



Australian Government
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International Agricultural Research

The Facts of LIFE

Livelihood Improvement through Facilitated Extension



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ACIAR MONOGRAPH 213





Australian Government
**Australian Centre for
International Agricultural Research**

The Facts of LIFE

Livelihood Improvement through Facilitated Extension

An introduction to a new model of agricultural extension
for conflict-vulnerable areas of the Philippines

Compiled by Noel Vock
on behalf of the LIFE team
ACIAR Mindanao Agricultural Extension Project (AMAEP)
PCAARRD-UPMindanao-Landcare-LIFE (PULL) Program



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The Facts of LIFE

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Vock, N., 2021, *The facts of LIFE: An introduction to a new model of agricultural extension for conflict-vulnerable areas of the Philippines*, ACIAR Monograph No. 213, Australian Centre for International Agricultural Research, Canberra. 172 pp.

ACIAR Monograph No. 213

ISSN 1031-8194 (print)

ISSN 1447-090X (online)

ISBN 978-1-922635-11-2 (print)

ISBN 978-1-922 635-10-5 (PDF)

Technical editing and proofreading by Mary O'Callaghan, MDash

Design by Griffin Graphics

Printing by Canprint

Cover photos: *Upper*: Jay Sala, a member of the Katipunan Vegetable and Agar-agar Growers Association (KVAGA), harvests seaweed on his farm in Magdaup, Ipil, Zamboanga Sibugay. *Lower left*: Leonila Lagunday, a member of the Kauran Christian Upland Farmers Agriculture Cooperative (KCUFAC) inspects her coffee crop on her farm in Kauran, Ampatuan, Maguindanao. *Lower right*: Members of the Salkan Farmers Association (SFA) work together in their community garden in Paraiso Village, Koronadal City, South Cotabato.

Foreword

A chance meeting in 2006 set in motion a chain of events that eventually led to the creation of the Livelihood Improvement through Facilitated Extension (LIFE) model, the subject of this book. The meeting was between a commander of the Moro Islamic Liberation Front (MILF) and an officer of the Landcare Foundation of the Philippines (LFPI). The MILF commander had heard about the success of the Australian Landcare approach, in which the LFPI officer was then involved as part of the ACIAR Philippines Australia Landcare Project.

What followed was a two-year trial of Landcare in the small remote community of Malisbong on the west coast of Mindanao, a community that had experienced a long period of intense and violent conflict. The trial demonstrated that a facilitated, well-managed, community-based extension program could potentially achieve rapid improvement of farmer livelihoods in isolated conflict-affected communities.

In 2013, ACIAR commenced a new project to adapt the Landcare approach to the broader needs of conflict-vulnerable areas of central and western Mindanao. The LIFE model is the result of that work.

ACIAR is mandated, as set out in the *ACIAR Act (1982)*, to work with partners across the Indo-Pacific region to generate the knowledge and technologies that underpin improvements in agricultural productivity, sustainability and food systems resilience. We do this by funding, brokering and managing research partnerships for the benefit of both partner countries and Australia.

The partnership that developed LIFE is an exemplar of our *modus operandi* in action. We are proud to have been a research partner in this effort for the past eight years. The LIFE model has now been successfully applied in 26 communities in the provinces of Zamboanga Sibugay, Maguindanao and South Cotabato. Its success is evident by an increase in farmers' incomes of up to 80%; greatly improved trust and cooperation between previously disparate Muslim, Christian and Indigenous Peoples communities; and widespread interest in and adoption of the model by *barangay* and municipal local government units. In the process, LIFE has helped re-shape thinking and practice of agricultural development and peace building in conflict-vulnerable communities.

The Facts of LIFE

The endorsement and adoption of the LIFE model by DOST-PCAARRD (Department of Science and Technology – Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development), our lead partner in the Philippines, is particularly pleasing. It includes funding for a complementary three-year evaluation of the LIFE model, and an ongoing commitment to institutionalise the model.

The *Facts of LIFE* brings together the collective knowledge of the ACIAR and DOST-PCAARRD LIFE project teams. It offers practical guidelines to local government officials, community organisers and anyone interested in understanding how LIFE works. The book is animated by 22 'LIFE stories' from farmers, farmer leaders, community facilitators, local government officials, government agency staff, researchers and academics. Each LIFE story is linked via a Quick Response (QR) code to an online video library where the reader can explore the story in more detail.

I hope that this timely book will inspire many more people to explore the LIFE model and apply it successfully in other conflict-vulnerable communities – perhaps the most challenging of all today's agricultural development environments.



