



Project Annual Report

project

Next Generation Agricultural Extension: Social relations for practice change

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approved by

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1 Executive Summary

At the end of this reporting period, the project begins Year 3. The project is now following the variation which was approved in October 2022. By the end of Year 2, Activities 1 and 2 have data collection complete. Data collection for Activity 3 is underway. Training for Activities 4 and 5 is also underway. The project timeline is on track.

The project Mid-Term Review took place in Battambang on July 5-7, 2023. This was coupled with an End of Project Evaluation for ASEM-2013-001. At the time of submission, the reviewer's report had not been finalised. Preparation for the review provided the research team an opportunity to consolidate the findings of data collection (from Activities 1 and 2), solidify the interconnectedness of all project activities, and develop a framework for impact analysis.

The completion of Activity 2 data collection was a significant achievement for the project. The number exceeded what was planned ($n = 2555$). Activity 2 has established a baseline understanding of smallholder farming households in Northwest Cambodia, with an emphasis on inter- and intra-household experiences and diverse livelihoods differentiated by gender and age across multiple village settings in Battambang and Pailin. 6 typologies have also been developed to support subsequent activities.

Several other key events took place over Year 2 which led to capacity building, partnership, and project design outcomes and achievements. These included:

Field Trip - July 2022 (Ariane Utomo, Van Touch)

- Output: Training of research project officers from Partners for Rural Development (PRD) in quantitative data collection for Activity 2 household census

Field Trip - November 2022 (Thong Tran and Van Touch)

- Output: Lecturing at the National University of Battambang (NUBB) (staff and students) on the use of qualitative data analysis software

Field trip - February 2023 (Andrew McGregor, Brian Cook, Caitlin Finlayson, Van Touch)

- Outputs: Stakeholder engagement meetings with in-country partners; Lecturing at NUBB (staff and students) on social network analysis; Preliminary data analysis from Activity 2 and training of research project officers from PRD; Relational farm analysis trial with Cambodian villagers for Activity 3

Guest lecturing at University of Melbourne - April 2023 (Caitlin Finlayson, Thong Tran and Van Touch)

- Output: Preliminary analysis of Activity 2 census data

Writing Workshop in Castlemaine - May 2023 (Andrew McGregor, Ariane Utomo, Brian Cook, Caitlin Finlayson, Katharine McKinnon, Nicholas Harrigan, Thong Tran, Van Touch)

- Outputs: Development of project briefs for planned publications from Activities 1 and 2; Completion of final draft of Activity 1 paper; In-person collaboration between research team; Filming of interviews with Activity Leads for the project website

The implementation of Activity 3 posed a challenge for the project during this reporting period. Preliminary findings from Activities 1 and 2 identified key questions and potential avenues for further analysis. The existing plan was therefore expanded and supplemented with the addition of a relational understanding of the farm (Activity 3A).

Our recommendations for action are the continuation of data collection and completion of project outputs for Activities 1 and 2 (pending Mid-Term Review report).

2 Reflection on Project Design

2.1 Project research strategy

2.1.1 Responsiveness of research strategy:

The problem context has not fundamentally changed. Analysis of interview data from Activity 1 confirms the assumptions which underpin the research strategy - that technology transfer remains the norm for agricultural extension, while rural development programs are seldom farmer-led. This situation remains despite the strong shift to farmer-led and participatory approaches advocated by professionals at that time, and further supported by empirical evidence from across the Global South, and critical scholarship that has gained global recognition. A co-design workshop held with 13 agricultural sector partners in Battambang in July 2023 also confirmed that the dominant mode of extension with farmers in Cambodia is training.

Key themes coming out of Activity 1 also highlight the key issues faced by farmers in the region; key actors shaping agricultural extension, the shifting roles of extensionists, the social relations revolving around agricultural extension, attributes of successful projects and lessons learned; and the impacts of social relations on projects outcomes. These themes all feed into the theory of change which hypothesizes that deep, social analyses of farmers; lives and livelihoods will enable identification of preferred development support and pathways for farmers.

Activity 2 census data confirms that smallholder farmers are not homogenous with respect to various factors. The project strategy to conduct a census has enabled an identification of the similarities and differences amongst smallholders which has been classified into 6 household typologies. These typologies have been trialed with Cambodian sector professionals and have been well received. They will form the basis of all subsequent Activities 3-7.

The ability to glean this type of analysis confirms the breadth of methodological research skills within the team, with expert qualitative and quantitative team members working collaboratively across activity design, data collection and data analysis (Ariane Utomo, Van Touch, Thong Tran, Nicholas Harrigan). The impact assessment framework for the project is another example confirming the qualitative and quantitative skill sets which underpin the research strategy and methodological approach (Brian Cook and Nicholas Harrigan).

2.1.2 Activities & outputs:

Following completion of Activity 2, the research team reassessed the objectives, methods, and planned contributions of the proposed Activity 3. The existing plan was expanded and supplemented with the addition of a relational understanding of the farm (Activity 3A). Broadly, Activity 3 was expanded to take advantage of the typologies uncovered in Activity 2 and to ensure that the findings would contribute more directly to Activity 6 (i.e., through identification of interventions that farmers want/need) and to Activity 7 (i.e., measurement of impacts, especially changes to agricultural productivity).

The originally-planned Activity 3 remains (now labelled 'Activity 3B'), with the aim to "undertake a representative farm census in order to establish a spatial and material understanding of the primary farmland of households" evolving to "*undertake a representative farm census with samples of*

households drawn from the Activity 2 typology in order to establish a spatial and material understanding of the primary farmland of households.” For Activity 3A, the aim is re-stated as: “document a relational understanding of farms (spatially and materially) in Northwest Cambodia with a sample of households drawn from the Activity 2 typology to bring to light alternative opportunities to support farmers’ choices.”

In many respects, Activity 3 is the final ‘baseline’ activity (Activity 1 is a baseline of expert perceptions; Activity 2 is a quantitative baseline of farmer perceptions) with Activity 3 focuses on the land and practices envisioned in the original project proposal due to the central importance of land and farming practices for rural economies and livelihoods.

This addition does not significantly alter the timeline, with Activity 3A data collection having already commenced and 3B planned to commence shortly in Q3, 2023. The proposed outputs remain on track.

2.1.3 Intermediate Outcomes:

The planned outcomes from the variation remain achievable and appropriate to the aims of the project. The research team continues to function well with partnerships and collaboration strengthened with dedicated in-person time both in Cambodia and Australia occurring throughout this reporting period as noted in the executive summary.

2.1.4 Project Monitoring and Reviews:

A key consideration for the project in preparing for the Mid-Term Review was the development of a framework for impact assessment, linked to the project’s Theory of Change, which can be found on the project website [here](#). This was developed by Brian Cook and Nicholas Harrigan.

As part of the project monitoring plan, and in preparation for the Mid-Term Review, each Activity Lead prepared a report on their activity which covered an update from the year on the following: Overall purpose, approaches (methods), research questions, data analysis, progress so far and next steps. What has been achieved against each activity outputs can be found in the table in Section 3 of this report. This report was sent to ACIAR before the Mid-Term Review.

In addition, we filmed interviews with each Activity Lead ([available on our website](#)) which monitored what each Activity Lead had learnt over the last 12 months (Year 2) and what they were planning over the next 12 months (Year 3).

The fortnightly research team meetings have taken place throughout this reporting period and are well attended by all partners. These are well-received by the team and are a key part of the project monitoring and review approach.

