or they can be interwoven into the main flow. • How are cross-cutting issues showing up? What are the patterns around these? • What outcomes were observed in relation to cross-cutting issues? • What's the significance of these? • How did the teams deal with cross-cutting issues – did they need new capacities? **Synthesise and summarise – 30 mins** **5 mins - ask people to move around, go up to the Impact pathway and have a look – what are their 3 main take-aways? Then back to whole group.** Challenge Leaders prompt: • Are there clear themes or commonalities emerging, in terms of approaches, stakeholders, outcomes? • What are the glaring gaps? • What ways of working were effective in the Challenge? • What are the 3-5 most significant things we learned about our challenge? • Cross-cutting issues – how did they show up?	**Ask for 2 volunteers 'Speakers' from projects to do the report back to plenary.** **Capture synthesis points on a flip chart, as a mind-map or with post-its.** Cross-cutting Champions: Options are to listen to the synthesising and feedback, and just reflect on them in the plenary. Do a bit of gathering with the AG in the coffee break?
4.30-4.45	Coffee break		

4.45 -5.30		Plenary discussion across Challenges (40 mins) Presentations from Challenges x 4 - 20 mins Discussion and more sense-making – 10 mins Prompt for insights on Cross-Cutting issues - 10 mins Wrap up – 5 mins - Isabel	Project team speakers report back Plenary discussion – lessons learning will feed into the next day session on lessons.

World Café Facilitation Briefing for project PIs and CLs

This is a guide for project PIs and Challenge Leaders/Co- CLs to facilitate the World Café session.

Role: Project PIs will 'host' each table, with co-hosting from Challenge Leaders.

- Project PIs introduce the topic in each round, and share a few key points form previous conversation.
- Challenge leaders help PIs to catch all the lessons, redirect the conversations back to the topic, move to new topics and help summarize the key lessons with the host.

Support: Isabel will float around the groups and make sure instructions are clear.
Course Leaders will participate in the discussions.
AG members participate in discussions asked to capture and reflect on their X-Cutting issue.

Preparation: C&E team to gather any lessons identified on Day 1, and summarise for each table topic.

Materials:

- Six medium sized tables – two tables have the same topic, so we have Topic 1 Green & 1 Blue, Topic 2 Green & 2 Blue, Topic 3 Green &3 Blue (participants will stick to the tables in their assigned colours)
- Flip chart sheets x 3 spread on the table.
- Table Discussion Topic on a large card or a flip chart stand, with some talking points as prompts.
- Flipcharts, post-it notes and coloured pens
- For Plenary: 1 Large whiteboard or wall for capturing lessons, with a mind map format (Isabel to prepare and facilitate)

Preparation: C&E Team will gather any relevant points from the previous day and use as Talking Points.

The detailed facilitation process is below.

Day and Time	Session	Method	Notes
Day 2			
11.15 – 12.45	Lessons Learned – World Cafe	Framing: What can we learn from each other about effective approaches? Learning Questions: • What can we learn from each other about effective approaches?	World Café style – see https://www.fsg.org/wp-content/uploads/2021/08/World-Cafe-Method_0.pdf **Facilitators:** Isabel

		Part 1: Warm up reflection 10 mins – What three things inspired you from yesterday? Part 2: World Cafe conversations, x 3 rounds – 11.25-12.45, 20-25 mins per conversation. 6 x 2 tables, one conversation topic per 2 tables: **Topic 1:** What have we learned from our science translation projects? **Topic 2**: What have we learned about researcher capacity strengthening? **Topic 3:** What have we learned about the kinds of support needed for science translation at the research institute level? • Tables are set up with flip charts on the table. • Participants choose which table to start on, ensuring equitable numbers. • Participants sit at the table. • Host introduces the topic and sub-questions. • Participants talk and contribute. • Then participants change tables; try not to move as a group but spread out, ensuring that you get to all three tables. • (Over lunch) Hosts and supporters synthesise main themes from their table conversation.	**Roles:** 6 x PIs/Partners are hosts of each topic, with support from Challenge Leader/Deputy CLs and a note-maker. Isabel to lead and float around. **Groups- we want about 5 people per table for each round of conversation. So participants ned to be assigned to Green tables or Blue tables.**
12.45- 2 pm	Lunch		
2 – 2.30	Report back from World Cafe	Report back process: • Participants silently reflect on their small group conversation(s) for 2-3 minutes. • Each table host x 6 is invited to share a few (just 2-3) ideas, insights, or other responses to the guiding question(s) with	**Materials:** Will need a wall with large post-its. Visual like a mind map, or similar to enable an overview and linkages between them.

		the large group. (Additional participants may contribute to this report-out, as appropriate.) • Facilitators' capture the room's responses to the guiding question(s) at the front of the room, using a whiteboard, flipchart. • Responses are grouped together, highlighting patterns, key topics, and insights. Plenary reflections: • Implications of the lessons learned for future research translation initiatives. • Discuss what lessons we want to take forward into the next session. • Other key things PI's want to share • Next steps: how will the information be used etc.	**Facilitators:** Isabel and assistant(s) cluster and group key themes on the wall visual, discussion can add to this. Magnus to lead the lessons learned.
2.30-2.45	Coffee break		

Facilitation briefing

Sustainability–Opportunities and challenges for retaining the programme's outcomes

Facilitators: Elisabeth and Sofia

Support: Magnus, Heather, Madelene, Veronica, Fredrik, Ylva will facilitate the group discussions. (Johanna to float around and join any group)

The sustainability ToC on Miro will be used [Agrifose model institutionalisation, Visual Workspace for Innovation (miro.com)]

Day and Time	Session	Method	Notes for Challenge Leaders
2.30- 4.00 pm (1.5 hrs)	Sustainability Outcome Harvest	Framing: What are the outcomes related to sustainability of the AgrifoSe2030 methodology? Learning questions: 1)What will you be taking forward from the AgriFoSe2030 model (courses, projects, researcher capacities, science communication etc) into your future work? 2) What would you ideally like to take forward or scale out in the future from your AgriFoSe2030 experience if you had institutional buy in or were to apply for funds? Part 1: Introduction – 10 mins Elisabeth and Sofia talk through the 'sustainability ToC' printed in large formats Discussion and questions. Part 2: In group Mapping of outcomes – 30 mins • Participants will be divided into 5 or 6 groups • Groups reflect on the 'sustainability ToC' and discuss outcomes that have led to changes in capacities, structures, systems and practises at a. research and b. university/institution levels.	Groups: Participants will be divided into 5 or 6 groups (still to be decided how : regions, university affiliation, project affiiliation etc) Challenge leaders will facilitate the group discussion One ToC map per group printed in large format for part 2 Flip chart for part 3

		• Participants use post it notes to map outcomes on the sustainability ToC. Part 3: short reflections in the whole group. - 10 min Part 4. In groups – 30 min Mapping ideas on how researchers, universities/institutes can work to take forward or scale experiences from AgriFoSe2030 to contribute to the long term impact Use flip chart and post it notes Short summary from Sofia and Elisabeth.	

Miro Boards

Here, you will find the links to the relevant impact pathways for the workshop

Programme level:
https://miro.com/app/board/o9J_lPuFL1s=/?share_link_id=762219438449

Challenge 1
https://miro.com/app/board/uXjVMkr-8iA=/?share_link_id=709976579146

Challenge 2
https://miro.com/app/board/o9J_lViD_8U=/?share_link_id=729460255686

Challenge 3
https://miro.com/app/board/o9J_lcSMixs=/?share_link_id=8028295021

Challenge 4
https://miro.com/app/board/o9J_lcW3VQM=/?share_link_id=172667206875

Sustainability
https://miro.com/app/board/uXjVNWCFyFQ=/?share_link_id=732291329608

Pre-outcome Harvest- Capacity Outcomes

CHALLENGE 1 – Improving Access to Safe and Nutritious Food

Project 1: Application of Black Soldier Fly (Hermetia illucens) rearing technology as a tool to improve environment safety, sustainability and rural development in South of Vietnam: Emphasis on aquaculture production.

Change Number	Which part of your ToC does this change relate to, or is unplanned?	What is the outcome or change? (Outcome description)	What is the significance of this for your work? (Significance)	What contributions, from whom, helped to bring this about? (Contribution description)
1	Change relates to NLU staff (lecturers, students), extension, veterinary	Many stakeholder such as the research team, extension staffs at provincial and district level and farmers have increased more knowledge to improving the BSF production and skills on farmer group management via exchange study activities.	This is very significant because the NLU staff, extension, veterinary workers have improved their knowledge in communicating and training farmers to expand the model. They recognized the agricultural by-products as available feed sources for BSF larvae.	Number of NLU staff, extension, veterinary workers are able to multiple their knowledge by training more farm families.
2	Change relates to NLU staff	Scientists have improved on how to research and apply the ways for theory of change, translating from science to practice for the farmers, extensionists, local authorities and the best way of communication, published the good impact papers for community.	This is significant because it is a first step towards demonstrating this is the improved and changed activities for how to work the impact pathway of staff in the project.	ToC method provided a helpful frame for Monitoring and Evaluation (via the training courses, demonstration farms, youtube, Television, published papers). ToC seted out a sequence of outcomes that describe realistic changes and outcomes, and it captures assumptions about how and why the project intends to contribute to change, these assumptions tested through Monitoring and Evaluation.

Project 2: Gender – Based Approaches for improving milk safety, value addition and marketing among smallholder livestock farmers in western Uganda.

Which part of your ToC does this change relate to, or is unplanned?	What is the outcome or change? (Outcome description)	What is the significance of this for your work? (Significance)	What contributions, from whom, helped to bring this about? (Contribution description)
5 project team members were engaged. Change was realised in the first quarter of the project	New skills and practices developed for stakeholder engagement and mobilisation-	We had never done a multi-stakeholder process before but the project depended on us doing this successfully.	The project team read some literature on MSP, the AgriFoSe Comms and Engagement team provided some advice, and we mainly learned hands-on, through doing it in the project

Project 3: Smallholder goat production in Laos – improving quality of extension services and access to markets

What is the outcome or change? (Outcome description)	What is the significance of this for your work? (Significance)	What contributions, from whom, helped to bring this about? (Contribution description)
New skills developed for ToC and MEL tools	We had done ToC impact pathway and Used MEL tools for reporting in each period.	AgriFose provided the training systematic review courses, ToC and MEL tools that really strengthened this skill.
The project team have better understanding and aware on their duties/responsibility	The project partners acceptable on different performance of partners and sharing experiences and knowledge	This project is for good collaboration among the team work, partners and stakeholders.
Researchers and extension officers helped each other's to develop the extension tools to improve the goat farmers	Researchers created extension tools such as the booklets, posters, video to shared information from the research and extension officers create the training materials that suitable to the farmers conditions	The project proved several trainings to increase the capacity of researchers and extension officers focus on how to translating sciences to practice. The project had organized the several stakeholder workshop to exchange experiences and lesson learnt among the partners

Project 4: Transformation of pastoral livelihoods through enhanced capacity for adaptation of nutrition and commercialization policies to local contexts: West Pokot-Kenya

Change number	What is the outcome or change? (Outcome description)	What is the significance of this for your work? (Significance)	What contributions, from whom, helped to bring this about? (Contribution description)
1.	New skills developed for engaging the media in capturing project activities	We had assumed that the media easily captures activities as implemented by a project, but learnt that continuous guidance and negotiation is useful to ensure only key messages are captured and communicated by the media in the format and language that best reflects the goals and expectations of the project and its stakeholders. The significance is the help that this will provide us going forward within this project, and in other future projects.	AgriFoSe Communications and Engagement (C&E) team provided insights that strengthened our approach. The C&E team provided a contact to a Kenyan journalist working at a national newspaper who did a cover story. We learnt from the slightly strange angle the journalist actually focused on reporting a somehow peripheral matter instead of the key message from the project activities that we need to provide upfront to a journalist in advance of any engagements a press release with the key information, project name, donor names and other key details on what should be communicated.
2.	Project team members and other early career scientists embracing a broader approach in their gender analysis beyond male vs female dichotomy to encompass male youth, male adult, female youth and	This outcome is important to the project as it helps to provide a basis for designing targeted interventions that address the needs of specific segments of the population.	AgriFoSe team and other projects contributed useful insights in monthly project challenge meetings on how to improve gender analysis.

	female adult dimensions.		The project team shared the skills acquired with other early career scientists (8 MSc and 6 PhD students) at the University of Nairobi in May 2022.
3.	Project team members learned how to design and use the ToC approach in guiding project implementation.	This was important in ensuring that the project implementation remained on course and that necessary adjustments were made to account for any emerging issues from time to time, i.e., it provided dynamism in project implementation. It also enabled effective monitoring and documentation of changes/outcomes associated with the project at each stage of implementation.	AgriFoSe team provided regular training on how to design, review and use the ToC framework.
4.	Project team members improved how they interacted with local and policy-level stakeholders.	Regular communication with stakeholders built trust and encouraged the participants to practice skills that they learned from the project. Demonstration of patience and persuasion when dealing with County level officers enabled the project to get their buy-in and acceptance to participate in the project activities.	AgriFoSe projects shared their experiences in monthly challenge meetings. Attending the policy translation course was useful in this regard. The stakeholder analysis and impact mapping of the ToC process was very helpful here. David's time taken at the beginning to clarify the project aims and approach, and emphasis on the need for respect and inclusiveness of all stakeholders helped to create mutual understanding and sense of togetherness. Further, his experience in working with community groups in Bungoma contributed to good management of group dynamics in the project. Billy's experience in coordinating field surveys and group tasks helped in supporting the project's activities especially where County government officials were involved in the field trips. Angela's involvement and status as a nutritional/food scientist enhanced interdisciplinarity. Deborah's experience and familiarity with the project site and local stakeholders provided a smooth entry point for the project. Willis' vast experience in research and stakeholder engagements plus his soft approach in partnership creation was a great learning point for the project team to embrace patience in negotiations.