Professor Andrew Campbell
Chief Executive Officer
Australian Centre for International Agricultural Research

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Preface

'Nobody cares how much you know until they know how much you care.'

– Theodore Roosevelt

For almost five decades now, DOST-PCAARRD has been supporting the generation of science-based knowledge – technologies and know-how – aimed at improving the production and productivity of farming and fishing communities. Mature technologies are shared through various technology transfer modalities throughout the Philippines.

Through the years, however, technology transfer initiatives in conflict-vulnerable areas, particularly in Mindanao, have remained a big challenge because of the risks involved, coupled with the target communities' detachment and hesitance, at times bordering on distrust, to participate in government initiatives.

This challenge has paved the way to DOST-PCAARRD's keen interest in the Livelihood Improvement through Facilitated Extension (LIFE) Model, which resulted from the ACIAR Mindanao Agricultural Extension Project (AMAEP). From 2013 to 2020, AMAEP developed and tested LIFE as a new extension model for improving livelihoods in conflict-vulnerable agricultural communities of western Mindanao. In its entirety, the LIFE approach has provided a means to restore the communities' trust in society and in the government. At each of the LIFE project sites, the communities have reconnected and become active and productive members of society. This, in turn, has brought rapid and significant change to farmers' livelihoods.

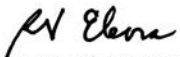
Inspired by these gains, DOST-PCAARRD supported the implementation of a major collaborative project in 2017 to scale up and further validate the LIFE Model through institutional strategic partnerships in Mindanao. This project is the first major funding collaboration between ACIAR and DOST-PCAARRD involving the outcomes of an ACIAR project.

The LIFE Model is a product of the partnership between DOST-PCAARRD, ACIAR, the Landcare Foundation of the Philippines Inc. (LFPI), the Royal Melbourne Institute of Technology (RMIT University) in Australia, the University of the Philippines (UP) Mindanao and UP Los Baños. LIFE would not have been completed without the thorough and invaluable interaction with, and cooperation of, the communities in the conflict-vulnerable areas in Mindanao and with many practitioners of the LIFE Model. To all of you, our sincerest thanks.

Livelihood Improvement through Facilitated Extension

This book, which presents the birth and celebration of LIFE, is the culmination of nearly eight years of work to develop and validate what DOST-PCAARRD recognises as the only agricultural extension model in the Philippines that has been specially developed for conflict-vulnerable areas. I extend my gratitude to Dr Andrew Campbell, ACIAR, RMIT, and all the local partners that became instrumental in making this book a reality.

It is our fervent hope that the LIFE Model will help overcome the barriers to agricultural extension caused by conflict and lead to improvements in the livelihoods and wellbeing of our farming and fishing communities. Improved livelihoods and wellbeing are essential if we are to avoid a cycle of instability and resentment, and thus make lasting peace and reconciliation possible.



REYNALDO V. EBORA, PhD

Executive Director

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2013-21

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Enhancing Livelihood Opportunities in Conflict-Vulnerable Areas in Mindanao through the LIFE Model

(LIFE = Livelihood Improvement
through Facilitated Extension)



PULL Program 2017-21

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Acknowledgements

The LIFE team acknowledges the more than 2,000 farmers and their families who have embraced the LIFE Model at its 26 project sites. They have shown great commitment and resilience in accepting a new way of doing things, and staying with it despite the difficulties and challenges of living and farming in conflict-vulnerable areas.

For the ACIAR Mindanao Agricultural Extension Project, our five partners in scaling out LIFE to new sites have been a great pleasure to work with. They have faithfully adapted and applied the model within their institutional constraints, and never faltered in giving it a good test. We particularly thank the following staff who played key roles in the field:

Consortium of Bangsamoro Civil Society

- Mr Mohamad Omar – Project Manager
- Mr Kutin Kanim – LIFE Facilitator.

Sibugay Technical Institute Incorporated

- Ms Maria Bella Javier – Chief Executive Officer
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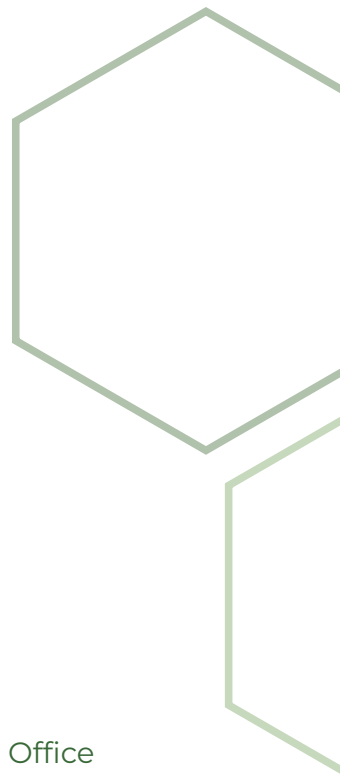
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- Ms Mia Villanueva – City Environment and Natural Resources Technician.



