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prepared by

Rodd Dyer

*co-authors/
contributors/
collaborators*

Rodd Dyer

approved by

Mr Howard Hall

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2 Executive summary

This project set out to review and update the “Making Value Chains Work Better for the Poor” Toolbook (M4P Toolbook) and the ACIAR Agribusiness Master Class (AMC) capacity development program. These revisions had a particular focus on mainstreaming and integrating contemporary thinking and approaches about value chain research, as well as gender equity, social inclusion, and women’s economic empowerment. The SRA also sought to explore more sustainable delivery models that integrate rapidly evolving remote and online learning approaches and technologies.

An important rationale for this project was the need to progress capacity development programs such as the AMC, that are more cost-efficient, more flexible, and more accessible to a wider range of remotely located participants.

The project aim therefore was to develop innovative agribusiness research learning resources and delivery models for the Asia Pacific that specifically mainstreams contemporary gender equity, social inclusion and women’s economic empowerment principles and approaches.

The project had three main objectives:

1. Review and update the M4P Value Chain Toolbook and case studies:
2. Review and improve the content, format, and delivery of the Agribusiness Master Classes; and
3. Develop a community of practice and explore business models for delivery of M4P Value Chain Toolbook and Agribusiness Master Class program throughout the Asia-Pacific

The project contributes towards a wider goal of building capacity in agribusiness research-for-development methods of young researchers, development specialists and innovative agribusiness operators.

A fully revised print-ready 4th edition of the “Making Value Chains Work Better for the Poor” (M4P Toolbook) has been completed. It will be published in English¹ and Vietnamese². The Toolbook provides value chain practitioners with updated practical tools for value chain analysis, with a stronger focus on poverty, gender, and social inclusion. This updated Toolbook provides robust analytical tools to identify value chain interventions that are inclusive and beneficial to the poor, to both women and men, or to other disadvantaged groups.

The Toolbook will provide a valuable reference to research and development professionals for many years and is an added resource for the AMC program.

As part of this project the AMC program and materials have been revised, updated, and reformatted. Numerous case-studies and activities have been included. Delivery Notes have been provided for all presentations. These materials have been adapted and suitable for both face-to-face and online delivery.

The COVID -19 pandemic has prompted a surge in improvements and adoption of video conferencing, online collaboration, and webinar software apps to support remote engagement and learning. This provides a huge opportunity for ACIAR, University partners and remote collaborators to deliver new high quality, online and blended agribusiness learning, and capability development programs for developing country participants. Platforms such as Microsoft Teams and Zoom also provide the opportunity to efficiently engage external facilitators and mentors, as well as world class researchers and agribusiness specialists in a learning program. However, remote, and online collaboration

¹ http://valuechains4poor.net/uploads/1/2/6/9/126950750/toolbook_english.pdf

²  [Vietnamese version Toolbook final.pdf](#)

and learning, cannot always replace the richness of face-to-face interaction and relationship building, along with the considerable benefit of peer-to-peer learning. Which is why experiential components such as the Mini-Project, agribusiness, field, and market visits, and visiting speaker contributions remain very important for adult learning.

3 Introduction

“Making Value Chains Work Better for the Poor” Toolbook (M4P)

Between 2004 and 2009 the UK Department for International Development (DFID) and the Asian Development Bank (ADB) supported a regional program on Making Markets Work Better for the Poor (M4P). One of the key outputs of the program was a Toolbook for practitioners of value chain analysis called “Making Value Chains Work Better for the Poor”. The Toolbook contains a set of practical tools for implementing value chain analyses using M4P methodology.

The 3rd edition of the Toolbook was released in 2008 and in the intervening 10 years has become one of the most widely used resources for value chain analysis by research and development practitioners across Africa, Asia, and Oceania. These include projects and programs of SDC, Helvetas Swiss Intercooperation, IFAD, SIDA, USAID, DFAT, ADB and AfDB among others³. The Toolbook has consistently been reviewed positively, for example in Nang’ole et al. (2011)⁴, and Devaux et al. (eds.) (2016)⁵.

ACIAR supported the translation of the 3rd edition of the Toolbook into Bahasa Indonesia in 2012⁶ which was also used to analyse and identify agribusiness development opportunities and interventions that have the potential to improve livelihoods of the poor in Indonesia⁷.

Most recently Donovan et al. (2013)⁸ noted that the M4P Toolbook “*brings together thoughts and experiences on designing a pro-poor VCD strategy from a range of development organisations and stands out for its extensive treatment of various issues that influence the design of VCD (such as mapping knowledge and information flows, mapping value at different nodes in the chain and analysing costs and margins)*”.

However, these reviews also give very good guidance for potential areas of improvement in the 4th edition, including using clearer case studies, including more information on gender issues, and highlighting the role of information within value chain coordination.

Given the ongoing widespread use of the Toolbook, it there was a strong case to review and update the Toolbook to consider the last 10 years of developments in the field. Of particular importance is mainstreaming and integrating new material on gender, social inclusion, women’s economic empowerment and agricultural value chain financing. Once updated, the new M4P Toolbook content will also be more strongly integrated the into the ACIAR Agribusiness Master Classes training modules.

ACIAR Agribusiness Master Class (AMC)

In 2014-15, the AMC concept was successfully developed and piloted by ACIAR and the University of Adelaide in Vietnam. The aim of the AMC is to develop participants knowledge of principles and practical field and analytical skills needed to apply market,

³ See for example the diverse range of citations of the Toolbook at https://www.researchgate.net/publication/259999314_Making_Value_Chains_Work_Better_for_the_Poor_A_Toolbook_for_Practitioners_of_Value_Chain_Analysis

⁴ Nang’ole EM, Mithöfer D and Franzel S. 2011. Review of guidelines and manuals for value chain analysis for agricultural and forest products. ICRAF Occasional Paper No. 17. Nairobi: World Agroforestry Centre

⁵ Devaux, André, ed.; Torero, Maximo, ed.; Donovan, Jason, ed.; and Horton, Douglas E., ed. 2016. Innovation for inclusive value-chain development: Successes and challenges. Washington, D.C.: International Food Policy Research Institute (IFPRI)

⁶ <http://aciarc.gov.au/publication/mn148>

⁷ <http://aciarc.gov.au/page/eastern-indonesia-agribusiness-development-opportunities-ei-ado>

⁸ Donovan, J., Cunha, M., Franzel, S., Gyau, A. & Mithöfer, D. 2013. Guides for Value Chain Development – A Comparative Review, CTA & World Agroforestry Centre, Wageningen, The Netherlands.

consumer, and value chain research methods to real-world agribusiness problems in developing countries. The AMC was developed to meeting the growing regional demand for agribusiness research skills.

At the completion of the AMC, participants can:

- Identify and define real-world issues, opportunities, and constraints to pro-poor agribusiness development in agri-food value chains in Asia.
- Identify and define relevant and important research questions.
- Understand and apply appropriate consumer, market, and value chain research methods.
- Develop and apply appropriate experimental design, sampling, and interviewing methods.
- Develop effective communication, facilitation and data collection skills and methods with consumers, traditional and modern retailers, wholesalers, traders and collectors and farmers.
- Analyse and present results and conclusions; and
- Effectively communicate results and findings both orally and in brief written reports.

In Vietnam, the AMC was delivered to 25 participants selected in a competitive process from Vietnam and the Asia-Pacific. The pilot comprised 3 modules: 1. Market and consumer research; 2. Value chain analysis; and 3. "From learning to action". The course approach was "principles-based and practically orientated", with plenty of hands-on research exercises and real-life case-studies. Mini projects undertaken during the AMC were directly connected and contributed to several current ACIAR Agribusiness projects in Vietnam.

In 2016-17 an SRA project (ABG-2015-030) adapted and delivered the Agribusiness Master Class to meet the needs of 24 researchers, development workers and agribusiness owners/workers in Myanmar. This SRA also sought to develop a sustainable business model for the up scaling of the Agribusiness Master Class program in SE Asia and the Pacific.

Participant evaluation of the adapted AMC in Myanmar was very positive and indicated strong demand. However, it was clear a systematic review, improvement and updating of the AMC format, structure content and delivery approach and model was needed. This particularly required better integration of principles and research approaches on gender equity, social inclusion, and financing in agricultural value chains. Whilst a regional delivery model was trialled with Helvetas Intercooperation in Myanmar, a sustainable business model for AMC upscaling and delivery was not developed.

This project supported important updates, improvements, and integration of both the M4P Toolbook and the AMC. It will also develop a more efficient and effective AMC delivery model, built around a community of practice, donor and private sector alliances and formal university recognition of AMC training, which contributes towards a higher degree.

4 Objectives

4.1 Aim

The project aim is to develop innovative agribusiness research learning resources and delivery models for the Asia Pacific that specifically mainstreams contemporary gender equity, social inclusion and women's economic empowerment principles and approaches.

4.2 Objectives

1. Review and update the **M4P Value Chain Toolbook** and case studies:
 - 1.1 Review and improve existing M4P content, tools, and case studies.
 - 1.2 Develop new M4P Toolbook modules on gender-social inclusion and value chain financing.
2. Review and improve the content, format, and delivery of the **Agribusiness Master Classes**; and
3. Develop a community of practice and explore business models for delivery of M4P Value Chain Toolbook and Agribusiness Master Class program throughout the Asia-Pacific.

The SRA will contribute towards a wider goal of building capacity in agribusiness research-for-development methods of young researchers, development specialists and innovative agribusiness operators.

5 Methods

The methods described for project activities (by number) are described below.

5.1 Objective 1: Review and update M4P Value Chain Toolbook and case studies

1.1.1 Objective 1 was led by Dr Dominic Smith from the University of Queensland. The revisions of the Toolbook in this SRA were undertaken by a core working group, consisting of Dominic Smith, Tiago Wandschneider, Rodd Dyer, Nozomi Kawarazuka (gender specialist), Emily Miller (gender and women's economic empowerment specialist; TBC) and Tom Moyes (agricultural value chain finance specialist;). The working group met at the beginning of the SRA and develop a matrix of responsibilities for revision and material development and a timeline for completion of milestones

1.1.2. Dr Nozomi Kawarazuka and Ms Emily Miller provided important guidance and content about contemporary thinking, principles, and approaches for apply a gender lens, and addressing women's economic empowerment in M4P projects and programmes (e.g. Jones 2012⁹).

1.1.3–1.1.6 The revisions of the Toolbook continue the collaborative development methods used to produce the first three editions of the Toolbook. A range of technical inputs, case studies, examples and data were sourced from a network of collaborator colleagues across a variety of Australian, international, and in-country institutions.

1.1.6 Draft revisions to the English and Vietnamese versions of the Toolbook were sent out for technical review and language review. A professional editor was engaged to undertake copy-editing. A graphic designer was engaged to prepare print-ready versions of the publication. Images were sourced from CIAT and ACIAR image libraries, as well as personal collections.

1.1.8. The M4P Toolbook was translated into Vietnamese and underwent several language reviews with research colleagues from the Vietnam Academy of Agriculture Science (VAAS).

5.2 Objective 2: Review and improve the content, format, and delivery of the Agribusiness Master Classes

2.1 A telephone and online survey of twenty-four AMC participants was conducted to determine unprompted and prompted features of AMC in Vietnam and Myanmar that were highly regarded and effective, and areas and recommendations for improvement. The recommendations and insights provided guidance for revision and improvement of the AMC program.

2.2. The Working Group met together review of the AMC program including high-level aim and learning outcomes, format, and content. Contemporary adult learning and e-learning principles were explored to provide ideas and opportunities to improve the content, and delivery of the AMC program. This included technologies and ideas to support more effective and efficient delivery models, identification of possible delivery partners, approaches to local adaptation, and incorporating skills appraisals, pre-reading, remote and

⁹ Jones, L. 2012. *Discussion Paper for an M4P WEE Framework: How can the Making Markets Work for the Poor Framework work for poor women and for poor men? (The Conceptual Paper for a Multi-Stage Process)*. January 2012. The Springfield Centre for Business in Development. Discussion Paper for an M4P WEE Framework. http://m4phub.org/userfiles/resources/32201210289657-M4P_WEE_Framework_Final.pdf

e-learning and sector case-studies. The potential to adapt the AMC to a MOOC-style (Massive Open Online Course) format will be examined.

The revised and updated M4P Value Chain Toolbook is expected to contribute core content, learning materials and case studies for the Value Chain component.

2.3 The AMC revision and update included the following sub-activities and components:

- Identify and integrate core M4P Toolbox content, case studies and activities into the AMC Value Chain module. This will include the preparation and formatting of Power Point presentations, workbook and exercises and mini-project activities.
- Undertake a review and update of Market Research Component, including core principles, tools and approaches for market and consumer research, in a M4P market system development context.
- Identify options for more hands-on, practical delivery during the AMC, including pre-delivery of core principles and theory sections (e.g. Market and Value Chain Fundamentals) prior to the AMC course.
- Review and improve AMC mini-projects format, content, and materials to be more practical and hands-on, with greater trainer interaction and in-field guidance. Update instruction Power Points, activities, trainer instructions and enhanced role for Facebook.
- Develop a list of key up-to-date reference materials and on-line resources, including papers, articles, videos, and recorded talks
- Develop AMC activities that include exercises for reflection, key skill consolidation, discussion and problem solving
- Identify and document a set of effective, relevant, and interactive icebreakers and energisers games and exercises, including exploring possible agribusiness role play games and scenarios for integration into the AMC.
- Develop a set of Delivery Notes for trainers and facilitators.
- Develop and document a series technical agribusiness case studies on key AMC topic areas which were integrated into AMC materials.

2.4. A range of recorded video stream services and formats were evaluated to produce core pre-learning and in-course learning materials. An Agribusiness Research Insights webinar series was implemented to provide seven recorded video presentations on key AMC topic areas. The objective of this delivery mode was providing high impact speakers to course participants in a highly cost-efficient and timely manner, including the ability to utilise presentations for successive training.

2.5 A community of practice was drawn on to provide content and internal peer review of key components for the revised AMC.

5.3 Objective 3: Develop a community of practice and explore delivery models and partnerships for M4P Toolbook and Agribusiness Master Class throughout the Asia-Pacific

3.1. A network of researchers, donors, and development specialists was engaged to contribute to peer reviews and case-studies for the M4P and AMC.

3.2. A Word-Press website was developed to host an HTML version of the M4P Toolbook. The AMC materials will be hosted with the University of Adelaide, Centre for Global Food and Resources (CGFAR).

3.3. The requirements for participants to receive formal University recognition at Certificate level following successful completion of the AMC training modules was revised a discussion document development.

6 Results

6.1 Objective 1: Review and update M4P Value Chain Toolkit and case studies

A fully revised print-ready 4th edition of the “Making Value Chains Work Better for the Poor” (M4P Toolkit) has been produced in English¹⁰ and Vietnamese¹¹. The Toolkit will be published as an ACIAR monograph.

Smith, D, Dyer, R, and Wandschneider, T (Eds.) 2020, Making Value Chains Work Better for the Poor: A Toolkit for Practitioners of Value Chain Analysis. ACIAR Monograph No. 212. Australian Centre for International Agricultural Research, Canberra. ISSN 1447-090X (online).

The Vietnamese language version will be co-published with the Vietnam Academy of Agricultural Sciences (VAAS) Agricultural Publishing House. VAAS were actively involved in the technical review of the final Vietnamese version. The Toolkit will be adopted and promoted by VAAS as their primary value chain research reference resource for use throughout the Ministry.

6.1.1 Purpose

The Toolkit provides value chain practitioners with practical tools for value chain analysis, with a focus on poverty, gender, and social inclusion. Although other guides for value chain analysis exist, the core aim of this Toolkit is to provide robust analytical tools to identify value chain interventions that are inclusive and beneficial to the poor, to both women and men, or to other disadvantaged groups.

The entry point and orientation of the first three editions of this Toolkit was focused specifically on making value chains work better for the poor. Pro-poor elements were included as over-arching themes throughout the guide. This fourth edition has expanded the scope of the Toolkit to include gender and social equity, moving toward the aim of “making value chains more socially inclusive”.

6.1.2 Approach

The existing chapters have also been updated, considering developments in value chain analysis over the past twelve years, to add more practical case studies, and a new chapter on data collection methodologies.

The Toolkit was edited by Dominic Smith, Rodd Dyer and Tiago Wandschneider and includes substantive contributions from Dr Emily Miller, a private sector development and gender specialist and Dr Nozomi Kawarazuka, a social scientist and gender specialist from the International Potato Centre (CIP). The Toolkit also benefited from external technical review by experienced practitioners.

A range of examples, case studies and experiences have been integrated from value chain research funded by ACIAR and partner agencies.

6.1.3 Target audience

The Toolkit is designed as a manual for professionals involved in project research, development, or identification of sector investment opportunities. The focus is on providing easy-to-follow tools and clear explanations about their use. This includes examples of how

¹⁰  [English version Toolkit final.pdf](#)

¹¹  [Vietnamese version Toolkit final.pdf](#)

these tools can and have been used in value chain analyses in the past. Although the value chain theory that underpins the tools presented in the Toolbook is an important element, the practical aspects of analysis dominates the content.

The Toolbook is developed for field-based researchers and practitioners. It will also help policy makers and planners understand how markets can be organised, and how they can support the development of value chains in a way that improves the position of the poor, smallholder farmers, small-scale agribusinesses, and/or disadvantaged groups. The principles presented in this guide can also help policy makers identify which value chains and sectors to support.

It is assumed that Toolbook users want to develop competitive value chains that are more inclusive, that create opportunities for more people to participate in markets and produce benefits from increased income and employment opportunities. Therefore, interventions developed using the analytical tools in this guide should have a clear focus on improving the livelihoods of the poor, women, or other target groups.

6.1.4 Organisation

The Toolbook is organised into two main sections. The first section provides a theoretical background to value chains, explains the pro-poor and inclusive entry points for value chain analysis described in this Toolbook, and outlines a broad set of key methods and approaches that are used for gathering data and information necessary to undertake value chain analyses.

The second section contains eight practical tools value chain analysis tools that can be used to analyse different dimensions within value chains. The first two are general tools: value chain selection and mapping of value chains. These are followed by two qualitative tools to analyse governance and linkages, power, and trust in the value chain. Three quantitative tools then follow, to analyse costs and margins, income distribution, and employment distribution. The final tool integrates both qualitative and quantitative data from the previous tools to systematically identify opportunities for upgrading. Information about applying a pro-poor, gender, and social inclusion lens has been integrated throughout the value chain analysis tools as a cross-cutting theme, rather than being the subject of a separate tool.

The M4P Toolbook can also be used as a key reference for the Agribusiness Master Class (AMC) participants.

A chapter on innovative and inclusive value chain finance concepts and tools was also developed (Appendix 9.6) but was not included in the revised edition of the M4P Toolbook. Rather, it has been provided as reference materials for the AMC.

6.2 Objective 2: Review and improve the content, format, and delivery of the Agribusiness Master Classes

6.2.1 Survey and evaluate feedback from previous AMC participants in Vietnam and Myanmar

Twenty-six participants in the previous AMC programs delivered in Vietnam and Myanmar were randomly chosen and surveyed about their learning previous experience, and their views about online and face-to-face delivery options. The purpose of this was to get feedback to guide the design of a refreshed AMC program.

Respondents undertook an open-ended qualitative [telephone survey](#), followed by an [online survey](#). The detailed results and insights from both surveys are presented in Appendix 9.1 and 9.2.

These surveys were conducted well before the global surge in online communications, meetings and learning that has occurred during the COVID-19 pandemic. Some of these perceptions may have changed (positively or negatively) as many people, through necessity, have had to rely more on online communication and collaboration platforms.

What participants think about the AMC program experience

The top ten take-away messages from participants about the AMC program learning experience are provided below.

1. The AMC program successfully met almost all participants expectations and learning needs in market and value chain research.

Overall, the AMC met most participants' expectations. One reason is the AMC was focused on addressing the needs of participants who were directly involved in value chain and market research areas.

It is important to select appropriate participants for AMC to ensure the program meets with learning needs and expectations. The Vietnam AMC targeted participants who had basic knowledge of market and value chain research already, so the topics covered were particularly helpful to them. The program was a chance to refresh their foundational knowledge on core topics before being introduced to more in-depth theories.

2. Developing knowledge and skills about market and value chain research methods in the AMC was highly relevant and valuable for researchers and development specialist participants

Respondents found the core topics and content on market and value chain research methods were very relevant to their professional work. Feedback showed that participants like to learn core knowledge and theory that is directly related to practical activities or experiential learnings opportunities, such as with the mini projects. Several respondents indicated they felt overwhelmed with the amount of information covered in the core delivery program and mini project in the allocated time, and that it would be better if the program could be delivered over a longer timeframe. .

3. Mini-projects and related experiential field activities were particularly effective and valued by participants

The mini-projects and field trip activities were the most highly recalled and valued part of the AMC program. Presentations from guest speakers were also particularly highly valued. The interaction with other classmates was also regarded as one of the most enjoyable aspects of the AMC. These are key features of delivery content in a face-to-face format, so replicating this value in any form of online delivery needs to be well considered for each country or community that is participating in the AMC.

4. Experiential and interactive learning and skill development activities are considered essential and highly sought after by participants

The ability to learn core concepts and methods for market and value chain research was highly valued. However, providing interactive and student-centred learning, with a strong focus on practical experiential learning and skill-development (e.g. via mini-projects and field activities) was considered extremely important by respondents.

Participants indicated they enjoyed the student-centred learning approach which provided them opportunities to ask questions and discuss themes with other classmates. They said they were more involved and engaged in learning compared with traditional teacher-centred learning. Two participants shared that they applied some of the design and learning approach of the AMC into organising their own workshops and trainings.

5. Market and consumer research topics were relevant and useful

Most participants found the market and consumer research modules relevant and useful, or highly relevant and useful for improving their skills and knowledge (Scoring 3.8-4.3/5.0). “Planning and implementing work via a mini-project”, followed by “understanding key concepts” and “defining research problems and questions” were the learning areas most highly rated.