Project 5: Improving market access and scaling up trading of safe and nutritious edible insects by women and youths in southern Africa

What is the outcome or change? (Outcome description)	What is the significance of this for your work? (Significance)	What contributions, from whom, helped to bring this about? (Contribution description)

New skills developed for synthesising scientific knowledge – systematic review	We had done literature reviews before but applying a systematic methodology deepened the insights we got from existing evidence and gave us confidence to build projects on this basis.	AgriFose provided the systematic review courses that really strengthened this skill.
New skills and practices developed for stakeholder engagement and mobilisation	We had never done a multi-stakeholder process before but the project depended on us doing this successfully.	The project team read some literature on MSP, the AgriFoSe Comms and Engagement team provided some advice, and we mainly learned hands-on, through doing it in the project.
Insect collectors empowered with food safety and business management skills	Insect collectors and traders were previously not aware of hygienic methods of food handling and alternative ways of packaging insects	AgriFoSe2030 programme provided training workshops and reading materials to groups of insect traders and collectors.

CHALLENGE 2- Agricultural Productivity and Ecosystem Functions

Project 1: Science-based and co-produced transformative Rangeland Management Practices – how to deal with encroachment of unwanted woody species- TRAMAP Kenya

Change number	Which part of your ToC does this change relate to, or is unplanned?	What is the outcome or change? (Outcome description)	What is the significance of this for your work? (Significance)	What contributions, from whom, helped to bring this about? (Contribution description)
1.	N/A	N/A	N/A	N/A

Project 2: Agro- Ecological Practices in Parklands - Burkina Faso

Change number	Which part of your ToC does this change relate to, or is unplanned?	What is the outcome or change? (Outcome description)	What is the significance of this for your work? (Significance)	What contributions, from whom, helped to bring this about? (Contribution description)
1.	Researchers	New skills developed for synthesising scientific knowledge – systematic review	We had done literature reviews before but applying a systematic methodology deepened the insights we got from existing evidence and gave us confidence to build projects on this basis.	AgriFose provided the systematic review courses that really strengthened this skill.
2.	Researchers	New skills and practices developed for stakeholder engagement and mobilisation	We had never done a multi-stakeholder process before but the project depended on us doing this successfully.	The project team read some literature on MSP, the AgriFoSe Comms and Engagement team provided some advice, and we mainly learned hands-on, through doing it in the project.

Project 3: Sustainable Intensification of Coffee-Banana systems in Mt Elgon Region of Uganda

Change number	Which part of your ToC does this change relate to, or is unplanned?	What is the outcome or change? (Outcome description)	What is the significance of this for your work? (Significance)	What contributions, from whom, helped to bring this about? (Contribution description)
1.	N/A	New skills developed for stakeholder engagement, mobilisation and transformation	We have done stakeholder outreach and engagement endevours before but the ToC approach especially in developing the rich picture and carrying out stakeholder analysis together provided us as researchers greater insights into and rapport with stakeholders, skills that can are very handy in bringing about streamlined and positive change	AgriFose provided the course resources, and guidance that really imparted this skill.
2.	N/A	New skills and practices developed for customising information communication and education materials and delivery	Our first engagement with stakeholders changed our approach as they demanded for information materials that fit their situations and in their languages. In the process of fulfilling the request the research team learned a lot about the communities and how to get applicable information to grassroots	The AgriFoSe project on sustainable coffee-banana intensification is all about empowerment of local communities, so we knew we had to deliver on this demand, for which we needed cooperation and greater interaction with local extension/community personnel

Project 4: Sustainable rice-straw management for improving farmer livelihoods and low environmental footprint in rice-based production systems

Change number	Which part of your ToC does this change relate to, or is unplanned?	What is the outcome or change? (Outcome description)	What is the significance of this for your work? (Significance)	What contributions, from whom, helped to bring this about? (Contribution description)
1.	N/A	New skills developed for synthesising scientific knowledge – systematic review (both technical and development approach)	We had done literature reviews before but applying a systematic methodology deepened the insights we got from existing evidence and gave us confidence to build projects on this basis. Interdisciplinary/transdiciplinary prove the significance in our project planning activities.	AgriFose provided the systematic review courses that really strengthened this skill. The discusion/sharing knowledges during the course build up the capacity of team members.
2.	N/A	New skills and practices developed for stakeholder engagement and mobilisation	Even though we have previously worked with different stakeholders in conducting the development activities, the new skills we learned from a multi-stakeholder process ensured us to achieve our goals in	At the very beginning, the AgriFoSe Comms and Engagement team provided some advices, and we mainly learned hands-on, through doing it in the project. Learning-by-doing with the greater participation of local farmers, women empowerment

			this project.	in the context of rural Vietnam.
3	N/A	New skills developed for recording the project process, a power tool to record the change	Crucial information has been recorded accurately in each activity. Gender and attendees' feedback issues are always straightforward to realize and adjust through trackers. As a result, by the end of the project, the change process can be visualized.	AgriFose provided systematic review courses that really strengthened this skill.
4	N/A	New skill developed for operating impact pathways	There have much less changed tangibly on the process to be recorded, but management impact pathway entitles us to go on the right tracks all the time.	AgriFose provided systematic review courses that really strengthened this skill.

Project 5: sorghum-cowpea rotation systems in smallholder farming systems in South Africa for climate change adaptation

Change number	Which part of your ToC does this change relate to, or is unplanned?	What is the outcome or change? (Outcome description)	What is the significance of this for your work? (Significance)	What contributions, from whom, helped to bring this about? (Contribution description)
1.	N/A	New skills developed for systematically carrying out post meeting(s) and after action reviews as well as reporting.	The MEL tools that we used helped to critically and consistently reflect on how the project activities contributed to the project outcomes, thus helping us streamline our activities and adjust them accordingly.	The AgriFose ToC team provided the monitoring, evaluation and learning (MEL) tools that strengthened this skill.
2.	N/A	New skills and practices developed for science communication to non scientific audiences.	Communicating scientific results to non scientific audiences is important in order to relay messages to key people, who may need to take up technologies, such as farmers or community members as well as influencing people who may be key in promoting interventions either through offering support or policy formulation.	The training workshop organised by the SLU and Kyambogo university, Uganda was very instrumental in teaching us these key lessons.
3	N/A	Enhanced capabilities and capacity to holistically perform situation analysis, needs identification and map pathways to achieve desired project goals.	This helped to identify the important project goal, in particular to the project beneficiaries, the smallholder farmers, as well as mapping out pathways and activities to attain this.	The ToC training by the ToC team and later on going through the process with the farmers and key stakeholders was important for everyone to establish an understanding of the project and what each stakeholder hoped the project would achieve.

Challenge 3: Science-based Innovation and Extension

Project 1: Agricultural biologicals: Identifying hurdles of use by a Knowledge, Attitude and Practice (KAP) analysis of stakeholders in sub-Saharan Africa

Change number	Which part of your ToC does this change relate to, or is unplanned?	What is the outcome or change? (Outcome description)	What is the significance of this for your work? (Significance)	What contributions, from whom, helped to bring this about? (Contribution description)
1.	N/A	New skills developed for synthesising scientific knowledge – systematic review	We had done literature reviews before but applying a systematic methodology deepened the insights we got from existing evidence and gave us confidence to build projects on this basis.	AgriFoSe provided the systematic review courses that really strengthened this skill.
2.	N/A	New skills were developed in the translation of scientific findings to policy and practices	This significantly improved the team members capacity to translate the study findings to policy and practice. This enabled researchers to offer more realistic policy and practical recommendations.	The course "Translating science into policy and practice" provided to the team members by AgriFoSe had a paramount contribution.
3.	N/A	New skills and practices developed for stakeholder engagement and mobilisation	We had never done a multi-stakeholder process before but the project depended on us doing this successfully.	The project team read some literature on MSP, the AgriFoSe Communication and Engagement team provided some advice, and we mainly learned hands-on, through doing it in the project. The project team deliberately included natural and social scientists that led to synergies and exposure to new ways of conducting research
4.	N/A	New skills were developed in the ToC which can be used for any research that in prior clearly shows the destination of the project with long and short term effect.	This can greatly improve the team members' capacity in the perspectives of future works to approach research problems in a way that indicates the possible outcomes, term, and assumptions. ToC also enabled the project team to better plan and monitor throughout the research project process i.e. from the design and implementation stage.	AgriFoSe provided The ToC course and the extensive activities during the course corresponding to the project theme had contributed.
5.	N/A	Enhanced research project writing skills and learning new and current approaches to research	The team had members with varying experience in writing research grant proposals. While working for the project, the team explored opportunities to advance the agenda on agricultural biologicals, which entailed learning innovative research approaches.	Sharing experiences among project team members and access to additional researchers from our networks made this possible

Project 2: Digitalization of Extension services in Southeast Asia

Change number	Which part of your ToC does this change relate to, or is unplanned?	What is the outcome or change? (Outcome description)	What is the significance of this for your work? (Significance)	What contributions, from whom, helped to bring this about? (Contribution description)
1.	N/A	New skills developed for synthesising scientific knowledge – systematic review (planned)	We had done literature reviews before but applying a systematic methodology deepened the insights we got from existing evidence and gave us confidence to build projects on this basis.	AgriFose provided the systematic review courses that really strengthened this skill.
2.	N/A	New skills and practices developed for stakeholder engagement and mobilisation (Planned with unintended results)	We had done a multi-stakeholder process before, but not as extensive as this project. The commitment and dedication of the team reflected the success of the project.	The project team read some literature on MSP, the AgriFoSe Comms and Engagement team provided some advice, and we mainly learned hands-on, through doing it in the project.
3.	N/A	New knowledge, skills and practices developed for policy-making process (Unplanned)	We had basic knowledge on policy-making process but no clear understanding on the link between science and policy towards an improved practice.	AgriFose provided the training on Translating Science into policy and practice that provided understanding on policy processes which built confidence to disseminate results to agricultural policy-making key figures and institutions.