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Several *barangay* and municipal local government units (LGUs) and other institutions have become valued partners. The LIFE team acknowledges the major contribution each of them has made to improving the efficacy and impact of the LIFE Model. We greatly appreciate the collective input of all mayors, vice-mayors, councillors, department heads, institution CEOs and project managers who have encouraged and supported the LIFE Program throughout its duration.

We particularly acknowledge the Philippine Coconut Authority and the contribution of Kedtol Kamsa; the Kabasalan Municipal Agriculture Office in Zamboanga Sibugay and the leadership of Miladel Capitania; and the Department of Social Welfare and Development in Ipil, Zamboanga Sibugay, for their support of container vegetable growing in Katipunan.

Scaling up the LIFE Model at the national government level would not have been possible without the valued and generous input of the Department of Science and Technology – Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development (DOST-PCAARRD) and the Department of Agriculture – Agricultural Training Institute (DA-ATI). From an early role of project monitoring, staff from DOST-PCAARRD quickly became an integral part of the LIFE team, advising on implementation and scaling up, which culminated in the development of the complementary PULL Program. While many staff from DOST-PCAARRD provided valuable input, we would like to specially acknowledge Dr Melvin Carlos and Agustin ('Ding') Ramos (deceased), who really got the national government's involvement on track. 'Ding' Ramos unfortunately passed away suddenly in 2018. We are sure that he would be very proud of what has happened to LIFE since his passing. In recent years, DA-ATI has generously supported the pilot implementation of the LIFE training package.

The Landcare Foundation of the Philippines Inc. (LFPI) has been the main partner of AMAEP in implementing LIFE, and the mentor of the PULL Program. The LIFE team acknowledges the significant contribution of this small, not-for-profit non-government organisation, and the dedication and support of its staff and board of trustees.

RMIT University, as ACIAR's Commissioned Organisation for AMAEP and a partner and supporter of the PULL Program, has been the 'anchor' of the LIFE Model. The RMIT project team members acknowledge the outstanding behind-the-scenes support of Professor John Fien, Professor Ralph Horne and the finance team, particularly Ms Mai Chaing.

From the perspective of the PULL Program, we acknowledge the following valued partners:

Surallah, South Cotabato

- *Barangay* and municipal LGUs, including the Municipal Agriculture Office and the Municipal Environment and Natural Resources Office
- Department of Science and Technology Region XII
- Department of Social Welfare and Development Region XII
- Philippine Coconut Authority Region XII
- Department of Trade and Industry
- Bureau of Fisheries and Aquatic Resources Region XII
- Department of Agriculture Region XII.

Datu Abdullah Sangki, Maguindanao

- *Barangay* and municipal LGUs, including the Municipal Agriculture Office
- Ministry of Indigenous Peoples Affairs, Bangsamoro Autonomous Region in Muslim Mindanao
- Ministry of Trade, Investments and Tourism, Bangsamoro Autonomous Region in Muslim Mindanao
- Department of Science and Technology – Autonomous Region in Muslim Mindanao
- Ministry of Agriculture, Fisheries and Agrarian Reform, Bangsamoro Autonomous Region in Muslim Mindanao
- Philippine Coconut Authority, Bangsamoro Autonomous Region in Muslim Mindanao.

Ipil, Zamboanga Sibugay

- *Barangay* and municipal LGUs, including the Municipal Agriculture Office and the Municipal Environment and Natural Resources Office
- Bureau of Fisheries and Aquatic Resources Region IX
- Department of Science and Technology
- Department of Trade and Industry
- Department of Labor and Employment.

Book dedication

The LIFE team dedicates this book to each of the LIFE farmers and their families. Thank you for being our inspiration on our journey together.