6. Understanding key value chain concepts and methods was particularly relevant and useful

The value chain research component was the most useful in terms of improving participants’ knowledge and skills across a range of areas. Most value chain topics and modules were considered relevant and useful, or highly relevant and useful (Scoring 3.7-4.2/5.0), “Understanding key concepts” was rated as the most relevant and useful learning outcome. Specifically, feedback indicated that participants found it useful to learn about how to link with different stakeholders vertically and horizontally in the chain, how to evaluate chain governance, how to design value chain research, conducting value chain mapping, and analysing costs and margins.

7. Creating a socially interactive learning environment, including incorporating icebreakers, energisers and social activities was very important for building trust, engagement, and a team spirit (for a face-to-face delivery context).

The opportunity to interact and develop inter-personal relationships with other participants during the AMC program was highly valued. Lasting friendships and networks were forged during the AMC program. “Regular ice-breakers, energisers and problem-solving games” were highly rated and valued activities. They promoted social interaction, teamwork, motivation and keeping energy levels high. Participants also valued a fun and motivated learning environment where they felt comfortable sharing their experiences, learning with each other and developing team and individual work and problem-solving skills.

8. A range of individual and groups learning and delivery activities and approaches, including directed and self-learning were considered useful and effective by participants (for a face-to-face delivery context)

Multiple learning activities used in the AMC were considered useful and relevant (scoring 4.0-4.2/5.0), confirming the importance and effectiveness of multiple delivery approaches. However, all the activities below were rated highly, with little difference between activities.

- Class-room presentations and discussions on special topics and case studies
- Icebreakers, energizers, and problem-solving games
- Use of Facebook groups for mini projects (Myanmar only)
- Group mini project
- Agribusiness networking function (Vietnam only)
- Panel discussions with agribusiness specialists
- Daily reflection exercises and quizzes

9. Most participants applied learnings from the AMC in their professional work

Most AMC participants were able to apply learnings from the AMC program in their professional work, with 59% applying learnings sometimes and 41% applying often.

10. Improvements to the AMC program delivery include allowing more time for questions, discussions, and the mini project; using more guest speakers who are experienced agribusiness leaders and researchers; and providing a slower learning pace, with content more directly linked to a practical activity.

Most respondents (20/26) said they would prefer to have more time for Q&A, discussions, and the mini projects. They said that Q&A was cut short while they still had more burning questions to ask or follow up. Similarly, it was difficult combining working on mini-projects while still having to participate in classroom learning during

the final two days. They preferred to spend time working on their mini projects. Respondents liked the idea of more guest speakers who have successfully lead businesses or have experience in market and value chain research being invited to the AMC. A slower learning pace with less heavily contented presentations delivered by lectures was also raised as a preference. AMC participant feedback showed that they preferred to learn core knowledge and theory, that is directly related to practical activities or the experiential learnings of the mini projects.

What participants think about online and face-to-face learning

The top ten take-away messages about online delivery and face-to-face learning from surveyed participants are provided below. (Noting these responses were gathered before the COVID 19 pandemic.)

- 1. Online delivery of core content is considered an efficient, convenient, and highly accessible mode of learning, but there are some exceptions and concerns.**

Online delivery was considered very efficient, convenient, and highly accessible by most participants (excluding those in Myanmar). The ability to revisit online resources over time to understand content after the AMC was considered a key advantage.

- 2. Core-content of market and value chain research modules could be delivered remotely via online learning. However, a face-to-face component is also considered essential and should be dedicated to more practical and experiential activities.**

Most respondents (>75%) preferred online delivery for some, or most of AMC core concepts, topics, and case studies (via webinars and e-learning activities) and a face-to-face program that dedicated more time to practical and experiential activities.

- 3. Online delivery needs to take remote connection speeds into account. It should also ensure a highly interactive, engaging, and dynamic learning environment, that maximises personal interactions between participants.**

Some respondents (9/26) (particularly in Myanmar) preferred face-to-face delivery of core concepts and material, as they thought online delivery would be less interactive, less motivating, detrimental to focus and less engaging. All respondents in Myanmar thought slow internet speeds would be a major problem and hamper online learning.

- 4. Interactive features of online delivery (e.g. online chat, mentoring, interactive webinars etc) were considered only moderately relevant and useful, suggesting some caution.**

A wide range of online and e-learning features were considered moderately useful and relevant (with average score of 3.3-4.2/5.0). Interestingly interactive features (e.g. group chat and discussion, live webinars etc) were rated less useful compared to other passive, less interactive online features (e.g. access to online reading material and websites). The list of online features in order of declining value from respondents included:

- Pre-reading of recommended materials
- Links to further reading material and relevant websites
- Online reflection exercises and quizzes
- Online mentoring and support from trainers
- Recorded or on-demand video-webinar presentations
- Online group chat and discussions
- Scheduled live-video and webinar presentations
- Linked social media groups – e.g. Facebook group
- Podcasts (audio only)

As mentioned above, this survey was conducted prior to the COVID-19 disruptions. It would be interesting to re-evaluate whether perceptions have changed following their remote communication and collaboration experiences during 2020.

- 5. Online learning components should ideally be delivered in a relatively condensed time periods over 3-5 weeks. Online learning sessions (e.g. “lectures”) should be delivered in a series of short chunks and integrated with interactive activities.**

Most respondents (88%) were willing and able to allocate 1-3 hours per week over a two to five-week period for online learning.

Online content must be presented in short (around 15 min), precise and focussed modules to be effective, and there would still need to be mechanisms for individual and group work, interaction in discussions, online chats, quizzes, projects, and problem solving activities.

- 6. There is a strong demand for more experiential learning in a face-to-face program.**

All respondents strongly supported having the face-to-face program allocated to more practical and experiential activities, with greater opportunity for hands-on skills development (e.g. expansion of the mini-project activities) instead of classroom presentations.

A range of interactive, experiential activities were considered highly relevant and useful (4.4-4.7/5.0) for a face-to-face program. These activities, in order of declining value from respondents, included:

- Panel discussions with local agribusiness specialists
- Farm, market, and agribusiness visits
- Group agribusiness mini project
- Practical skill development and mentoring
- Reflection and review of core concepts
- Presentation of local case studies and examples
- Agribusiness networking function

- 7. Online learning pre-requisites should be completed before participants move to an experiential focused face-to-face component.**

Some respondents (3/26) suggested that participation in the face-to-face activities should only be offered to those who successfully complete online modules and pass an assessment. It was also suggested the participants be formed into teams or groups during the online component and begin work remotely on their mini projects. This would encourage teamwork, problem solving and social interactions between participants. It would also enable participants to start applying their learning to the planning of their mini-project activities during reflection exercises.

- 8. More hands-on mentoring of mini-project teams in the field is required**

Respondents considered that more support from experienced mentors was needed during the mini-project field activities (e.g. to critique, demonstrate or refine the focus of group discussions and interviewing techniques).

- 9. Formal recognition of training is considered an appealing option.**

The majority of surveyed respondents find the possibility of acquiring formal recognition for their training as ‘important’ or ‘very important’, but the AMC course would not meet the internal or external standards for an accredited course. Instead, further ways to satisfy the desire from respondents to acquire professional development certification should be considered.

6.2.3 Revise and update the program, content, format, course materials, mini-projects and case studies for Market Research and Value Chain Research modules

The AMC materials have been revised, updated, and reformatted. Numerous case-studies and activities have been included. Delivery Notes have been provided for all presentations.

This AMC Navigator PowerPoint interface (Figure 6.1) provides a visual overview of the content and structure¹² of the entire AMC. It also allows users to quickly navigate between all the AMC PowerPoint presentations and learning resources for topics and sub-topics from one central location. There are two main module choices: 1. Value Chain Research; and 2. Market and Consumer Research. Some other topics and materials such as recorded webinars and case studies are also available in the section title 'Other Topics'.



Figure 6.1. Screen shot (linked) of the AMC module and topic navigator

Also accessible in the Delivery Notes page from the AMC Navigator are detailed delivery notes and resources. This includes guidance for presenters on the running of mini-projects, setting up Facebook groups and icebreakers, and energizers.

The AMC materials will be available on the Centre for Global Food and Resources website.

6.2.4 Evaluate options for improving efficiency and effectiveness of delivery using live-streaming and recorded video presentations

Produce at least five recorded video agribusiness presentations and protocol for live-streaming video presentations.

A key reason for producing webinars and evaluating online delivery platforms was to identify more cost-efficient and effective options for delivering AMC (and other) learning

¹² [1. AMC module overview.pptx](#)

programs to developing country participants. The activity involved producing a series of live-streamed and recorded webinars. It also enabled evaluation of Microsoft Teams.

A total of seven live-streaming and recorded case-study webinars were delivered and produced (Figure 6.2). A YouTube channel [Agribusiness Research Insights](#) was established to upload and host recorded webinar videos. These webinars have been integrated as case studies into the AMC topics and delivery materials.

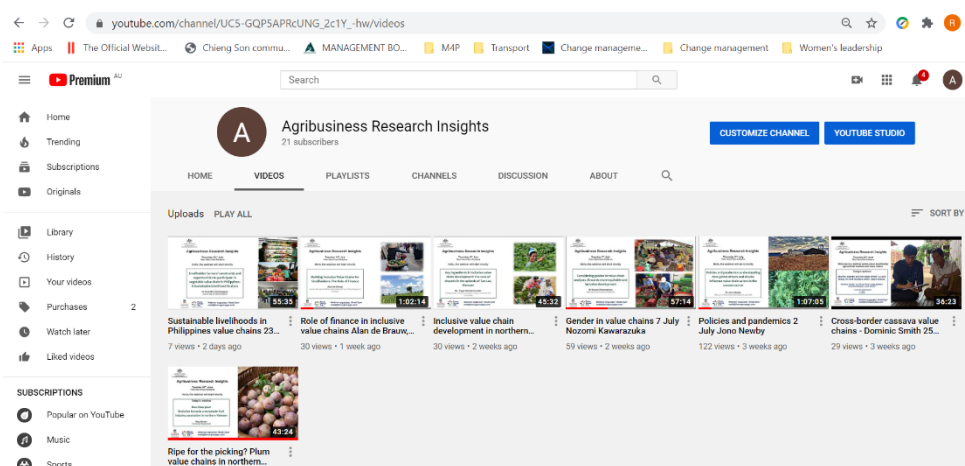


Figure 6.2. Screen shot of YouTube Agribusiness Research Insight playlist

Details about the webinar topics and presentations, the production process, participant overview and feedback and evaluation of Microsoft Teams is provided in Appendix 9.4.

Recommendations of protocol for live-streaming video presentations.

There has been an explosion in the development and use of video conferencing, online collaboration tools, and webinar software apps to support remote work and learning during the COVID-19 outbreak^{13,14}. This “new normal” provides a huge opportunity to develop and deliver fully online or blended learning and capability development programs for developing country participants. However, remote, and online collaboration and learning, cannot always replace the experience and richness of face-to-face interaction.

Key performance criteria for video conferencing, webinars, and online collaboration platforms.

The following features were considered important performance criteria for an effective online learning delivery platform for AMC:

- Cost
- Ability to seamlessly integrate with current software and operating systems
- Set up and ease of use
- Reliability and accessibility for facilitators, presenters, and participants
- Security features and accessibility to participants from various Government Departments and institutions¹⁵
- Ability to handle multiple presenters and participants from remote locations
- Ability to function effectively across a range of internet speeds and devices (laptops and mobiles)

¹³ <https://www.techrepublic.com/article/zoom-losing-to-teams-in-the-video-conference-race-to-the-top/>

¹⁴ <https://www.trustradius.com/vendor-blog/covid-19-software-industry-data-and-statistics>

¹⁵ Some Governments Departments and institutions (e.g. GIZ) are reportedly not allowing their staff to run or participate in Zoom meetings due to security concerns

- Ability to produce live-streamed and recorded webinars, discussions, and meetings
- Ability for participants to fully interact and participate in multiple modalities e.g. via video, audio, messaging, screen sharing and on-line documents collaboration
- Ability for online break-out groups

Other useful criteria and feature include:

- Ability to seamlessly integrate existing programs (PowerPoints, spreadsheets, documents, etc) into platform
- Ability to integrate polling, quizzes, feedback, and other media
- Auto-subtitling and language translation features
- Logging of participant analytics

Options and protocols for online meetings, webinars, and learning

There are numerous videoconferencing¹⁶, webinar¹⁷ and online collaboration applications and platforms capable of reliably delivering cost-efficient and effective services. Each have pros and cons, many of which are highlighted in numerous internet reviews¹⁸. Some of the most favourably reviewed platforms (in no particular order) include:

- Microsoft Teams
- Zoom
- Google Meet
- Zoho Meetings
- WebEx
- Livestorm
- Blue Jeans
- GoToWebinar/Meeting

With the video conferencing and collaboration apps above, little is required in terms of technical protocols to schedule and produce live-streamed and recorded meetings or webinars. These apps are feature rich, and are regularly adding new functionality, as they compete for a larger share of a rapidly growing market.

Microsoft Teams and Zoom are the two collaboration platforms that stand out in terms of market share and usage growth during the pandemic. Between Feb and June 2020 Microsoft Teams use grew by 894%, while Zoom grew 677% according to online media reports¹⁹ (Figure 6.3).

¹⁶ <https://www.techfunnel.com/information-technology/11-best-virtual-meeting-platforms-for-business/>

¹⁷ <https://www.techradar.com/uk/best/best-webinar-software>

¹⁸ <https://sea.pcmag.com/videoconferencing/4839/the-best-video-conferencing-software-for-2020>

¹⁹ <https://www.techrepublic.com/article/zoom-losing-to-teams-in-the-video-conference-race-to-the-top/>



Figure 6.3. Growth in online collaboration tools during 2020. Source: TechRepublic and Aternity

YouTube is also an important platform for easily making pre-recorded video content available to target groups and engaging wider public or private group audiences. An advanced set of editing and analytic tools are now also available at the new YouTube Studio.

The most important requirement for live-streaming is for facilitators and participants to have a webcam enabled laptop or mobile device, a reasonable internet speeds and a location where they engage in online learning activities with limited distractions.

Conclusions

Integrating videoconferencing, live and recorded webinars, and content delivered online provides opportunities to deliver high quality AMC capacity development programs to more participants throughout partner countries. There are also important challenges that need to be considered.

Some of advantages are they:

1. Provide cost-efficient and effective approaches for remote engagement, collaboration and learning directly with participants
2. Reduce the time and cost of delivering traditional face-to-face learning activities in-country
3. Make learning opportunities more accessible and affordable for developing country participants
4. Provide a more flexible learning program in terms of timing, commitment, and workload
5. Able to engage experienced mentors and facilitators, and high-profile guest speakers remotely from around the world in a more cost-efficient and effective way; and
6. Can be integrated with an “online hub” of learning materials and resources (Recorded content, presentations, recorded webinars, and case-studies) that can be accessed and re-used for specific learning courses that accumulates over time.

Some of the challenges include:

1. It is highly likely that on-line videoconferencing platforms and learning delivery would be less successful in countries and locations with slower and unreliable internet connectivity

2. People less familiar and comfortable using similar technology may also be more reluctant and apprehensive about engaging in online learning.
3. Online experiences cannot fully replace the dynamics and benefits of personal interaction. In particular, the reality and value of experiential learning experiences, and group interactions gained with face-to-face delivery in the field and market activities (e.g. AMC Mini-Projects).

6.3 Objective 3: Develop a community of practice and explore delivery models and partnerships for M4P Toolbook and Agribusiness Master Class throughout the Asia-Pacific

6.3.1 Developing community of practice involving practitioners who are interested and willing to contribute to the revision of the M4P Toolbook

Researchers from a wide network of Australian, international and partner country research institutions, mostly linked to ACIAR projects, were engaged and contributed to the M4P Toolbook and AMC revisions. This network functions as an informal community of practice with a common interest in inclusive value chain and market research and progress in developing country contexts.

Some of the key networks within the community of practice include:

- ACIAR project researchers from Australian, international and partner country institutions, particularly those working in the Agribusiness Research Program
- Agribusiness Master Class Alumni from Vietnam, Myanmar, and Philippines
- Markets and agricultures linkages for cities in Asia ([MALICA](#)) research network
- IFAD Value Chain Capacity Building Network ([VCB-N](#)) in Asia
- Vietnam Academy of Agricultural Science (VAAS) and Philippine Council for Agriculture, Aquatic, and Natural Resources Research and Development (PCARRD) and Yezin Agricultural University (YAU), Myanmar
- Private sector research partners such as Fresh Studio, who are actively involved in value chain and market research training
- Researchers in Agriculture for International Development ([RAID Network](#))

These existing contacts and organisations provide a network of like-minded professionals across government, donor, research institution and private sector stakeholders working throughout South East Asian. There is an opportunity to further utilise this community of practice to promote future collaboration in inclusive agribusiness research capacity development and research.

6.3.2 Produce a dedicated low-cost website/webpages (Word Press or similar) for the Agribusiness Master Class and M4P to be used as source of learning resources and materials

The revised edition of the Making Value Chains Work Better for the Poor (M4P Toolbook) has been made available on a dedicated website valuechains4poor.net.

The AMC materials will be available via the University of Adelaide, Centre for Global Food and Resources website (<https://www.adelaide.edu.au/global-food/>)

6.3.3 Evaluate options for formal recognition of AMC modules towards higher University degree

The AMC course content may act as a pathway for participants to enter further study in courses and programs around markets, value chains and consumer behaviour, either at

the University of Adelaide or other institutions. Evaluation indicates that the material is not suitable as part of a higher University qualification as it won't meet the standards necessary for accreditation through the Australian Qualifications Framework. The AMC program has been borne out of a need to better equip researchers and professionals in their evaluations of value chain opportunities, challenges and areas that require further investment or effort to make improvements in developing countries. The AMC course should remain accessible to those that most need the training, with a certificate of completion toward professional development the qualification.

6.3.4 Develop business model options for regional partnerships, co-investment, and delivery models for up-scaling, particularly with the private sector and donors.

The AMC was originally delivered as a face-to-face (F2F), in-country capacity development program that focused on two main learning modules: 1. Value Chain Research; and 2. Market and Consumer Research. Each module was delivered over an intensive five to six-day period, that also included Mini-Project preparation work and field activities. There was no pre-class participant learning requirements. Whilst the AMC programs were highly effective in terms of capacity development, they are expensive to implement and can only reach a small number of people.

Even prior to the travel and movement restrictions imposed by the COVID-19 pandemic there was a need for capacity development programs such as the AMC to be more cost-efficient, more flexible, and more accessible to a wider range of remotely located participants.

A successful business model will deliver desired capacity outcomes and impacts to target participants over time, in a cost-efficient way (e.g. provide good value for money). A business model that can deliver capacity outcomes, and generate enough revenue from participant fees, donor grants, scholarship support or private sector sponsorship to offset or exceed the delivery costs would be highly desirable.

Some of the key underlying questions affecting the business model options are:

1. Who are the target participants? What institutions do they represent? How many are there?
2. How will training or learning be delivered?
3. What business model options exist for funding and co-investing in delivery?
4. How do the different options compare in terms of value for money and impact?

Determining the value for money of different delivery options is a function of:

- i. **Cost** of preparing for, and delivering a program
- ii. **Revenue** potential from participant fees, scholarships, donor grants or sponsorships
- iii. **Capacity impact** or the level of learning outcomes
- iv. **Accessibility and reach** to participants
- v. **Value for money**, or the level of learning impacts achieved per unit of investment (either total or net cost to ACIAR).

Demand will also be determined by the quality of the program, whether it meets the learning needs of participants, and whether it aligns with the funding priorities and outcomes of potential funder and donors.

1. Who are target participants and institutions? How big is the target market of participants?

An AMC capacity development program is targeted to:

- Young, early to mid-career researchers, development professionals and policy makers from partner countries throughout Asia Pacific working in agricultural market and value chain development, particularly with an interest or focus on gender and social inclusion
- Analysts or sector specialists with agribusiness companies tasked with identifying new market and value chain upgrading and development opportunities
- Prospective or current Master students in international business, agribusiness, agricultural economics, international development, social enterprise who are interested in inclusive agribusiness, agricultural market and value chain development
- Agribusinesses, financial institutions (e.g. banks), potential investors with an interest in socially inclusive agricultural development opportunities

Most target participants are from partner developing countries in the Asia Pacific region. However young researchers, development professionals and students from Australia and other countries could also be engaged.

The types of institutions participants represent include

- National research organisations and universities in partner countries, particularly Asia Pacific
- Non-government development organisations
- Industry organisations
- Agribusinesses, financial institutions (e.g. banks), potential investors with an interest in socially inclusive agricultural development opportunities
- Masters level students from Australian universities

2. How will the AMC program be delivered?

This project has identified a range of possible delivery options and business models for the AMC program, which are presented below. These options, and the final recommendations are informed by the survey responses of past AMC participants (Appendix 9.1), recent experiences from remote collaboration and learning during the COVID-19 pandemic, and established adult and remote learning principles. A more detailed explanation of the key adult and remote learning principles and strategies that have informed the AMC delivery recommendations can be found in Appendix 9.5.

The AMC program delivery options presented below vary depending on whether or not they offer comprehensive structured learning; face-to-face, online, or blended delivery; comprehensive facilitator and mentor support; participants to pay fees or offer program certification. As a result, the options vary considerably in cost, potential for revenue, capacity impact, reach and accessibility and value for money. They represent a range of options from low cost and low impact passive options such as simply making materials available via the internet. Other options included the more traditional face-to-face fully funded delivery to relatively small numbers of participants. Finally, options to delivery fully certified structured online or blended capacity development programs are considered.

1. Open online access to AMC information and resources

- a. AMC materials and resources made available via University of Adelaide website. Materials and resources could be promoted to key national level research institutions, regional networks, and organisations e.g. MALICA research network - Markets and agricultures linkages for cities in Asia (MALICA); IFAD Value Chain Capacity Building Network (VCB-N) in Asia, Vietnam Academy of Agricultural Science (VAAS) and PCARRD in the Philippines, DFAT BPP Private Sector

2. Customised AMC delivery funded as a project (face-to-face or blended delivery)

- a. Customised delivery of some AMC topics or modules funded as part of other ACIAR projects and incorporated into their structure e.g. PARDI, Pacific sheep and goat, proposed Pakistan.
- b. AMC programs delivered as a project with ACIAR funding in targeted countries and institutions, with potential co-investment from development donors (e.g. DFAT, ADB or IFAD etc). This is how the AMC Program has been delivered to date.
- c. AMC delivered as a training-of-trainers (TOT) program, with ACIAR funding, in targeted countries and institutions, with potential co-investment from development donors (e.g. DFAT, ADB or IFAD etc). A strategic TOT targeted approach may provide broader capacity outcomes.