Project 3: Functions in extension service pathways – Kenya, Sri Lanka and Laos

Change number	Which part of your ToC does this change relate to, or is unplanned?	What is the outcome or change? (Outcome description)	What is the significance of this for your work? (Significance)	What contributions, from whom, helped to bring this about? (Contribution description)
1.	N/A	Researchers in Kenya, Sri Lanka and Laos gained new capacity and practical skills for designing science-based policies and regulations to improve extension service provision for smallholder farmers	The Improved researcher capacity is relevant for ensuring continuous engagement with policy makers and practitioners and in informing policy and practise	Training courses on science translation and systematic review support from the AgriFoSe team and learning by doing. Researchers Interactions during country meetings

Challenge 4: Smallholder Agriculture within Transforming Food Systems

Project 1: Governance of food systems for improved nutrition and food security in Nakuru and Kisumu Counties, Kenya

Change number	Which part of your ToC does this change relate to, or is unplanned?	What is the outcome or change? (Outcome description)	What is the significance of this for your work? (Significance)	What contributions, from whom, helped to bring this about? (Contribution description)
1.	N/A	Local researchers, policy makers, city planners, and extension agents understand and recognise the role of smallholders and agree to work to support them within sustainably functioning urban-rural food systems (Planned change- programme level)	Researchers are more engaged with other food systems stakeholders and are viewed as key contributors in shaping knowledge and practice. Researchers have increased contextual understanding, develop new partnerships and acknowledge the value of indigenous knowledge in improving governance of food systems.	AgriFoSe2030 researchers engaged stakeholders, led workshops, provided trainings, and facilitated peer-peer learning with support from county government officials. In doing so, the researchers developed practical capacities in multi-stakeholder engagement and science translation.
2.	N/A	The early career PI of the project gained leadership skills and ability to work with multiple types of stakeholders- was somewhat unplanned	The project PI learned leadership skills while implementing the project: Acquired planning skills, time management, negotiation and the virtue of patience. Going forward, one becomes more confident and better suited to handle similar or tougher tasks. Organised and confident project management is key to project delivery.	A strong teamwork and collaboration both locally and with support from challenge 4 leadership. Attendance at certain of the courses organized by AgriFoSe2030 Was a mentee in the translation of research to policy and practice course and later became a mentor
3.	N/A	Team members acquired skills in writing systematic reviews and writing and working with ToC to track changes as well strategic project design skills using a TOC approach?- somewhat planned	These are skills that are applicable in research and academia and teams members are already applying them, both within the current project and even in other projects	Help with the C&E team, challenge 4 team and project teams. The opportunity provided by AgriFoe2030 to be mentored and mentor others

Project 2: Resilient Urban Food Systems in Uganda (RUFS Uganda)

Change number	Which part of your ToC does this change relate to, or is unplanned?	What is the outcome or change? (Outcome description)	What is the significance of this for your work? (Significance)	What contributions, from whom, helped to bring this about? (Contribution description)
1.	N/A	'New researcher capacities established for effective multi-stakeholder engagement processes to improve the situation for smallholders.' (Planned change- programme level)	Improved RUFS team capacity was relevant for cultivating trust and positioning themselves as reliable knowledge providers building from local evidence and local expertise, simultaneously strengthening their networks.	• Training course on TOC by AgriFoSe which included a useful stakeholder analysis section and a strategic envisaging of who was needed. • Training course on science translation by AgriFoSe • Support from AgriFoSe Challenge Leaders and C&E team • Learning by doing

				Leveraging researcher's past experiences in engaging varied stakeholders
2.	N/A	'Inclusive improvement platforms established, bringing value chain stakeholders together - inc small and large scale, producers, processors and traders, and/or, governance and regulation actors, as well as innovation and extension actors' (Planned change- programme level)	Through these platforms, the various stakeholders involved in the urban food value chains have an improved positive attitude towards smallholder urban farming.	RUFS team engaged key stakeholders and created spaces and mechanisms for dialogue and training regarding sustaining, managing and leveraging the platforms to meet their interests.
3.	N/A	Improved research capacities of Early Career Researchers (ECRs). (Planned change- programme level)	Improved research capacity of ECRs was for building confidence to engage, mobilise, network, solve problems and co-creating solutions with different groups of stakeholders.	RUFS recruited and supported two MSc students and one Doctoral Fellow; the students acquired hands-on field research experience in engaging with multiple stakeholders; they also supported the project with managing logistics as well as keeping track of the project progress and documentation.
4	N/A	Enhanced capacities of farmers in good agronomic practices including sustainable land management, book keeping and marketing of farm produce (Planned change- programme level)	Exposure of SHFs to abstract knowledge in a participatory approach, followed by exposure field visits stimulated and triggered curiosity, interest to experiment and learn more.	RUFS team organised and facilitated trainings and exposure field visits in situ and ex situ field visits from which SHFs learned a lot; RUFS also encouraged farmers to continue interacting through their groups and platforms.
5	N/A	Enhanced knowledge about procurement and management of agro inputs including chemical and pesticides (Planned change- programme level)	SHFs were made of dynamics around the selection, purchase, use and application of pesticides (quantities and ratios) in relation to the quality, impact on the environment, alternatives (e.g organic pesticides) and marketing in relation to organic products.	RUFS team organised and facilitated tailored training tapping into relevant local knowledge and expertise.
6	N/A	Group formation, organisation and management capacities (including mobilisation, formalisation, membership, code of conduct, conflict resolution, day to day problem solving), of SHFs enhanced (Planned change- programme level)	Improved cohesion, collective bargaining and lobby, representation in local decision making processes, as well as, opportunities for networking were important to creating a conducive working environment for the SHFs.	RUFS team organised and facilitated trainings; extended financial support to formalise groups; undertook regular follow ups; linked SHFs to potential partners and collaborators such as TechnoServe and Geno Farm (for Mbale); BIGLAD (for Kasese) .
7	N/A	Enhanced knowledge about alternative financing options and agro insurance for improved opportunities for capitalization and building resilience (Planned change- programme level)	SHFs were exposed to alternative viable options for building sustainable adaptation strategies against recurring risks and threats they face ('Too Much too little water').	RUFS team organised and facilitated tailored trainings tapping into local knowledge and expertise. For for example, Juma, Julius, Eunice , Local Banks and Staff from the respective Urban Authorities delivered the trainings.

8	N/A	Improved capacities of technical personnel to involve and engage with multi scalar stakeholders in building urban food systems resilience. (Un planned change- programme level)	Improved research capacity of ECRs was for building confidence to engage, mobilise, network, solve problems and co-creating solutions with different groups of stakeholders.	RUFS empowered its focal persons to organise engagements and mobilise stakeholders culminating into confidence and self-belief; RUFS core team only played an advisory role in these processes.
9	N/A	Power hierarchies/differentials between SHFs and other local authorities (technical and political) in the urban food system were reduced. (Unplanned change- programme level)	Improved level of interaction amongst and between stakeholders at various levels has led to empowerment of SHFs to engage with local authorities and voice their interests.	RUFS supported and facilitated the formation of interactive platforms and groups with clear leadership structures through which they voice their concerns and interests and dialogue with local leaders.
10	N/A	Enhanced capacity of SHFs to document, disseminate and share knowledge in an organised format (Unplanned change- programme level)	Improved documentation capacity was relevant for building confidence of SHFs as key sources and brokers of knowledge that can be replicated elsewhere.	RUFS facilitated the compilation and publication of a manual/guide titled 'Climate Smart and Resilient Urban Farming' developed by one of the platform members; the manual is a key reference for those practising or intending to start small scale urban farming.

Project 3: Mapping knowledge-, practical-, and policy-level challenges to increase the role of smallholder farmers in e-commerce of fruit products in Vietnam

Change number	Which part of your ToC does this change relate to, or is unplanned?	What is the outcome or change? (Outcome description)	What is the significance of this for your work? (Significance)	What contributions, from whom, helped to bring this about? (Contribution description)
1.	2.1 The researchers can better design, implement the work and time plan to achieve targeted objectives, translate the findings into policy and practice, and mainstream them to sub-national and national stakeholders in the country partly thanks to their participations in a series of capacity development activities provided by the AgriFoSe2030 for example on theory of change (ToC) and systematic literature review. (Planned change)	The training and exercise on ToC have greatly increased the project's team ability in developing a reasonable impact pathway. The project's team had some prior knowledge and experience in e.g., formulating an outcome statement, but the formulation was often not complemented by identifying a detailed pathway.	An impact pathway is very important to make the project's activities on track and able to achieve expected impacts and outcome.	The AgriFoSe2030 programme provided a ToC training and exercise to all country project's team members.
2.	2.1 The researchers can better	The experience of using the MEL tools have	The MEL tools and regular reporting and	The AgriFoSe2030 programme provided templates to

	design, implement the work and time plan to achieve targeted objectives, translate the findings into policy and practice, and mainstream them to sub-national and national stakeholders in the country partly thanks to their participations in a series of capacity development activities provided by the AgriFoSe2030 for example on theory of change (ToC) and systematic literature review. (Planned change)	brought to light to the Vietnam project's team members that inclusive and systematic monitoring and evaluation process are necessary from the start of the project. The tools could help the team identify what went well and less well and detect any missing component or complementary activities to achieve expected outcome.	evaluation activities with the Challenge 4 leaders have greatly helped the project's team to monitor and evaluate the project's activities with a reference to the impact pathway and expected outcome.	facilitate all country project's team to implement the MEL tools.
3.	2.1 The researchers can better design, implement the work and time plan to achieve targeted objectives, translate the findings into policy and practice, and mainstream them to sub-national and national stakeholders in the country partly thanks to their participations in a series of capacity development activities provided by the AgriFoSe2030 for example on theory of change (ToC) and systematic literature review. (Planned change)	The project's team had some prior knowledge and experience in conducting a literature review, but the training provided by the AgriFoSe2030 programme at least made the review process more systematic.	To produce the assessment reports and policy brief, and later the peer-reviewed manuscript, we needed a systematic literature review.	The AgriFoSe2030 programme organized online training activities on systematic literature review, and several members of the Vietnam project, especially the fresh PhD graduates from FAVRI and IPSARD, participated in the training.

Pre-outcome Harvest- Project Outcomes

CHALLENGE 1 – Safe and Nutritious Food

Project 1: Application of Black Soldier Fly (Hermetia illucens) rearing technology as a tool to improve environment safety, sustainability and rural development in South of Vietnam: Emphasis on aquaculture production.

Change number	Which part of your ToC does this change relate to, or is unplanned?	What is the outcome or change? (Outcome description)	What is the significance of this for your work? (Significance)	What contributions, from whom, helped to bring this about? (Contribution description)
1	Capacity building of farmers	Farmers involved in the project have gained new knowledge and techniques for cultivating black solder fly as a protein source for aquaculture, in a circular economy approach.	- This is significant because it is a first step towards demonstrating this is a feasible income generation activity for farmers. - More farmers have interested to join the project activities. They are happy to be in a group and ready to accept new approach and techniques.	- The project set up the demonstration farms, in a broader context of interest from local authorities to showcase the potential of BSF. - There are 811 participants (about 20% female) which has gained new knowledge about the technic via video film, training courses, workshops, demonstration farms.
2	Sphere of direct influence (planned). Change relates to farmers (neighbor)	Farmers have learned better practise of BFS raising and they want to expand their model, and share their experiences to other farmers through farmer association (cohort).	It is meaningful in promoting trust for farmers and relevant stakeholders through seeing the actual benefits for themselves.	- Extension center supported farmer in organization (establish stakeholder bond, data record, transfer supported equipment from project to farmer, open workshop and meeting). - NLU scientist group helped famer the technologies virtually and in person (actions, set up model, explanation, output assessment…)
3	Unplanned	Local authorities (Tien Giang, Ben tre, Ba Ria - Vung Tau, Dac nong provinces) precepted potential model, they are planning to boost the new project to amplify BSF raising by local funding for beter use the local feed available agricultural by-products/animal wastes for BSF larvae.	It exceeded initial expectations; it is not only enhance linking between farmer stakeholders but also might be a newly developed strategy of local authorities.	- Farmer association demand for develop model. - Head of Department of Animal science, Veterinary medicine, and Aquaculture and Food/feed processing factory recommended to People Committee of Province look for the fund to amplify model. To establish the BSFL collection center for sustainable value chain development on this model.
4	Unplanned	This circular Waste-BSF-Fish model promoted attention to other projects (such as JICA Japan project) to further cooperation for optimizing the BSF yield based on waste, agricultural by-products for controlling methane mitigation.	Strengthen collaboration is meaningful in increasing expertise and fund to farmers.	- NLU scientist (personal communication, via contact with Prof. Khang). - The staff of JICA Japan project received the results and impacts from the BSF project in rural areas (by their survey), also communication by reading the published papers, information in web/youtube in the Vietnamese local journals.
5	Increased multistakeholder engagement	Private feed company enhance the linkages with local authority and farmer for further plans such as purchasing the standard BSF for feed and set up.	Profit goals to both farmers and businesses along with certain regulations of the extension center is the foundation for a sustainable development model.	Extension center and local feed company have same demand in meeting and workshop. Both are looking for contract production based on the black soldier fly model.
6	Local govt acknowledge the importance of BSF production and take initiative to change	Ministry Agriculture and Rural Development and Ministry of Natural Resources and Environment had agreement on adding BSF	Create favourable and feasible conditions for the development of an extensive BSF model in Vietnam.	Department of Animal science, Department of Veterinary medicine, Department of Aquaculture, Extension center and expertise group (including Prof. Duong Nguyen Khang) had the reports to Ministry

	policies	in the list of livestock breed and aqua-feed		Agriculture and Rural Development and Ministry of Natural Resources and Environment providing evidence of the BSF model about economy value of BFS on farmer income, reduce polluted impact by waste and environmental harmless.
7	Not yet established the BSF value chain	Farmers did not receive the market of BSF comsumption, although they involved in the project have gained new knowledge and techniques for cultivating black solder fly as a protein source for aquaculture, in a circular economy approach.	- This is significant because it is a lack of establishment the BSF market. - There is no establishment the BSF value chain for sustainable production.	- Some farmers worry the market. They did not change, apply, use the BSF in their sustainable agricultural system. - Local authorities did not guide, help, assist the BSF market.