2.2 Reflection on gender strategy

The Activity 2 census data confirms the project’s focus on gender equity and gendered social relations. The data emphasises inter- and intra-household experiences and livelihoods differentiated by gender and age across eight village settings. 68% of the respondents from the census were female. However, only 22% of households are female headed. These figures indicate that females stay at the house. We also know from research project officers that females were often nominated to respond to the census as they were deemed to be more knowledgeable about the household. 45

years was the mean age. Preliminary analysis of the census data indicates that poverty is gendered (and female) across the study sites. Out-migration is also gendered (and male). Further analysis of this data will build a good foundation of understanding gendered economies.

Activity 4 (planned for Yr3 Q2) will gain gender-disaggregated community level understandings of how farming families build livelihoods, and the range of existing material and non-material (relational) resources that are available and/or utilised.

2.3 Reflection on capacity building strategy

Individual

The project-wide commitment to capacity building for early career researchers has been a focus in this reporting period. This has been confirmed through training workshops (task and individual skills transfer) and ongoing mentoring of the 8 research project officers from PRD which resulted in the completion of data collection for Activity 2. The technical and strategic skills which have been developed include:

- Data collection (quantitative and qualitative)
- Use of CommCare quantitative software
- Use of GIS software to develop village maps
- Presentation of empirical data to research team
- Public presentation of research
- Participatory mapping methodology
- English language skills
- Report writing
- Networking with agricultural sector experts
- Analysis of quantitative data set

The professional confidence and motivation of the research project officers has grown substantially over this reporting period. Sinuon and Sao are now undertaking Master degrees at NUBB, and Lita plans to complete a PhD. See more detail in Section 3.4 of this report.



Image 1: Research project officers Bunnarath, Chariya, Sao and Sophea (together with Sophanara Phan (PDAFF) and Sokunthea Nuon (PRD Director)) training in participatory mapping methodology (February 2023)



Image 2: Research project officers Lita, Pherom and Sinuon (together with Van Touch and Sokunthea Nuon) on a capacity building panel at the Mid-Term Review (July 2023)

In addition, the project has recruited two Australian-based students (one Honours Student from the University of Melbourne and one Master student from RMIT) to complete their research with the project. Ru Foong's topic is the livelihood aspirations of young agricultural science graduates (under the supervision of Ariane Utomo and Brian Cook). Le-Anne Bannan's topic is using GIS techniques to map the spatial relationships and trends between households and farmers (under the supervision of Brian Cook).

Organisational

The project strategy to invest in local organisations has been confirmed with PRD maintaining and growing their leadership of the data collection process during this reporting period. Organisational processes support the research project activities, and all employees of the project at PRD, have showed increased capacity development (8 research project officers alongside Sophanara Phan (PDAFF) responsible for on-farm practice analysis).

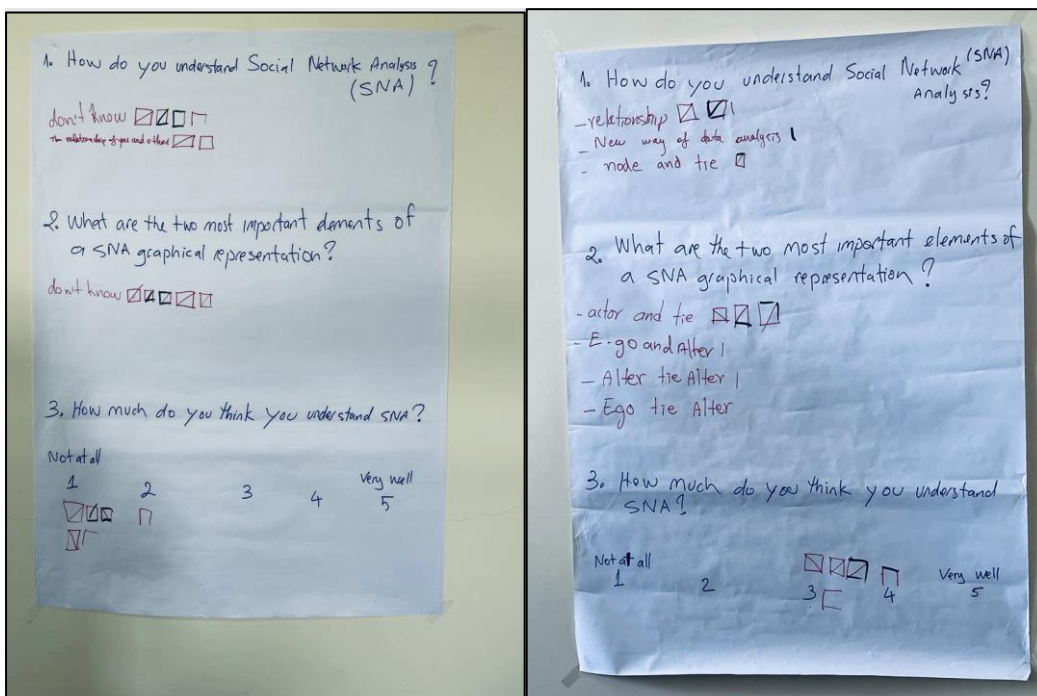
Institutional

The project strategy to work with the next generation of extensionists through contributing to the curriculum of the Master of Agriculture at NUBB has been confirmed with three separate lectures delivered on social science research methodologies (qualitative and quantitative) with contributions from Ariane Utomo, Van Touch, Brian Cook, Thong Tran and Nicholas Harrigan). These lectures have exposed students, NUBB staff and research project officers from PRD (who also joined) to a broadened understanding of social science behaviour change and participation.

A short evaluation undertaken at the February 2023 lecture showed that students' knowledge of social network analysis had increased.



Images 3 and 4: Students and staff at NUBB lecture on social network analysis (February 2023) and qualitative data analysis (November 2022)



Images 5 and 6: Pre and post lecture knowledge of social network analysis (February 2023)

2.4 Recommended adaptations to the research strategy

Our recommendation is that Activity 3 is split into 3A (relational understanding of the ‘farm’) and 3B (understanding farm practices).

3 Delivery on project activities, outputs and intermediate outcomes

3.1 Activities and outputs

During preparation for the Mid-Project meeting, the research team found discrepancies between the changes in the text (approved as part of the Variation 1 (V1) changes) and the tables in the project document and annual report 21-22, which were not updated to match the text. The project team has updated the tables to match the changes approved in V1.

Table 1: Project activity table

No.	Activity	Outputs/ milestones	Completion date
Activity 1			
1.1	Establish conceptual basis for extension as social relations; establish baseline understanding of partners and local extensionists.	Opt1.1 and Opt1.1.1: Review article on the political economy of agrarian change in Northwest Cambodia and Project Brief on social relations and agricultural extension.	Yr2 Q2
Comments from previous reporting periods (if relevant)	<ul style="list-style-type: none"> Review article in draft format: "Farmers, place and power – agricultural extension in northwest Cambodia". Research assistant hired to assist with NVivo data analysis from the previous project. Submission of an abstract for a special issue on "Climate Change and Critical Agrarian Studies" from the Journal of Peasant Studies, entitled "Agricultural science in service of farmers' values: 'bounded' best practices". 		
Comments for this reporting period	<ul style="list-style-type: none"> 33 international expert interviews have been completed, transcribed and analysis is underway for the review article above (Tran) and an additional article (Lead Author Katharine McKinnon) A paper titled "How agricultural extension responds to climate-development amplified transitions in mainland Southeast Asia: Experts' reflections" submitted to <i>Agriculture and Human Values</i> 		
1.2	Establish knowledge and preconceptions of key individuals involved in the extension sector in NW Cambodia	Opt1.2 and Opt1.2.1: Empirical article and Project Brief on the knowledge of Cambodian extensionists concerning farmers' social relations.	Yr3 Q1-2
Comments from previous reporting periods (if relevant)	<ul style="list-style-type: none"> Hired research assistant in Cambodia to assist with data collection. Interviews planned to start in August. Special issue paper to be drafted following completion of data collection. 		
Comments for this reporting period	<ul style="list-style-type: none"> 21 Cambodian expert interviews have been completed; 21 transcribed & 15 translated. Tran is leading a review paper on the topic of knowledge and innovation brokering based on these interviews. 		