3. Structured online or blended programs with Certification, fee, and fee-subsidy options

- a. Fully online delivery with external facilitation and mentoring support, structured interactive classroom sessions combined with pre-class learning and activities, and a **virtual** or **individual** Mini-Project. The program could be delivered as Introductory, Intermediate, or Advanced options.
- b. The Advanced program as above but delivered as blended program with remote online delivery of core concepts and topics and inclusion of a final 5-7 day in-country practical Mini-Project.

3. *How do the different options compare in terms of value for money and impact?*

The different delivery options were broadly evaluated in terms of their likely delivery costs, potential to generate revenue, capacity impact, accessibility and reach to participants, and value for money (Figure 6.4).

Figure 6.4. Qualitative assessment of value for money criteria for different AMC program delivery options

#	AMC Delivery options	Cost	Revenue	Capacity Impact	Accessibility	Value for Money
1a	Online materials	Very low	Very Low	Low	High	Low
1b	MOOC	Low	Moderate	Moderate	High	Moderate
2c	F2F Project	Very High	Very Low	Very High	Low	Low
3b	Online structured	Moderate	Low	High	Very High	High
3c	Blended/structured	High	Moderate	Very High	High	High

Figure 6.4 shows that structured online or blended programs (3b and 3cc) are likely to provide better value for money (i.e. capacity impacts for the money invested) and a better business model. This is a function of the lower cost of on-line and remote delivery, effective capacity impacts, wider reach and accessibility.

Some of the recommended delivery features include:

- Transition from face-to-face (F2F) delivery to blended learning that combines online and F2F delivery depending on the situation and the available budget. Core AMC modules and topics could be delivered remotely on-line and be fully supported by facilitators and mentors.
- Adoption of a flipped learning approach which introduces AMC topics and concepts to participants before online “class” sessions, allowing facilitators and mentors to use class time to guide participants through active, practical, innovative applications of the course principles.
- A flipped approach is supported by full integration of remote collaboration and communication technologies (e.g. Microsoft Teams and Zoom) and greater use of multi-media resources such as YouTube hosted filmed content, recorded webinars, annotated PowerPoint presentations, activities and reflection and assessment exercises.
- The revised edition of Making Value Chain Work Better for the Poor (“M4P Toolbook”) now provides a comprehensive reference for use by AMC participants. The core AMC Value Chain Research topics are explicitly aligned to Chapters in the M4P Toolbook, and the relevant pre-class reading chapters noted in the Delivery Notes.
- Greater emphasis of the Mini-Project as the key experiential and inquiry-based learning activity. Mini-project activities are integrated into many of the Value Chain and Market Research topics and can be undertaken via F2F or online delivery. As participants complete Mini-Project activities, they progressively develop a detailed plan to implement their Mini-Project research.
- The option to deliver the final data collection, analysis and reporting of the Value Chain and Market Research Mini-Projects as in-country activities supported by experienced mentors over a period of 5-6 days. These activities are a valuable opportunity for participants to apply and develop their knowledge and practical skills in a real-world problem-solving scenario. This option requires more funding than an online or remote Mini-Project experience.
- Consider or evaluate the options for participants to complete a virtual Mini-Project or undertake their field and market work independently in their home country, with remote mentoring and support.
- A student-centred approach is strengthened, with a range of more flexible AMC program delivery options customised to suit participants’ learning needs and local contexts. For example, AMC programs could be adapted to be delivered at different levels of intensity, detail, and duration i.e.
 - Introductory
 - Intermediate
 - Advanced

4. What business model options exist for funding and co-investing in delivery?

Developing a successful business model for an AMC capacity development relies on generating potential sources of revenue to help offset real delivery costs. Potential sources of revenue come from:

- Full or partial participant fee payments.
- Co-investment grants in program delivery from other donors (e.g. DFAT, IFAD, ILO etc)
- Partnerships and sponsorship support from agribusiness firms – for open placement or participant from a specific target country, sector, or participant
- Partnership with agribusiness firms to deliver Mini-Projects on specific market and value chain problems they experience in partner countries
- Program co-delivery collaboration and partnerships with universities in partner countries (e.g. Vietnam National University of Agriculture, IPB University in Bogor) for research and specialist Training of Training (TOT).

7 Conclusions and recommendations

7.1 Conclusions

This project has produced a fully revised print-ready 4th edition of the “Making Value Chains Work Better for the Poor” (M4P Toolbook). It will be published in English²⁰ and Vietnamese²¹. The Toolbook provides value chain practitioners with updated practical tools for value chain analysis, with a stronger focus on poverty, gender, and social inclusion.

Although other guides for value chain analysis exist, the core aim of this updated Toolbook is to provide robust analytical tools to identify value chain interventions that are inclusive and beneficial to the poor, to both women and men, or to other disadvantaged groups. The Toolbook should provide a valuable reference to research and development professionals for many years and can be promoted as a core research guide to ACIAR research project. The M4P Toolbook also provides a valuable reference for the AMC program.

The business case for delivering a capacity building program such as the AMC remains very strong. There are increasing opportunities for agricultural research and development professionals with an interest in inclusive agribusiness development to apply their knowledge and practical research skills. However there continues to be a real need to strengthen researchers analytical and research capability in value chain and market and consumer research. This includes the ability to tackle real-world agribusiness problems, and the ability to design, implement, analyse, and communicate market, consumer, and value chain research.

As part of this project the AMC program and materials have been revised, updated, and reformatted. Numerous case-studies and activities have been included. Delivery Notes have been provided for all presentations. These materials have been adapted for both face-to-face and online delivery.

Even prior to the travel and movement restrictions imposed by the COVID-19 pandemic there was a need for capacity development programs such as the AMC to be more cost-efficient, more flexible, and more accessible to a wider range of remotely located participants. There is an opportunity for ACIAR, University partners and remote collaborators to deliver high quality, online and blended agribusiness learning, and capability development programs for developing country participants. Remote and online collaboration and learning cannot always replace the experience and richness of face-to-face interaction. Which is why experiential components such as the Mini-Project, agribusiness, field, and market visits, and visiting speaker contributions are critical for adult learning.

This project has identified a range of possible delivery options and business models for the AMC program. These options, and the final recommendations were informed by the survey responses of past AMC participants, recent experiences from remote collaboration and learning during the COVID-19 pandemic, and established adult and remote learning principles.

7.2 Recommendations

The following recommendations are provided for consideration.

²⁰  [English version Toolbook final.pdf](#)

²¹  [Vietnamese version Toolbook final.pdf](#)

1. Review and update the M4P Value Chain Toolbox and case studies

- Discuss and arrange a print-run of the M4P Value Chain Toolbox (English version). High-quality, cost-efficient printing can be arranged in Vietnam. Printing will be funded by ACIAR.
- Promote the M4P Toolbox on the ACIAR website and social media. Consider producing a short promotion video.
- Consider holding a small launch event for the M4P Toolbox, which could include virtual access for Australian in-country partners
- Promote the M4P Toolbox and make it available to ACIAR research partners, particularly throughout Asia Pacific

2. Review and improve the content, format, and delivery of the **Agribusiness Master Classes**

- The project team should provide a remote briefing and overview of the revised AMC modules and topics with ACIAR Managers and Capacity Development teams
- Describe next steps and plans (if necessary) for making the AMC resources available via the ACIAR Co-Lab site
- Discuss funding models, including partnerships with DFAT and other donors, and private sector sponsorship and partnership arrangements.
- Identify topics and resources that could be added to the AMC over time.

3. Develop a community of practice and explore business models for delivery of M4P Value Chain Toolbox and Agribusiness Master Class program throughout the Asia-Pacific.

Promote access to the M4P Value Chain Toolbox and the AMC program and resources to ACIAR projects and various partner institutions and networks in the community of practice. Key networks and institutions include:

- Markets and agricultures linkages for cities in Asia ([MALICA](#)) research network
- IFAD Value Chain Capacity Building Network ([VCB-N](#)) in Asia
- Vietnam Academy of Agricultural Science (VAAS) and Philippine Council for Agriculture, Aquatic, and Natural Resources Research and Development (PCARRD) and Yezin Agricultural University (YAU), Myanmar
- Private sector research partners such as Fresh Studio, who are actively involved in value chain and market research training
- Researchers in Agriculture for International Development ([RAID Network](#))

8 References

8.1 References cited in report

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Devaux, A., Torero, M., Donovan, J., and Horton, D.E., 2016. *Innovation for inclusive value-chain development: Successes and challenges*. Washington, D.C.: International Food Policy Research Institute (IFPRI)

Donovan, J., Cunha, M., Franzel, S., Gyau, A. & Mithöfer, D. 2013. *Guides for Value Chain Development – A Comparative Review*, CTA & World Agroforestry Centre, Wageningen, The Netherlands.

Jones, L. 2012. *Discussion Paper for an M4P WEE Framework: How can the Making Markets Work for the Poor Framework work for poor women and for poor men?* (The Conceptual Paper for a Multi-Stage Process). January 2012. The Springfield Centre for Business in Development. Discussion Paper for an M4P WEE Framework

8.2 List of publications produced by project

Smith, D, Dyer, R, and Wandschneider, T (Eds.) 2020, Making Value Chains Work Better for the Poor: A Toolbook for Practitioners of Value Chain Analysis. ACIAR Monograph No. 212. Australian Centre for International Agricultural Research, Canberra. ISSN 1447-090X (online).

9 Appendices

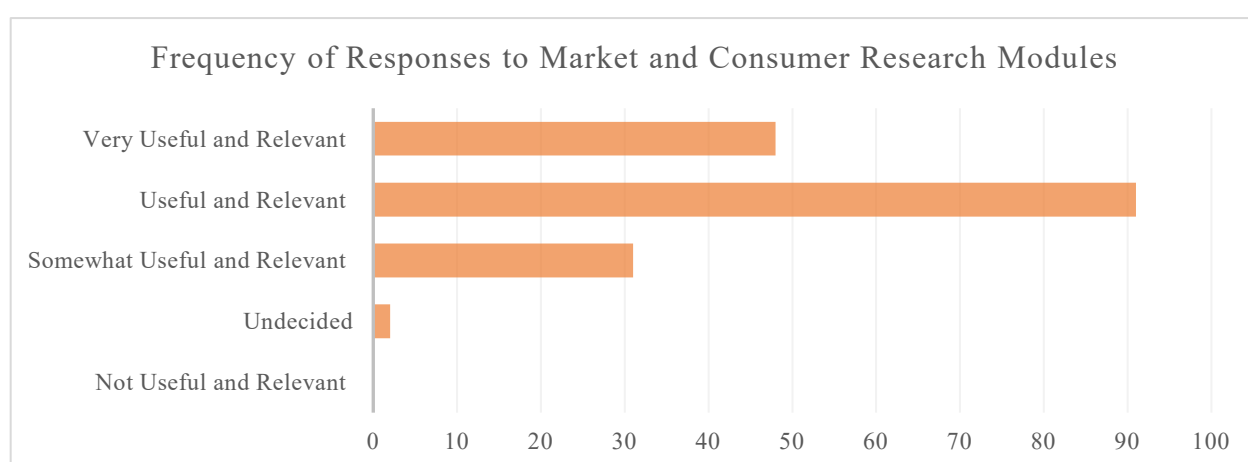
9.1 Summary analysis and insights of online survey of Agribusiness Master Class participants

Following is a statistical summary analysis and report for the recently completed Agribusiness Master Class (AMC) online participant survey. A total of twenty-six people who participated in both the Vietnam and Myanmar AMC's completed the survey. Participants had previously completed a telephone survey.

9.1.1 Market and Consumer Research

Effectiveness of market and consumer research modules presented during the AMC was examined in the online survey by asking participants to rate the usefulness and relevance of modules in terms of improving self-knowledge and skills. Using sub-questions to define various elements of modules, participants were asked to respond using a rating scale from 1 to 5, with 1 identifying not *Useful or Relevant*, and 5, being *Very Useful and Relevant*. Responses to sub questions can be seen in Appendix 1.

Frequency of Responses to Market and Consumer Research Modules

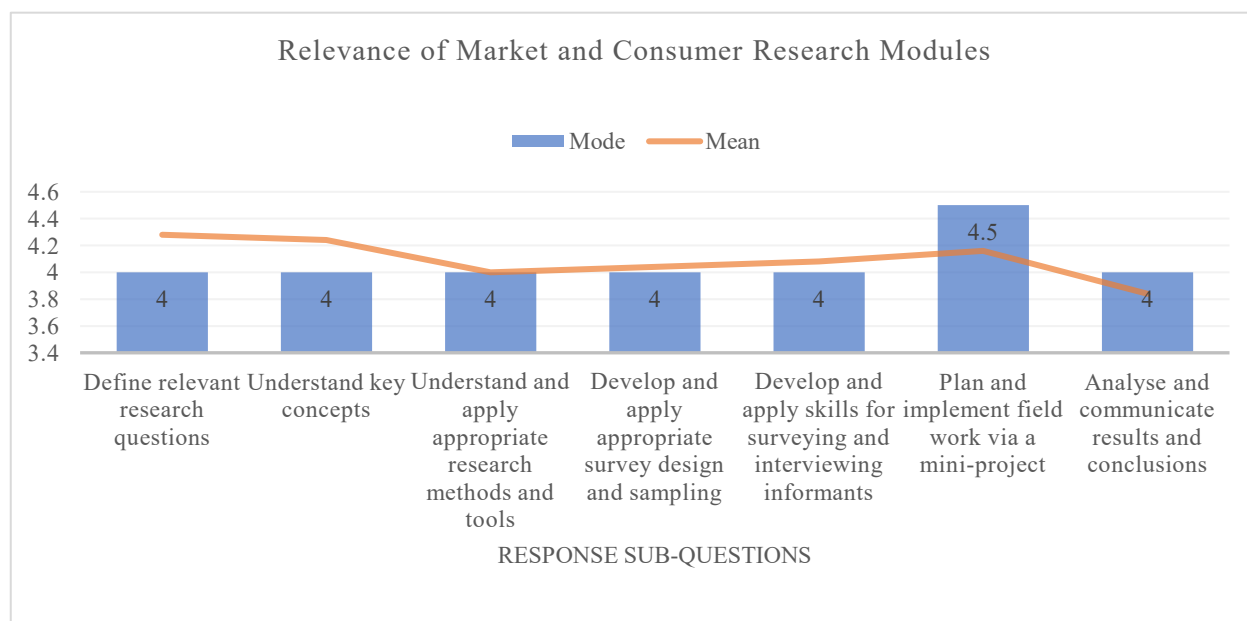


Analysis on participant responses revealed that the most frequently recorded rating, across all sub-questions, was a score of 4. The majority of participants found the market and consumer research modules relevant and useful, or highly relevant and useful for improving their skills and knowledge. It is important to note that no responses scored these modules as irrelevant and therefore, the majority of participants were able to develop their knowledge and skills from modules.

Modal Analysis of Market and Consumer Research Modules

Sub-Question	Mode	Mean
Define relevant research questions	4.0	4.3
Understand key concepts	4.0	4.3
Understand and apply appropriate research methods and tools	4.0	4.0
Develop and apply appropriate survey design and sampling	4.0	4.0

Develop and apply skills for surveying and interviewing informants	4.0	4.1
Plan and implement field work via a mini-project	4.5	4.2
Analyse and communicate results and conclusions	4.0	3.8

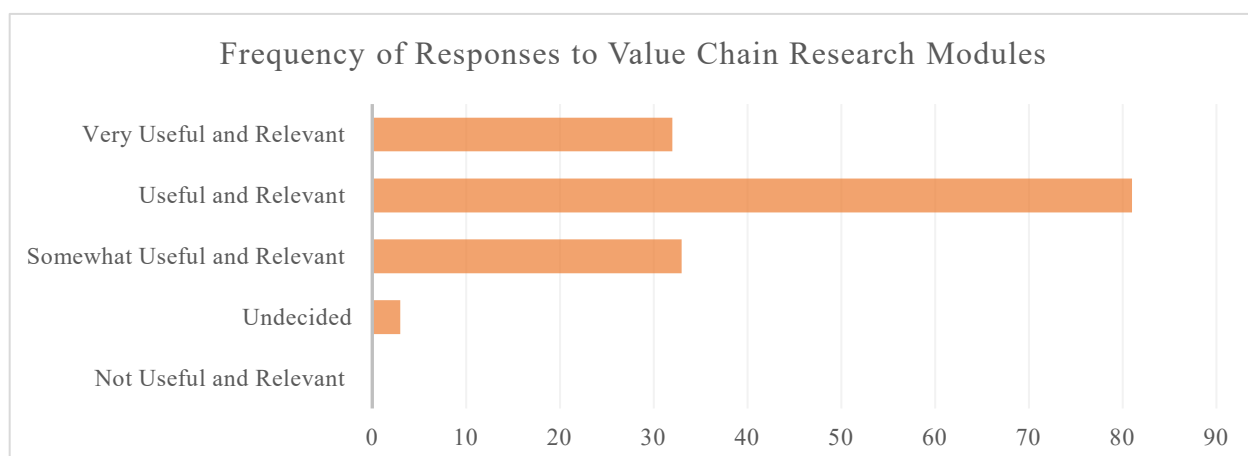


In terms of responses to individual elements of market and consumer modules, the **planning and implementation of field work via the mini project** was scored by participants to be most useful and relevant. It is therefore important to ensure the use of mini project to develop participant knowledge and skills in future AMC training programs. Whilst most participants believed that other modules were also considered relevant and useful for the other skills and knowledge bases, a lower average score is evident in sub-question 5. This infers that individuals considered these modules to be of moderate use in learning the ability to analyse and communicate results and conclusions. It can therefore be concluded that for future projects this is an area to be focused on.

9.1.2 Value Chain Research

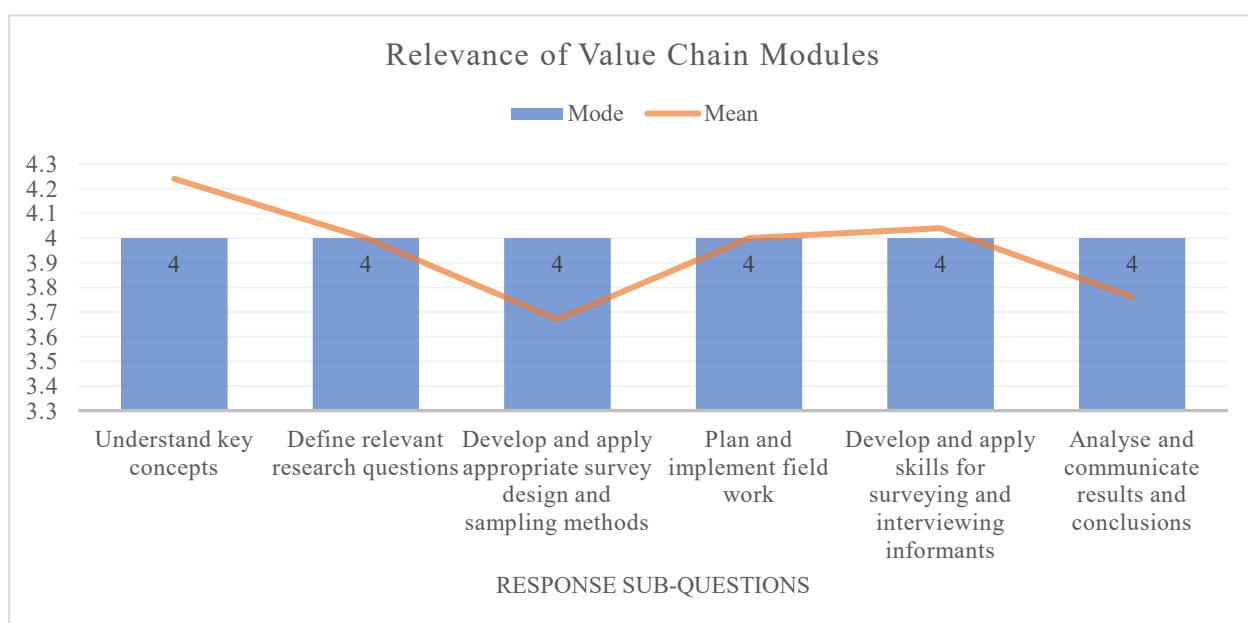
Using the same rating system, participants were asked to rate the usefulness and relevance of value chain research modules in the development of individual knowledge and skill. Various skills were highlighted as sub-questions for participants to consider in terms of the usefulness of these modules in the development of these. A summary of participant responses can be seen in Appendix 2.

Frequency of Responses to Value Chain Research Modules



As with consumer and market research modules, participants also found value chain research modules to be of use and relevance in the development of knowledge and skills. Again, no participant found these to be not of any use and therefore, it can be concluded that these, to some degree, were found to be beneficial to learning outcomes.