Abbreviations and acronyms

ACIAR	Australian Centre for International Agricultural Research
AMAEP	ACIAR Mindanao Agricultural Extension Project
ARMM	Autonomous Region in Muslim Mindanao
ASG	Abu Sayyaf Group
BAFTECH	<i>barangay</i> farmer technician
BARMM	Bangsamoro Autonomous Region in Muslim Mindanao
BFAR	Bureau of Fisheries and Aquatic Resources
BIAF	Bangsamoro Islamic Armed Forces
BIFF	Bangsamoro Islamic Freedom Fighters
BLGU	<i>barangay</i> local government unit
CAB	Comprehensive Agreement on the Bangsamoro
CAO	City Agriculture Office (City of Koronadal)
CBCS	Consortium of Bangsamoro Civil Society
CBD	community-based development
CENRO	City Environment and Natural Resources Office (City of Koronadal)
CEO	chief executive officer
CPP–NPA–NDF	Communist Party of the Philippines – New People’s Army – National Democratic Front
CSO	civil society organisation
DA	Department of Agriculture
DA-ATI	Department of Agriculture – Agricultural Training Institute
DASABA	Datu Sahol Bulol Barangay Association
DENR	Department of Environment and Natural Resources
DOLE	Department of Labor and Employment
DOST	Department of Science and Technology
DOST-PCAARRD	Department of Science and Technology – Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development
FAB	Framework Agreement on the Bangsamoro
FTG	farmer training group
IPs	Indigenous Peoples
ISIS	Islamic State of Iraq and Syria
KCUFAC	Kauran Christian Upland Farmers Agriculture Cooperative
KVAGA	Katipunan Vegetable and Agar-agar Growers Association
LATIFA	Lambukan Amligan T’boli Integrated Farmers Association
LFPI	Landcare Foundation of the Philippines Inc.
LGU	local government unit
LIFE	Livelihood Improvement through Facilitated Extension

The Facts of LIFE

MAFISA	Mangga Fishing Seaweeds Association
MILF	Moro Islamic Liberation Front
MLGU	municipal local government unit
MOA	memorandum of agreement
MOU	memorandum of understanding
MNLF	Moro National Liberation Front
MSWDO	Municipal Social Welfare and Development Office
MVGA	Magdaup Vegetable Growers Association
NBBAF	Nga Bango B'laan Aksasato Farmers Association
NDF	National Democratic Front
NGA	national government agency
NGO	non-government organisation
NPA	New People's Army
OBLA	Olo-clofe B'laan Landcare Association
PCA	Philippine Coconut Authority
PCAARRD	Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development
PCIC	Philippine Crop Insurance Corporation
PHP	Philippine peso
PLGU	provincial local government unit
PO	Peoples' Organisation
PULL	PCAARRD-UPMindanao-Landcare-LIFE
QR	quick response (code)
RMIT	Royal Melbourne Institute of Technology (RMIT University)
STII	Sibugay Technical Institute Incorporated
TFPA	Teduray Farmers Producers Association
ToT	transfer of technology
TTPD	Technology Transfer and Promotion Division of PCAARRD
UPLB	University of the Philippines Los Baños
UPMindanao	University of the Philippines Mindanao

About this book

Mindanao, the Philippines second largest island, is widely regarded as the nation's food bowl, producing a wide range of grain, fruit, vegetables and specialty crops. Known locally as 'the land of promise', Mindanao's combination of warm temperatures, abundant rainfall, large areas of fertile soil and innovative, hard-working farmers make it potentially one of the richest agricultural areas in South-East Asia.

However, in many areas of Mindanao, this agricultural potential is significantly limited by community-level conflicts of often-overlapping religious, political and cultural origins. The conflicts have a range of economic and social impacts, including disruption of farming activities, reduced investment in farm infrastructure, breakdown of the normal social structures within communities, and a decrease in the provision of agricultural extension services by government and other institutions.

The impacts are exacerbated by the fact that most of the affected farmers in conflict areas are smallholder farmers, who are naturally more vulnerable to the impacts of conflict. As a result, farming households face daily challenges in securing food as well as maintaining and improving their livelihoods.

This book describes a new approach to agricultural extension which aims to address these problems – the Livelihood Improvement through Facilitated Extension (LIFE) Model. Over six main chapters, we summarise the conflict situation, the impacts of conflict, considerations for designing effective extension programs for conflict areas, how the new model was developed, how it works, and the outcomes and impacts it has achieved.

The book brings together the collective knowledge of the AMAEP and PULL teams, the participating farmers and the project partners who helped to develop and test the LIFE Model. Woven through the chapters are 22 testimonials, or 'LIFE stories', of people's experience with the model – these include farmers, farmer leaders, community facilitators, extension workers, community leaders, researchers and academics. Each LIFE story is linked via a QR code to an online video library where each testimonial can be explored in a more visual manner. The book concludes with a list of references and further reading, with links to the AMAEP and PULL websites.