1.3	Elicit from world leading extensionists their views on the individuals 'missing' or 'behind the scenes' from classic extension research and practice.	Opt1.3 and Opt1.3.1: Empirical article and Project Brief exploring 'missing extensionists', with emphasis on the actors and social relations that have not tended to be published but which are hypothesised to be central to successful extension efforts.	Yr3 Q1-2
Comments from previous reporting periods (if relevant)	<ul style="list-style-type: none"> Ethics application for Activity 1, "The missing extensionists: The role of social relations in agricultural extension" was approved by the Research Ethics Committee at the University of Melbourne (Project ID 22166). Two days Zoom workshop held in September 2021 to discuss Activity 1 with the team. The feedback was then integrated and improved the methodology also drawing on the analysis of 330 cassava farmer interviews from the former project. 18/30 semi structured interviews with Southeast Asian international extensionists have been completed. Submission of special issue proposal to the Journal of Agricultural Education and Extension. 		
Comments for this reporting period	<ul style="list-style-type: none"> A special Issue has been approved at the Journal of Agricultural Education and Extension (JAE&E) on the topic of 'Missing Extensionists'. The final format and call will be made public in Q3-4 2023. 		
Activity 2			
2.1		Opt 2.1: Research brief: A profile of rural households in 5 communes, 8 villages, NW Cambodia.	Yr2 Q4
Comments from previous reporting periods (if relevant)	<ul style="list-style-type: none"> Ongoing collation and response to comments from the research team for the household census questionnaire. Tested questionnaire with farmers in the field sites. Recruited fieldwork team (8 Research project officers based in Cambodia) and organised field site visits during May 2022. Held Household Census workshops online with the Cambodian research team, on Tuesday 7th and Friday 10th June 2022. Team is ready to go to the field to collect census data, now awaiting questionnaire feedback from the team. Ariane Utomo is planning to join Van Touch and team for field-sites visits in Battambang and Pailin, 16 July – 25 July 2022. 		
Comments for this reporting period	Although the data collection phase is complete, the analysis of the data generated by Activity 2 will continue throughout the project. Collaborating with other activity leads, tailored analysis will be conducted, focusing on activity-based themes, such as networks and relationships within and around 6 categories of smallholder households in the study sites (Activity 3), mapping assets and identifying needs, as well as exploring diverse economies in each village (Activity 4), and identifying household characteristics and farm attributes associated with agricultural success (Activity 5). A detailed overview of the household typologies was shared in a presentation by Dr Van Touch at the Mid-Term Review.		
2.2		Opt 2.2: Baseline census data of all households in study sites to be used as a sampling frame and/or selection of participants for Activity 3-7.	Y2 Q4

Comments from previous reporting periods (if relevant)	<ul style="list-style-type: none"> • Ongoing collation and response to comments from the research team for the household census questionnaire. • Tested questionnaire with farmers in the field sites. • Recruited fieldwork team (8 Research project officers based in Cambodia) and organised field site visits during May 2022. • Held Household Census workshops online with the Cambodian research team, on Tuesday 7th and Friday 10th June 2022. • Team is ready to go to the field to collect census data, now awaiting questionnaire feedback from the team. • Ariane Utomo is planning to join Van Touch and team for field-sites visits in Battambang and Pailin, 16 July – 25 July 2022. 				
Comments for this reporting period	<ul style="list-style-type: none"> • A comprehensive census of farmer households, including data from 2,555 households with 10,141 household members, as well as 4,303 associated farm plots. • The census data shall provide an effective sampling frame (for Activity 3,5,6, and 7) and some baseline information for Activity 6 and 7. • Village profiles and maps for eight villages across five communes in lowland and upland regions of Northwest Cambodia have also been completed. Survey questions can be found here. 				
2.3	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td data-bbox="392 808 868 1032" style="width: 50%;"></td> <td data-bbox="868 808 1190 1032" style="width: 50%;">Opt 2.3: Baseline census data of all households in study sites to be used in the impact evaluation in Activity 7 (along with other baseline data collected during Activity 3).</td> </tr> <tr> <td data-bbox="392 1032 868 1032"></td> <td data-bbox="868 1032 1190 1032" style="text-align: right;">Yr3 Q1-2</td> </tr> </table>		Opt 2.3: Baseline census data of all households in study sites to be used in the impact evaluation in Activity 7 (along with other baseline data collected during Activity 3).		Yr3 Q1-2
	Opt 2.3: Baseline census data of all households in study sites to be used in the impact evaluation in Activity 7 (along with other baseline data collected during Activity 3).				
	Yr3 Q1-2				
Comments from previous reporting periods (if relevant)	<ul style="list-style-type: none"> • Ongoing collation and response to comments from the research team for the household census questionnaire. • Tested questionnaire with farmers in the field sites. • Recruited fieldwork team (8 Research project officers based in Cambodia) and organised field site visits during May 2022. • Held Household Census workshops online with the Cambodian research team, on Tuesday 7th and Friday 10th June 2022. • Team is ready to go to the field to collect census data, now awaiting questionnaire feedback from the team. • Ariane Utomo is planning to join Van Touch and team for field-sites visits in Battambang and Pailin, 16 July – 25 July 2022. 				
Comments for this reporting period	The impact evaluation for Activity 7 has been designed. Activity 3 data collection is underway.				
2.4	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td data-bbox="392 1503 868 1671" style="width: 50%;"></td> <td data-bbox="868 1503 1190 1671" style="width: 50%;">Opt 2.4: An empirical research note and project brief: a multi-level analysis of rural livelihoods in NW Cambodia.</td> </tr> <tr> <td data-bbox="392 1671 868 1671"></td> <td data-bbox="868 1671 1190 1671" style="text-align: right;">Yr3 Q1-2</td> </tr> </table>		Opt 2.4: An empirical research note and project brief: a multi-level analysis of rural livelihoods in NW Cambodia.		Yr3 Q1-2
	Opt 2.4: An empirical research note and project brief: a multi-level analysis of rural livelihoods in NW Cambodia.				
	Yr3 Q1-2				
Comments from previous reporting periods (if relevant)	<ul style="list-style-type: none"> • Ongoing collation and response to comments from the research team for the household census questionnaire. • Tested questionnaire with farmers in the field sites. • Recruited fieldwork team (8 Research project officers based in Cambodia) and organised field site visits during May 2022. • Held Household Census workshops online with the Cambodian research team, on Tuesday 7th and Friday 10th June 2022. • Team is ready to go to the field to collect census data, now awaiting questionnaire feedback from the team. • Ariane Utomo is planning to join Van Touch and team for field-sites visits in Battambang and Pailin, 16 July – 25 July 2022. 				