Modal Analysis of Value Chain Research Modules



Sub-Question	Mode	Mean
Understand key concepts	4.0	4.2

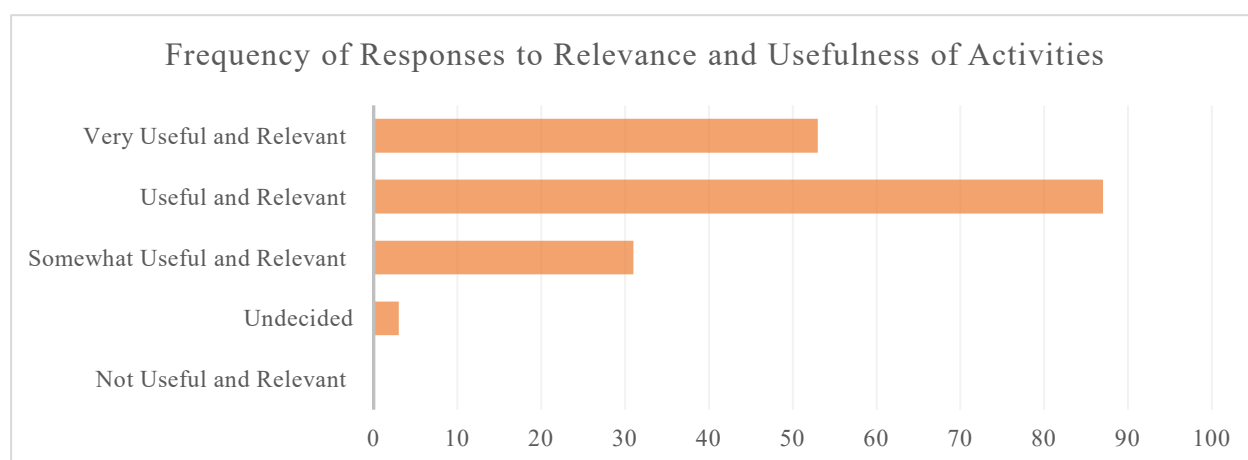
Define relevant research questions	4.0	4.0
Develop and apply appropriate survey design and sampling methods	4.0	3.7
Plan and implement field work	4.0	4.0
Develop and apply skills for surveying and interviewing informants	4.0	4.0
Analyse and communicate results and conclusions	4.0	3.8

The most frequent response across all individual skills bases was a rating of relevance and use. The average rating, however, varies significantly across skills, with an understanding of key concepts developed by these modules to be considered of higher relevance than the development and application of appropriate survey design and sampling methods. Therefore, it is suggested that skills such as survey design and communication of results and conclusions be given more consideration in the planning of future AMC training programs.

9.1.3 AMC Training Program Activities

Usefulness and relevance of various activities undergone during the AMC training program was determined by asking participants to use the previously mentioned rating system scoring these in terms of believed personal relevance. All participant responses can be seen in Appendix 3.

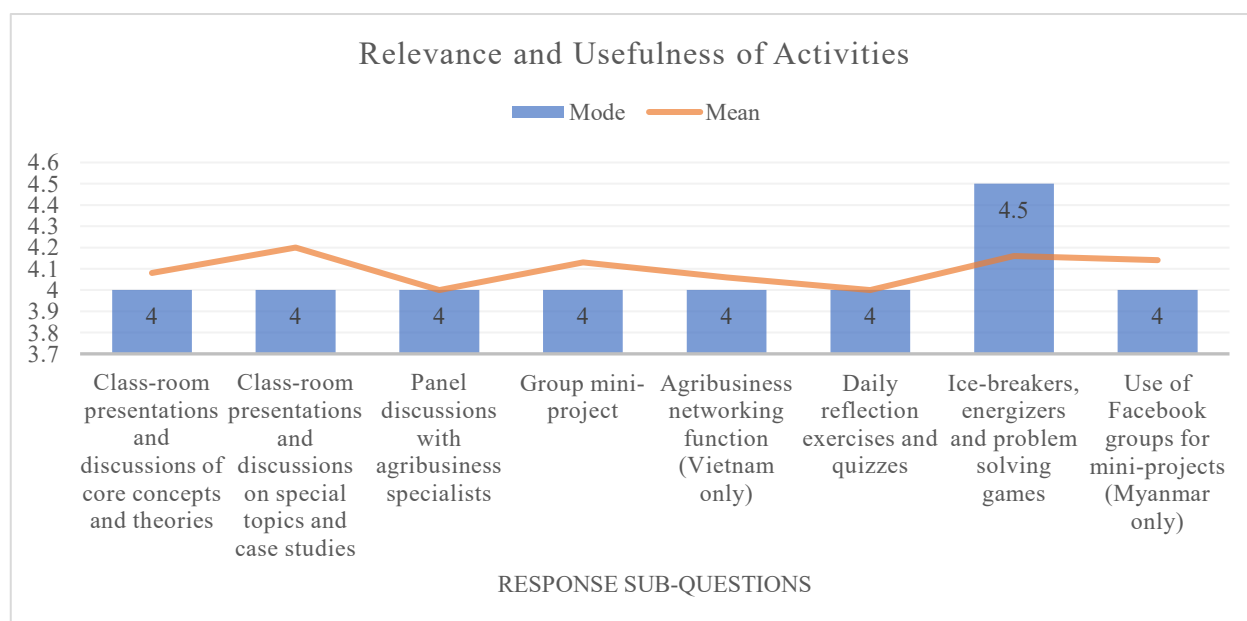
Frequency of Responses to Relevance and Usefulness of Activities



As with previous survey questions, 50% of participants believed that activities were of relevance and use, with 30% believing these to be of high relevance and use. Again, no participant believed that these activities were not of use or irrelevant, deeming used activities to be beneficial to most.

Modal Analysis of Relevance and Usefulness of Activities

Sub-Question	Mode	Mean
Class-room presentations and discussions of core concepts and theories	4	4.08
Class-room presentations and discussions on special topics and case studies	4	4.2
Panel discussions with agribusiness specialists	4	4
Group mini-project	4	4.13



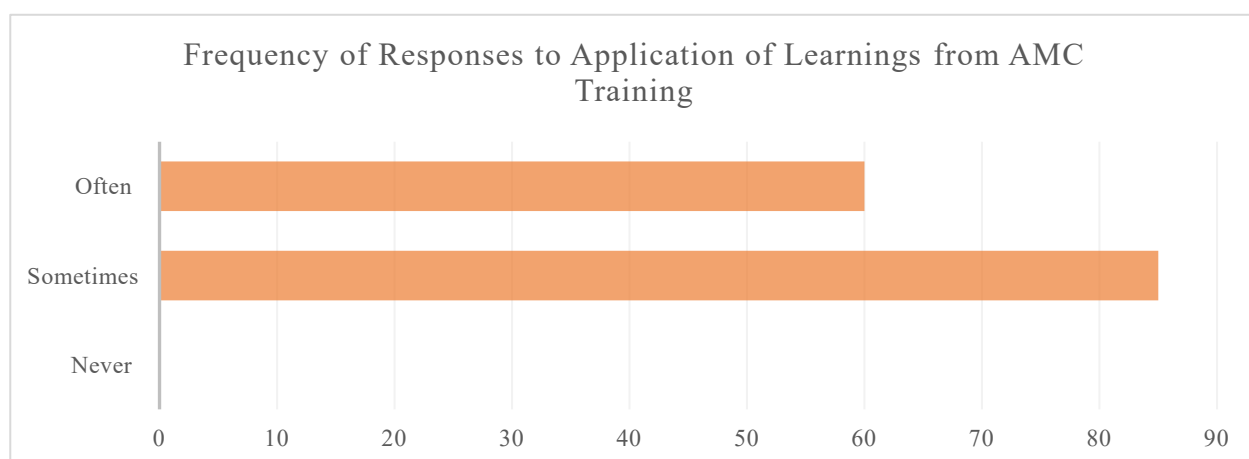
Agribusiness networking function (Vietnam only)	4	4.06
Daily reflection exercises and quizzes	4	4
Ice-breakers, energizers and problem-solving games	4.5	4.16
Use of Facebook groups for mini-projects (Myanmar only)	4	4.14

Whilst most individual activities were rated as useful and relevant, **icebreakers, energisers and problem-solving games** were rated of higher relevance and use. These small games were significantly enjoyed by participants as the average rating for this was a score of 4.16. No activity received an average score below 4, highlighting the effective use of all activities to promote learning of core concepts to participants.

9.1.4 Application of Learnings from AMC Training Program

Application of learnings, received from the AMC training program, was determined by asking participants to rate the frequency of personal use of these. Various learnings developed by the training program were asked to be rated using a scale highlighting use as never, sometimes or often. The following results were determined and all responses to this question can be seen in Appendix 4.

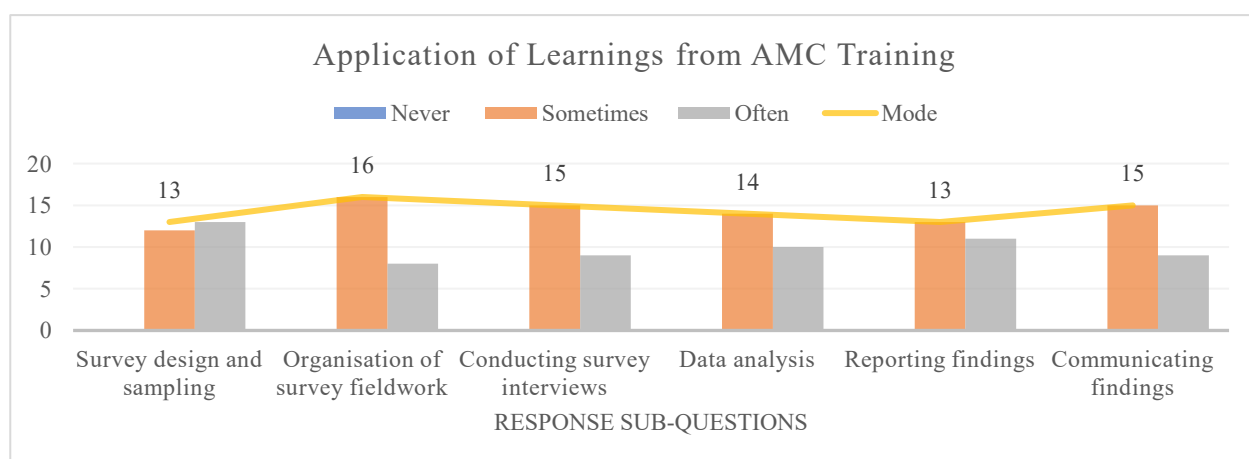
Frequency of Responses to Application of Learnings from AMC Training Program



The majority of participants were able to apply learnings from the AMC training program in their personal work, with 59% applying learnings sometimes and 41% applying often. All participants were able to apply their learnings to some degree, concluding the training program to have successfully promoted various skills applicable across other learning environments.

Modal Analysis of Application of Learnings from AMC Training Program

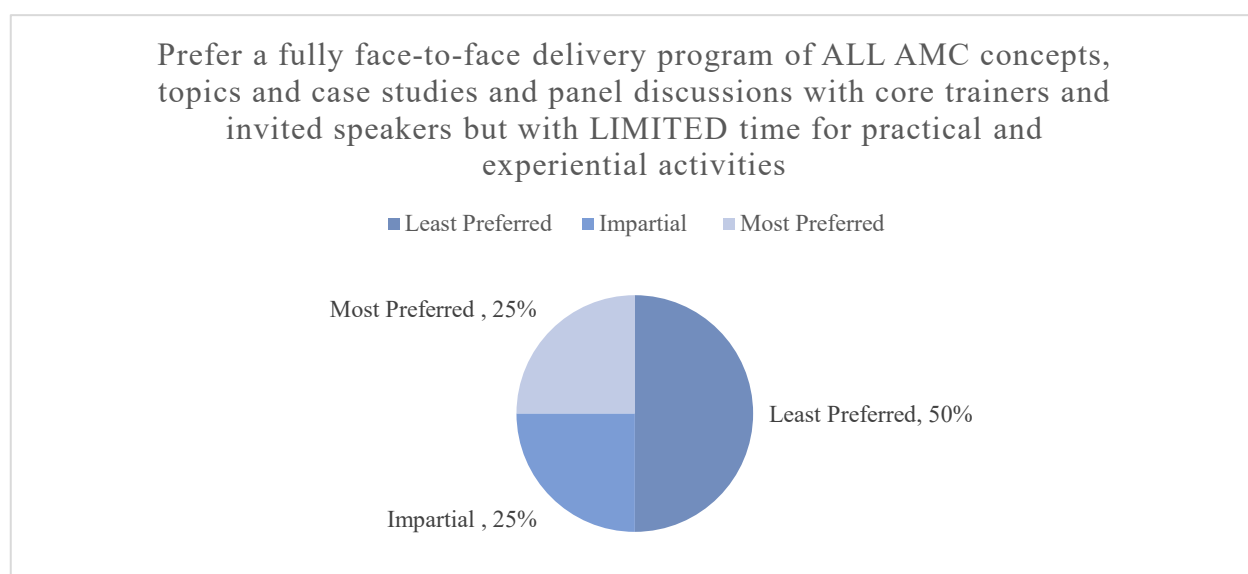
Sub-Question	Mode
Survey design and sampling	Often
Organisation of survey fieldwork	Sometimes
Conducting survey interviews	Sometimes
Data analysis	Sometimes
Reporting findings	Sometimes
Communicating findings	Sometimes



52% of participants were able to apply their learning of survey design and sampling developed by AMC training, frequently in their work. This particular area of learning was viewed by over half of participants to be highly applicable thus concluding the positive focus on this in the program. Furthermore, almost half i.e. 45.88% of participants also viewed the ability to report findings often applicable to other areas of work, further implying the importance of this area of learning. Other learning areas such as the organisation of survey field work and the communication of findings to only be applicable sometimes.

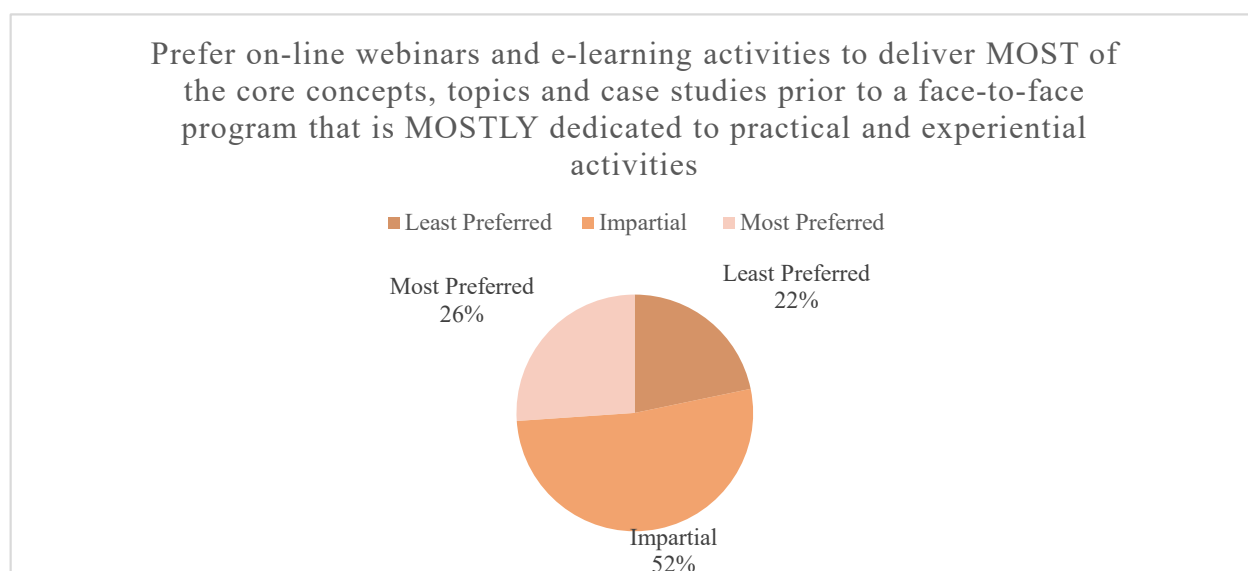
9.1.5 Face-to-Face vs Online Delivery of Future AMC Training Programs

Participants were asked to rank their preference for future AMC training programs in terms of face-to-face delivery or online/e-learning based delivery. Response preferences regarding delivery of future programs was analysed to determine an overall ranking, with



the results showing as follows. Note, all responses can be seen in Appendix 5.

From participant responses, it is evident that the least preferred delivery method for future AMC training programs would be full face-to-face delivery with the **most preferred being the use of some online delivery with some time dedicated towards practical activities**. 50% of participants ranked these to be both their least and most preferred choices with 52%

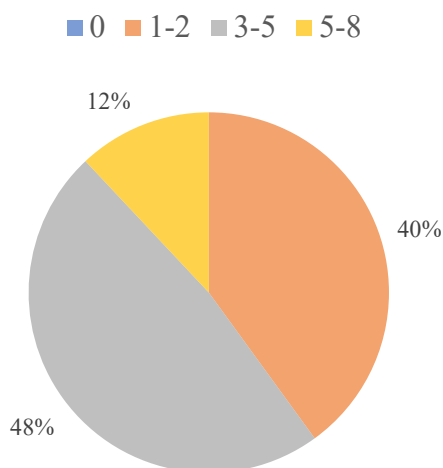


choosing a delivery that utilised majority online activities to be their second choice in terms of preference. Overall, an AMC program that uses some online learning with some of time spend on practical activities would be preferable to future participants of training programs.

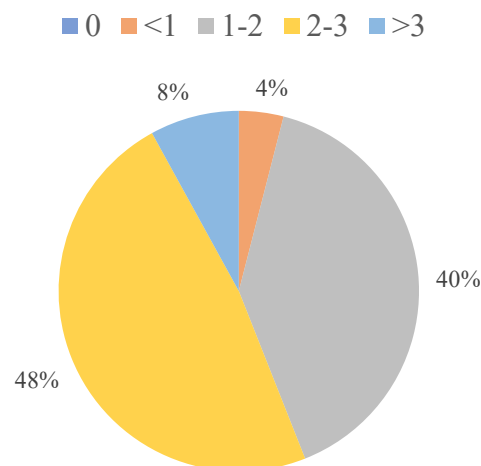
9.1.6 Time Availability

Time availability in terms of number of hours and weeks able to be allocated towards online AMC activities before face-to-face programs was asked of participants. Responses were gathered according to time ranges in hours and weeks participants were able to dedicate towards these online modules. The results were as follows.

How many weeks would you be able, or willing to allocate to on-line AMC webinars and e-learning activities BEFORE a face-to-face program?



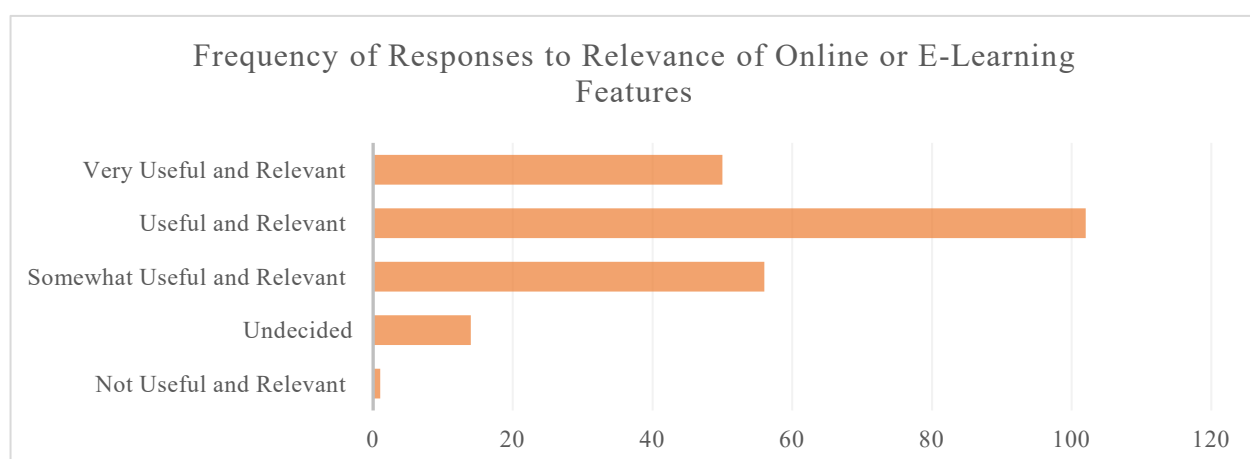
How many hours per week (on average) would you be able, or willing to allocate to on-line AMC webinars and e-learning activities BEFORE a face-to-face program?



According to participant responses, 48% would be willing to allocate around 2-3 hours per week to online AMC activities before engaging in a face-to-face program. 40% of participants responded to 1-2 hours a week therefore concluding that future AMC online activities should span between 1-3 hours. In regard to the number of weeks participants would be willing to allocate to online AMC activities before a face-to-face program, 40% responded with 1-2 weeks and a further 48% with 3-5. Only 12% of participants responded to 5-8 weeks, thus, AMC online activities should run on average for 3 weeks.

9.1.7 Online and E-Learning Features

The relevance and usefulness of various online and e-learning features of the AMC training program were rated by participants using the same rating systems as online survey questions 1, 2 and 3. Responses to this question can be seen in Appendix 6.



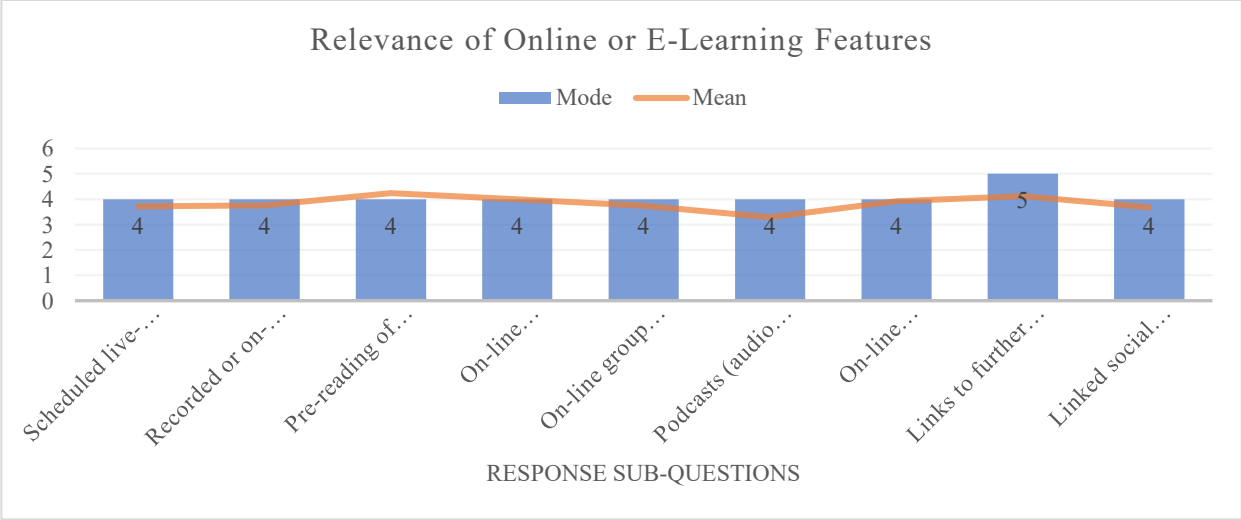
Frequency of Responses to Relevance of Online and E-Learning Features

Whilst 45.74% of participants found the AMC program's use of online and e-learning features to be of use and relevance, over 25% only found these to some extent relevant. Additionally, over 6% of participants found these features to be of no consequence to personal learning outcomes.