Ellen Emolaga, a farmer from Kauran, Ampatuan, Maguindanao, is one of the 22 people sharing their inspiring LIFE stories in this book. Read her story in LIFE story 22.

The book primarily aims to inspire decision-makers of interested Philippine extension institutions to incorporate the LIFE Model into their extension programs to improve these programs' efficiency and impact. To achieve this, we focus on the information that is important for making strategic decisions about resources, personnel, structures and the nature of farmers' involvement.

Note that the book is not a detailed 'how-to' guide for implementing the LIFE Model in a particular community. This more detailed operational information is described in the companion training manual: *Training for LIFE – A new model of agricultural extension for conflict-vulnerable areas of the Philippines*.

Synopsis of the book

Chapter 1 – Conflict in Mindanao

Mindanao has a long history of conflict going back to before Spanish colonisation when Arab traders from Malaysia and Indonesia settled among the largely animist indigenous people and converted many of them to Islam.

Following Spanish colonisation in 1521, the process of progressively 'Christianising' the people began. It was the Spanish who coined the term 'Moro' for the Mindanao Muslims. Mindanao was the last bastion for Christianisation, and it was only ever partially converted, with both the Moros and many indigenous tribes fiercely resisting both Christianisation and Spanish rule. This resistance continued right through the Spanish–American War in 1898, the subsequent Philippine–American War of 1899–1902, through to the granting of independence to the Philippines in 1946.

While there was comparative calm during the 1950s, serious conflict flared again in the 1960s when the Philippines Government sponsored a huge resettlement program of mainly Christian settlers from the north. This eventually turned the Moros and indigenous people into minorities, with the Muslim minority concentrated in central and western Mindanao and the indigenous people displaced to the peripheries of their ancestral homelands. Resentment of the Christian settlers and resistance to central control saw a rise in Moro nationalism and an increased fight for Moro independence. These factors catalysed the formation in the late 1960s of the Moro National Liberation Front (MNLF) and in the late 1970s a breakaway of the MNLF – the Moro Islamic Liberation Front (MILF).

The MNLF rebellion continued through the 1970s and 1980s with periods of conflict interspersed with negotiations with the government. These negotiations were ultimately instrumental in the government and the MNLF reaching an agreement in 1989, which set up the Autonomous Region in Muslim Mindanao (ARMM). A final peace agreement followed in 1996. Meanwhile, the MILF continued its campaign through the 1980s, 1990s and 2000s, finally achieving a peace agreement with the government in 2012. This eventually led to the establishment of a self-governing region in Muslim-dominated areas of western Mindanao, called the Bangsamoro Autonomous Region in Muslim Mindanao (BARMM), and replaced the ARMM.

Another significant source of conflict stems from the late 1960s when the Communist Party of the Philippines (CPP) mounted a people's revolution against the government, which took the form of a countryside guerrilla war fought by the CPP's armed wing – the New People's Army (NPA). While the insurgency started in the north of the Philippines, it quickly spread to Mindanao, where it remains today.

Added to this is the plight of the non-Muslim and non-Christian indigenous people, officially classified as Indigenous Peoples, or IPs, and often collectively referred to as *Lumads*. Historically pushed aside by both Spain and America, they continued to be further displaced by the Christian settlers and the Moros. This marginalisation and dispersion of the IPs compounds the conflict risk in Mindanao.

On top of all this are other sources of conflict, including breakaway factions from both MNLF and MILF; clan wars or feuds, known locally as *rido*; and other localised power plays by political elites, strongmen, vigilante groups, general bandits, and kidnap-for-ransom or extortion gangs. As the history clearly shows, conflict in Mindanao is complex, diverse and multilayered.

There are five main drivers of conflict that need to be addressed in any efforts to improve agricultural extension services in conflict-vulnerable areas of Mindanao and these are described in Chapter 1.



Fred Lagsing is a member of the B'laan indigenous tribe in Saravia, Koronadal City, South Cotabato. The LIFE Program is working with a number of IP groups who are generally marginalised and disadvantaged.

A note on conflict terminology

The term 'conflict' can have different meanings for different people. Initially, the ACIAR Mindanao Agricultural Extension Project (AMAEP) team used the term 'conflict-affected' for the people and areas in which we were working. This was understood to be the accepted political term adopted in the early 2000s as a result of the World Bank's Post-Conflict Needs Assessment. However, despite this concept being widely accepted, we quickly found that there is significant stigma attached to the term 'conflict-affected', with possible negative connotations for a particular community. We also found that the term had widely differing interpretations.