Comments for this reporting period	There are four empirical articles planned to analyse rural livelihoods in NW Cambodia, led by different members of the research team. The analysis for Paper 1 has begun with preliminary coding completed of photo-diary images and text submissions, consisting of 92 entries by the research project officers. Project Briefs for Papers 2-4 have been completed.		
Activity 3			
3.1	Determine which relations produce a farm as perceived by smallholders in Northwest Cambodia? (e.g., social, non-human, economic, environmental, historical relations, etc.).	Opt 3.1: Report on the development of the comprehensive list of relations that constitute 'the farm'.	Yr3 Q1-2
Comments from previous reporting periods (if relevant)	N/A, this activity was added in Yr2.		
Comments for this reporting period	<ul style="list-style-type: none"> • Training of the Research project officers has been completed. • Non-participating villages, with households that match the typologies, have been identified. • Building the comprehensive relational account of 'the farm' in Northwest Cambodia has begun. 		
3.2	Determine which relations do farmers want to alter (e.g., cut, expand, create) and how they believe such changes might be accomplished.	Opt 3.2: Empirical paper on a relational understanding of farms in Northwest Cambodia, including emphasis on the methodological contributions of this framing.	Yr3 Q1-2
Comments from previous reporting periods (if relevant)	N/A, this activity was added in Yr2.		
Comments for this reporting period	To be completed in Q3&4 of 2023.		
3.3	What have farmers done and what are farmers doing on their lands?	Opt 3.3: Survey three large areas of lowland and highland crop production and management practices over a two-year period.	Yr3 Q1-2
Comments from previous reporting periods (if relevant)	<ul style="list-style-type: none"> – Field crop survey questionnaire templates from cassava, maize and rice have been prepared, and translated from English to Khmer. – Descriptions of Activity 3: 'Farmer Field Survey and Crop Check' with respect to Aims and Sub-Research Questions, Approaches, Outputs, and Outcome and Evaluation were added into the Project Proposal document. – Farmer interview questionnaire is drafted and being reviewed by the project team. – Crop Check data-gathering templates for cassava, maize and rice were prepared. – Study areas of the upland and lowland farming systems in the Northwest were identified and selected. 		
Comments for this reporting period	To be completed in Q3&4 of 2023.		

3.4	What have farmers done and what are farmers doing on their lands?	Opt 3.4: Train 300 collaborating farmers to work with the project team to benchmark their assigned 300 fields regularly from planting to harvesting over two years.	Yr3 Q1-2
Comments from previous reporting periods (if relevant)	Data collection not yet begun.		
Comments for this reporting period	To be completed in Q3&4 of 2023.		
3.5	What are the factors affecting yield and gross margin components under actual farmers' circumstances?	Opt 3.5: Identified factors depressing and lifting crop yields and gross margins.	Yr4 Q1-2
Comments from previous reporting periods (if relevant)	Data collection not yet begun.		
Comments for this reporting period	To be completed in Q3&4 of 2024.		
3.6	How can the identified factors lifting productivity and profitability be trialled by a large number of farmers according to their own interests and evaluations?	Opt 3.6: Consulted improved cropping practices with farmers to be trailed on their own fields.	Yr3 Q3-4
Comments from previous reporting periods (if relevant)	N/A, this activity was added in Yr2.		
Comments for this reporting period	To be begun in Q3&4 of 2023.		
3.7	How can the identified factors lifting productivity and profitability be trialled by a large number of farmers according to their own interests and evaluations?	Opt 3.7: Documented seasonal and annual trend information by crops and its production areas.	Yr3 Q1-2
Comments from previous reporting periods (if relevant)	N/A, this activity was added in Yr2.		
Comments for this reporting period	To be completed in Q3&4 of 2023.		
Activity 4			

4.1	Develop an integrated understanding of smallholder farming households in NW Cambodia, enabling a deep understanding of the diverse economic practices through which households construct a livelihood, mapping the relational assets and resources that farmers have available to build on.	Opt 4.1: Empirical article and Project Brief that explore household livelihood practices, past changes in village lives and livelihoods pertaining to agricultural practices, with attention to differentiating the experiences of women and men, and different sectors of the community.	Yr2 Q3-4 – Yr3 Q3-4
Comments from previous reporting periods (if relevant)	Data collection has not yet begun. Preparation has included: <ul style="list-style-type: none"> – Revised research questions, methods and outputs for this Activity – Began collating range of tools and approaches to inform workshop design – Research assistant hired to complete annotated bibliography as foundation for literature review on diverse and community economies of NW Cambodia, and to inform development of field tools for this activity. 33 papers reviewed so far in this period 		
Comments for this reporting period	Activity 2 data provides foundational insight into cash income sources, self-assessment of household wellbeing, correlated to socio-economic status. Literature review (ongoing) of existing state of knowledge for how livelihoods are made in Northwest Cambodia. Specifically, what does the literature say about how people make a living; key factors that shape livelihoods; gendered aspect of rural livelihoods in NW Cambodia.		
4.2	Activity 2 data analysis to provide foundational picture of household type, and reported trends in on farm practices and access to information.	Opt 4.2: Empirical paper and Project Brief that explores key factors in community wellbeing, 'good' livelihoods, and investigates the experiences of past agricultural extension efforts in relation to the needs, desires, and aspirations of women and men in smallholder households.	Yr3 Q3-4
Comments from previous reporting periods (if relevant)	Data collection not yet begun		
Comments for this reporting period	Literature review (ongoing) assessing existing state of knowledge on cultural values and aspirations of people in NW Cambodia. Specifically how Cambodian women and men perceive a good life, and alternative indicators for wellbeing in the region.		
4.3	Identify key linkages between smallholders' knowledge, practices, and aspirations based on gender and household type.	Opt 4.3: Empirical paper and Project Brief that contrast knowledge and on-farm practices, exploring and explaining any differences between reported and actual practices.	Yr3 Q3-4
Comments from previous reporting periods (if relevant)	Data collection not yet begun		

Comments for this reporting period	Activity 2 data analysis to provide foundational picture of household type, and reported trends in on farm practices and access to information.		
4.4	Establish how well existing extension approaches are in accord with existing livelihood diversity, meeting farmer needs and priorities, and suggest direction for future intervention.	Opt 4.4: Project report and Project Brief on the extent and nature of existing experiences with agricultural extension.	Yr3 Q3-4
Comments from previous reporting periods (if relevant)	Data collection not yet begun.		
Comments for this reporting period	<p>Activity 2 data analysis on access to agricultural information.</p> <p>Activity 1 data analysis to identify extensionists views to be placed in contrast with farmer views and practices.</p>		
Activity 5			
5.1	Establish how smallholders are connected to, including the types of relations that smallholders have, with emphasis on their efforts to expand connections.	Opt 5.1 and Opt 5.1.1: Baseline report and Project Brief documenting how local communities perceive success, the multiple dimensions of success and the types of households most commonly associated with success.	Yr4 Q1-2
Comments from previous reporting periods (if relevant)	<p>Data collection has not yet begun. Preparation has included:</p> <ul style="list-style-type: none"> • Revised Activity 5 research questions, methods and outputs, outcomes and evaluation. • Commenced discussions with Social Network Analysis experts at MQ. • Began collating references relating to Social Network Analysis. • A social network analysis meeting was held with Andrea, Van, Paula and Andrew. We brainstormed the appropriateness of SNA for the project and when it could be best used. Rather than conduct a broad SNA beginning with the census we felt it would be better used around the intervention stage of the project when we track how a particular intervention effects particular social relations. We also discussed the possibility of adding a material element to SNA - so tracking how material and social relations change through particular interventions. • An RA conducted a scoping study on the use of Social Network Analysis in agriculture. She produced a brief report, a list of key articles and an analysis of those articles. 		
Comments for this reporting period	<p>Data from Activity 1 is currently being analysed to identify how agricultural extensionists view success. Some early insights suggest that success is often assessed according to overall project goals rather than aligned necessarily with local understandings of success. Some indicators of success in Activity 1 focus on productivity, income, adaptability and sustainability. These insights will inform one definition of success and one category of participants for Activity 5.</p> <p>Data from Activity 2 is also being analysed to identify additional indicators of success, including subjective wellbeing data and peer nomination of successful farmers. The household typologies will also be used to diversify the types of households approached for Activity 3 and 5.</p>		