Modal Analysis of Relevance of Online and E-Learning Features

Sub-Question	Mode	Mean
Scheduled live-video and webinar presentations	4	3.72
Recorded or on-demand video-webinar presentations	4	3.76
Pre-reading of recommended materials	4	4.24
On-line reflection exercises and quizzes	4	4
On-line group chat and discussions	4	3.75
Podcasts (audio only)	4	3.29
On-line mentoring and support from trainers	4	3.92
Links to further reading material and relevant websites	5	4.12
Linked social media groups – e.g. Facebook group	4	3.68

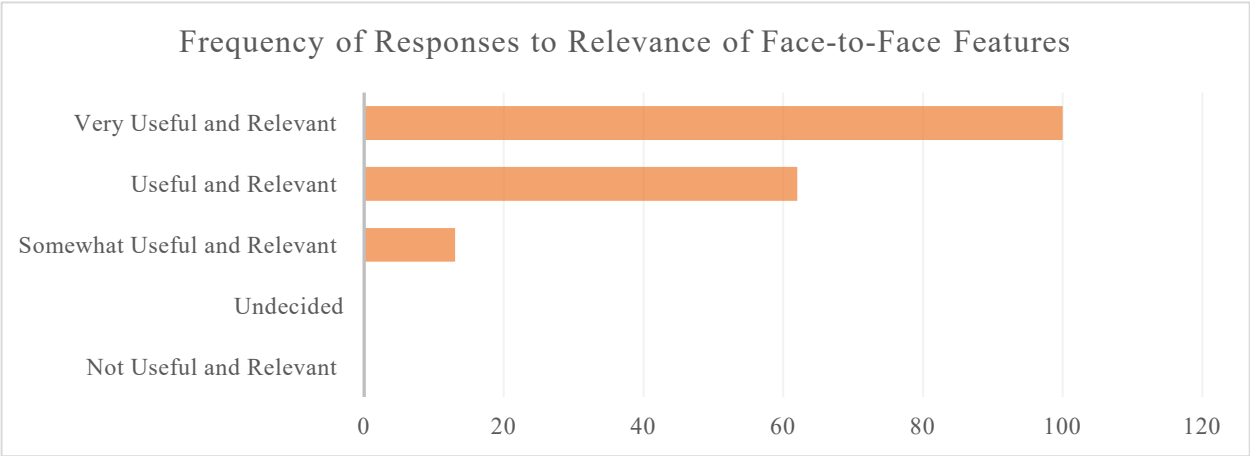
The online learning feature linking reading material and relevant websites was considered



by most respondents to be of high relevance and use. All other online features were considered to be use and relevance, highlighting their importance to the overall structure of the AMC training program. Podcasts, scoring on average 3.29, were considered of less relevance and usefulness than other online learning features, inferring the potential to eliminate this from future programs.

9.1.8 Face-to-Face Features

As with online and e-learning features, participants were asked to rate the relevance of AMC training programs face-to-face features using the same rating system. The relevance of face-to-face features were ranked according to activities undergone during the AMC training program. Participant responses can be seen in Appendix 7.



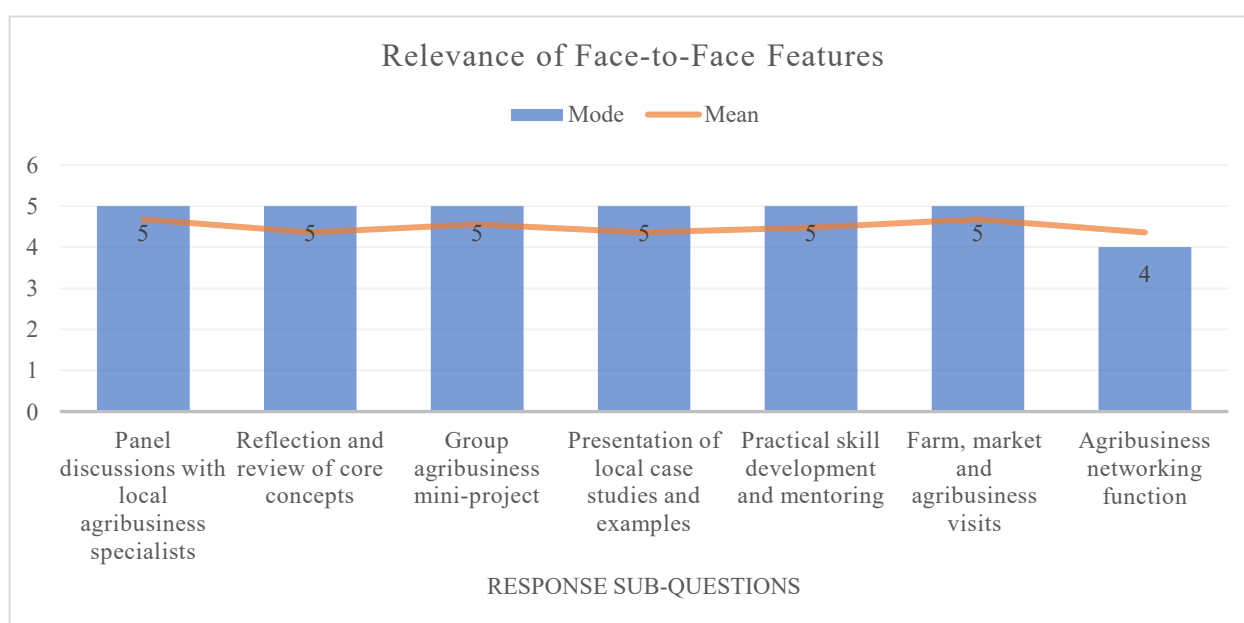
Frequency of Responses to Relevance of Face-to-Face Features

The relevance of face-to-face features was highly rated by participants with over 57% responding to these features being highly useful and relevant. Furthermore, 35.42% of participants rated face-to-face features as useful and relevant. No responses were received

rating these features to be irrelevant or not useful therefore concluding that features were, to some extent, useful to participants.

9.1.9 Modal Analysis of Relevance of Face-to-Face Features

Sub-Question	Mode	Mean
Panel discussions with local agribusiness specialists	5	4.68
Reflection and review of core concepts	5	4.36
Group agribusiness mini-project	5	4.56
Presentation of local case studies and examples	5	4.36
Practical skill development and mentoring	5	4.48
Farm, market and agribusiness visits	5	4.68
Agribusiness networking function	4	4.36



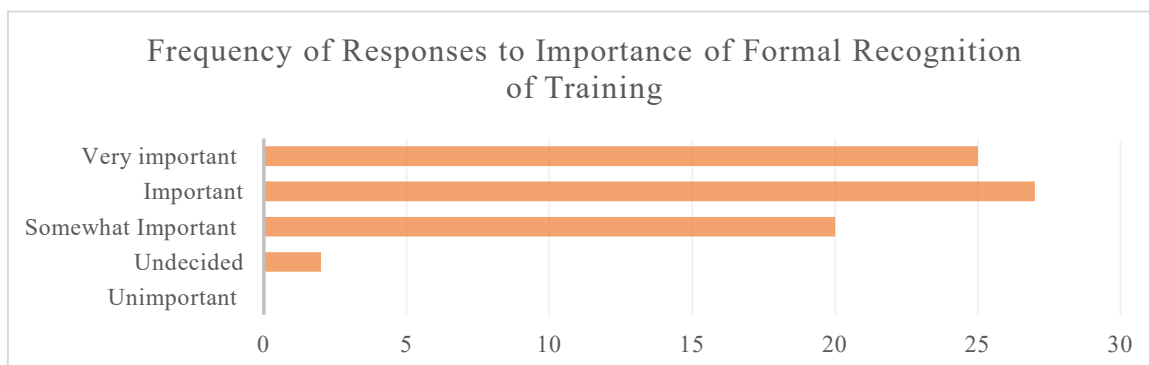
The relevance of AMC training program face-to-face features was highly scored by participants. Agribusiness networking functions as a face-to-face feature of the program was of use and relevance to participants. However, face-to-face features in all other activities were considered of extremely high use and relevance, with all receiving a modal score of 5. It is further evident that farm, market and agribusiness visits were considered of high relevance, with this activity receiving an average score of 4.68, thereby deeming this to be a core competency for the program. Furthermore, panel discussions with local agribusiness specialists was also ranked highly by participants, receiving a similar high average score and therefore, considered of high relevance.

9.1.10 Formal Recognition of Training

This importance of receiving formal recognition of training was asked to participants using a rating system highlighting the degree of importance. Participants were asked to rank the importance three forms of recognition. All participant responses can be seen in Appendix 8 and summarised results are as follows.

Frequency of Responses to the Importance of Formal Recognition of Training

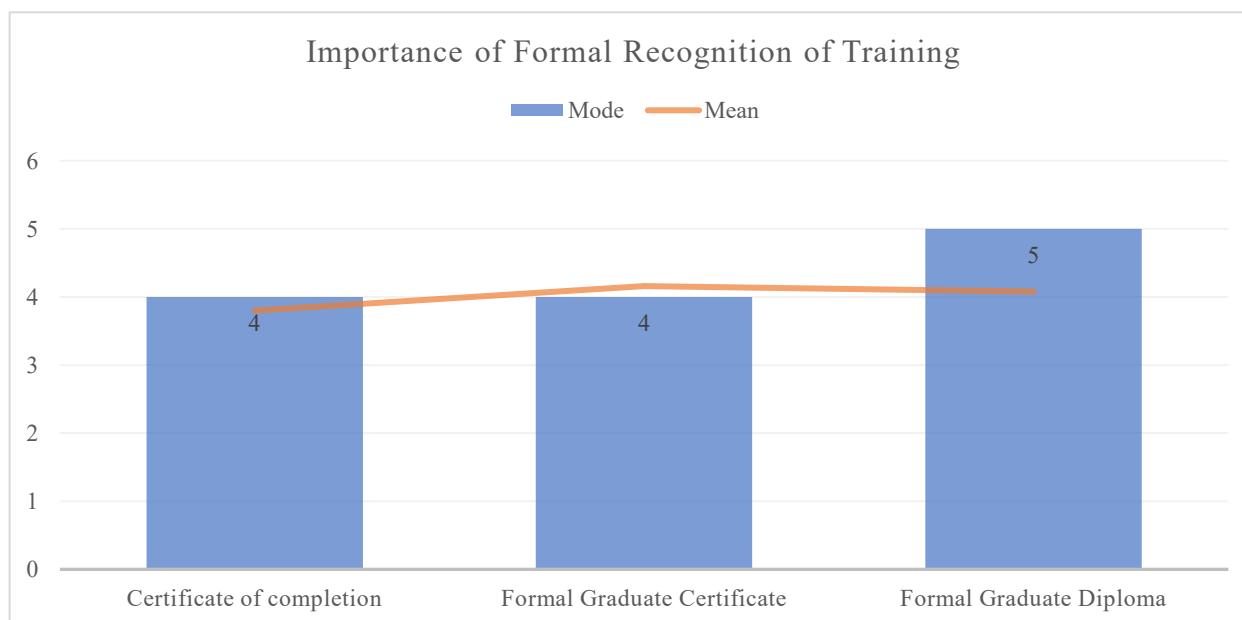
Over 97% of participants viewed formal recognition of training to be of some degree of importance, highlighting the significance of this in any AMC training program. Over 33% of participants viewed any formal recognition to be of great importance with almost 37% viewing this as important. No participants responded to formal recognition being



unimportance further emphasising the importance of this.

Modal Analysis of the Importance of Formal Recognition of Training

Sub-Question	Mode	Mean
Certificate of completion	4	3.8
Formal Graduate Certificate	4	4.16
Formal Graduate Diploma	5	4.08



It is highly apparent that participants viewed formal recognition in the form of a graduate diploma to be of high importance, with the modal score of this being a score of 5. Whilst the participants, on average, viewed a certificate of completion to be of less importance, this

was still viewed to be of relative importance in terms of mode. Overall, all forms of formal recognition of training were viewed by participants to be of importance.

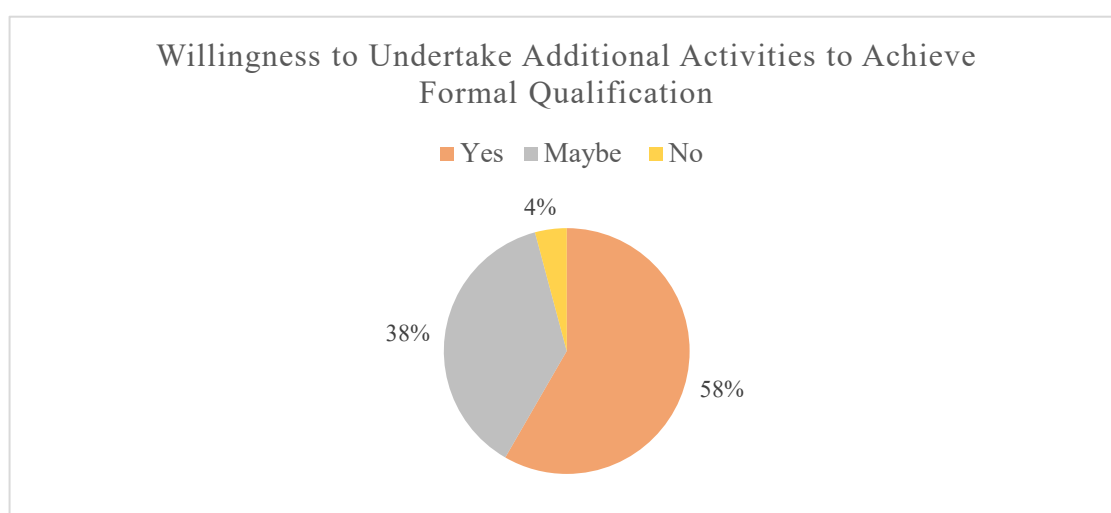
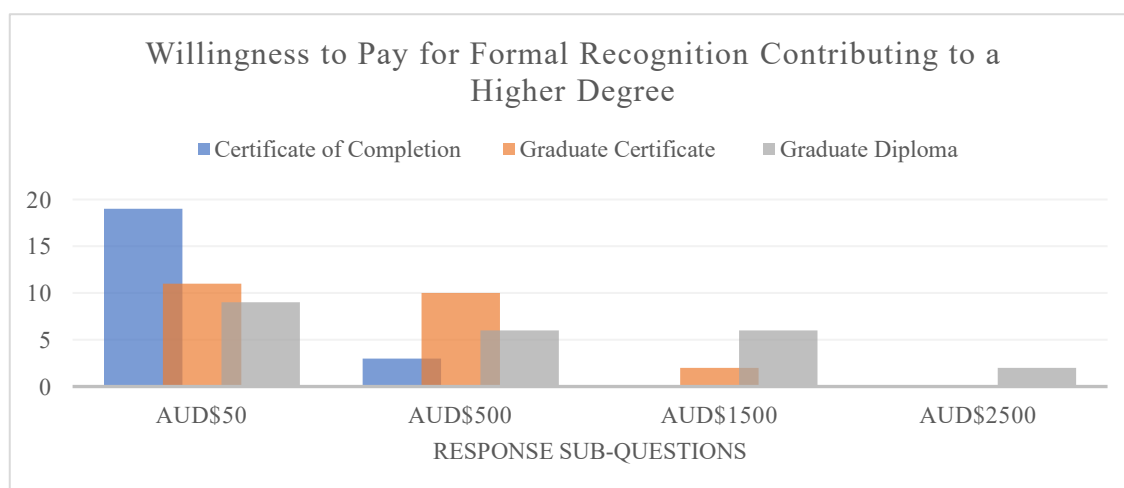
Additional Activities to Achieve Formal Qualification

Participants were asked whether they would undertake additional activities such as quizzes and assignments, to achieve formal qualification. The results are as follows.

In terms of a willingness to undertake additional activities in order to achieve formal qualifications for the completion of AMC training programs, over 58% participants responded yes. Whilst only 4% of participants would not undertake any additional activities, 38% of respondents would potentially undertake these. Therefore, future AMC training programs should incorporate additional activities for participants to receive formal qualifications.

9.1.11 Payment for Formal Recognition

Participants were asked the amount they would be willing to pay to receive formal recognition that could contribute to a higher degree. This amount willing to be paid was asked in terms of four prices. The results can be seen below.



The majority of participants responded with a willingness to pay around \$50 AUD for any formal recognition that would contribute to a higher degree. 86.36% of participants would pay this amount for a certificate of completion whereas 47.82% would pay this for a graduate certificate. It is highly apparent that a limited number of participants would pay over \$1,500 AUD for any formal recognition however, if were willing, this would be towards a graduate diploma.

9.2 Agribusiness Master Class (AMC) participant telephone survey

The results and insights from an open-ended telephone survey conducted with 26 participants who completed the Agribusiness Master Class training in Vietnam and Myanmar are reported below.

1. How well did the [Vietnam/Myanmar] AMC program meet your expectations and learning needs? Why?

- All participants answered that the AMC met with their expectations and learning needs because their work at the time was either involve directly at market and value chain research or required their understanding about them to coordinate activities.
- 25/26 students evaluate the AMC met with 70%-100% of their expectations and learning needs.
- “Mostly about the value chain I am a Lecture in economics so there are many relevant topics I have learnt from AMC. It met 80% of my expectations”.
- “At that time, the AMC was very useful for me because of I was working in value chain research. I have to say it met with 100% of my expectation about value chain research. I am very happy with the consumer and market research. Together, they provide a very holistic view for my work.”
- One student said that that the master class met partly with his expectation and learning need because they would like to spend more time on practical activities.

Analysis: Overall, the AMC met with most participants expectations. This is because the design of the **AMC was quite focused on market and value chain research to suitable targeted participants whose jobs were directly involved with this research areas.**

It is important to select appropriate participants for AMC should the program want to meet with their learning needs and expectations. The Vietnam AMC targeted participants who had basic knowledge of market and value chain research already, so the topic covered were completely helpful to them. They had a chance to refresh their foundational knowledge on core topics before being introduced to more in-depth theories.

2. What three things do you remember most from the AMC? Why?

When asked to list three things they remember the most from the AMC:

- most students answered that they remember the **mini project** activities that they were directly participated in most (16/26)
- In a more or less similar manner, a lot of participants mentioned about how the enjoyed the **field trip activities** (7/26) that were conducted within the mini projects' scheme.

- 11 out of 26 said that they remember the core knowledge lectures and presentations presented by guest lectures
- **Other classmates** were mentioned as the next most enjoyable aspect of the AMC, evaluated by participants (9/26) as they shared that they learnt a lot from discussing with their classmates, during both in-class discussion and or working on mini project together. They are continuing to maintain life-long friendship outside the AMC context to these days.
- 7/26 students said that they really enjoyed the **student-centred learning** approach which allowed them good opportunities to ask lectures questions and discuss with other classmates. They were more involved and engaged learning this way compared with the traditional method of teacher-centred method. Two participants shared that they have learnt from AMC design and learning approach to apply into organizing their own workshops and trainings.
- 7/26 students also highly appreciated the value chain research component. Their answers showed that they really found the value chain **research concepts and theories important** so they can truly understand what value chain research is as per how it is different from supply chain research. Myanmar participants remembered the “value chain finance” presentations, and the gender and social inclusion aspects of the value chain i.e gender because they found it very important for them.
- Other participants (5/26) said they **enjoy the energizers and warm up activities** a lot because it helped not to fall asleep and also bond better with other classmates.

Analysis: Results suggest activities that promoted experiential and practical learning and were interactive were highly valued. Student-centred approach was also a highly preferred learning approach for future design.

3. What three things did you find **MOST USEFUL** from the AMC in terms of improving your knowledge and skills? Why?

- 22/26 answered that they found the value chain research component was the most useful in terms of improving their knowledge and skills although in different areas. For example, some find it useful to learn about how to link with different stakeholders vertically and horizontally in the chain and or how to do chain governance, and or how to design value chain research, others could improve their knowledge from identifying the added value for each stakeholder, or conduct value chain mapping, or analyse the cost-benefit. Overall, their answers showed that different topics covered in the value chain component were necessary and helpful to improve their knowledge and skills.

“Chain governance These are very new and useful information for me. I could understand a new research area which is substantial for any research project. This is very helpful for me as a coordinator”.

“I could learn the nature of value chain research. In the past, I learnt about supply AMC but I couldn’t distinguish what is a supply chain, what is a value chain. After the AMC, I could distinguish them well.”

- 11/26 of AMC students answered that the most useful thing they learnt was how to **design a questionnaire and or a question checklist and how to conduct**

a good interview with the stakeholders. The reason given was that they can apply this skill into their work very frequently.

“I found it was very useful to learn how to design a good questionnaire guideline together with other group members. Then we had to think of how to probe question in a simple way so farmers or anyone can understand.”

“it was the design a questionnaire for consumer research activity that helped me improve my skills and knowledge. I have learnt that consumers from different age, background will have different preferences, hence different consumer behaviour. This is very essential for my work”

- 5/26 students highly appreciated group work skills that they learnt from working on the mini-project the AMC. They have learnt how to select a good group leader who know how to listen to other members and assigned them with suitable work, and how to communicate effectively amongst themselves.
- Many participants also learnt a lot from the market and consumer research (10/26)

“Wendy's presentation about market research was so helpful for me. It taught me how to design a good questionnaire for my daily work”.

“Wendy equipped us with a lot of useful knowledge about consumer research and market research”

“Prior to the training, I had understood that the group leader will decide everything. However, after the AMC we learnt that the leader should facilitate the whole group, listen to their ideas. They should not impose their ideas on other members”.

- Other useful things mentioned by participants including they have learnt how to design a good project (based on mini project) and or a survey in general.

Analysis:

Good content coverage for both market and value chain research

Students highly evaluate topics that are directly related to their work and more so for given practical activity (mini project) to practice applying those knowledges into real research.

4. What three things did you find LEAST USEFUL from the AMC in term of improving your knowledge and skills? Why?

- 20/26 answered that everything was important
- 2/26 said that they did not remember because it was too long ago
- 1 student shared that they find the questionnaire activity could have been more useful if they had to design a questionnaire for more specific stakeholders in the chain.