As a result, we changed our terminology to 'conflict-vulnerable', which, we believe, reduces the stigma, and this is the term consistently used throughout this book for the people and areas in which we worked.

For clarity, our definition of conflict for the LIFE Program is: 'Disruption to peace and order at a community and/or regional level affecting the normal pursuit of livelihoods.'

Chapter 2 – The impact of conflict on farming livelihoods

The impacts of conflict on the livelihoods of farming families are known to be pervasive, although there is a dearth of micro-level documentation. Recent unpublished research in western Mindanao, which involved AMAEP, throws some light on these impacts. This research identified the impacts on farmers as being primarily economic and social. Economic impacts on farming families included displacement from their farms; frequent disruption to production, labour deployment, purchase of farm inputs and marketing activities; and lack of confidence in investing in longer-term crops and farming infrastructure. From a social perspective, farmers felt socially isolated with less ability to network because of less movement of farmer innovators and other innovators in and out of their area. Women were found to be particularly vulnerable to social isolation. In addition, farmers noted a significant reduction in the flow of information and social support services from various external sources. An important finding was that the impacts of conflict were similar across religious, ideological and cultural divisions. As might be expected, social impacts were less important under lower levels of conflict.

This chapter concludes with a summary of the impacts, including from other published research.

Chapter 3 – Considerations for designing extension programs for conflict-vulnerable communities

Extension is the process of enabling change in individuals and communities. Agricultural extension is the process of enabling this change in farmers or farming communities. While the purpose of extension in enabling change is easy to understand, the process of getting there is a little more complex. This is because there are several different 'models' of extension which have evolved over time in line with our understanding of the processes of adult learning and change. We use the term 'models' reservedly as the reality is that most extension programs use aspects of different models.

In this chapter, we outline the five basic recognised agricultural extension models that have evolved over time, including the first and most widely recognised model – the Transfer of Technology (ToT) model.

While all five models are still in use and have their specific roles, the trend over time has been shifting from the simpler 'persuasive' models (such as the ToT model) to the more complex 'facilitative' models that use more group capacity building and empowerment. This trend involves an increasing sophistication of the interaction between farmers, extension officers and researchers.

A different concept has recently been popularised by Australian extension specialists Jeff Coutts and Kate Roberts. The concept proposes five approaches (or models) to extension work, which we briefly summarise.



Helen Anaud (left) is the LIFE Program Focal Person with the City of Koronadal LGU in South Cotabato. Here she talks with Aurora Rosal, one of the farmers participating in the LIFE Program. The dedicated partnership between LGUs and farmers is a key to success.

For designing extension programs today, we summarise 10 important conclusions that can be made from the development and evolution of the above extension models and approaches. These include the need for flexibility; the need for real empathy with the human development needs of farmers; the important role of facilitation in assisting groups to define and achieve their own goals and learning processes; the need for respect for gender and gender equality; and the importance of social capital.

We discuss the important concept of community-based development, which occupies much of the narrative on extension in conflict-vulnerable areas because it is widely used and accepted by aid programs.

We conclude with a set of 11 principles that we believe are important in designing extension programs for conflict-vulnerable communities. These include the importance and value of the facilitation approach; the advantage of decentralised, participatory, market-driven extension over rigid and hierarchical approaches; building on existing systems; the importance of strengthening local institutions; the value of working with groups; the importance of social capital; and the need to integrate gender into the mainstream of the process in a way that addresses the needs of both women and men.

Chapter 4 – The origin of the LIFE Model

Previous research conducted by the Australian Centre for International Agricultural Research (ACIAR) on agricultural extension approaches in relatively stable areas of Mindanao highlighted how certain types of community-based extension could rapidly improve farmers' livelihoods. This research established a platform from which a broader application of the extension methods into other areas of Mindanao was possible. A key step in this process was a small pilot program conducted from 2007 to 2009 in the remote conflict-affected community of Malisbong in central Mindanao. The pilot anecdotally demonstrated the promise of facilitated community-based extension methods in rapidly improving livelihoods in isolated, conflict-vulnerable communities.

Then, in late 2013, building on this knowledge, a new ACIAR project began to develop an extension model suitable for conflict-vulnerable areas more broadly, and began testing this model through a process of action research in pilot sites in the conflict-vulnerable areas of western Mindanao. The model was subsequently named the LIFE (Livelihood Improvement through Facilitated Extension) Model.

The LIFE Model was developed in six stages.