Project 2: Gender – Based Approaches for improving milk safety, value addition and marketing among smallholder livestock farmers in western Uganda.

Change number and DATE	Which part of your ToC does this change relate to, or is unplanned?	What is the outcome or change? (Outcome description)	What is the significance of this for your work? (Significance)	What contributions, from whom, helped to bring this about? (Contribution description)
1. About 20 men and 20 women from each sub county. Changes were noticed in the first six months of project implementation	Relates to the general outcome of positive attitude change of both men and women.	Both Women and men have become agents of change/community development	This is significant as it contributes to mind set change and breaking cultural barriers and beliefs that subjugated women to only perform reproductive roles.	Project team together with the local leaders from local government worked hand in hand to sensitise the communities about the importance of gender inclusiveness in community development thus Un earthing the potential of both women and men to spear head community development.
2. 25 women were trained at Uganda industrial Research institute In processing dairy products. Changes were realized in	Relates to the central outcome of 'shifting patriarchal attitudes'	Women were able to travel outside their community to receive training, with husbands' consent	This is significant as it represents a shift in patriarchal attitudes and high level of trust in the project team, in a very patriarchal community, significant progress from the starting point of the project.	The project team made important contributions through numerous consultative discussions, awareness creation and gender-based sensitization exercises with targeted women, their male counterparts and local leaders in the four sub counties in Kiruhura District. The consultations encouraged both men and women to value the need for women to be economically empowered since it is crucial for the development of their families.

the first year of project implementation.				
3. 25 women from each sub county are actively involved. Changes were noticed in the first one year of project implementation	Relates to the general outcome of Increased women/Household incomes and producing safe milk products by the rural women.	Women were able to start actively being involved in milk processing and value addition to produce a wide variety of milk products.	This is significant as it contributes to a shift in gender roles and general uplift/ welfare and livelihoods of households within Kiruhura district	The project team, Uganda Industrial Research Institutes (UIRI), local trainers and with support from the husbands were able to involve women in vigorous capacity building and value addition trainings that widened the knowledge and skills of women in value addition and market chains.
4. Five outlets were opened and in operational. This took place in the second year of project implementation	This relates to acquiring physical infrastructure and creation sustainable markets.	Women working in their groups were able to move out and open up outlets/shops for selling and marketing their products.	This was significant to the project as it contributed to the active role of women in creating market opportunities and community access to the dairy products that women produced	the Project team, Women with support and consent from their Spouses were able to identify working spaces where women products are displayed and sold.
5. A group of 10 women with support from their spouses. Happened in the last quarter of the second year of the project	This was an un planned outcome. It came as a result of men appreciating the good intensions of project. Men were inspired by the enthusiasm exercised by women especially after the training at UIRI to putt the skills learnt into	Women were able to have a production facility/ a min factory/ plant for processing dairy products such as yogurt, butter, Vaseline and lotions with the support of their husbands within their community.	This is significant for project because operationalization and establishment of the factory will ensure continuity and sustainability of the women operations even after the project.	Women with support from their spouses acquire a bank loan and purchased land where a min factory was constructed.

implementation.	practice.			
6. 5 saving groups were formed in the first quarter of the second year.	Related to the formation of women groups and associations	Women were able to access financial services to help them invest in their businesses through forming loans and saving Associations.	This is significant to the project because it has enabled women access simple loans that enable them purchases milk which is the main ingredient in processing dairy products.	Project team organised and facilitated women to from the groups that have been of great benefit when it comes to accessing finances

Project 3: Smallholder goat production in Laos – improving quality of extension services and access to markets

No	Which part of your ToC does this change relate to, or is unplanned?	What is the outcome or change? (Outcome description)	What is the significance of this for your work? (Significance)	What contributions, from whom, helped to bring this about? (Contribution description)
1.	Change relates to Farmers gain new knowledge and skills and know where, when and how to produce and could improve goat raising techniques "Planned"	Farmers have better understanding of and are adopting the new techniques on goat feeding.	This is a key outcome for the project, and is an important step towards improving goat health, meat supply and income.	The project has provided many training sessions, and applications/practicing with real situation under mentoring, especially how to have mineral block, pend building, make silage/hay.
2.	Change relates to Farmers can reach higher productivities with healthy animals and more income generations achieves "Planned"	Farmers are better aware of the need for good health among goats as a route to health and productivity. They can see and accept different goats' performance, price and demand differences between good productivity/healthy goats/fattening goats compared to free grazing systems or unimproved practices.	The adoption of improved goat practices to promote health, productivity and quality is a key step towards sustainable improvements.	The project has provided many training sessions, and established demonstration sites such animal health campaign (e.g., health check, deworming, etc.) to show farmers the difference new practices make.
3.	Change relates to Farmers could access better the information	Farmers in the groups have developed successful plans and the groups can be maintained and increased members of farmer	Better access to information; Better access to funding support and market links; Better market link and prices that are satisfactory; and Improved access to funding for, in	The project has provided several trainings for the farmers' groups focus on groups management, business planning and marketing. The project has advised on

	and have better way to access the funding supports and markets link with satisfied prices "Planned"	groups.	particular, younger farmers	funding possibility and its accessing.
4.	Change relates to Farmers could access better the information and have better way to access the funding supports "Planned"	Good model on best practices were found by young farmers and they could access the funding via banks or credit to develop their goat farms.	Model farms and develop business plans were created. This is an important step in strengthening entrepreneurship/business management at these small farms.	The project has provided several trainings on best farming practices, business planning and marketing.
5.	Change relates to Stakeholders could seeing how to important and potential to develop the goats' productions "Planned"	Extension officers have greater confidence to support the farmers. The extension officers can now identify the gap between existing extension tools and what the farmers really need. Also, they are enthusiastic about creating new extension tools to meet goat farmers' needs.	For improved practices to be sustained and further developed, goat farmers need tailored support from the extension services.	The project has facilitated exchange visits among the extension officers in different districts and organize stakeholder workshop. In the wider context, the government of Laos has strategy and develop policies geared to the domestic goat market and export, and this has provided additional incentives to extension service to develop tailored services to goat farmers.
6.	Change relates to Extension officers have their ownerships on their duties. "Planned" And also "unplanned" Due to COVID-19 pandemic, during 2021 the project team could not travel/crossed the province or could not access to the village. So, the online advised and mentoring was practiced between the project team and extension staffs in district called "DAFO" then, they have	Better improved and developed the extension tools Change relates to DAFO offers excellent extension support to goat farmers' groups	Extension officers take ownership of their duties and are confident in their job	The project has provided several hands-on training events to DAEC/DTEAP teams, PAFO, DAFO, focusing on improving knowledge and extension skills

	continued as the project team's roles			
7.	Change relates to Local authorities give support to farmers "Planned" And also "unplanned" Due to external factor, e.g., a high demand on domestic and export of production.	Local govt have incentives in understanding the issues and their role/mandate in it. The Lao national goal was included the goats' production is domestic and export products for the farmers' income generation.	The fact that local govt understand/see the benefit of goat production is important to make the project sustainable. It may give long-lasting effects if government, at different governance levels, begin to take into account the need for market development regarding this type of production	The project has reported the demand and supply of goat productions to the local authority and government sectors.
8.	Change relates to: Capacity building on material and communication channels to increase awareness and knowledge around goat production "Planned" and "Unplanned" due to COVID-19 pandemic, the online meeting and consultation are the best solution.	Goats farmers and interested stakeholders' better access to information via online platforms	Farmers, extension officers and stakeholders could access to information via online platform. The IT skills have been provided to all stakeholders.	The project developed communication tools such booklets, posters, video and promote the outputs of project. Also, the project has provided training on IT stills to the extension officers at district level. Webpage, WhatsApp and Network are created.
9.	Change relates to Restaurant owners, middle men, collector, retailer and customer demand for quality goat products "Planned"	Common understanding of the opportunities/constraints to connect goat farmers to markets, form the basis for implementing project activities related to market access.	Restaurant owners and customers increase demand for good quality goat products, prices stay affordable and supply is steady	The project has found about goat demand and supply chain by doing the survey and organized stakeholder workshop how to improve quality of goats to markets
10.	Change relates to Consumer demand is matched by goat quality and high-volume supply of goat meat at an affordable price "Planned"	Consumer groups are aware of - and seeking for - safe and nutritious food, and can afford it.	Farmers have proper planning and improved the goat's production for market at domestic and export	The project has organized among different actors focus on value chain mapping, analysis and do pilots' activities (e.g. the goats fattening, selling in groups, etc.)

Project 4: Transformation of pastoral livelihoods through enhanced capacity for adaptation of nutrition and commercialization policies to local contexts: West Pokot-Kenya

Change number	Which part of your ToC does this change relate to, or is unplanned?	What is the outcome or change? (Outcome description)	What is the significance of this for your work? (Significance)	What contributions, from whom, helped to bring this about? (Contribution description)
1.	Outcome about the access and use of locally available nutritious foods to improve food security and dietary diversity (part 6 under capacities in ToC). (Planned change)	More men saw, understood and accepted the value of their wives being involved in vegetable farming and nutritional decision-making.	This is a key objective of the project, to promote the production and consumption of more locally appropriate and diverse produce, as well as to try to counter gender dynamics that hinder such.	Project leads spent time and effort explaining the project aims and approach to various stakeholders, first separately before pulling them together in a workshop, emphasizing the value of respecting and listening to all opinions and experiences.
2.	Outcome about the access and use of locally available nutritious foods to improve food security and dietary diversity (part 6 under capacities in ToC). (Planned change)	More farmers (including women) are practising simple innovative methods of vegetable production or new agro-pastoral techniques as a result of knowledge and confidence gained in the peer-to-peer learnings and the Bungoma site visit.	This is a key objective of the project, to promote the production and consumption of more locally appropriate and diverse produce, as well as to try to counter gender dynamics that hinder such. Trust in project team increased, confidence in selves and inspiration from seeing were all hugely important.	The project leads overcame initial skepticisms and hierarchies that usually mitigate against farmers, pastoralists, county officials, extension agents and other stakeholders sharing same buses, hotels and trips. Team listened to local needs and allowed some husband-wife teams to attend, and female farmers to bring their baby and care-support.
3.	Part 3 in ToC: County governments institutionalise processes and structures to incorporate pastoralists into decision-making; and TOC outcome: Recognition of pastoralists' foods into food policies & processes (planned change in part, budget allocation of staff training was unplanned change)	County government of West Pokot agreeing to plan and budget for training of their staff and local community members on farmer group formation and skills development after an exchange visit organized by the project to Bungoma County. The County Government of West Pokot included farmer field school/group formation and learning as a priority area of focus in its County Integrated Development Plan (CIDP) of 2022 – 2027 period.	The gradual mindset shift by the County government from previously donor-dependence approach to committing resources towards building staff capacity on farmer group dynamics is encouraging and useful for sustainability of initiatives.	The project has sustained engagement activities and funded and supported the exchange visits in August 2021 & April 2022. Local media (Kalya FM) assisted in documentation of food demonstrations through videos.
4.	Planned change - supporting change in attitudes of men and government officials towards embracing local knowledge, capacities and diversity along	County government officials have gradually began using the women group food demonstrations to lobby for increased focus on	This is a key outcome for the project - recognition of households' diverse diets, preferences and indigenous foods in the local food policy-making process.	The project found the women's group already doing this and gave them a platform and amplified their voice and their status in the eyes of the women themselves, their

	gender lines	indigenous foods.	It is important for sustainability, that there is local ownership and funding of the agenda on indigenous foods.	respective men, and local male county government staff. Having a senior nutritionist and food science expert from the University of Nairobi on the team was critical and gave gravitas. The media coverage in local radio and national newspaper raised further confidence, excitement and engagement, and raised interest & trust for the project team.
5.	Planned change – supporting changes in stakeholder knowledge, capacities and food/dietary preferences and practices.	More households have gained better awareness of nutritional contents and traditional ways of processing/storing and using local foods.	This is an important pathway for ensuring that locally-available foods are integrated in households' diets for sustainable food security instead of reliance on unpredictable external relief food supply that may not be equally nutritious.	The project supported and funded food demonstration events where households were enabled to learn the nutritional value of and preparation methods of various locally-available foods. The local County nutritionist explained the nutritional contents of various locally-available foods, and also provided a solar drier equipment to be used by the women group in training more households on how to preserve indigenous vegetables.