“We worked on designing a general questionnaire which was good but I would have like to have a chance working on different question guidelines for different stakeholders”.

- 1 student shared that price elasticity, and sample bias and other topics related to quantitative method were also too overwhelming for them to study.

“The topics on price elasticity and sample bias and other topics related to quantitative method too advanced as I think and not that useful in Vietnam research work”.

- 1 student said that they would prefer a more balanced case studies put forth for them instead of too many cases on livestock because it did not relate to his work.

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5. Have you applied any learnings from the AMC the market and value chain research modules in your work? Provide an example of what learning, and how you applied this in your work from the market and value chain research modules? [In what context? How often applied?]

- 26/26 students said that they have applied learnings from the AMC into their work.

“Yes, I have applied both market research and value chain research into different projects. From 2013- 2018: I am the VNUA leader in consumer research activities for the Temperate Fruit Project funded by ACIAR. We conducted the consumer surveys and wrote market report. From 2012- 2017: we applied the value chain research for safe pork. We also developed a new subject within VNUA call Value Chain Research, led by Ms Nga. I am also contributing into designing the curriculum”.

“Yes, I have I have applied it into beef value chain in Hanoi and HCMC in 2018-2019. We also conducted a few commodities value chain research such as rice, coffee, sugar cane, vegetable, pig, chicken, milk for projects funded by the Ministry of Agricultural Development. In Vietnam, our operational budget is quite small with a lot of unofficial cost. So, we must modify our research activities in our context here. We cannot apply everything we learn from AMC. So, it is good if AMC can offer alternative for research activities for small budget”.

- 2/26 students said that they had opportunities to apply these knowledge and skills in both conducting research and into teaching their university students.

“ I used the content of the master class to design my own market and value chain research curriculum, I teach the Bachelor degree, I can use the case studies from AMC to teach students I also use the methodology of the AMC i.e design mini project for my students to work on”

“I don't apply it at the current time However, I am applying in one part of the chain because I am evaluating the effectiveness of the supply distributors for pepper growers in the Mekong delta. This is my Phd. The knowledge gained from AMC helps me gain a holistic view of the chain from production to consumer so it helps my Phd in so many ways.”

- 20/26 students said that they are applying these market and value chain research very often because it is their daily work. Other 06 said that they do not apply anymore because they have moved job or are now doing PhD (3 of them). However, they said that these knowledge and skills are still of great usefulness to their long-term career development.

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“Yes, I conducted a market research applying Wendy’s theory and information for the off- season vegetable project in Lao Cai My work needs me to apply value chain research very often, almost every day, shall I say”.

6. What three things would you change that would best improve the AMC for your needs? Why

- 20/26 students said that they would prefer to have more time for Q &A, discussions and especially mini-projects. They said that Q&A was cut shorted while they still have more burning questions to ask or follow up. Similarly, 2 last days working on mini-projects while still having to participate into class-room lecture was not effective for them. They prefer spend time working on their mini-projects.

"The last 2 days of the AMC was too intensive because we had to work on our mini project and participating into lecture (which was quite lengthy and informative). We should have spent time working on our mini project".

"Market research was very useful for me however, when we conducted the actual research, we only interviewed small amount of interviewees. Thus, I recommend we increase the amount of time allocated for data collecting activities. We can apply much better and more holistically if we have more time in general".

"I suggest more practical work, not only listening to lectures. I attended 2 modules, we worked on 2 mini projects. In the end, I think I remember most things related to mini projects. If we have more chance for experiential learnings, it will be much better for us".

- More guest speakers who lead successfully businesses or experienced in market and value chain research should be invited to the AMC.
- Slower learning pace with less heavily contented presentations delivered by lectures. Student feedback show that they like to learn core knowledge and theory, that are directly related to practical activities or experiential learnings for mini projects.

"We would like to have more time to absorb the knowledge

"I would like the market research to be clearer and slower for student to take in. Prior to the AMC, I have not done any market research, so it was too much for me to learn all at once. I also think there should be more explanation provided for the difference between supply chain and value chain. I could not understand fully how they differ from each other."

"Too much topics were stuffed into the program. I suggest we chose a nice focus and leave a lot more time for discussion and working on mini project"

- There should be more focus on "chain governance", "what are good interventions based on the study results" and ""
- *"I would like to learn more about "ow to take the result into further application" or where to from here because it stops at finding the problem of the chain. I like to learn more about how to identify good interventions to improve the chain".*
- . A survey for students before they come to AMC will be good because it helps to categorize students according to their knowledge and skill levels and learning needs
- 4 out of 26 students said that more follow – up activities to maintain the network should be done

- 3 said that they would like their supervisor to be more hand-on in giving them guidelines and feedback so they can learn what they have done well and what can be improved.
- Mini-project should be specific on one commodity instead of a general one i.e vegetable project. This is very broad to conduct a mini project on.
- 1 student suggested that there should be more discussion about how to conduct a research with limited budget because it is a reality for researcher in Vietnam.

7. What do you think about the trainers delivering some or all the core presentations via an on-line learning platform e.g. videos and webinars etc. [live-stream or on-demand] that would be completed prior to the face-to-face component in class?

- 12/26 students said that they like this idea and it will work for them if they were the participants.

“This is very good idea because it will be more efficient, and more students can get access to it. Students can listen to the lecture as many times as they like until they understand. Students should be given homework on the very get go, maybe with the mini project for example. They can work on it as a group since day 1, ask question to their lecture when they need. Homework is essential to this mode of delivery”.

“Yes, I like it. I have done it before it I can be more in control in term of time. If I have any question, I can conduct research online myself or write it down to ask the lecture later”.

- 5/26 students said they it might work well but they have concern about it.

“It would be good. However, online learning is only suitable for simple knowledge, easy to grapple because some theory is hard to understand even with face to face learning. It should be under 10 minutes per video”.

“It can be good but I am concern about the poor internet connection in Myanmar. We may not watch the videos because of bad streaming lines”.
“It is good but I have some concern toward this mode of delivery. Some of the trainees are busy with their workload, it is difficult for them to commit time to watch the online lecture. To overcome this, I think AMC organizer can offer free access for 1 year at least so students can come back and learn on demand when they need”.

“I am a little bit concerned about this mode of delivery because some people can’t study online. It is possible to do it that way for basic, foundational knowledge. It won’t be effective to teach in-depth knowledge. Vietnamese students might not be suitable for this mode of delivery. When studying this way, students might not have answer for their burning questions straight away, thus it can disrupt their learning processes.”

- 9/26 students said they do not like this mode of delivery

“I prefer face to face learning because we can move aside all our work-related issues, family issues to focus on learning. However, if online learning is the way to go then I think it is still possible. However, it is important to monitor and motivate participants”.

“According to my experiences and perception, I think online learning is not convenient because we have a lot of work to do within our work. We can’t concentrate on this training program. It is better to have face to face component. I can fully concentrate on the training”.

“I don’t highly evaluate learning online because I think it reduces the level of interaction between learners, which I value the most. Students need to interact with each other to build a strong network for future support. Different video should be developed for students with different level of knowledge, so they don’t have to learn what they already knew”.

8. What do you see as some of the advantages and disadvantages of on-line learning?

Advantages

- The most common advantage that students shared including it being very efficient, convenient and highly accessible for them (excluding those in Myanmar). These advantages are mentioned by 22/26 students.

“Learners can study when they have free time and they can focus on the topic that they want to study, spending more time in doing self-research to understand better certain challenging topics while they can brush over or skip areas where they already known.”

“It is good if students don’t have a flexible time Students can learn whenever they want”.

- Other advantage mentioned was that the online learning platform can be useful resources for student to revisit as many times as they like, until they fully understand the content.

Disadvantages

Disadvantages raised by students are more diverse, depending on their view toward online learning.

- Many students mentioned that they found online learning does not offer interpersonal interaction amongst participants and participants and lectures. Thus, it is less motivated or engaging to learn online (8/26)

“Disadvantages: Learners are easier to be distracted. It is easier to learn face to face because of the interpersonal interaction between lectures and themselves. Lectures also cannot ask questions on the spot to check whether the students really understand the information”

- All students from Myanmar do not favour this mode of delivery because of their poor internet connection. Some of them also mentioned that they are too busy to commit to online learning unless there are very good motivation mechanism put in place by the organizer i.e progressive test, entry exam for face to face module.
- Some mentioned that unless the content is short (around 15 minutes per video), precise and focus; they will not learn much from it (16/26 students)
-

“You can get bored easily without the study environment You don’t get to get direct contact It will take time to write questions and wait for answers. Sometimes it is hard to stay focus.”

- 2/26 believed that the online content should be undated frequently to stay tuned with the hot temporary incidence i.e how swine flu affects the pig value chain in Vietnam for example. We should link our content with recent development activities in the industry.

9. What do you think about increasing the emphasis of the face-to-face program towards more practical and experiential activities, with more opportunity for hands-on skill development, instead of classroom presentations?

- 26/26 students like this option. They believe that they will be able to learn more practical knowledge and skills

“I like this very much. I find it very useful and easier to learn this way. Because this helps link the knowledge into practice. The amount of knowledge put into class room was too overwhelming. If we learn this way, we can absorb the knowledge better. Thus, we can remember it better. We can use it with more confidence”.

- 3/26 suggested that for students to work better in face to face module, they should pass the entry test which ensure that only students who really study well the online modules can attend.

-

“It will be better mode of delivery Students need to pass an entry test to participate into face to face program. This will ensure that we are on the same page in terms of knowledge, more or less, so we can work better in mini projects”.

- Some students (4/26) also suggested that students should be form in groups right in the beginning, when they study basic theories and concepts via online learning. This will make them start interacting with each other quickly. When they meet for the face to face module, they would already know each other. They can work better together this way.

10. What do you see as some of the advantages, disadvantages of this?

Advantages

- The most mentioned advantage by students was that they will have more time to truly apply the theory in practice. This will help students understand more cultural and social problem of each research, which according to them is the main challenge.

“If more face to face time given, students and teachers as a group can identify more social, cultural challenges in the local context. This allows them more time to understand the contextualized challenges and identify suitable solutions to these problems”

“Prior to the face to face module, students can learn and understand the fundamental theories and concepts. They have time to prepare discussion points, prepare their questions that are related to real life research

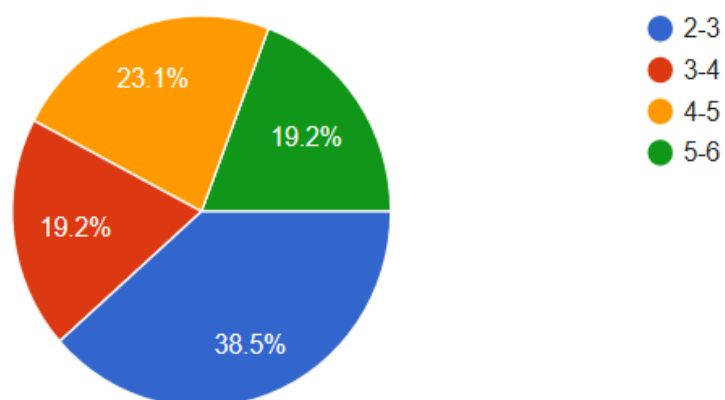
situation. They can conduct further research online, doing more necessary self-study to understand everything better. More information and knowledge can be covered learning this way”

Disadvantages

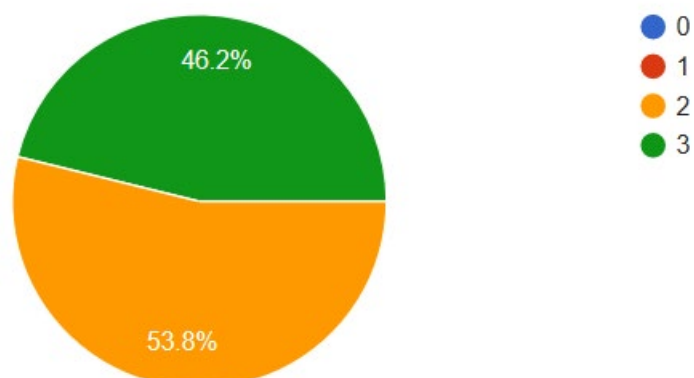
There are very few disadvantages raised by interviewees as they like to have more time spending on practical learning

- 15/26 said that they don't see any disadvantages with this learning option
- Some students are concerned that If the gap between online-learning and face to face learning is too long, students can forget what they have learnt (3/26)
- Some students shared that they believe there will be so much more logistic and organizational work to be done in order to prepare for it. Also, they believed that each mini project team need a really good mentor who will be hand-on with giving them feedback prior to, during and after so they can learn a lot from (7)
- 1 student concerned whether students in a group will have similar level in terms of knowledge and skills, which he thinks, will affect the quality of their work

11. What is the ideal number of days for each face-to-face AMC module?



12. Based on your circumstances and preferences what would be the ideal number of separate face-to-face delivery modules required for the AMC program?



9.3 Energisers, icebreakers, and problem-solving games

The participant survey indicated that regular icebreakers, energisers, and problem-solving games were very highly rated and valued part of the AMC delivery. Participants reported they promoted personal interactions and teamwork and kept motivation and energy levels up when needed. Participants valued the fun and dynamic learning environment where they felt comfortable sharing their experiences and learning with and from each other. They were also able to develop team and individual work and problem-solving skills.

Energisers, icebreakers, and problem-solving games should be a key part of the AMC learning program. The face-to-face delivery programs in Vietnam and Myanmar used 2-3 activities each day. Some activities were integrated into learning sessions, others were used to provide a change in pace and energy levels to break up the day. Games were used more in the introductory and early parts of the program as a means of breaking down personal barriers and encouraging participants to get to know each other.

Carefully chosen games can also demonstrate important value chain concepts such as trust, communication, cooperation and teambuilding, and creative thinking and problem solving.

A move towards on-line delivery can also integrate icebreakers, energisers and problem-solving games that have been adapted for remote collaboration. Some ideas and links are provided below. This is particularly important, due to some concerns that on-line delivery may not provide opportunity for inter-personal interactions, co-learning and team building between participants.

Useful websites with icebreakers, energisers, and problem-solving games

Below are a selection of carefully selected sites containing icebreakers, energisers, and problem-solving games relevant to AMC concepts and applications.

- **SessionLab** contains a large catalogue of workshop games for facilitators that develop team building and teamwork, icebreakers, and energisers, idea generation and innovation activities, activities to analyse, understand and innovate, leadership and personal development skills. Many of these games can also be developed and applied to value chain scenarios and activities.

See: <https://www.sessionlab.com/library>

- **SessionLab** also has activities suitable for virtual and online workshops and meetings. These tools and techniques can make remote meetings more engaging and productive by fostering participation and getting everyone contributing.

See: <https://www.sessionlab.com/library/remote-friendly>

Below are a range of other useful on-line games sites

- **Icebreakers**

<https://www.scienceofpeople.com/meeting-icebreakers/>

[35 Fun Meeting Icebreakers to Warm Up Any Meeting \[2020\]](#)

- **Virtual icebreakers**

<https://www.upskillconsulting.ca/2020/07/03/virtual-icebreakers-and-energizers/>

- **Communication games that increase understanding**

<https://www.userlike.com/en/blog/communication-games>

- **Team building activities that build trust**

<https://www.tinypulse.com/blog/team-building-activity-trust>

- **Problem solving activities to improve creativity**

<https://www.humorthatworks.com/how-to/20-problem-solving-activities-to-improve-creativity/>

- **Teambuilding activities based on cooperation and teamwork**

<http://trainersadvice.com/4-teambuilding-activities-based-on-cooperation-and-teamwork/>

- **Games about economic concepts**

Economics-games.com is a free educational games site for teaching microeconomics, industrial organization, and game theory. It can be used for individuals or multiplayer games. <https://economics-games.com/games>

Role playing

Role playing can be a powerful tool to learn and test new skills such as key informant interviewing, focus group discussions and buyer-seller relationships. It can also help participants understand the different roles, motivations and challenges faced by different actors in the value chain. For example, participants can be assigned different actors and support service providers in a specific example value chain e.g. the maize value chain. This can also include different groups of actors – such as women or men, small- or large-scale producers or businesses, low- or high-income households. The group can then be asked to organise themselves into a functional value chain. Each actor can be asked to think or speculate about the key issues that are important to them, in relation to their role in the chain, and with other actors. This provides an opportunity to think carefully about the perspectives of different actors which are often taken for granted.

9.4 Recorded video agribusiness presentations and protocol for live-streaming video presentations.

Rationale

The webinars were run as part of a pilot Agribusiness Research Insights series to present research case studies about smallholder agricultural markets and value chains. They aimed to provide participants with key insights and take-away messages about conducting market and value chain research. They also provide recorded on-line learning materials, for future AMC participants. A further purpose was to evaluate the suitability and effectiveness of on-line meetings, workshops, and webinar platforms for remote or on-line AMC delivery.

Participant engagement

Webinars were targeted mainly at early to mid-career researchers and development specialists working in smallholder market and value chain development throughout Asia and Australia. Webinar invitations were distributed each week through relevant research networks including:

- Agribusiness Master Class Alumni (Vietnam, Myanmar, Philippines)
- MALICA research network - Markets and agricultures linkages for cities in Asia ([MALICA](#))
- IFAD Value Chain Capacity Building Network ([VCB-N](#)) in Asia
- ACIAR RPM, Country Manager and Agribusiness Program researcher network
- Researchers in Agriculture for International Development ([RAID Network](#))

A list of 130 email contacts were also gathered from participants that indicated they would like to receive future webinar invitations via online registration and feedback forms.

Webinar production

Microsoft Teams Live Events was chosen as the webinar delivery platform (see rationale, features, and evaluation below). Live-Events is a broadcast platform where participants interact with presenters and producers via messaging²².

The [Agribusiness Research Insights](#) YouTube channel was established to upload, and host recorded webinar videos. The channel webinars received over 300 views and accumulated over 20 subscribers in a couple of weeks.

Webinar recordings were downloaded from Microsoft Teams, lightly edited using the video editor functions in Microsoft Photos, then uploaded to YouTube. Webinars were also uploaded to the [valuechains4poor.net](#) website.

On-line registration and feedback forms (using Microsoft Forms) were integrated into invitations and webinar Q&A feeds.

²² Compared to Teams Meetings which enables meeting all organisers and participants to interact by video and audio

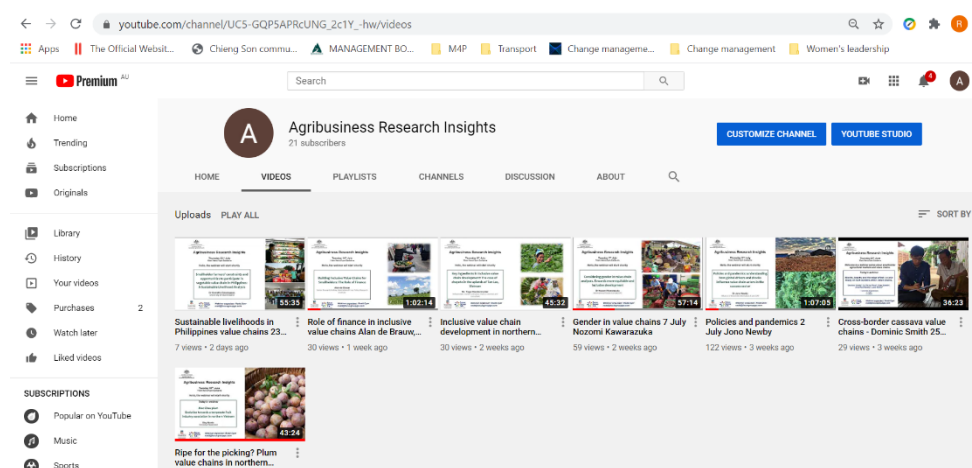


Figure X. Screen shot of YouTube Agribusiness Research Insights Channel.

Webinar presentation format and content

Recorded webinars were designed to provide an example of case-study learning resources for future AMC participants or interested viewers.

Webinar presentations aimed to be 15-18 mins in length. Webinar outlines aimed to cover:

- What is the market and value chain context? What was the main problem? Where? Why?
- What people were affected or targeted in research? Why?
- What research approach was used? What was done? Why?
- What were the main findings and practical implications? What were the outcomes?
- What are three key learnings and messages from your case study? Particularly about markets, value chains and research? What worked well? What would you do differently in the future?

Twenty minutes was allocated for Q&A via interactive messaging.

Presenters and topics

A range of presenters and topics from ACIAR projects were presented in webinars.

Name	Institution	Presentation title
Dominic Smith	University of Queensland	Blocks, breaks and the edge effect: a case study on how borders affect value chains
Oleg Nicetic	University of Queensland	Plum production and trade in Son La province of Vietnam
Jonathan Newby	CIAT	Policies and pandemics: understanding how global drivers and shocks influence value chain actors in the cassava sector
Nozomi Kwarazuka	International Potato Center	Considering gender in value-chain analyses towards more equitable and inclusive development
Tiago Wandschneider	Independent consultant	Key ingredients for inclusive value chain development: The case of chayote in the uplands of Vietnam
Alan de Brauw	IFPRI	Building Inclusive Value Chains for Smallholders: The Role of Finance

Name	Institution	Presentation title
Gomathy Palaniappan	University of Queensland	Smallholder farmers' constraints and opportunities to participate in vegetable value chain in Philippines: A Sustainable Livelihood Analysis

Participants

A total of 228 people participated in the webinars, with between 13 and 48 people joining each webinar.

Participants joined from a range of countries including Vietnam, the Philippines, Myanmar, Indonesia, Laos, and Australia. Participant details required in registrations and feedback was limited to name and email address. Therefore, it was not possible to get a detailed breakdown of participant data, e.g. country or institution. However, from browsing registration details participants included people from national and international research institutions, the private sector, Australian students, ACIAR Country Offices and ACIAR project researchers.

Feedback

Forty-four people completed the on-line feedback forms. Participants indicated they were very satisfied with the webinar delivery experience (4.6/5.0), the webinar presentation (4.5/5.0) and the webinar facilitation and production (4.6/5.0)²³.

- 86% of respondents would recommend the webinars to colleagues.
- 91% would join similar webinars based on their experience; and
- 86% would access or watch the webinar recording if they were not able to participate live.

What could be improved for future webinars?