Stage 1: Developing key extension principles

Nine learnings were identified from previous work and we outline these in some detail. The learnings include using trained community-based facilitators; encouraging farmers to take the lead role; encouraging farmers to work in existing groups (or in newly created groups); linking farmers more effectively with LGUs and other potentially supportive institutions; and understanding that no single model of extension can appropriately service all needs.

Next, these learnings were placed within a working set of 20 key principles identified as being vital for effective extension programs in general, and for conflict-vulnerable communities in particular. At the same time, we identified three essential strategies for delivering the program, under which the 20 principles could be effectively grouped: 1) giving farmers access to technical innovations; 2) building community social capital; and 3) collaborating closely with local institutions to build effective and sustainable partnerships.

Stage 2: Selecting pilot sites

Three conflict-vulnerable sites in western Mindanao were chosen for the first round of testing of the new LIFE Model. The sites were chosen in consultation with regional and local stakeholders and represented three different settings to provide as wide a testing base as possible for the model. The sites and settings are profiled in this chapter.

Stage 3: Deploying community facilitators

Specially trained and trusted community extension workers who lived and worked in the target communities were deployed. Two community facilitators were subsequently appointed at each of the three initial pilot sites to improve teamwork, broaden the skills base available and improve security for staff in the field. The recruitment and deployment process included orientation and training based on an individual, needs-based, ongoing training plan for each community facilitator.



The LIFE Model emphasises the three-way combination of technical innovations, community social capital and close collaboration with local institutions. Most LIFE activities reflect this.

Stage 4: Implementing the LIFE Model

Using the principles and strategies established in Stage 1, we devised 16 steps for implementing the LIFE Model and then implemented these at the three sites.

Stage 5: Monitoring and evaluating the model

Our main focus was on measuring improvement of livelihoods for participating farmers. This involved consideration of two primary livelihood aspects – economic and social – which are regarded as the highest priorities for disadvantaged communities in conflict-vulnerable areas. We also monitored other livelihood improvements, such as those in the human, environmental and political categories.

A secondary focus was on measuring the effectiveness of the model for local extension institutions – an important factor in ensuring institutional sustainability of the model beyond the end of the project. We measured this using two key processes:

- Action research (a cycle of planning, acting, reflecting and re-planning) was used to regularly review the rollout of the LIFE Model and incrementally improve its performance and implementation.
- Specific targeted research on livelihood changes and impacts was conducted. We used a range of techniques, including surveys of farmers and extension institutions; analysis of costs and returns of farm enterprises; social capital assessments and special farmer group 'culmination' assessments when the major engagement between the farmer group and the community facilitators had concluded (after about two years).

Stage 6: Scaling out and scaling up the LIFE Model, and developing an ongoing training program

For scaling out we selected five extension institutions within reach of the pilot sites. The idea was to mentor these institutions in fully implementing the LIFE Model under their own internal institutional arrangements. Scaling out eventually covered 14 separate sites.

For scaling up we collaborated with the Department of Science and Technology – Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development (DOST-PCAARRD), the national government agency with a particular interest in developing and testing new extension modalities. Ultimately, DOST-PCAARRD provided special funding to further expand and test the model under their own institutional research partnership in western Mindanao. This three-year project, called the PULL Program (PCAARRD–UPMindanao–LFPI–LIFE), was rolled out at three new conflict-vulnerable sites, with AMAEP providing advice, support and mentoring of its community facilitators.

For the training component, we developed a trial three-module package for extension officers and extension institutions interested in adopting LIFE. Funding for the trial program was provided by the Department of Agriculture – Agricultural Training Institute (DA-ATI) in another promising sign for potential scaling up the LIFE Model at the national government level.

Chapter 5 – Implementing the LIFE Model

The 16 steps required to implement the LIFE Model are described in this chapter. While sufficient detail is provided to allow would-be adopters to implement the model, some of the tools and techniques used are presented in more detail in the companion training manual: *Training for LIFE – A new model of agricultural extension for conflict-vulnerable areas of the Philippines*.

The 16 steps are summarised here:

Step 1: Identify or select an appropriate site

In many cases, the site will already have been decided, but where there is opportunity to choose, considerations include: priorities; safety and security; the existence of a support network; farmers' interest in change; potential for scaling out; and ready access to the site.

Step 2: Appoint an appropriate community facilitator

Again, in many cases, the community facilitator will already have been decided, but where there is opportunity to choose, considerations include: whether the facilitator lives locally and has a good knowledge of and relationship with the target community; if the target community is Moro, whether the facilitator is also a Moro and can speak the local language or dialect; and whether the facilitator is prepared to work closely with the community to establish trust and empathy.