Project 5: Improving market access and scaling up trading of safe and nutritious edible insects by women and youths in southern Africa

Change number and DATE	Which part of your ToC does this change relate to, or is unplanned?	What is the outcome or change? (Outcome description)	What is the significance of this for your work? (Significance)	What contributions, from whom, helped to bring this about? (Contribution description)
1. 2020-2023	Relates to :i) Changes in stakeholder knowledge, behaviors & relationships ii) Overall project goal	Improved insect food safety	Improved consumer acceptance	AgriFoSe2030 programme improved market handling facilities, Local city Councils provided environment for hygienic market conditions, insect traders participated and implemented knowledge and skills gained during training.
2. 2023	Unplanned	Chefs embraced the inclusion of edible insect as ingredients in their signature and innovative recipes.	Acceptability of insects as food by non-traditional consumers improved and opening new market opportunities for insect traders	Popular Chefs voluntarily contributed their expertise to the project

3. 2020-2023	Relates to attainment of overall project goal	Insect collectors were able to improve their livelihoods through structured trading of insects to formal markets	This improved voluntary participation in the project by this group of stakeholders	Insect traders volunteered their time and effort
4. 2023	Relates to Changes in stakeholder capacities, structures, systems and practices	Insect collectors changed perceptions and attitudes regarding their business previously shunned as a subsistence activity to one considered as a poverty alleviator	This increased stakeholder willingness to participate in insect value chains and improve stewardship on harvesting and habitat conservation.	Insect traders volunteered their time, effort and emotions and attitudes
5. 2020-2023	Relates to Changes in stakeholder capacities, structures, systems and practices	Local government authorities treated insect traders with respect and as sector with significant contribution to improved livelihoods	An enabling environment for implementation, communication and evaluation was provided	The Department of housing from Chinhoyi Municipality and Gwanda Municipality provided platforms for marketing and aggregation
6. 2023	Relates to contribution to AgriFoSe2023 impact	Consumers became confident in trying out consumption of edible insects and innovative food products	Dissemination of project activities were easier	Communication and engagement specialists helped in publicizing edible insect recipes on print and social media
7	Relates to contribution to AgriFoSe2023 impact	Standards Association of Zimbabwe initiated development of insect for food and feed standards in Zimbabwe	Involvement of Statutory body is helping scale the impact of project and give it national importance	Standards Association of Zimbabwe appointed AgriFoSE2030 Edible Insect PI into the national Steering Committee for development of Edible insects Standards and Zimbabwe and Africa.

CHALLENGE 2- Agricultural Productivity and Ecosystem Functions

Project 1: Science-based and co-produced transformative Rangeland Management Practices – how to deal with encroachment of unwanted woody species- TRAMAP Kenya

Change number	Which part of your ToC does this change relate to, or is unplanned?	What is the outcome or change? (Outcome description)	What is the significance of this for your work? (Significance)	What contributions, from whom, helped to bring this about? (Contribution description)
1.	Increased in knowledge on degraded rangeland restoration technologies ; social learning from stakeholders; co-learn sustainable A.reficiens eradication	Farmers in the project, (where? at Lerata-B?) more knowledgeable on managing their rangelands and in restoration approaches and control of invasive woody bush (Acacia reficiens) and in rearing and managing camels. Practical management knowledge is co-produced jointly between the local community, scientists, extension, and partners.	Farmers are more able to diversify their livelihood options and improve the productivity of their animal husbandry becoming. more adapted and resilient to climate change. Through re-seeding farmers have co-benefits of ecosystem restoration and feed for animals	Co-learning between TRAMAP research team Samburu Community, Samburu County Government provided science-based knowledge on rangelands management and in restoration approaches and control of invasive woody bush (Acacia reficiens); with ASAL eXtension, Kenya Camel Association co-learning rearing and managing camels and linking farmers with local government and extension actors
2.	Pastoral community and other development partners with interest in the region accepting and appreciating? to co-generate knowledge with scientists and other stakeholders	Pastoralists observing potential positive change willingly accepted to work with TRAMAP project team to co- generate knowledge with scientists and other stakeholders	Pastoralists more able to use science-based knowledge to improve and optimize their livestock husbandry practices	TRAMAP research team providing science-based knowledge on rangelands management in a participatory manner, building trust and ensuring partnership
3.	County government officials co- learning with all stakeholders on practical knowledge for management rangelands (eradication of invasive species)	Livestock officer learned more skilled in Rangeland restorations, appropriate species for re-seedings, different types of invasive alien species and management approaches as well as preferred forages for camels	Extensions services officer in Samburu East sub-county more able and motivated to support pastoralists in rangeland management as well as livestock husbandry	TRAMAP research team provided science-based knowledge on rangelands management in a participatory manner building trust and ensuring partnership both with county government staff in the sub-county and pastoralists in Samburu East Sub-County
4.	Knowledge and skills on fodder production and management shared and adopted	Men and women from Wamba and Lerata B of Samburu East have actively participated in experiential exchange through peer-to-peer learning undertaken in Baringo County.	Men and women pastoralists and agropastoralists have able to avoid and/or minimize livestock death having preserved hay for use to maintain the animals during worse drought times.	TRAMAP team knowledge and working experiences in northern Kenya, it was easy to link the Samburu East team and the Community group in Baringo County (Seiya CBO) who were able to share their knowledge freely. Fortunately, both Samburu and Ilchamus communities share common dialect, and therefore the peer-to-peer-learning was easy.
5.	Knowledge and skills on camel husbandry inculcated	Increased use of professional veterinary doctors in the treatment of camels than before	Pastoral communities use of professionals to handle pests and diseases & reduce livestock mortality	TRAMAP research team providing science-based knowledge on camel husbandry and support from Dr. Pauline Gitongo (A Veterinary Doctor) on health and

	and utilized.	Improved camel health and increased milk production	especially during times of stress. The Livestock Emergency Guidelines (LEGS) strategy recommends the same Community changing camel management practices and breeds from Rendille to Somali.	welfare matters helped to deliver accurate and simplified messages during co-learning sessions.
6.	Pastoralists and agro-pastoralists in Samburu form and register a cooperative (s) to deal with camel by-products	Discussion among the trainees who have witnessed improved milk production on the need to initially establish a self-help group to bulk their camel milk and sell as a team	After the co-learning training on camel husbandry, health and welfare, some members have observed an increase in milk production through change of camel breeds from Rendille to Somali while others from improve husbandry practices.	TRAMAP Team together with other stakeholders which include, Kenya Camel Association and ASAL eXtension, County of Samburu officers, and Community Disease Reporters (CDRs) help to bring about this change.

Project 2: Agro- Ecological Practices in Parklands - Burkina Faso

Change number	Which part of your ToC does this change relate to, or is unplanned?	What is the outcome or change? (Outcome description)	What is the significance of this for your work? (Significance)	What contributions, from whom, helped to bring this about? (Contribution description)
1.	Farmers have skills of agroecological practices and observed the benefits in productivity and on ecosystem function	Farmers in Nobere, Sapone and Yako municipalities learned and shared knowledge with other farmers and other stakeholders on how to improve current parkland management and implemented agroecological practices	Farmers adopting agroecological practices have the potential to increase their agricultural revenues, improve livelihoods and household diets Farmers adopting agroecological practices have the potential to insure sustainable their agricultural revenues, improve livelihoods and household diets and preserve parklands ecosystem.	AgriFose project team organizing farmer field days and a joint innovation platform providing training of farmers and enabling dialogues/building trust between farmers, extension agents and local decision makers
2.	Extension officers from the three ministries (agriculture, forestry, and livestock) engage in co- learning with farmers and a common understanding of parkland management in Nobere, Sapone and Yako municipalities	Extension officers from the three ministries (agriculture, forestry, and livestock) having more of a shared view and common understanding on parkland management	Extension officers from the three ministries (agriculture, forestry, and livestock) able to give more co-ordinated advise to farmers on parkland management	AgriFose project team organizing meetings of innovative platforms, training sessions on agroecological practices and farmer field days, providing opportunities for co-creating improved practises for production.
3.	Agricultural service providers responsive to processes needed for	Agricultural service providers, value chain actors and traders more aware of farmer needs and farmer knowledge.	Agricultural service providers motivated to support smallholder farmers, trader and value chain actors better connected	AgriFose project team linking smallholder farmers, extension services; trader and value chain actors establishing a communication and dialogue platform

	community transformation		to local smallholder farmers.	relevant and of interest to all stakeholders
4.	Development of innovative platforms	Smalholders in Nobere, Sapone and Yako municipalities more able to interact and co-learn in an innovative platform with other stakeholders (extension staff, local civil servants, market and processing actors etc)	A common understanding on how to move towards agroecological practices and how to develop a conducive framework (legal, agronomic and market) supporting implementation of such practices	AgriFose project team linking smallholder farmers, extension services, traders and value chain actors establishing a communication and dialogue platform relevant and of interest to all stakeholders
5.	Knowledge and skills on camel husbandry inculcated and utilized.	Increased use of professional veterinary doctors in the treatment of camels than before Improved camel health and increased milk production	Pastoral communities use of professionals to handle pests and diseases & reduce livestock mortality especially during times of stress. The Livestock Emergency Guidelines (LEGS) strategy recommends the same Community changing camel management practices and breeds from Rendille to Somali.	TRAMAP research team providing science-based knowledge on camel husbandry and support from Dr. Pauline Gitongo (A Veterinary Doctor) on health and welfare matters helped to deliver accurate and simplified messages during co-learning sessions.
6.	Pastoralists and agro-pastoralists in Samburu form and register a cooperative (s) to deal with camel by-products	Discussion among the trainees who have witnessed improved milk production on the need to initially establish a self-help group to bulk their camel milk and sell as a team	After the co-learning training on camel husbandry, health and welfare, some members have observed an increase in milk production through change of camel breeds from Rendille to Somali while others from improve husbandry practices.	TRAMAP Team together with other stakeholders which include, Kenya Camel Association and ASAL eXtension, County of Samburu officers, and Community Disease Reporters (CDRs) help to bring about this change.
7.	Unplanned	Women have been included in the innovation platform committees.	This is important because it allowed women to give their point of view on the planning of activities and on the organizational decisions of the groups.	The project in its infancy raised awareness about the role of women in the success of agroecological practices and why they should be active in the innovative platform
8.	Stakeholders adopt policies and practices to support agroecology implementation in parklands	The innovation platforms decided to move to agro-ecological cooperatives in each of the four villages of the three municipalities (Nobere, Sapone and Yako).	This will maintain trainings and development of agro-ecological practices and the sensitization, increase the availabilities of biological inputs and solve market issues.	The project developed co-learning in the innovative platforms and demonstrated the need of collaboration for agro-ecological practices promotion

Project 3: Sustainable Intensification of Coffee-Banana systems in Mt Elgon Region of Uganda

Change number	Which part of your ToC does this change relate to, or is unplanned?	What is the outcome or change? (Outcome description)	What is the significance of this for your work? (Significance)	What contributions, from whom, helped to bring this about? (Contribution description)
1.	Farmers/farmer groups interested and empowered to obtain information from local and external sources	Coffee-banana farmers in the Sironko and Kapchorwa districts better linked and have contact information of key extension staff and other agricultural service providers and desire for a positive change	Farmers in a better position to be informed of and find out information on improved practises, value chains and market opportunities	AgriFose project team training model farmers; bringing farmers and extension and community officers together; and implementing farmer field days
2.	Farmers are aware of the inputs, tools and methods for sustainable intensification	Coffee-banana farmers in Sironko and Kapchorwa district have knowledge and skills to intensify production in a sustainable manner	Farmers in a better position to improve coffee-banana productivity for better incomes, food security, resilience to climate variability and environment health.	AgriFose project team training and kitting model farmers; implementing farmer field days, providing opportunities for co-creating improved practises for production , processing and marketing; and availing customised information communication and education materials
3.	Agricultural service providers/ extension responsive to processes needed for community transformation	Agricultural service providers/extension staff, value chain actors and traders more aware of farmer knowledge and resource status and needs.	Extension and community officers in Sironko and Kapchorwa more able/motivated and willing to support farmers.	AgriFose project team training extension and community officers; providing a platforms for dialogue and knowledge exchange between farmers and the agricultural service providers, including those in government initiatives such as the Parish Development Model; availing updated training materials in sustainable intensification of coffee-banana systems.
4.	Actors/players in the coffee-banana value chain interested in participating in information and communication	Traders and personnel from financial and credit organisation/companies willing to link with and share key information with farmers and participate in community transformation	Smallholder Farmers in Sironko and Kapchorwa district are aware of market and credit challenges and opportunities; and are linked to market and value chain actors; traders, creditors and financiers enhanced awareness of farmers' limitations and abilities inform appropriate credit terms and policies.	AgriFose project team providing a platforms for communication and dialogue.
5.	New skills and practices developed for stakeholder engagement, mobilisation and transformation	Researchers with better linkages to farming communities and with enhanced knowledge of the dynamics and roles of different actors in the value chain	Researchers better able to engage and design outreach activities for positive transformation	Through reviews and discussions in compiling the customised information communication and education materials; AgriFoSe project supporting platforms for dialogue and knowledge exchange between researchers and farmers and actors in the coffee-banana value chain; educative observations of the dynamics between the different actors
6.	Relates to the central outcome of 'Farmers are aware of the inputs, tools and methods for sustainable intensification'	Model farmers are able to mobilize and demonstrate to local counterparts what is needed for sustainable intensification in coffee-banana systems	It is significant as it is a shift from the top-down approach used by most researchers and with this approach, knowledge and skills are housed in the farmers' orbit	AgriFoSe and the project team with the original idea of training and skilling models farmers and extension personnel; and also local stakeholders' contribution in calibrating the idea to fit purpose.