5.2	Categorise the types of enabling and disabling relations experienced by smallholders.	Opt 5.2 and Opt 5.2.1: Empirical article and Project Brief exploring the foundations of success in the local context. The outputs will review historic moments / decision that have resulted in success, the typologies of existing social relations that support successful farms, and the personal characteristics and resources of successful households.	Yr4 Q1-2
Comments from previous reporting periods (if relevant)	Data collection not yet begun		
Comments for this reporting period	The methods for this activity have not yet commenced however literature reviews have been conducted on more-than-human research methods and social network analysis which are informing the research design oriented at answering this question.		
5.3	Quantify the extent and flows of information, intentions to change, and practice change via existing social relations.	Opt 5.3 and Opt 5.3.1: Empirical article and Project Brief exploring the practices associated with success in the case study villages. The outputs will consider how farmers manage both human and non-human relations on an everyday basis to pursue successful agricultural outcomes. This includes a focus on how they deal with the adverse or unexpected and the types of resources or information they access to do so.	Yr4 Q1-2
Comments from previous reporting periods (if relevant)	Data collection not yet begun		
Comments for this reporting period	The methods for this activity have not yet commenced however literature reviews have been conducted on more-than-human research methods and social network analysis which are informing the research design oriented at answering this question.		
5.4	Analyse existing social relations, their nature, and their impacts on smallholder households, with emphasis and analysis on households that are (un)successful with regards to avoiding detrimental relations.	Opt 5.4 and Opt 5.4.1: Empirical article and Project Brief analysing how household demographics and relations influence opportunities to succeed. The outputs will analyse the composition of successful households and the benefits associated with particular social characteristics (such as age or gender) and how social barriers experienced by less successful households may be overcome.	Yr4 Q1-2

Comments from previous reporting periods (if relevant)	Data collection not yet begun		
Comments for this reporting period	The Census data will be analysed to gain insights into this question and combined with the methods outlined above for Activity 5 to gain insights into overcoming social barriers.		
5.5	Identify key farmers (i.e., nodes of social relations) who affect the practices of other farmers.	Opt 5.5 and Opt 5.5.1: Empirical article and Project Brief that explores the influence of material processes upon successful agricultural practice. The outputs will explore how soils, weeds, pests, livestock, roads, equipment and access have influenced the practices and opportunities of successful farmers, and any similarities in how successful farmers respond to these and other material challenges.	Yr4 Q1-2
Comments from previous reporting periods (if relevant)	Data collection not yet begun		
Comments for this reporting period	The methods for this activity have not yet commenced however the literature review on more-than-human research methods is informing the research design oriented at answering this question.		
5.6	Identify key farmers (i.e., nodes of social relations) who affect the practices of other farmers.	Opt 5.6: A Project Brief that identifies the types of farmers and institutions who most effectively contribute to practice change amongst smallholder households, including why they are so effective and how they can be supported.	
Comments from previous reporting periods (if relevant)	N/A, this activity was added in the project variation document.		
Comments for this reporting period	The methods for this activity have not yet commenced.		
Activity 6			
6.1	Connect farmers with supporting individuals and organisations at the CCBAC.	Opt6.1 and Opt 6.1.1: Empirical article and Project Brief that explore the initiatives, innovations, lessons learned, and challenges of improving social relations through social research projects (i.e., what we did, what worked, what did not work).	Yr4-5

Comments from previous reporting periods (if relevant)	Data collection has not yet begun. Preparation has included: <ul style="list-style-type: none"> • Begun discussions with University of Wageningen academics about a visit, where Brian will spend time working on the methodology and sampling for this Activity • Key challenges include the measurement of interventions relative to wider changes, if some individuals participate in multiple interventions, and how to distinguish the impacts. 		
Comments for this reporting period	Using Activity 2 data, we have established 'problems' and 'challenges' as perceived by +2,555 participating farmers. This initial establishment of 'problems' and 'desired support' will be deepened and contrasted with findings from Activities 3, 4, and 5. The final determination of 'interventions' will be decided in Q2 2024.		
6.2	Rigorous comparison of what supporting individuals and organisations believe relative to farmers.	Opt6.2 and Opt 6.2.1: Empirical article and Project Brief that contrast 'what farmers are seeking' with 'what supporting organisations do or are offering'.	Yr4-5
Comments from previous reporting periods (if relevant)	Data collection not yet begun		
Comments for this reporting period	With determination of the interventions to be implemented in Activity 6, we will engage with the providers, exploring their aims, approaches, methods, and outcomes; this assessment will be contrasted with the perceptions of participating farmers who receive support.		
6.3	Identify gaps in extension services in NW Cambodia and attempt to fill those gaps at the CCBAC if possible.	Opt6.3 and Opt 6.3.1: Empirical article and Project Brief that identify what can and cannot be accomplished collaboratively.	Yr4-5
Comments from previous reporting periods (if relevant)	Data collection not yet begun		
Comments for this reporting period	To be identified post-identification of intervention pathways.		
6.4	Account for smallholders' experiences with commercial actors (i.e., lenders and vendors), their influences on farmer behaviours, and knowledge of how these actors positively and negatively contribute to practice change.	Opt6.4 and Opt 6.4.1: Empirical article and Project Brief that explore knowledge of the commercial sector and its influence on agricultural extension, with emphasis on micro-credit lenders and the role of indebtedness.	Yr4-5
Comments from previous reporting periods (if relevant)	Data collection not yet begun		
Comments for this reporting period	As part of the pre-Activity 6 engagement, the project will establish past experience with service providers. These engagements will emphasise degrees of impact (measured using the Next-Gen impact framework).		
Activity 7			

7.1	Identify which models or methods of agricultural extension are most effective (measured by changes to knowledge and/or on-farm practices) with different types of smallholder in Northwest Cambodia.	Opt7.1 and Opt7.1.1: Empirical article and Project Brief that analyse and compare social relations and on-farm practices before/after project interventions.	Yr6 Q1
Comments from previous reporting periods (if relevant)	Data collection not yet begun		
Comments for this reporting period	Design of the data collection of pre and post intervention success/outcomes is not yet finalized. Activity 1 interviews are being analysed to identify concepts of success/outcomes. Activity 2 data is being analysed to identify potential measures of success/outcomes and familiarize the team with baseline levels of these. The typology of farms for Activity 2 will be used to differentiate between outputs/success of interventions across different farm types. In addition, I have worked with Activity Leads for 3, 4, and 5, to inform the design of final evaluation measures. I have worked closely with Activity 6 lead on conceptualization of interventions, and design of the evaluation of success/outcomes.		
7.2	Spatially map expanded social relations amongst smallholder farmers including changes to awareness, intention to act, or on-farm practices amongst extended social relations (i.e., secondary diffusion).	Opt7.2 and Opt7.2.1: Empirical article and Project Brief that compare farmer knowledge and on-farm practices, with methodological implications for the agricultural extension sector.	Yr6 Q1
Comments from previous reporting periods (if relevant)			
Comments for this reporting period	Design of the data collection for this is not yet finalized, but analysis of Activity 1 and 2 data has been conducted, as well as working with activity leads on design of Activities 3, 4, 5, and 6 to inform design of interventions and their evaluation.		
7.3	Identify practice change attempts that do not eventuate, are partially implemented, or prompt adoption of an entirely different practice.	Opt7.3 and Opt7.3.1: Empirical article and Project Brief that contrast provision with social relations as a model of agricultural extension, with emphasis on primary and secondary impacts, including cost-benefit comparison of different extension models.	Yr6 Q2
Comments from previous reporting periods (if relevant)	Data collection not yet begun		
Comments for this reporting period	Design of the data collection for this is not yet finalized, but analysis of Activity 1 and 2 data has been conducted, as well as working with activity leads on design of Activities 3, 4, 5, and 6 to inform design of interventions and their evaluation.		