Only a couple of suggestions were provided by more than one person (from a total of 11). The main suggestions included:

- Address minor technical glitches (4)
- Making the presentation available on-line (2)
- Upload webinars online (esp. YouTube) (2)
- Consider using Zoom or Google (1)
- More time for Q&A (1)

Topics for future presentations

Case study topics and methods for market, value chain and agribusiness research including gender, livelihoods, climate change, finance, and insurance, impacts of COVID-19 on value chains. Special mention of case studies in the Philippines and Vietnam.

Conclusions and insights about Microsoft Teams

There are seven take-away messages about using Microsoft Teams for video conferencing and webinars that could also support online learning:

- Microsoft Teams was chosen as the delivery platform, as it was already included in the Office 365 subscription and was being tested for on-line meetings and collaboration. This made it cost-effective.
- Microsoft Team Meetings and LiveEvents provide all the required performance criteria (above) and seamlessly integrated into the Office suite of products. Microsoft Teams was found to be a function rich, secure, and cost-effective on-line videoconferencing and collaboration platform (particularly for existing Office 365 subscribers).

²³ Based on a five point-star rating

- After a period of familiarisation, it is very easy to collaborate on-line, and deliver video conferences and webinars. Teams also provides a fully integrated collaboration and communication platform (including content storage and sharing, app integration etc) from which you can deliver on-line learning programs.
- Microsoft Team Meetings (rather than Live-Events) would be a recommended platform option for on-line AMC delivery. Meetings (videoconferences) are part of Microsoft Teams, which is part of the Office 365 subscription package. Access to Meetings does not require an Enterprise licence needed for Live-Events. Meetings can handle video connections for up to 300 participants with full screen sharing, video and audio conferencing and instant messaging functionality for all participants. New features such as Together Mode will make virtual interactions feel more natural, more inclusive and engaging ^{24,25}.
- In Teams it is very easy to schedule online Meetings or Webinars via on-line existing calendars. It is also easy to send and join webinars links. Other features include automatic recording of meeting and webinars, attendee report, log of on-line messages, captioning and chat translation, group messaging and meeting notes.
- It is important to allow for a learning and familiarisation phase for organisers, presenters, and participants to get used to the technology platform. There are generally small technical glitches, but these are quickly ironed out with practice and regular use.

It is very easy to integrate apps and links into the webinar, meeting, or Live Event instant message feeds e.g. links to Microsoft Forms for on-line registration and feedback, YouTube videos and websites etc.

²⁴ <https://www.financialexpress.com/industry/technology/microsoft-wants-teams-meetings-to-feel-more-human-in-covid-19-era-announces-slew-of-breakthrough-features-to-take-on-google-meet-and-zoom/2018313/>

²⁵ <https://youtu.be/MGsNmYKgeTA>

9.5 Important principles and definitions relevant to remote adult learning and capacity development

The revised delivery of the AMC program has considered and integrated key elements of the following learning principles.

1. Adult learning principles²⁶

Adulting learning principles suggest adults learn best under the following circumstances:

- The learning is self-directed.
- The learning is experiential and utilizes background knowledge.
- The learning is relevant to current roles.
- The instruction is problem centred.
- The students are motivated to learn.

The revised AMC delivery strengthens adult learning principles that were a key part of the original AMC program.

2. Inquiry-based learning

Inquiry-based learning approaches focus on investigation and problem-solving²⁷. Inquiry-based learning is different from traditional approaches because it reverses the order of learning. Instead of presenting information, or 'the answer', up-front, teachers start with a range of scenarios, questions, and problems for students to navigate. Real-world problem solving²⁸.

The greater emphasis on the Mini-Project in the AMC program is a key feature of the inquiry-based learning approach.

3. Blended learning

Blended learning is an approach to education that combines online educational materials and opportunities for interaction online with traditional place-based classroom methods. It requires the physical presence of both teacher and student, with some elements of student control over time, place, path, or place."²⁹

The move to blended learning, where core topics and concepts are delivered via remote, online communication and collaboration platforms is a key recommendation of the new AMC program delivery.

4. Flipped learning

Flipped learning inverts the traditional classroom model by introducing course concepts before class, allowing educators to use class time to guide each participant through active, practical, innovative applications of the course principles.³⁰

Flipped learning has the following features:³¹

- Flexible environment – a variety of learning modes, times, and spaces,
- Learning culture – students are actively involved in enquiry and learning, including learning, and sharing between participants, work on a learning project,
- Intentional content – integration of key concepts and knowledge into activities

²⁶ <https://www.thoughtco.com/principles-for-the-teacher-of-adults-31638>

²⁷ <https://www.education.gov.au/national-stem-education-resources-toolkit/inquiry-based-learning>

²⁸ <https://www.education.gov.au/national-stem-education-resources-toolkit/real-world-problem-solving>

²⁹ https://en.wikipedia.org/wiki/Blended_learning

³⁰ https://flglobal.org/international_definition/

³¹ https://flippedlearning.org/wp-content/uploads/2016/07/FLIP_handout_FNL_Web.pdf

- Professional educator – learning support, feedback and mentoring is available when needed, use of formative assessments, ³²

5. Student centred learning

Student centred learning aims to address the distinct learning needs, interests, aspirations, or cultural backgrounds of individual students and groups of students³³. This often involves the following fundamental characteristics:

- Teaching and learning is “personalized,” meaning that it addresses the distinct learning needs, interests, aspirations, or cultural backgrounds of individual students.
- Students advance in their education when they demonstrate they have learned the knowledge and skills they are expected to learn (for a more detailed discussion, see proficiency-based learning).
- Students have the flexibility to learn “anytime and anywhere,” meaning that student learning can take place outside of traditional classroom and school-based settings, such as through work-study programs or online courses, or during non-traditional times, such as on nights and weekends.
- Students are given opportunities to make choices about their own learning and contribute to the design of learning experiences.

Other features of student-centred learning include:

- Blend of individual, collaborative and large group work
- Clear learning objectives and outcomes
- High degree of engagement
- Opportunity for participants to work at their own pace and explore own interests
- Participants are doing the bulk of the work and talking
- Multiple forms of assessment, feedback, and demonstrations of learning
- Instruction, culture, and environment reflect the needs and diversity of participants

The student-centred approach is strengthened, with a range of more flexible AMC program delivery options customised to participants needs. These include AMC programs that can be targeted to knowledge levels and participant context via introductory, intermediate, and advanced options; fully on-line or blended delivery that includes F2F in-country Mini-Project component; combination of structured and guided “classroom” sessions with pre-classes participant-learning; and fee-paying options for University Certification.

³² <https://flippedlearning.org/>

³³ <https://www.edglossary.org/student-centered-learning/>

9.6 Tool 9 - Analysing financing options

Introduction: Financing Pro-poor Agriculture Value Chains

This supplementary tool provides guidance to Toolbook users to enable them to complete a preliminary analysis of the financial needs, challenges and opportunities of a given value chain. Toolbook users should also be able to assess the current situation and opportunities for agricultural value chain finance. In doing so, they should also be able to prepare a well-reasoned “business case” for commercial financing of a value chain by a formal financial institution. Much of the information needed to prepare that business case will be gathered in Tool 1 and Tool 2 in the M4P Toolbook. This Tool will pull together the key elements that are important for a financial institution like a commercial bank or donor³⁴.

Agriculture needs capital, in the same way that other economic activities require capital to grow and develop. Agriculture presents some unique characteristics that impact how agriculture and agribusiness are financed. The kind of value chain analysis of agricultural crops and commodities supported by the M4P Toolbook is also very useful for considering how best to finance agriculture and agribusiness. In this section, we present a tool that will help in identifying appropriate options for financing pro-poor value chains.

Basic Concepts and Definitions

First, some of the key terms and concepts related to finance, financial products, and financial institutions that are relevant for the agricultural sector are defined:

- **Rural finance** – Rural finance is the provision of financial services outside of urban areas. It includes payment products, savings and deposit products, credit (loans), insurance, etc. Rural financial services are offered by both formal and informal providers.
- **Agricultural finance** – In contrast to rural finance—which relates to *where* the finance is provided—agricultural finance refers generally to the provision of loans or credit to farming and/or agribusiness enterprises, where the risk of the loan is agricultural risk, and the purpose of the loan is to support agriculture or agricultural-related activity.
- **Agricultural value chain finance** – Though agricultural finance is provided to value chain actors in specific agricultural crop/commodity value chains, the term “agricultural value chain finance” as it is currently used refers to a financial arrangement involving two or more chain actors in a structured financing program, often facilitated by a formal financial institution like a commercial bank. For example, a bank may provide trade finance to a large trader, who is able to provide input credit to farmers, or cash to buyers-collectors to purchase product from farmers. We will explore the concept of agricultural value chain financing in more detail below.
- **Formal financial institutions** – Formal financial institutions (FIs) are providers of financial services that are established under a country’s relevant financial laws and regulations, and subject to supervision, usually by government regulatory authorities. Formal FIs include development banks, commercial banks, microfinance institutions (MFIs), cooperatives, finance companies, pawn shops (some of these FIs will be discussed further below). In contrast, lending by formal financial providers is almost always “asset-based”, which means loans are secured by collateral like property.

³⁴ Note: It is assumed that people using the toolbook have a basic understanding of financial concepts but may not possess a high level of understanding about things like financial risk or credit underwriting. It’s further assumed that they will not be experienced in thinking through or planning for the efficient financing of the value chains that they are analyzing.

Asset-based lending implies a much more elaborate and prolonged process of analysis and evaluation based on the review of documents (business plans, financial statements, collateral) prior to loan approval.

- **Informal financial providers (“informal finance”)** – informal providers of financial services, most notably informal lenders, do not hold a license to provide credit. Informal providers can be individuals (“moneylenders”) or companies, like a large agro-processing company or an agricultural trader. In contrast to lending by formal FIs, informal finance is highly “relationship-based”, that is, lending takes place based on existing relationships of trust and power. Informal lending is often not subject to formal requirements, like providing collateral, documents, or even signing formal contractual agreements.
- **Supplier finance** – The provision of credit within a value or supply chain between value/supply chain actors is often referred to as “supplier finance”. A loan provided by an agro-processing company to a trader to finance that trader’s collection of harvested crops for the agro-processor is an example of supplier finance. Another common example is a loan by a trader to a farmer, often made “in-kind”, that is, in the form of seeds and fertilizer, to be repaid after the crop is harvested and the farmer delivers either cash or an equivalent value of his crop to the trader. Supplier finance involves actors that have a long-standing business relationship and trust each other.

The Importance of Informal Finance in Agriculture

It is important to note that in both developed and developing countries, informal financial providers are highly active in the agricultural sector. Informal finance is not measured or captured by official statistics, but it occurs up and down many (if not most) agricultural value chains. Experts agree that informal financial providers are at least as important as formal financial providers in financing agriculture, particularly in providing production credit and working capital for crop collection.

As noted above, a common form of informal finance in agriculture is credit provided by small-scale traders to smallholder farmers. The loans are mainly for farm inputs, like seed, fertilizer, and in some cases, pesticides. Traders often provide these inputs at a “markup” on their cost, that is, they add a margin to the cost of the inputs that essentially represents an implied interest rate. Farmers—particularly poorer farmers—engage in these kinds of transactions because often they do not have cash to pay for high quality inputs when they need them, i.e., at planting time, and they have few other ready sources of credit. These transactions often involve an agreement (explicit or implicit) that the farmer will sell to the trader who provided them the credit when harvest time arrives.

At harvest time, small traders themselves may be receiving loans from larger traders and agro-processors who use the small traders to collect products from farmers for delivery to processing operations. These informal systems are often criticized as being “exploitative”, but often farmers and small traders have no other source of credit than their fellow chain actors. These informal financing systems work on the basis of trust, where providers of credit are in a good position to evaluate the character and capacity of the borrowers to repay. There is risk involved in providing credit, which we will discuss in more detail below.

The information and trust inherent in these value/supply chain relationships are hard for formal financial providers to duplicate, which is one reason why informal finance is so prevalent in agriculture. However, there are ways in which formal financial providers can enter a value chain and take advantage of these existing relationships to provide more affordable alternatives to informal lending, and their generally high implied interest rates.

The main point about informal finance is that it is most likely already happening, and therefore requires no intervention to promote further. The kind of value chain

interventions that will be facilitated by this Toolbook lead naturally to considerations of how to promote a more formal supply of agricultural finance—and other pro-poor financial products—by formal financial institutions. We need to briefly consider key characteristics of the different kinds of **formal financial institutions** engaged in, or interested to engage in, agricultural finance.

Some Suggested “Principles of Agricultural Finance” for Smallholder Farmers

In light of the foregoing, we suggest a set of general principles related to agricultural finance worth thinking about. When considering how best to facilitate financing of agriculture, particularly how to provide for the financing needs of smallholder farmers, one should:

- ***Be agnostic about the source of credit for agriculture or agricultural activities.*** Credit can flow efficiently from both formal and informal sources, and often informal sources like suppliers understand the credit requirements of farmers better than bankers.
- ***Start from the market—the demand side—for the crop/commodity.*** When looking to assist smallholder farmers, one can focus too much on production-related issues. Often the temptation is to promote a crop or commodity without first properly evaluating market demand. The most important thing to think about when working with smallholder farmers is the market demand for the crop that the farmer is growing or wants to grow. It is essential to ask whether the farmer can grow the kind of crop that the market really wants—including meeting the latest quality standards. Also, it is essential to identify the likely buyers of that crop; the more buyers, the better.
- ***Be mindful that lending is risky.*** Banks and other formal financial providers are interested in clients who can repay loans based on the cash flow from their economic activities—not serving the poor per se or supporting agricultural livelihoods. Often observers complain that “banks don’t want to lend to small farmers”, but it is not unreasonable (as well as very commonplace) for a formal FI to be hesitant to lend to farmers. Before trying to convince a reluctant financial institution to lend to a farmer, ask yourself, “Would I be willing to finance this activity with my own money?”
- ***Understand that lending to agriculture is a specialization.*** Most banks or FIs will not be interested to engage in agricultural finance, let alone “pro-poor” agricultural finance. In fact, in any given emerging market country, there may only be a handful of banks, MFIs, or other financial providers interested in financing agriculture. Banks prefer lending to industries whose risks they understand, or where there is collateral to support their lending. Also, many FIs do not have the rural “footprint” that encompasses agricultural activity—they are often clustered in urban areas. It is possible to help FIs overcome their lack of skill or experience in agricultural finance, but it is worthwhile spending time identifying which formal financial providers are already comfortable with agricultural-related risk and that are already servicing rural areas.
- ***Appreciate that financial services include more than just credit.*** Historically there has been an excessive emphasis on farmers’ need for credit, and until now not enough emphasis on financial inclusion. Credit is a financial obligation of the borrower that has to be repaid. Providing credit to farmers for agricultural production or other purposes means increasing the financial risk of that farming household. Farmers, even poorer smallholder farmers, are often financially conservative and do not want to borrow if they can avoid it. Having access to

multiple financial services—being “financially included”—can help poorer smallholders to better deal with multiple economic risks. Access to savings deposit services means having a safe place to keep their money when they need it—potentially reducing their need to borrow, for instance, for crop production inputs. Access to low cost payments or transaction services means people can more cheaply receive money from relatives living in urban areas—or even in another country.

- **Take a financial inclusion approach.** Smallholder farmers, as well as all other rural dwellers, be they rich or poor, male or female, benefit by having access to a variety of financial products. While credit may be useful and very important for smallholders, savings, payment facilities, and other products, like insurance (life, health, agricultural³⁵), also provide a high degree of utility for consumers. All other things being equal, if a supplier and a formal financial institution are both offering credit to a smallholder on the same terms, a farmer is better off receiving credit from a bank or other formal financial provider that is also willing and able to provide other financial products to that farmer. If you want to be pro-poor, you should try to follow the financial inclusion approach to agricultural finance.
- **Be patient while FIs develop competence and confidence.** It takes a long time—measured in years—to develop a lending business focused on farming and agricultural activity. Generally, financial providers develop expertise in one or two crop / commodity value chains, and then apply what they have learned and adapt their lending approaches to new value chains through a step-by-step process. It can take more than one year to pilot a loan product for a single value chain, with its own unique growing cycle, sets of value chain relationships, and other unique characteristics. Building a sizeable book of lending to agriculture, starting from zero, can take a bank more than five years to achieve the kind of size and scale that would be considered commercially interesting. If you are working with a bank or other kind of FI to develop agricultural lending, you should be prepared to provide at least 2 years of support just for the pilot phase.

The Formal “Supply Side” of Agricultural Finance

Figure 1. below helps to illustrate the market for agricultural finance supplied by formal financial institutions.

³⁵ In this Toolbook we will not touch upon agricultural, crop or livestock insurance in detail. There are many interesting insurance products that have been created to help manage the risk of agricultural activity. Many emerging market countries have state-supported agricultural insurance programs; in quite a few places insurance pilots are testing innovative products and business models. There is certainly an interesting discussion to have about the different kinds of insurance cover available for agriculture, but that discussion would take a significant amount of space, and likely be irrelevant for many readers. In our References section below, we include a short list of recent articles on agricultural and agricultural-related insurance to facilitate individual study of the issue.

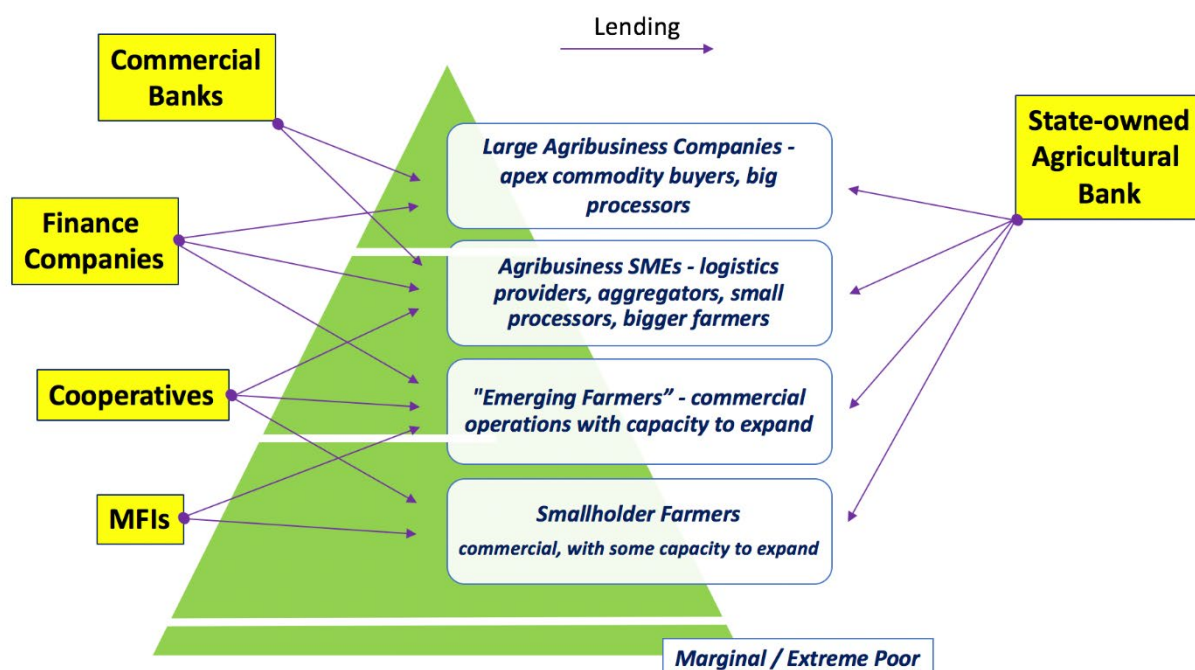


Figure 1. The market for formal agricultural finance

The pyramid in Figure 1. shows the distribution of different kinds of enterprises, with a relatively small number of large enterprises at the top of the pyramid; smallholder farmers at the bottom of the pyramid represent the largest number of potential clients for formal financial institutions in most countries. In between the large agribusiness companies and smallholder farmers are small and medium-sized agribusiness companies, larger farmers, and medium-sized farmers often referred to as “Emerging Farmers”. Emerging farmers differ from smallholders in being more commercially oriented, having larger landholdings, and possessing more technical capacity to expand their production, adopt new methods, or experiment with new crops. At the very base of the pyramid are the most marginal, i.e., poorest farmers. These farmers have limited commercial prospects and therefore are generally not a viable customer segment for formal financial institutions providing agricultural finance.

It is important to understand some of the essential characteristics of different kinds of FIs in order to understand how to approach them with a business case for financing a specific agricultural value chain. We recognize that every country is different and that countries have unique legal and regulatory environments and conditions for agricultural finance, as well as varying sets of formal financial institutions serving agriculture. Table 1 below lays out the different kinds of approaches to providing agricultural finance that different FIs are commonly observed to take.

Table 1. Different financial institution approaches to agricultural finance

1. State-owned Agricultural Banks
<ul style="list-style-type: none"> • Mandate: established by governments to serve the agricultural sector broadly; often have an official “pro-poor” mandate to work with farmers. • Client Segmentation: often focused on smallholders, but in many cases used to finance preferred government support programs for specific crops.

- **Key Characteristics:** can be highly bureaucratic and inefficient, and slow to adopt new methods; tend to rely on paper-based applications and complicated disbursement methods; rarely employ digital technologies in product design/delivery.
- **Preferred loan types:**
 - ✓ **Production Loans** to farmers (often at subsidized interest rates) to finance specific crops with short-term loans repayable at harvest;
 - ✓ **Investment Loans** to agribusinesses for upgrading plant and equipment, e.g., milling or other forms of agro-processing (also at preferential or subsidized rates);
 - ✓ **Equipment Loans** for farmers to purchase tractors, other needed equipment, like irrigation kits.
- **Other Financial Products:** in some cases, provide payment/transaction services and may take retail deposits; some development banks offer crop insurance (usually highly subsidized).