Project 4: Sustainable rice-straw management for improving farmer livelihoods and low environmental footprint in rice-based production systems

Change number	Which part of your ToC does this change relate to, or is unplanned?	What is the outcome or change? (Outcome description)	What is the significance of this for your work? (Significance)	What contributions, from whom, helped to bring this about? (Contribution description)
1.	Rice farmers more aware of the benefits of rice straw management options instead of burning of straw	Rice farmers and rice straw users Tien Giang province more aware of benefits of and more knowledgeable in using rice straw for production of mushrooms and fermented rice straw for cattle feed.	Rice farmers in Tien Giang province more able to improve their rice farming practices, raising additional farm incomes and increasing farm sustainability	AgriFose project team organizing on-farm demonstration and providing a meeting arena sharing knowledge, and use of different technologies for production of mushrooms and fermented rice straw for cattle feed
2.	Mushroom producer group formed for sharing improved rice production methods and business plans.	A producer group formed in Tien Giang Province sharing and co-creating knowledge, developing action for how to use rice straw in a more productive and environmentally friendly way	Farmers in Tien Giang through the producer group better organized to learn from each other and jointly improve rice straw management.	AgriFose project team organizing field trips, assisting the formation of this/these producer groups. Analyse the market and orienting a better method production to farmers
3.	Extensionist services fully aware of the potential of rice straw management, able to transfer knowledge to farmers	Involved extension staffs in Tien Giang province to support through training and advice smallholder farmers on how to use rice straw in a more productive and environmentally	Farmer in Tien Giang province having an improved access to advice on how to improve their farm productivity and sustainability through improved rice straw managment guidance	AgriFose project team organizing on-farm demonstration and providing a meeting arena for sharing knowledge and use of different technologies for production of mushrooms and fermented rice straw for cattle feed - both in specialist level and farmers demonstrating level
4.	DARD (Department of Agriculture and Rural Development) in Tien Giang province more aware of technology , commercial and environmental potential of improved rice straw managment and open for introducing polices, incentives for improved rice straw managment.	DARD in Tien Giang province more more aware of technology , commercial and environmental potential of improved rice straw managment resulting in integration of rice straw management options into ongoing rural development programs (such as vocational training for rural workers, eco-friendly rice cultivation program)	Creating a more enabling and supportive policy environment for use rice straw in a more productive and environmentally friendly way, limiting the burning of rice straw, supporting alternative that leads to more productive, and more environmentally, climate friendly polices.	AgriFose project team providing a platform/avenue for communication and dialogue with DARD staff involving through the meeting with senior officials where they can join the training/field visitation with farmers as well as extensioniststs, manifesting the facilitation role of AgriForSe project team
5.	Gender plays an important role in activies of the projects	Women were able to join their community to receive training, and knowledge in equivalent manner.	Encourage the woman role through each meeting, trainings, demonstrations, field trips, especially in mushroom production promotion can empower the role of women in generating income for them.	AgriFose project team organizing on-farm demonstration and providing meetings arena for sharing knowledge and use of different technologies for production of mushrooms and fermented rice straw for cattle feed with emphasis on women active participation.
6.	Associate with other associations to improve farmers' livelihoods by increasing production efficiency	Creating a wide-connecting communication for sharing and transfer technologies to the farmers	More farmers want to know and learn new techniques and methods for improving productivities. More classes, trainings are conducting, spreading to another communes	AgriFose project team try to link, combine between activities of project with others organizations' activies/events (IRRI, LMCSF) for sharing knowledge of using rice-straw in more effective
7.	Integrate the rice straw mangement activities into	Rice straw mangement options be institutionalized as parts of technologies	More farmers/ extentionists, government officers recognized the	AgriFose project team identified the relevant related government's projects/programs and facilitated the

	on-go-going government projects/programs to improve farmers' livelihoods to ensure the sustainability of the project.	transfer in rice production.	importance of participatory technology development for improving productivities, generating income for poor farmers and rural women.	collaborations in implementing AgriFose project activities, convincing our participatory approach in conducting activities

Project 5: sorghum-cowpea rotation systems in smallholder farming systems in South Africa for climate change adaptation

Change number	Which part of your ToC does this change relate to, or is unplanned?	What is the outcome or change? (Outcome description)	What is the significance of this for your work? (Significance)	What contributions, from whom, helped to bring this about? (Contribution description)
1.	Changes in stakeholders' knowledge, behaviours and relationships Smallholder farmers appreciation of sorghum and cowpea crops grows	Farmers in the project villages are more interested and motivated in sorghum and cowpea rotation . The interest of other farmers from neighbouring villages being sparked, thus expressing their desire to learn about the integration of sorghum and cowpea rotations in their farming systems.	Farmers starting to diversify their livelihood options through the inclusion of sorghum and cowpea intercropping within their usual maize based production system, and getting more adapted and resilient to climate change.	Providing science based knowledge on sorghum and cowpea intercropping system and linking farmers with key stakeholders in the value chain, including grain buyers, local government and extension actors, input sellers. The project also organised farmers days and facilitated dialogue among the stakeholders thus provided a platform for joint problem solving and demystification of myths around the sorghum and cowpea crops.
2.	Smallholder farmers are knowledgeable and skilled on the agronomic and management aspects of sorghum and cowpea production and handling.	Members of Fuduka farmers' cooperative and the Clau clau farmers more able to carry out sorghum and cowpea rotations.	Farmers overcoming sorghum and cowpea production barriers enabling them to upscale its production from experimental scale to bigger plots, approximately 1-1.5 ha. Other farmers who are members of the Fuduka cooperative also included cowpea on their individual plots.	Previous experiential learning led by the Agricultural research council and the support and encouragement from the AgriFoSe team gave the farmers the confidence to upscale sorghum production. Farmers days organised by AgriFoSe showcasing crop performance with information sharing opportunities helped to reach a wider audience of farmers.
3.	Extension officers are more appreciative towards sorghum and cowpea crops and more knowledgeable and skilled on the production aspects of sorghum and cowpea.	Extension officers more skilled in sorghum and cowpea rotations and more engaged with the Clau clau famers and members of Fuduka farmers cooperative.	Extensions services more able and motivated to support famers on sorghum and cowpea rotations.	AgriFose project team working together with the extension agents in showcasing the potential of sorghum and cowpea rotations for climate change to withstand climate stresses as well as demonstrating the potential to boost livelihoods through marketing.
4.	Local/ national government authority representatives Representatives dialogue with the various stakeholders via the innovation platform and are involved the joint mapping of solutions to	Local Municipality through its local economic development (LED) initiative engaging with farmers and supporting them with tillage services and offering business training to the Fuduka farmers cooperative members to be able to eventually operate as a business. Exhibitions organized by the local	Local municipality in KwaNongoma district now aware of the farmers efforts to adapt to climate change and diversification of livelihoods through the adoption of sorghum and cowpea rotation strategies, and the need to support them for improved resilience and community development.	AgriFose project team Organising farmers days and stakeholder meetings to showcase sorghum and cowpea field performance and the market opportunities which contribute to increased household resilience to climate change as well as improved livelihoods. AgriFose's emphasis on multi stakeholder partnerships and collaboration as a key to holistic community

	challenges.	municipality serving to expose Fuduka farmers cooperative to locals as sorghum and cowpea producers which increases their market visibility.		development.
5.	Linking of smallholder farmers to established businesses involved in sorghum and cowpea value addition (market linkage). Also shining the light on the smallholder farmers that have adopted sorghum and cowpea production to be known as competitive grain suppliers.	Fuduka farmers cooperative selling their sorghum grain to Siyazisiza trust at competitive market prices. Fuduka farmers cooperative and Clau clau farmers acknowledged as competitive suppliers of sorghum grain.	Market availability is a key driver for choice of crops as such the establishment of such key linkages and awareness is crucial for sustainable adoption of the sorghum and cowpea rotations for climate change adaptation and livelihoods improvement.	The AgriFoSe team and the extension agents working together to identify the potential markets and inviting them to the stakeholder meetings. Further, the facilitation of dialogue between the farmers and the grain buyers by the AgriFoSe team was key.
6.	Smallholder farming enterprises contributing to income generation and profit making for the households.	Learning of new knowledge that farmers working on a scale of 1-5 ha do not require a water-use licence, which farmers claimed hindered them from accessing formal markets for their fresh produce.	This outcome is important as it highlighted the importance of creation of platforms that allow for dialogue and joint solving of problems that the AgriFoSe project brought about.	The AgriFoSe team working together with extension team in the organisation and facilitation of stakeholder meetings and assignment of responsibilities. Also, the willingness by the farmers to go on a fact-finding mission from responsible government departments.

Challenge 3: Science-based Innovation and Extension

Project 1: Agricultural biologicals: Identifying hurdles of use by a Knowledge, Attitude and Practice (KAP) analysis of stakeholders in sub-Saharan Africa

Change number	Which part of your ToC does this change relate to, or is unplanned?	What is the outcome or change? (Outcome description)	What is the significance of this for your work? (Significance)	What contributions, from whom, helped to bring this about? (Contribution description)
1.	Interfaces mobilised between science, early adopters, ambassadors and users	Smallholder farmers, extension agents, other practitioners, policy makers, and scientists in project target countries connected and shared perspectives and improved understanding on various aspect of biologicals	Smallholder farmer perspectives on increased access and use of biologicals better anchored among involved actors in the target countries (e.g. extension agents, other practitioners, policy makers, and scientists)	AgriFoSe project team organizing and providing a meeting arena for establishing a biologicals network in Sub-Saharan Africa. -Questionnaire to map the knowledge, attitude and practice of various stakeholders on biologicals in target countries -Questionnaire to assess the level of participation and extent of research undertaken by researchers in the area and the challenges they face
2.	Extension officers more informed about availability and use of biologicals	Involved extension staff, more aware of potential and limitations on biologicals and how biologicals can support smallholder famers	Extensions services more motivated to support famers. Farmers in the target countries improved access to advice and guidance on how to use biologicals	AgriFoSe project team communicated and engaged. Follow-up discussions and phone conversations after data collection.
3.	Policymakers more informed about possibilities with biologicals	Policymakers more informed on potential and challenges with the use of biologicals and the policy and economic incentives for increasing production and use biologicals,	Creating a more enabling environment for the production of and use of locally produced and imported biologicals tailored to local needs and in the long	AgriFoSe project team communicated and engaged. Interest from policymakers.

		In Ethiopia; an informed process within Ethiopian Agriculture Authority in their work on a directive to regulate the registration and use of biologicals In Kenya, Pest control products board (PCPB) initiated review of policy and regulations on importation and registration of agricultural biologicals In South Africa, policymakers recognize researchers as key partners in reducing human resource constraints in implementing policies on agricultural biologicals in the country	run creating improved production conditions for smallholder farmers	
4.	Producers and importers include biologicals in their business plan	Both producers and importers involved in the supply of agricultural inputs have included biologicals in their business plans. They also stated that they will promote biologicals.	This creates a good environment for the introduction of biologicals to smallholders' farmers and ease their access.	This change was basically due to the in depth discussion and engagement between the team members in the respective countries and the agri-business.