7.4	Establish the monetary and non-monetary values of on-farm practice change for participating farmers and farming households.	Opt7.4 and Opt7.4.1: Empirical article and Project Brief that contrast the economics of different models and methods of agricultural extension, including cumulative monetary and non-monetary benefits for participants and for those connected via social relations (i.e., primary + secondary impacts).	Yr6 Q3
Comments from previous reporting periods (if relevant)	Data collection not yet begun		
Comments for this reporting period	Design of the data collection for this is not yet finalized, but analysis of Activity 1 and 2 data has been conducted, as well as working with activity leads on design of Activities 3, 4, 5, and 6 to inform design of interventions and their evaluation.		
7.5	Establish the combined monetary and non-monetary value of secondary diffusion of practice change resulting from the project.	Opt7.5 and Opt7.5.1: Final project report and Project Brief on the effectiveness of expanded social relations as conduits of information, intention, and practice change in the context of agrarian change and agricultural extension.	Yr6 Q3
Comments from previous reporting periods (if relevant)	Data collection not yet begun		
Comments for this reporting period	Design of the data collection for this is not yet finalized, but analysis of Activity 1 and 2 data has been conducted, as well as working with activity leads on design of Activities 3, 4, 5, and 6 to inform design of interventions and their evaluation.		

3.2 Summary of progress towards anticipated outcomes

Table 2: Summary of project outcome information

Intermediate outcomes	Results Summary	Evidence
Reconceptualization of agricultural extension and historical analysis of the political economy of agricultural extension in Northwest Cambodia	Data to inform reconceptualisation complete (Activity 1). Data Collection for Activity 2 complete. Data collection for Activity 3A and 3B is underway.	Activity 1 and 2 data collected and stored in secure project data cloud platforms. Drafted academic article on the political economy of agrarian change and agricultural extension in Northwest Cambodia. Submitted academic article to <i>Agriculture and Human Values</i> . Project Brief on the politics of extension. Acceptance of Special Issue in <i>Journal of Agricultural Education and Extension</i> .
Context of the gendered knowledge-practices of smallholder households in the case study area outlined	Activity 4 data collection planned for Q3-Q4, 2023	
Appreciation for the spatial distribution of enabling and disabling social relations associated with successful farmer households	Activity 5 data collection planned for Q4, 2023	
Actively support the practice of extension by extending smallholders' connections with enabling individuals and organisations	Activity 6 begins in year 3-4	
Empirical analysis and comparison of perceived and material impacts, including the primary and secondary impacts of past provisionist extension versus extension via social relations	Activity 7 begins in year 5-6	
End of project outcomes	Results Summary	Evidence

Complement and/or replace the globally-dominant but limited model of agricultural extension reliant on the transfer of technology-capital and information	Results for this outcome will be generated in Year 6	
Unanticipated outcomes	Results Summary	Evidence
None for this reporting period		

3.2.1 Gender outcomes

From this reporting period, Activity 2 data, which is differentiated by gender, is contributing to the reconceptualisation of agricultural extension and historical analysis of the political economy of agricultural extension in Northwest Cambodia.

3.2.2 Capacity building outcomes

From this reporting period, capacity development at the individual, organisational and institutional levels, have all contributed effectively to the reconceptualisation of agricultural extension and historical analysis of the political economy of agricultural extension in Northwest Cambodia by

- Developing the skills, attitudes and experience within the Australian and Cambodian team to incorporate a social science approach to agricultural extension
- Establishing ownership, trust and an enabling environment of a local, gendered-focused NGO (PRD)
- An understanding of local institution curriculum development (NUBB)

3.3 Key Findings/Knowledge generation

Findings from Activity 2 census of farming households ($n = 2555$), village mapping/profiling, and research project officer-generated photo-diary provide valuable information for subsequent stages of data collection, analysis, and the design of interventions within the project. These findings highlight the importance to account for multi-level factors which drive agriculture success and vulnerabilities.

For example, at the individual level, age of farmers plays a crucial role in determining their exposure to information and communication technology (ICT) and their likelihood of participating in training programs. Tailoring interventions to target specific age groups effectively requires an understanding of how types, sizes, and reach of social relations and networks vary across different age demographics.

At the household level, the composition of the household and the inter-related life course of their members are important considerations. On one hand, we have identified that relatively well-off or successful farming households are those with diverse livelihoods, encompassing both farm and non-farm activities. On the other hand, while also having diverse livelihood practices, the bulk of farming households in the areas are far from being well-off. About half of households reported owing money to someone and/or financial institutions in 2021, but over 75% reported having no bank account. Factors such as acquired disabilities or the occurrence of deaths within the family can significantly impact the household's ability to adopt new practices or acquire skills necessary for upward mobility.

In support of the research design for Activity 4, village-level heterogeneity also matters. Across the eight villages, more than half of the households Chamkar Svay, Ou Sou Sdey, Boeng Proelit reported difficult current financial situations. These three villages also had the highest share of households reporting that their current living standard seemed worse than their parents. About 49% of households in Ou Sou Sdey reported “yes” to having to go without food at times in the last 12 months. Factors such as the age of settlement and the presence of residents with recognized expertise, such as veterinarians or multiple “key farmers”, can influence the adoption of agricultural technology and know-how. Tailoring agricultural extension programmes and interventions based on the specific characteristics and needs of each village can increase their effectiveness.

At the broader regional level, the data point to collective vulnerability stemming weather events (e.g., too much rain), and from fluctuating demand and prices and high input costs. Recognizing the challenges faced by smallholder households in times of economic instability and climate change can help design interventions that mitigate risks and build collective resilience.

Finally, is the issue of equity. The census and photo-diary identified that the most vulnerable households in the study sites are landless farmers and those who relied on income from agricultural labours. Addressing the specific needs of these marginalized groups can contribute to reducing inequalities and promoting positive change in Northwest Cambodia.

Activity 2 has identified 17 leading issues that participating farmers desire help with (Figure 1 and 2). This data suggests several problem-solution pathways (PSPs), which are informing discussions of the interventions to be funded as part of Activity 6.