2. Private Commercial Banks

- **Mandate:** maximize profitability through the provision of a variety of financial services, which means taking and safeguarding deposits and placing those funds with high-quality borrowers. No “pro-poor” mandate; subject to high degree of (costly) regulation to safeguard customer savings and protect the payment system.
- **Client Segmentation:** often focused on larger agribusinesses due to the cost efficiencies inherent in serving fewer, larger clients and the ease of evaluating risk and lending on a secured (collateralized) basis. May serve agribusiness SMEs and Emerging Farmers through branch networks; rarely reach smallholders due to lack of information, as well as risk and operational cost considerations.
- **Key Characteristics:** more selective about VCs they are willing to finance; prefer certain larger VCs with lower risk characteristics. Look for ways to provide multiple products to preferred client segments to boost profitability. Increasingly open to digital delivery methods and emerging financial technologies and innovative models (e.g. credit scoring) that can lower costs and risks.
- **Preferred loan types** (all “asset-based”, requiring extensive documentation and generally secured by collateral):
 - ✓ **Working Capital Loans** to agribusiness to finance receivables and inventory with an “asset-based approach” (lend against security of collateral);
 - ✓ **Investment Loans** to agribusinesses for upgrading plant and equipment, e.g., milling or other forms of agro-processing
 - ✓ **Equipment Loans** for farmers to purchase tractors, other needed equipment, like irrigation kits;
 - ✓ **Production Loans** for larger farmers
- **Other Financial Products:** usually provide payment/transaction and savings/deposit services; may offer crop insurance on an agency basis (but do no insurance underwriting).

3. Finance Companies

- **Mandate:** maximize profitability through the provision of a loans to agribusiness. No “pro-poor” mandate. Do not take deposits or offer payment services so subject to much less regulation. Able to take more risk, and usually have much higher cost of funds than banks or MFIs, making it essential to focus on profitable value chains.
- **Client Segmentation:** often focused on larger agribusinesses, though may serve smaller agribusinesses and large to medium sized farmers, through fairly standardized products. Operate through branch offices, but rarely reach smallholders due to lack of information and risk and operational cost considerations, except when engaged in value chain financing arrangements with large agribusiness off-takers.
- **Key Characteristics:** highly selective about VCs and often specialized in a few commercial VCs that they understand extremely well. May employ credit scoring or be open to digital approaches. Usually open to value chain financing arrangements that offer opportunities to save costs and lower risks.
- **Preferred loan types** (all “asset-based”, requiring extensive documentation and generally secured by collateral):
 - ✓ **Working Capital Loans** to agribusiness to finance receivables and inventory with an “asset-based approach”;
 - ✓ **Investment Loans** to agribusinesses for upgrading plant and equipment, e.g., milling or other forms of agro-processing;
 - ✓ **Equipment Loans** for farmers to purchase tractors, other needed equipment, like irrigation kits;
 - ✓ **Production Loans** for larger farmers and emerging farmers, often linked to offtake agreements with agribusinesses.
- **Other Financial Products:** may offer insurance products, especially for agricultural equipment.

4. Cooperatives

- **Mandate:** provide affordable financial services to cooperative members, including in many cases agribusinesses and farmers. No “pro-poor” mandate *per se*, but support inclusive approaches to expanding membership. Take deposits only from members and may also offer payment services to members. Member deposits are main source of funding for loans. Subject to less strict regulation and may have a dedicated regulator.
- **Client Segmentation:** focused on membership, which often does not include large agribusiness members. Members tend to be agribusiness SMEs and emerging farmers; may include smallholders. Larger cooperatives may have branch offices.
- **Key Characteristics:** smaller cooperatives often have non-professional management and can suffer from lack of technical capacity that hinders their ability to grow and innovate. Often specialized in a few VCs in which members are clustered—this may increase credit risk due to lack of diversification. May employ credit scoring or be open to digital approaches, though often do not (or are unable) to invest in technology. Usually open to value chain financing arrangements that benefit members.

- **Preferred loan types** (generally “asset-based”, though documentation requirements may be less than those of a banks or finance company. Due to need to protect members’ deposits, generally make loans secured by some form of collateral):
 - ✓ **Working Capital Loans** to agribusiness to finance receivables and inventory with an “asset-based approach”;
 - ✓ **Investment Loans** to agribusinesses for upgrading plant and equipment;
 - ✓ **Equipment Loans** for farmers to purchase tractors, other needed equipment, like irrigation kits;
 - ✓ **Production Loans** for farmers and emerging farmer members, which may include smallholders.
- **Other Financial Products:** may offer insurance products, especially for agricultural equipment.

5. Micro Finance Institutions (MFIs)

- **Mandate:** provide microloans to micro and small enterprises (MSEs) and the working poor. Generally, MFIs have a “pro-poor” mandate, but due to the requirements of sustainability, they often charge very high interest rates to cover the higher administrative costs of serving many clients with very small loans. Depending upon a country’s financial regulations, MFIs may offer savings deposits and some payment services. Subject to less strict regulation (if they are not taking customer deposits) and may have a dedicated regulator.
- **Client Segmentation:** focused on bottom of the pyramid as main client segment, though some larger more commercially-oriented MFIs move “up market” to serve larger businesses (SMEs vs. MSEs). Traditionally, provide credit for micro and small traders in urban areas, but it is not uncommon to find MFIs with an explicit mandate to serve smallholder farmers in areas in which they operate. Customers are served through a network of branch offices.
- **Key Characteristics:** to keep costs down, MFIs rely on “cookie cutter” loan products that have a fairly rigid repayment structure that combines frequent principal and interest payments, which is more suited to urban small traders with steadier income streams. Traditional MFI lending methods do not match well with the “lumpy” cash flow characteristics of agriculture (i.e., prolonged periods with no income). MFIs rarely undertake industry or agriculture VC analysis, relying heavily on well-tested underwriting approaches aimed at low income people. May employ credit scoring and be open to digital approaches, though MFIs are laggards in adopting fintech approaches. Do not usually participate in value chain financing arrangements due to lack of familiarity with VCs and because they have no customer relationships with larger chain actors.
- **Preferred loan types** (can be “asset-based”, though documentation requirements are usually much less than those of a bank or finance company. May allow unsecured lending, take group or personal guarantees, and generally are more flexible on the nature of collateral that can be used to secure loans):
 - ✓ **Short-term Working Capital Loans** to MSEs that can be “multi-purpose”, that is, it can be used for financing inventory needs of micro enterprises, supporting production of a good for sale (including agricultural goods, like chickens, eggs, or vegetables), or for “income smoothing”. This type of loan is either secured by a group guarantee or in many cases unsecured by formal collateral;
 - ✓ **Small Investment Loans** for purchasing fixed assets needed by a micro business;
 - ✓ **Equipment Loans** for small-scale farm equipment, including backpack sprayers, and even small tractors in some cases for larger smallholders;

<p>✓ Production Loans for smallholder farmers that finance a large percentage of production costs, and that allow repayment post-harvest.</p> <p>• Other Financial Products: may offer microinsurance products, mostly “credit life”.</p>

Selecting value chains for financing

Often a first step is to identify value chains where agricultural value chain financing provides opportunities for financial institutions, and where financing can overcome major constraints to investment that are impeding productivity improvements and increased competitiveness.

A set of criteria and guiding questions have been identified that can be used to systematically evaluate agricultural value financing opportunities (Table 2).

Table 2. Criteria for evaluating agricultural value chain financing opportunities.

1. Scale and Growth

- i. Is the value chain (VC) substantial enough to support an attractive level of transaction volumes / total credit exposure for a financial institution?
- ii. Would the average potential loan size to VC actors (value chain client segments) be attractive to a financial institution?
- iii. Does the VC have stable-to-good growth prospects?

2. Level of Organization

- i. Are the primary producers organized, i.e., are they members of effectively functioning groups or is there a prospect of their becoming well organized?
- ii. Are there strong apex buyers with a track record of substantial buying?
- iii. Are the distribution and marketing systems within the VC relatively efficient and well developed?

3. Risk

- i. Are price and production volatility low enough that these risks are acceptable?
- ii. Are there mechanisms for contract, off-take and/or other forms of pricing agreements?

4. Bankability

- i. Do VC actors who are potential customers of a financial institution own collateral that can be readily and legally pledged to secure loans?
- ii. Can the creditworthiness of VC actors, e.g., primary producers, be enhanced by use of alternative data (e.g., payment/transactions data, other behavioural data)?
- iii. Is there scope for the use of credit guarantees or partial credit guarantees to facilitate lending to primary producers?
- iv. Are there additional financing opportunities in the VC, e.g., working capital and equipment loans, factoring, cash management, and other "cross-selling" opportunities?
- v. Does the geography of the VC overlap with the financial institution's branch network?

5. Development Impact

- i. Does the VC contain significant numbers of low-income, women, ethnic minorities or other disadvantaged primary producers or VC actors that lack access to affordable financial services?
- ii. Would the availability of affordable VC-related financial products significantly benefit low-income, women, ethnic minorities or other disadvantaged primary producers or other VC actors?

- iii. Would an intervention in the value chain create the potential for positive employment and/or income impacts for low-income, women, ethnic minorities or other disadvantaged people?

Identifying financing opportunities in value chains

There are two lenses through which financing opportunities can be assessed. From an inclusive development perspective, the main questions concern the critical finance problems and barriers faced by farming households, the poor, by women, SME firms or other target groups? What problems are impacting the competitiveness of these farmers and firms, as well as the whole value chain? How can innovative finance solutions improve this situation?

It is also important to take the perspective of the financial provider, who will only be interested in selecting the most commercially viable—the most “bankable”—value chains and upgrading opportunities, while at the same time managing the risk of that lending. This requires thinking more like a banker. Unless you are able to engage the FI on their own terms, using their own vocabulary, it will be very difficult to convince them to provide financing to a selected value chain. This requires a developing convincing “business case” for financing. Financial institutions need to be convinced that the risks in that value chain are manageable, and that the selected value chain offers an excellent opportunity for doing profitable business.

The previous section has described the key agricultural finance principles and business approaches taken by potential financial providers. The following steps provide a guide to identify and promote pro-poor approaches to financing agricultural value chains.

Step 1 – Map the financial relationships and flows in the value chains

This step builds on the value chain map developed in Tool 2. It maps the financial institutions and the flow of money and finance parallel to the input and commodity flows in the chain.

Sub-steps include:

- Map and characterise the formal and informal financial institutions and service providers in and around the value chain. The typology of financial institutions in agriculture finance described above can be used.
- Map the flow of payments associated with exchange of value chain products between buyers and sellers (including trade credit)
- Map the loans, leases, grants and guarantees between actors – informal and formal, internal and external
- Identify points along the chain where financing issues constraint value chain performance, or there are opportunities for improvement

An illustrative example of mapping finance flows in the value chain is shown in Figure 2. below.

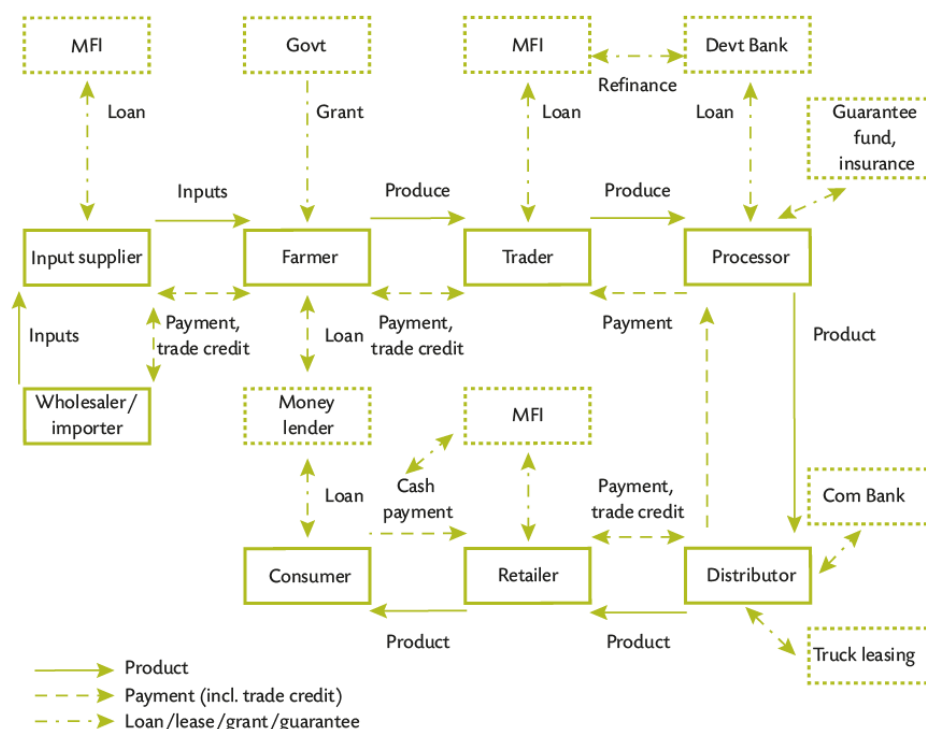


Figure 2. Mapping finance flows in the value chain³⁶.

Step 2 – Define the market opportunity (“Market sizing”)

This step also draws on market information and analysis from Tool 1 and Tools 2. Here the size, value, growth and potential of the market and its segments is assessed. The geographical “footprint” of the value chain markets and segments are described. Researchers and FI’s need to understand the market situation and dynamics in relation to intra and inter-seasonality of production and prices, exposure to external shocks and risks and the current and potential share of domestic and export market. Risks can include production risks, supply risks, finance risks, marketing risks, climate risk and price risk.

Step 3 – Analyse the financial situation and needs of value chain actors, and identify financial risks

This step characterises the financial situation and needs of value chain actors and firms at each process level and identifies financial risks. Again, this step draws on key information collected about different groups, either households and value chain firms in Tool 2, 5 and 6.

An understanding about the financial and livelihood situation of households and firms should be developed. This requires characterizing financial and physical assets, debts, savings, sources of on-farm and off-farm income and cash-flow. The characterization should also consider the livelihood priorities and strategies of households, the financial decision-making roles of men and women, perceived risks and current attitudes and practices in relation to credit, saving, loans and insurance. It is particularly important to understand the finance related reasons that constrain households and firms from investing in or adopting innovations that can upgrade their competitiveness in the value chain.

³⁶ R. Jessop, B. Diallo, M. Duursma, A. Mallek, J. Harms and B. van Manen. *Creating Access to Agricultural Finance. Based on a horizontal study of Cambodia, Mali, Senegal, Tanzania, Thailand and Tunisia*. Agence Française de Développement, July 2012, <https://www.afd.fr/en/ressources/creating-access-agricultural-finance-based-horizontal-study-cambodia-mali-senegal-tanzania-thailand-and-tunisia>

It is also helpful to gather information that helps understand the credit worthiness of potential borrowers is also helpful. This includes the “five C’s”: **character**, the persons credit history or other predictable indicator of reliability to repay the loan; **capacity**, the persons debts in relation to income; **capital**, the amount of money or other assets the person has; **collateral**, the assets that can be used as security for the loan, and **conditions**, the amount and purpose of the loan, the business’s agroclimatic suitability and proximity to markets.

It is especially important to identify opportunities for increasing women’s financial inclusion, as women disproportionately experience poverty, often due to unequal divisions of labour and a lack of power and control over economic resources³⁷. This will require paying special attention to gender-based barriers to financial inclusion outlined in Table 2.

Table 2. Gender-based barriers to financial inclusion.

Demand Side Barriers	Supply Side Barriers	Legal & Regulatory Barriers
Lack of bargaining power within the household	Inappropriate product offerings	Account opening requirements that disadvantage women
Concentration in lower-paying economic activities	Lack of gender-specific policies and practices for product design and marketing	Barriers to obtaining formal identification
Competing demands on women's time related to unpaid domestic work	Inappropriate distribution channels	Legal barriers to owning and inheriting property and other collateral
Lack of assets for collateral		Lack of gender-inclusive credit reporting systems
Lack of formal identification		
Reduced mobility due to time constraints or social norms		
Lower rates of cell phone ownership among women, needed to access many digital products		

Source⁴.

For characterizing private sector firms, a typology based on the stage of financing for different sized firms can help tailor support mechanisms around most pressing needs³⁸. For example, Table 3 presents a summary of types and size of investments, the nature of funds, the platform, and debt instruments required for typical early stage SMEs, late SMEs and large enterprises in Myanmar.

³⁷ K. Holloway, Z. Niazi and R. Rouse, *Women’s Economic Empowerment Through Financial Inclusion. A review of existing evidence and remaining knowledge gaps. Innovations for Poverty Action. March 2017.* <https://www.poverty-action.org/sites/default/files/publications/Womens-Economic-Empowerment-Through-Financial-Inclusion.pdf>

³⁸ *Business for Development and Rogers MacJohn, Myanmar Private Sector Agribusiness Landscape Analysis: Rice and Pulses. Strategic Insights. ACIAR Small Research Activity. AGB-2018-125. February 2019.*

Table 3. Typology for characterizing private sector agribusinesses based on stage of financing

	EARLY STAGE SMES		LATE STAGE SMES	LARGE ENTERPRISES
	Preparing	Investing		Facilitating Capital Projects
	Incubating			
	"Seed"	"Venture"	"Growth"	"Facilitating Capital"
<i>Types of investments</i>	<ul style="list-style-type: none"> Farm Service Centres Seed company start-up Small warehouse service Equipment start-up Cooperatives/unions 	<ul style="list-style-type: none"> Pulse packaging/trading Irrigation Seed company Rice mill start-up Mechanisation services Farmer extension service 	<ul style="list-style-type: none"> Packaged good exporter Rice mill expansion Food quality laboratory Warehousing and logistics provider Seed company 	<ul style="list-style-type: none"> National distributor Fertiliser blending and retailing Large-scale seed company Textile mills
<i>Platform</i>	<ul style="list-style-type: none"> Incubator program 	<ul style="list-style-type: none"> Agri venture fund 	<ul style="list-style-type: none"> Impact investment fund 	<ul style="list-style-type: none"> Capital facilitation
<i>Estimated investment-ready companies</i>	~100	~10	~5	~2-5
<i>Investment size</i>	\$25-50K	\$500K-1M	\$1-3M	\$30-50M
<i>Nature of funds</i>	Grant	Philanthropic funding as significant minority investor (20-49%)	Philanthropic funding as minority investor (20%)	Private equity, strategic corporate investment
<i>Debt instruments required</i>	First-loss bank loan guarantees (1:2 cover)	First-loss bank loan guarantees (1:10 cover)	First loss bank loan guarantees (1:100 cover)	No risk-sharing needed
<i>Example agribusinesses</i>	<ul style="list-style-type: none"> Genius Coffee Bayin 	<ul style="list-style-type: none"> Myanmar Innovative Life Sciences Proximity Designs 	<ul style="list-style-type: none"> Star Alliance Rice Mill Chin Corp 	<ul style="list-style-type: none"> MAPCO Aya Seed

Source⁵

Step 4 – Match the needs to types of financial products, innovations and appropriate financial institutions

This step involves identifying possible financing products, options and innovations needed by value chain actors and groups. These needs will often be in relation to a specific upgrading opportunity, investment or intervention that is constrained by financing. This could be trade credit for purchasing fertilizer and hybrid seeds, equipment loans for new machines, investment loans for land, livestock or constructing a new packing and processing facility.

Various financial instruments used in agricultural value chain financing can be grouped into five categories (Table 4).³⁹ This step requires identifying financing instruments and innovation options, identifying the value chain actors involved and the likely banks or financial service providers.

Table 4. Categories of financial instruments commonly used in agricultural value chain financing

Category	Instrument
Product financing	<ul style="list-style-type: none"> Trader credit

³⁹ C. Miller, *Agricultural value chain finance strategy and design*. Technical Note. IFAD. November 2012. <https://www.ifad.org/documents/38714170/39144386/Agricultural+value+chain+finance+strategy+and+design.pdf/1ae68ed6-4c3c-44f4-8958-436e469553bb>

Category	Instrument
	<ul style="list-style-type: none"> • Input-supplier finance • Marketing and wholesale company finance • Lead-firm financing
Receivables funding	<ul style="list-style-type: none"> • Trade-receivables finance • Factoring • Forfaiting
Physical asset collateralization	<ul style="list-style-type: none"> • Warehouse receipts finance • Repurchase agreements • Financial leasing (lease-purchase)
Risk mitigation products	<ul style="list-style-type: none"> • Insurance • Forward contracts • Futures
Finance enhancements	<ul style="list-style-type: none"> • Securitisation instruments • Loan-guarantees • Joint-venture finance

Source⁶

Step 5 – Define potential entry points and opportunities for agricultural value chain financing

This requires the following sub-steps:

- Identify the technical upgrading solutions and opportunities in the value chain, including the potential investment and operating costs and income improvements;
- Identify the finance instruments or products needed to overcome financing barriers to upgrading;
- Identify who are key actors and stakeholders involved. Identify who are the target group of farmers or firms for financing and estimate how many there are, where are they located. Also identify other key actors in the chain (e.g. larger traders, dealers, input suppliers, processors, or lead firms), and the potential financial institutions;
- Analyse and compare financing options, their relative strengths, risks and costs of financing for each level of participant in the chain; and
- Identify other innovations that can reduce the costs and risks of value chain financing and improve service, e.g.
 - **Process innovations** e.g. better business models to reduce transaction and application costs
 - **Financial innovations** e.g. growing use of interlinked supplier-buyer-producer-bank financial arrangements to reduce cost and risk
 - **Technological innovations** e.g. applications of mobile banking, mobile technical support, digital networks, and innovative credit scoring models
 - **Policy innovations** e.g. government and institutional policies supporting more competitive and efficient financial sector services

Linked innovations to financing may include: in-kind provision of inputs/vouchers; asset based collateral; bundling financial services with technical support; receipt based collateral, field force networks; offtake agreements; farmer groups; technical assistance and training; digital or mobile data collection; and data consolidation and analytics.

The suitability of the credit and financing products or models to target group should be evaluated. A principle of “do no harm” should be applied to all possible financing innovations. The suitability of the credit or financial service product or model to the financial service provider and other intermediaries should also be assessed.

Step 6 – Formulate a Business Case for financing selected value chains

This step involved developing a detailed business case for agricultural value chain financing interventions, including key service providers, and risks and weaknesses. This includes assessing the number of potential customers, the size and number of loans, the opportunities to bundle other products, the transaction cost of assessing, disbursing, and collecting the loan and possible risks.

The following questions should be considered: How strong is the business case for the intervention, practice or innovation requiring credit? What is the likely adoption? What is the likely return on investment and outcome?

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