Project 2: Digitalization of Extension services in Southeast Asia

Change number	Which part of your ToC does this change relate to, or is unplanned?	What is the outcome or change? (Outcome description)	What is the significance of this for your work? (Significance)	What contributions, from whom, helped to bring this about? (Contribution description)
1. Feb. 2023 onwards	Outcome about increased collaboration and cooperation among key stakeholders: Public-private-academe partnerships Planned	In the Philippines, the project gained the attention and participation of national figures in the agricultural sector, notably the Agricultural Training Institute (ATI), the training and extension arm of the Department of Agriculture.	To be able to open a conversation involving national ministry entities and local researchers is an achievement and represents the start of a longer-term engagement between Dept of Agriculture and Uni of Philippines, Tacloban College, as at the forefront of DES. This linkage will provide some support to the proposal for a bill on DES starting from Eastern Visayas Region.	The study focused on the 2nd poorest region in the country, and thus highlighted evidence about a possible solution – digitalization of extension services – to challenges of rural poverty and improve support to small-scale farmers in the region. The active involvement of the Provincial Agriculturists in Leyte and Biliran made the collaboration easier.
2. June 2022 onwards	Outcome about increased digital extension services literacy for extension service workers and farmers Planned	In the Philippines, the project raised the attention and understanding of some Agriculture Extension Workers (AEWs) and farmers who were trained with basic digital applications in rice farming, pest management and weather monitoring.	To be able to introduce the developed digital applications and platforms by the government and its agriculture-related agencies responsible for training and education of farmers. This enhanced utility of digital technology, not known and commonly	The study focused on the 2nd poorest region in the country, and thus highlighted evidence about a possible solution – digitalization of extension services. Hands on training of direct users and beneficiaries are imperative to test the significance of DES to address challenges of rural poverty and improve support to

			utilized by most extension workers and farmers.	small-scale farmers in the region. The municipal agriculturists encouraged the active participation of the farmers to the training-workshops.
3. March 2023 onwards	Outcome about increased collaboration and cooperation among key stakeholders: Public-private-academe partnerships Planned	In Cambodia, follow-up funding has been mobilised to map the digital landscape of climate services to farmers in the Lower Mekong funded by CGIAR under Project of 'Securing the Food Systems of Asian Mega-Deltas (AMD) for Climate and Livelihood Resilience.	The proposal was borne out of stakeholder meetings and national networking events. It is significant as a response to national stakeholders' needs and priorities, which provides potential future project undertakings.	The project held stakeholder meetings and national networking events to build a shared understanding of the gaps and opportunities around digitalising the extension services. The smallholder farmers who were aware of the digital climate agricultural services and communication platform sought for advisory services.
4. Jan 2023 Onward	Outcome about increased collaboration and cooperation among key stakeholders: Public-private-academe partnerships	There was a forged collaboration between Royal University of Phnom Penh and Royal University of Agriculture to offer scholarship on master students to pursue master's degree in development studies with research topic on digital extension services.	The first collaboration between two departments from different state universities has been established for exchange students to share and gain expertise on extension and digital extension services.	This initiative was established by project member of AgriFose at Royal University of Phnom Penh. It contributes to opening new pathways for future capacity building to enhance the expertise of young researchers between two universities. 3 (2 females) of Master students increased capacity of conducting research and digital extension services through their Master study and fieldwork engagement. 2 additional Master students are conducting the DES from 2023 until 2025.
5. Nov 2023 Onward	Outcome about increased collaboration and cooperation among key stakeholders: Public-private-academe partnerships	The collaboration between Royal University of Phnom Penh, IIRR, CIAT, Ministry of Water Resource and Meteorology and private digital services operators are under discussion for collaboration to provide services of extension and climate services to farmers at Lower Mekong of Cambodia.	Smallholder farmers will receive wider advisory services to enhance their productivity through digital platform. Also, the culture of collaboration between NGO, private sector, and academic institution will be born.	This initiative has established by AMD project under facilitated by project member of AgriFoSe at Royal University of Phnom Penh and from project partner, IIRR and CIAT. The smallholder farmers who were aware of the digital climate agricultural services and communication platform sought advisory services. The extension officer at provincial department of agriculture, forestry and fisheries increased their awareness and digital literacy for forwarding to farmers.
6. January 2022 onwards	Outcome about increased collaboration and cooperation among key stakeholders: Public-private-academe partnerships	In Vietnam, the project has strengthened collaboration in research and education in the field of digital extension among agricultural stakeholders, including the involvement of university of Agriculture and forestry	Successful engagement of the four key stakeholders (universities, government departments, farmers' organisations, and private sectors) was an excellent achievement of the project. It is considered as a start for a long- term	The project tried to engage stakeholders to support and build capacity for the development of extension services in the central region of Vietnam where majority farmers are small scale, fragmented and relatively weak extension systems.

		(HUAF), Vietnam Academy of Agriculture (VNUA), department of agriculture and rural development (DARD), extension center (EC) of the provinces in the central Vietnam, Agricultural cooperatives and private sector (Agridone-Vietnam, Hue ITC, Thua Thien Hue Bussiness association)	collaboration in agricultural extension, which is a long- standing goal of the agricultural extension sector that had not yet been achieved.	Agricultural extension center of Thua Thien Hue and Quang Tri provinces actively facilitate the participation of agricultural cooperatives, farmers' organisations and Agridrone enterprises in the meetings and workshop
7. June 2022 on ward	Increase digital digital extension services literacy for extension workers and and farmers	Project has attracted attention and active participation of relevant stakeholders, particularly farmers and extension workers in project activities: trainings, awareness raising, community meetings to share knowledge and to demonstrate best practices of extension services.	Contribute to fill the knowledge gap for extension workers and some groups of farmers in the central provinces regrading digital extension, the advantages of digital extension services roles of stakeholders in digitalisation and transformation of extension services.	Understand the needs of involved stakeholders, particularly farmers, extension workers and agricultural departments about the process of the transformation process and pre-condition to digitalisation of agricultural and digital extension services. Continue to consult the above stakeholders (mainly with extension centres) to develop farmers communication programs to raise their awareness and facilitate their involvement in the transformation process, priority is given to the small-scale farmers) The provincial department of agriculture and rural development in collaboration with provincial extension center and Hue university of agriculture and forestry to gather extension workers and staff from communal to provincial levels to attend the training workshop and meetings.
8.	Related to raising awareness of stakeholders about digitalization of extension services in Eastern Visayas Region	Agriculture key stakeholders and players have started to discuss, converse, and apply digitalization of extension services (DES) which was not highlighted in the past.	The raised awareness has opened a platform for an increased interest of Agriculture Extension Workers (AEWs), Farmer Technicians (FTs) and smallholder farmers to explore DES-related applications, programs and projects developed by the government and its agriculture related agencies.	The project team initiated the conversations of DES in the region primarily with the farmers, AEWs, Municipal and Provincial Agriculturists, Regional and national figures, and academics. Initial propositions of DES have been there already, but the engagement opened opportunities to strengthen DES in the country starting from Eastern Visayas Region.

Project 3: Functions in extension service pathways – Kenya, Sri Lanka and Laos

Change number	Which part of your ToC does this change relate to, or is unplanned?	What is the outcome or change? (Outcome description)	What is the significance of this for your work? (Significance)	What contributions, from whom, helped to bring this about? (Contribution description)
1.	Increased willingness among stakeholders to collaborate and co-create more functional AKIS	Improved interests and awareness particularly among researchers, government officers and extension workers in Kenya, Sri Lanka and Laos on the value of collaboration and feedback loops for developing appropriate and adaptive	It creates opportunities for continuous learning, and improvements in extension services delivery	AgriFoSe and other researchers together with, government/private extension service providers/policy makers, farmers, - organised workshops, seminars and multi-stakeholder engagements

		extension services frameworks to support small scale farmers.		
2.	Attitude changes amongst policy makers to take a more participatory approach in developing policies.	Extension policies (e.g. the Kenya Agricultural Sector Extension Policy (KASEP)) designed based on consultation with farmers at all levels of government	Results in improved policies that respond to farmer needs leading to improved productivity	AgriFoSe and other researchers together with, government/private extension service providers/policy makers, farmers, - organised multi-stakeholder engagements
3.	Increased competency to comprehend extension services as a component in a large and complex social ecological systems	The stakeholders (researchers, farmers, policy makers in Kenya, Sri Lanka and laos) perceive extension service providers as change agents	Increased acceptance of extension service providers as critical in addressing farmer needs as well as disseminating new research innovations - they are the link between researchers and farmers (practice)	AgriFoSe and other researchers together with, government/private extension service providers/policy makers, farmers, - organised multi-stakeholder dialogues

Challenge 4: Smallholder Agriculture within Transforming Food Systems

Project Name: Governance of food systems for improved nutrition and food security in Nakuru and Kisumu Counties, Kenya

Change number	Which part of your ToC does this change relate to, or is unplanned?	What is the outcome or change? (Outcome description)	What is the significance of this for your work? (Significance)	What contributions, from whom, helped to bring this about? (Contribution description)
1.	Smallholder farmers and traders have capacity to participate in food system decision-making and governance. (Planned change, see TOC)	Improved mutual respect, approachability and communication among diverse stakeholders in the value chain, including farmers, extension officers, traders, and city decision-makers.	Enables more inclusive processes and collaborative working that can be sustained beyond the life of the project.	Based on previous experiences, the PI (Samuel) actively reached out to secure early buy-in of key stakeholders. TOC stakeholder analysis process was invaluable for identifying who to engage, and why. Mazingira Institute has long history in governance issues and made the interaction with other actors easy Short clear presentations from Owuor/Cecilia/Samuel/Davinder helped spread systemic thinking to Counties
2.	Smallholder farmers and traders apply knowledge and skills acquired to improve TLVs production and sales. (Planned change, see TOC)	Smallholder farmers and traders have improved knowledge and are starting to apply best practices for production, value addition, food safety, and record keeping in the TLVs value chain.	Smallholder farmers, traders and county officials recognize the importance of capacity building in the TLVs value chain. This change represents a shift from low to high recognition of the economic potential of TLVs and underscores the need to dedicate county resources to trainings. Improvement of productivity I TLVs not only enhances food security but also	Project trained smallholders and traders on sustainable production, processing and handling, to reduce food safety risks and add value. Through collaboration with FAO and County governments of Kisumu and Nakuru, a training manual for TLVs was developed.

			nutrition security	
3.	Agricultural extension service providers have locally tailored knowledge on how to support smallholder TLVs farmers, while smallholders, traders and consumers have new knowledge and skills regarding food systems governance. (Planned change)	Academic researchers and county extension workers gained new knowledge and awareness of science communication for farmers via co-producing a manual for TLVs production, processing, and cooking.	Extension staff are confident and willing to train farmers using the co-developed manual. The project process has employed both scientific and indigenous knowledge and this approach raises the value of traditional knowledge in extension practices and allows for easier adoption by farmers.	The project co-developed, together with extension workers and FAO a training manual for producers, traders and consumers on TLVs. Cecilia's knowledge and capacity-building and support has been important here.
4.	Improving the understanding of food systems among County governments and their role in food systems and how to develop enabling governance structures food systems (Planned change)	Extension officers gained greater awareness and appreciation of the need to engage with a broader range of smallholders rather than their usual focus on a few 'model' farmers	The inclusivity approach allows agricultural extension workers to work with farmers who were previously crowded out in accessing agricultural extension services. It is important because 'the broader range of smallholders' are the majority and thus, allows for an inclusive food governance	Short clear presentations from Owuor/Cecilia/Samuel/Davinder/Ikua helped spread systemic thinking and importance of inclusivity to Counties Mazingira Institute has long history in governance issues and made the interaction with County agricultural extension workers easy
5.	Building the capacity of stakeholders in the TLVs value chain. Capacity on production and management was planned. However, building capacity on cooking (in Kisumu) was unplanned.	Consumers, cooked-food traders, farmers, and extension workers have gained knowledge and skills on how to properly prepare and cook TLVs to retain their nutritional value.	Proper methods of preparing and cooking TLVs ensure maximum minerals are retained, thus, contributing to nutrition security which is a dimension of our project goal	Team work within a multi-disciplinary team, support from the Kisumu County government, facilitation offered by United Destiny Shapers (CBO) and additional funds from Challenge 4 made it possible Cecilia and project partner Beatrice experience were important here
6.	Building the capacity of stakeholders in the TLVs value chain – through demonstration on cooking methods	Participants of the cooking demonstrations for of TLVs have a changed attitude on traditional methods of cooking TLVs – it is possible to cook using traditional methods and retain nutrients.	There is the need to preserve the indigenous knowledge in the preparation and cooking of TLVs. This will make it is easy to promote consumption of TLVs as a pathway towards our goal of nutrition security in the regions	Through the multi-disciplinary team and partners, we conducted demonstrations on various cooking methods, an agri-nutrition staff from Kisumu County has been spreading the message over radio talks – Radio Lake Victoria. Cecilia and Samuel were instrumental in designing the experiments/test on effect of cooking methods on nutritional value/Beatrice Kiage Conducted the experiments
7.	Training of stakeholders on food system governance. Training was planned, while writing the manual was unplanned but was noted early during needs assessment and included in the TOC.	Capacity of extension workers on production and management of TLVs built by involving them in writing the training manual.	Involvement of the county extension workers in writing the training manual ensures ownership and acceptability of the tool for training farmers and other stakeholders and offers a pathway to sustainability beyond the project. Their improved confidence and capacity also contributes directly towards our key aim for more inclusive food systems.	Dedicated leadership and interest at the County level allowed member of extension staff to dedicate time. Participatory and inclusive approach employed by the research team allowed them to work with extension workers. Needs assessment highlighted the need for the training manual.