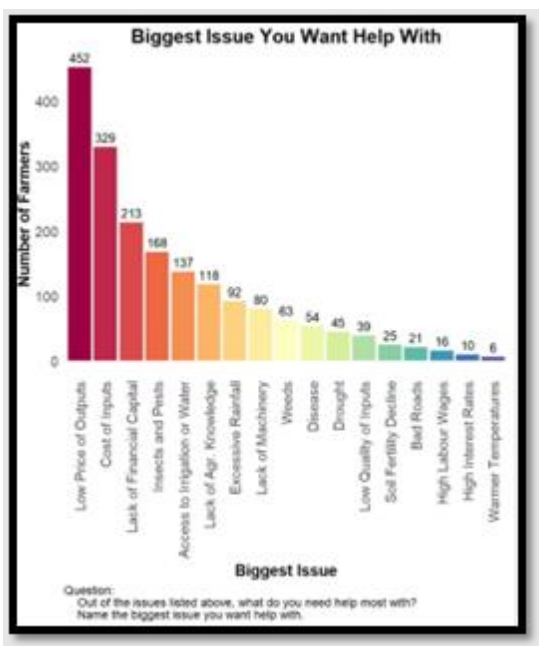


Figure 1: Biggest issues

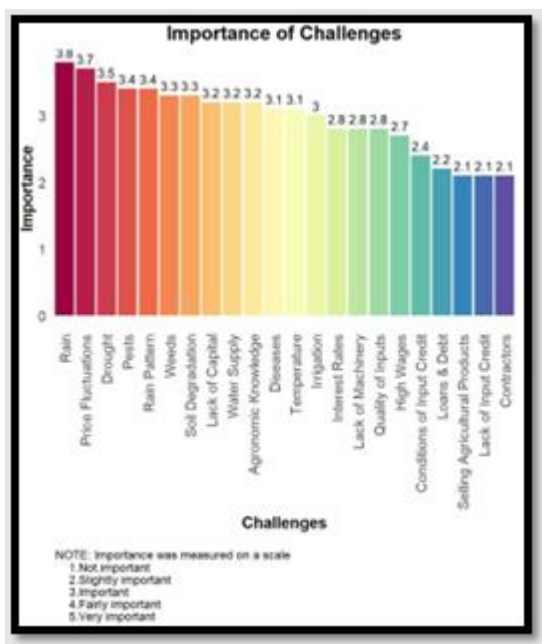


Figure 2: Relative importance of challenges

Potential interventions arising from Activity 2.

Problem	Possible Intervention(s)
Price of Outputs/Variability of Price	Cooperatives, contract farming, storage
Cost of Inputs/Low Quality Inputs/Unclear Inputs	Bulk purchases, contract farming
Financial Capital/Interest Rates/Financial Literacy	MFI, financial literacy
Pest and Disease Management	Knowledge Exchange, Mentoring, and Training
Water Resource Management (precipitation, drought, variability)	
Labour (costs and availability)	Machinery, contracting
Soil Fertility Decline	Knowledge Exchange, Mentoring, and Training
Climate Change	
Agricultural Knowledge and Support	Knowledge Exchange, Mentoring, and Training

The identification of problems is presently biased towards agricultural problems and solutions, which is to be expected given the agricultural focus of the Activity 2 census. Fortunately, Activities 4 and 5 will focus on village-scale, group understandings (Activity 4) and the perceptions of successful farmers (Activity 5), with attention to non- or off-farm activities.

3.4 Most Significant Change observed by the project team this year

Eary career researchers developing key skills

Lita Mom and Pherom Song first became involved with the Next Generation Agricultural Extension project in July 2022 when they became employed as research project officers at Partners for Rural Development (PRD). PRD is responsible for all in-country data collection. Lita and Pherom work in a team of 8 research project officers.

A significant change that has occurred for Lita since joining the project is the development of her research skills in social science research methodologies and data analysis. Before the project, Lita had worked as a field researcher and focus group discussion facilitator, however the project has deepened her knowledge and skill set through training courses focused on qualitative and quantitative data collection and analysis.

These courses gave Lita the confidence to present on the household typology ‘non-agriculture casual labour’ at the Mid-term Project Review in July 2023 at the National University of Battambang. There were representatives from 13 different agricultural focused organisations in the audience. After the workshop, Lita described her experience:

“I understand more about critical thinking when presenting results and responding to questions asked by participants”.



Image 1: Lita presenting on the household typology ‘non-agriculture casual labour’ at the Mid-term Project Review (July 2023)



Image 2: Lita presenting on the capacity building panel at the Mid-term Project Review (July 2023)

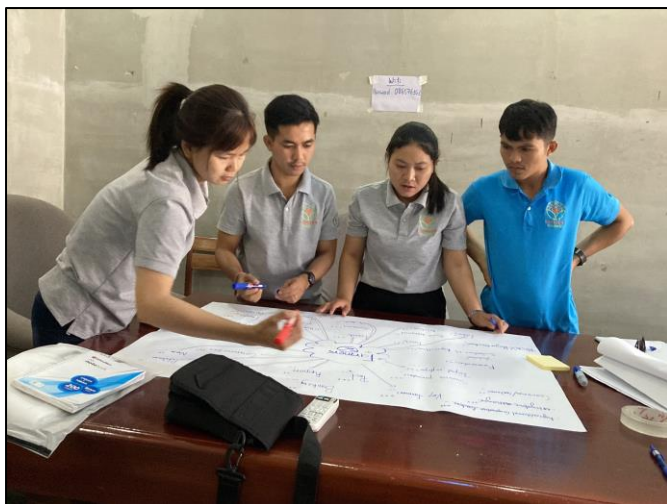


Image 3: Lita and Pherom together with Chariya and Sinuon receive training on participatory research methods (July 2023)

A significant change that has occurred for Pherom since joining the project is the development of his English language skills. The project has funded English language classes for all research project officers at PRD. Pherom has used these skills in producing written reports for the project, for example, a photo-diary report on a successful farmer (see Image 4) and a detailed village report as part of the household census (see Images 4-5). Pherom has gained a number of insights from undertaking the household census and has been able to communicate this knowledge in accessible formats to both academic and sector audiences. As described by Pherom:

“I have learned to develop my education and capacity to become a young researcher and share knowledge with other people, also contribute to farmers and improving their livelihood”.

Both Lita and Pherom are valuable assets to the project and signal a strong cohort for the next generation of agricultural extension.

Good technique on mango trees


Anlong Ta Mei village ID: 0263

Her name is Kimly Eourt. She is 40 years old and her husband's name is Youn Morl (45 years old). They have 1.3 ha (0.5ha for paddy rice and 0.8ha for mango trees). She has been planting mango trees since 2010. There are 62 plants/0.8 ha at present. The interval is 5m x 5m and they are 6 to 12 years old.


- She can harvest two times per year.
 1. November ■ February
 2. June ■ September
- She got the yield about 1,500kg of (Karkorong variety) and the price is 1.5\$/kg
- And 500 kg of Khtesh variety, the price is 1.75\$/kg.

Expenditure


1. Materials
2. Input supplies which included fertilizer, insecticide, diseases, foliar fertilizers (flower, fruits...)



“We provided technical advice to our relatives and neighbour. But they couldn't get the same good yield as we did on the farm”



Photos taken on Oct 12th, 2022



The problems

1. Pests: Fruit fly (during fruit development)
2. Disease: Anthracnose on mango or (Tear staining on fruit) in rainy season

SONG Pherom
Oct 14th, 2022 Battambang

Image 4: Pherom’s photo-diary report of a successful mango tree farmer (October 2022)

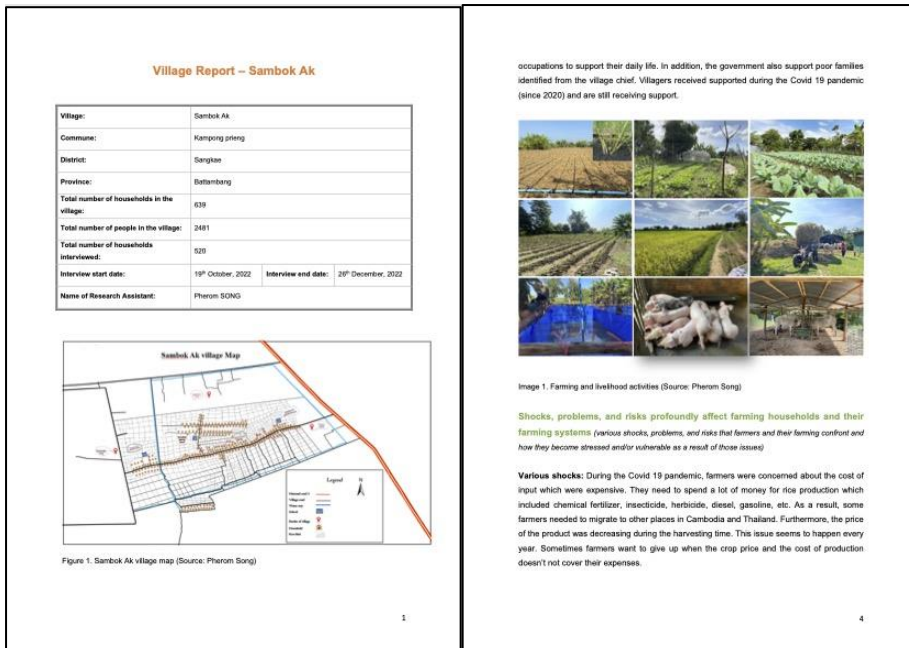


Image 5: Pherom's village report (March 2023)

*Relevant next users of this MSC story could be education users (NUBB, CEDAC) and the non-governmental sector (PRD, LKO, CEDAC).

4 Partnerships

The partnership principles and ways of working remain unchanged. The team has remained strong and collegial throughout this reporting period. There is consensus amongst the team in terms of problem definition, research approach, and anticipated outcomes.

An annual project meeting was held at Macquarie University in Sydney September 8-9, 2023. A separate report was submitted to ACIAR in regard to this meeting which can be found via our website [here](#).

To foster and continue developing genuine and collaborative partnerships, we organised an in-person writing workshop in Castlemaine May 1-5, 2023. This brought 8 research team members from the Universities of Melbourne, Macquarie and Canberra together in-person. This enabled the team to spend quality time discussing the research approach, writing outputs, and planning future activity implementation.

Reflection on ways of working at the annual project meeting and throughout this reporting period have focused on the process of publication development and writing, with the shift from data collection to data analysis for Activities 1 and 2. In November 2022, we hosted a 'Pitch Your Paper' workshop which saw all team members either pitch a paper idea and/or offer to support another team member as lead author. This indicated that there is strong interest throughout the team to write collaboratively.

Partnerships with in-country partners (PRD, NUBB and Lakhon Komnit) have also been a focus in this reporting period.

As mentioned above, the project delivered 3 separate lectures pertaining to the social science research methodologies (July 2022, November 2022 and February 2023) with each lecture utilising the expertise of different research team members on qualitative and quantitative methodologies (Ariane Utomo, Van Touch, Brian Cook, Thong Tran, Nicholas Harrigan).

Ariane Utomo and Van Touch have worked continuously to mentor and develop the capacity of the 8 research project officers from PRD to complete Activity 2 data collection, as previously mentioned in Section 2.3 of this report. This will continue in Year 3 with different Activity Leads collaborating with the research project officers as their activities are implemented (Katharine McKinnon, Andrew McGregor, Brian Cook).

The previous project ASEM-2013-003 delivered 13 forum theatre production performances with partner Lakhon Komnit during February and March 2023. As part of data collection for SSS-2019-138 research project officers from PRD interviewed 65 farmers who attended the theatre shows and we will be analysing the impact of these theatre performances based on this data. We partnered with Lakhon Komnit again in July 2023 to put on a theatre performance for the Mid-Term Review. After seeing the results of this output, another project partner, CIRAD, expressed an interest in working with Lakhon Komnit, and we have facilitated this collaboration.

5 Risk Management

Project implementation

The research team has encountered no issues or changes in contextual or direct risk to project participants, members, and ecosystems. One potential risk in terms of project delivery which has been identified by the research team is the large volume of data which the project is collecting. Strategies taken to address this issue include the hiring of additional research assistants to analyse data already collected and ensuring interconnection between Activities 3-5 which will be implemented in the next reporting period.

Next user risks

No new knowledge on risks or potential harm to the four groups of next users (education, government, agricultural research and non-governmental sector) of project outputs have been identified in this reporting period.

6 Appendices

Appendix 1: Publications List (see separated document attached)

Appendix 2: Personnel table

Name	Gender	Agency	Discipline	Roles in project and specific responsibilities for project outputs	% Time on Project	ACIAR Funding of time input %
Brian Cook	M	University of Melbourne	Human Geography	Project Leader; responsible for everything	30	0
Katharine McKinnon	F	University of Canberra	Human Geographer	Co-investigator; responsible for community economies	10	0
Andrew McGregor	M	Macquarie University	Human Geographer	Co-investigator; responsible for analysis of system change	20	0
Ariane Utomo	F	University of Melbourne	Demographer/ Geographer	Co-investigator; responsible for inter- and intra-household dynamics, focusing on gendered social relations	20	0
Nicholas Harrigan	F	Macquarie University	Quantitative Sociologist	Co-investigator; responsible for analysis of impacts and household economics	20	0
Van Touch	M	PRD	Agricultural Systems	In-country leader; responsible for in-country organisation and partner relations	100	100
Srean Pao	M	University of Battambang (UBB)	Agricultural scientist	Co-investigator; responsible for analysis of on-farm practices and collaboration between project and UBB.	10	0
Kunthea Nou	F	Partners for Rural Development (NGO)	NGO CEO	Co-investigator; responsible for farmer household data collection.	100	100
Manika Yim	F	Partners for Rural Development (NGO)	NGO Accountant/Bookkeeper	Co-investigator; responsible for project book-keeping and farmer	100	100

				household data translation and transcription.		
Florent Tivet	M	(CIRAD)	Agricultural scientist	Co-investigator; responsible for on-farm demonstrations	20	0
Thong Tran	M	University of Melbourne	Human Geographer	Post-doc	100	100
Caitlin Finlayson	F	University of Melbourne	Human Geographer	Project manager and Research Fellow	50	50
Nicholas Read	M	University of Melbourne	Statistician	Post-doc	20	100
Sophanara Phan	M	Pailin Department of Agriculture (PDA)	Agricultural scientist	Responsible for collaborations with Battambang and Pailin agricultural departments	100	100
PRD Social Scientist 1	M	Partners for Rural Development (NGO)	Social Scientist	Data collection	100	100
PRD Social Scientist 2	M	Partners for Rural Development (NGO)	Social Scientist	Data collection	100	100
PRD Social Scientist 3	M	Partners for Rural Development (NGO)	Social Scientist	Data collection	100	100
PRD Agricultural Scientist 4	M	Partners for Rural Development (NGO)	Agricultural scientist	Data collection	100	100
PRD Social Scientist 5	F	Partners for Rural Development (NGO)	Social Scientist	Data collection	100	100
PRD Social Scientist 6	F	Partners for Rural Development (NGO)	Social Scientist	Data collection	100	100
PRD Social Scientist 7	F	Partners for Rural Development (NGO)	Social Scientist	Data collection	100	100
PRD Agricultural Scientist 8	F	Partners for Rural Development (NGO)	Agricultural scientist	Data collection	100	100

Appendix 3: Annual Budget

Expenditure is on track for this reporting period.

Appendix 4: Intellectual Property

No significant issues have arisen in the reporting period.