Project 2: Resilient Urban Food Systems in Uganda (RUFS Uganda)

Change number	Which part of your ToC does this change relate to, or is unplanned?	What is the outcome or change? (Outcome description)	What is the significance of this for your work? (Significance)	What contributions, from whom, helped to bring this about? (Contribution description)
1.	Decision Making processes in Kasese and Mbale recognize and involve smallholder farmers as key players in the urban food system (Planned change)	Changed attitudes of local leadership towards smallholder farming, greater appreciation for the role smallholder farmers play in relation to urban food security, nutrition and the urban economy.	The changes in attitude have led to commitments from local governments of Kasese Municipality and Mbale City to undertake targeted actions including developing local policies to financially support smallholder farming, skilling/capacity building, to aid decision-making, mobilization of smallholder farmers into groups and including smallholder views in existing policy frameworks	Integration into the RUFS core team of local City council employees was critical to build trust, , , sense of ownership and sustainability. RUFS Team organised multi-stakeholder engagements that helped breakdown traditional hierarchies. RUFS Team put effort into building consensus via participatory priority mapping, & created enthusiasm by taking all stakeholders, in field activities that enabled them to see local farmer realities.
2.	More frequent and vibrant dialogues/interactions between different stakeholders (Planned change)	Helped set up urban food system platforms as alternative spaces for driving dialogues to amplify the voices of smallholder farmers and ensure greater interaction between the different stakeholders for both Kasese Municipality and Mbale City	The platforms bring together varied stakeholders and encourage engagement with knowledge experts, support peer learning and open avenues for reaching civic leaders. They also help stakeholders navigate complex institutional and policy contexts and facilitate formalization of smallholder farmer groups which aids in project sustainability.	RUFS team engaged key stakeholders and created spaces and mechanisms of dialogue between them. Key stakeholders include Nabuyonga Horticultural Farmers Group), political and technical officials of Kasese Municipality and Mbale City, media, civil society groups (NSDFU, CDFs), KKK, OWC, Techno Serve, Uganda Prisons Service, Market Leaderships, CDF/MDF, academia, Financial Institutions.
3.	Commitment of resources (human, physical and financial) by the local leadership of Mbale and Kasese towards promoting inclusive resilient urban food systems. Unplanned	Local councils in Mbale City Council revised its Staff structure to include the position of Horticulture Officer and also went ahead to fill it; Mbale City Council identified and allocated land for a demonstration site for space-saving urban farming technologies; Kasese Municipal Council made a budgetary commitment to support SHF groups every financial year.	Extremely significant for showing interest and value and sustainability. Extension services are now closer to the Small Holder Farmers (SHFs) leading to enhanced technical support towards improved resilience and sustainability; The demonstration site will serve as a one stop centre for dissemination, learning and sharing to a wider audience & a farming testing lab/site for new innovations;	The RUFS project gave further emphasis and weight to already existing thoughts within the council This led to the rethinking by local leaders; Field engagements to a private farm/space triggered the idea about having a more accessible public space. This idea was championed by RUFS' local project coordinator who had a very good understanding of the local socio-political context.
4.	Decision makers establish policy making processes to increase interaction with local	SHFs are invited, included and represented in budget processes	Participation in budget conferences have led to enhanced awareness, knowledge acquisition and	RUFS team held one on one engagements with local leaders through courtesy calls which kick-started the

	SHFs in designing and maintaining inclusive resilient urban food systems. (Planned)		understanding of local realities in terms of balancing needs and available resources by SHFs. Engagement in these processes has further promoted transparency and accountability which are important for sustaining SHF participation in promoting inclusive resilient urban food systems.	processes, built networks and trust. RUFS Team created spaces for reducing power hierarchies through the workshops in which SHFs openly dialogued. RUFS organized field visits in which local leaders were involved and had a chance to see local operational realities of the SHFs.
5.	Formation and formalization of SHF groups in Mbale City; for Kasese existing informal groups were formalised as a strategy towards promoting inclusive resilient urban food systems. (Planned)	Some SHFs are now working as groups rather than as individuals; they're formally recognised by local leaders, have collective marketing avenues, are better positioned to lobby for services and engage with key officials like the CDO, Production and Economic Planning Officers.	The groups bring together farmers and they are able to share knowledge, skills, new ideas, learn from each other, advise, motivate and support each other. This will in the long run strengthen their resilience and enhance livelihoods which will contribute to increased productivity and therefore a more resilient urban food system.	RUFS conducted a series of training events focussing on needs assessment, capacity building and training on group formation and dynamics. It was from these trainings that the SHFs were inspired to formulate and formalise their groups. Formalization of the groups was spearheaded by RUFS's focal persons in both sites.
6.	Participation in exposure and peer – to peer visits for platform leaders as well as the wider membership. (Planned)	Platform leaders (Juma and Mary) more aware of novel farming technologies; & shared experiences with their members. Platform members in Kasese and Mbale exposed to a range of smart agricultural farming techniques.	There was a positive mind-set change about the farmers' perceptions about the potentials, possibilities and opportunities of profitable small scale urban agricultural enterprises in small spaces. This exposure created 'local champions' who can ensure continuity of the initiative in both sites. Skill-sets of the facilitators were enhanced and confidence levels built through the presentations.	RUFS facilitated Juma and Mary to participate in the 'Harvest Money Expo' 2022 Kampala. Platform members visited demonstration farms in Tororo (Geno farm) and Fort Portal (BIGLAD) for ideas Mbale (Juma) shared experiences with Kasese, inspiring innovative techniques. RUFS organised peer learning visits.
7.	Visibility of women in SH farming as well as taking on leadership roles in groups (Unplanned)	Women farmers gained confidence and visibility and took up leadership roles and started and steered initiatives inspired by RUFS.	This was very significant in enhancing gender inclusiveness, continuity and sustainability of the initiatives started by RUFS.	RUFS Team was open minded in creating avenues that brought women to the core of our processes. Bboth men and women were encouraged to actively participate during sessions; RUFS team guided the platforms to create special leadership positions for women and encouraged women to stand for any of the remaining positions.

8.	Tapping into local expertise to drive processes (Planned)	Continuity, ownership and sustainability of the started initiatives beyond RUFS' lifetime was ensured by building local capacity and ownership	This was very significant in enhancing local ownership, continuity and sustainability of the initiatives started by RUFS.	With the support of our local contacts, RUFS engaged local experts such as the Agricultural Officers, Environment Officers, model farmers to facilitate and deliver topical training sessions.
9.	Breathing life into other platforms (Unplanned)	There was a positive change in mind-set and attitude about dormant platforms that had been created before RUFS.	RUFS Platform members in Mbale were able to openly share notes with members of other platforms on best practices. RUFS team reputation has been boosted	Through the various RUFS platform meetings, previously dormant platforms such as the 'Good Food Parliament' and 'Good Food Council' were inspired to kick-start activities in Mbale City.

Project 3: Mapping knowledge-, practical-, and policy-level challenges to increase the role of smallholder farmers in e-commerce of fruit products in Vietnam

Change number	Which part of your ToC does this change relate to, or is unplanned?	What is the outcome or change? (Outcome description)	What is the significance of this for your work? (Significance)	What contributions, from whom, helped to bring this about? (Contribution description)
1.	3.5 in TOC: Smallholder farmers have an increased interest and exert more efforts to engage in e-commerce fruit system using e-commerce platforms such as Lazada, Shopee, etc. or social medias such as Facebook or Zalo. (Planned change)	All smallholder farmers and traders of fruit products in the project's sites claimed that the training had increased their knowledge and technical skills in using e-commerce platforms.	One of the key assumptions in our project - that a lack of technical skills in using e-commerce platforms constrains participation in e-commerce - proved to be correct. Training increased local participation in e-commerce.	The project organized one training in peri-urban Hanoi and the other in rural Son La province with trainers from e-commerce platform. The trainers distributed contact numbers to participants for possible further guidance beyond the trainings.
2.	3.5 in TOC: Smallholder farmers have an increased interest and exert more efforts to engage in e-commerce fruit system using e-commerce platforms such as Lazada, Shopee, etc. or social medias such as Facebook or Zalo. (Planned change)	The end-of-project survey shows that participation among fruit-tree-growing households in the project sites more than doubled* during the project period. Smallholder households sold their fruit products online either to collectors, wholesalers, or directly to end consumers thereby diversifying market channels, reducing strong reliance on middlemen, and stabilizing income. * number relatively small (69 fruit-tree-growing households in end survey)	We have a developed an approach/method for how to support and overcome some of the challenges facing smallholder farmers and traders of fruit products when engaging in e-commerce.	The project organized one training in peri-urban Hanoi and the other in rural Son La province with trainers from e-commerce platform. The trainers distributed contact numbers to participants for possible further guidance beyond the trainings.
3.	3.5 in TOC: Smallholder farmers have an increased interest and exert more efforts to engage in e-commerce fruit system using	According to the local authorities, following the project's workshop and training activities, there has been increase in smallholder farmers', cooperatives', and	The project also aimed to identify and reduce possible constraints for smallholder farmers to develop 'safe' fruit tree cultivations. Without safe and	Apart from the training and sub-national workshops, the project distributed manuals of cultivating fruit trees according to VietGAP. The manuals were produced by FAVRI for their other project, but FAVRI has allowed the

	e-commerce platforms such as Lazada, Shopee, etc. or social medias such as Facebook or Zalo. (Planned change)	traders' participation in e-commerce. In addition, farmers and cooperatives have been more eager in developing 'safer' fruit tree cultivations.	quality products, farmers cannot significantly attract online buyers.	manuals to be distributed to local cooperatives in the project's sites.
4.	3.5 in TOC: Smallholder farmers have an increased interest and exert more efforts to engage in e-commerce fruit system using e-commerce platforms such as Lazada, Shopee, etc. or social medias such as Facebook or Zalo. (Planned change)	The end-of-project survey also revealed that the volume of fruits that smallholder farmers in the project sites could sell through e-commerce channels (Zalo, Facebook, VOSO or Post Mart) has increased from 0.5% in 2020, 1.95% in 2021, into 7.8% in 2022, relative to the total volume of harvested fruits.	This indicates their potential for smallholders to further diversify market channels and thereby derive income from the e-commerce channel.	This can be considered a further impact of training and outreach activities organized by the project.
5.	3.7 Relevant authorities at sub-national and national level have increased willingness and efforts to improve/amend current policies to reduce constraints and better provide enabling conditions for the smallholder to engage in e-commerce fruit system and associated non- farm opportunities, and 3.9 Relevant authorities at sub-national level such as the DARD and DOIT strengthen communication and collaboration to better provide supporting policies for e-CFPs and associated non-farm opportunities. (Planned change)	The increasing willingness of sub-national and national authorities were clearly seen during the workshop events. They expressed the need to work closely with farmers' cooperatives, e-commerce platforms, Urban Consumer's Association, and mass organizations such as Farmers' and Women's Union, while ensuring possible policy amendment and better implementation.	The project aimed to identify and address policy-level challenges to boost local participation in e-commerce through policy review, dialogue, and advocacies.	The project conducted policy review, identified policy gaps both in terms of formulation and implementation, and organized policy dialogues and advocacies through 2 sub-national and 1 national workshops. The project also produced a policy brief that can be widely disseminated to relevant national and sub-national authorities in Vietnam.
6.	3.8 Smallholder farmers especially within farmer's groups/cooperatives strengthen collaboration to reduce constraints and facilitate each other to better participate in e-commerce fruit system. (Planned change)	The local authorities in the project sites mentioned that several farmers, collectors, and members of cooperatives, who participated in the workshop and training activities organized by the project, have shared their knowledge and technical skills with other farmers, collectors, or members of cooperatives in the project's sites.	This indicates strengthened local efforts, especially by the farmers, collectors, and farmer's cooperatives, to increase local participation in e-commerce.	The project team regularly communicated with the leaders of cooperatives in the project's sites to understand any possible further challenge that the smallholder farmers had to face to better participate in e-commerce. In addition, the team kept encourage the cooperatives to better participate in e-commerce of fruit products.
7.	3.8 Smallholder farmers especially within farmer's groups/cooperatives strengthen collaboration to reduce constraints and facilitate each	During the visit of the project's team and the leader of Challenge 4 to the project's sites, the interactions with local cooperatives clearly showed that the members of the cooperatives were eager	This also indicates strengthened efforts by farmers and cooperatives to better engage in e-commerce.	Apart from the training and outreach activities, the project's team also visited farmers' cooperatives and organized a dialogue with the leaders and members of the cooperatives to emphasize the benefits of participating in e-commerce and to better understand

	other to better participate in e-commerce fruit system. (Planned change)	to better participate in e-commerce and encourage other members of the cooperatives to participate in e-commerce.		any possible constraints.