PULL Facilitator Elisa Nasam (right) assists a resident of Katipunan, Zamboanga Sibugay, with the harvesting of vegetables grown in containers. Facilitation is a specialised skill that is highly valued by the LIFE Program.

Step 3: Train and orientate the facilitator

In some cases, the community facilitator may already have been appropriately trained and orientated. However, our recommended training steps include orientation to the detail of the LIFE Model; orientation to working effectively and safely in conflict-vulnerable communities; profiling the facilitator's knowledge and skills; and analysing their training needs. Where possible, it is good to have someone experienced in the LIFE Model act as a mentor.

Step 4: Identify priority institutional stakeholders

The first operational step is to carefully analyse the target community to identify each institution that has a stake in its development and future. This is important in defining who you need to involve, engage with or communicate with, as it is vital that everyone with a stake in the community is aware of what the project is doing and why. Institutional stakeholders include the LGUs at the *barangay*, municipal and provincial levels; other government institutions working directly with the community; NGOs; civil society organisations (CSOs); academic institutions and private sector institutions.

The best way to do this is to introduce yourself to the municipal mayor and the *barangay* captain and briefly orientate them to your project. In Moro communities, include the political leader, religious leader and the local commander of the appropriate MNLF or MILF group.

Step 5: Consult with the relevant LGUs and other institutions

This step is where you seriously engage with the institutions identified in Step 4 and orientate them to the project. Orientate your own institution and team first, followed up by a courtesy letter to the municipal mayor and the *barangay* captain, offering a briefing presentation to their respective councils. In Moro communities, include the political leader, religious leader and the local commander of the appropriate MNLF or MILF group in this process. The idea of the briefing is to explain the project, inform them about your intentions, look for possible partnerships, find out more about existing programs, ascertain any support that the institutions may be able to offer, and check whether you may have missed any institutions in your initial scan. Follow a similar process with other government institutions, NGOs, CSOs and academic institutions.

The importance of this step is that it fosters a strong sense of ownership by the institutional partners and is more likely to result in stronger support for the project. It also creates a safer and more secure environment in which to work, as all institutions are then fully aware of your motives and upcoming operations.

Be aware of potential difficulties: hidden agendas of some politicians; power structures within the community that may affect conflict and security; and the different chains of command of different institutions, particularly in the case of IP communities which often have very different power structures with both formal and informal leaders.

Step 6: Gain a deeper understanding of the farmers and their livelihood-improvement issues

The level of documentation and understanding that you can generate about the farmers and their livelihood issues will depend on the time and resources you have available and the size of the project. In its simplest form, this step requires gathering some basic data about the community. In a larger project, potentially with multiple stages, the level of data gathering may need to be more extensive, so that a clear baseline for later comparison of outcomes can be established. In both cases, the importance of the step is to better understand the community and its issues; and to have some initial baseline for later assessment of how effective the project has been.

Step 7: Meet the farmers and identify farmer groups

Having learnt more about the farmers from Step 6, in this step you engage with the identified farmer leaders in the community to inform them about the project and garner their support and input to the project. This is an important trust-building process, and so it is essential that you be open and transparent with no perceived hidden agendas. It is best done as an informal chat rather than a formal meeting process, as this helps build rapport and confidence.

The LIFE Model is best deployed through groups because of their inherent advantages in the extension and learning process. Therefore, during this process, find out if there are any existing farmer groups, who organised them, who leads them, how they are structured and how well they are working.

Step 8: Identify the best farmer groups to work with

From information gained in Steps 5, 6 and 7, you can now map the identified farmer groups to identify which groups are most suitable to work with. The mapping is based on two criteria that indicate how well the farmer group fits with the ideals of the LIFE Model:

- Relevance – Does the farmer group aspire to improved livelihoods and a desire for positive community change in agricultural or related livelihoods?
- Influence – Does the farmer group have a good representation of the main farmers in the community, and does it have a passion for engaging with institutions that may assist it?

If no farmer groups are available or suitable, it is appropriate to form a new farmer group. If the above analysis has been completed properly, the need for a new group will be clear, not only to the farmers but also to the LGUs and other institutions that have a stake in the community.

Step 9: Orientate farmer groups and key institutional partners to the process and seek their input

Engaging with the members of the farmer groups and institutional personnel to orientate them to the project, seeking their input and understanding their willingness to participate is an important step in gaining their positive acceptance of what lies ahead and a measure of commitment. If you had to form a new farmer group to work with, it is likely that the farmer engagement part of this step will have been part of the process of setting up the group.

An important outcome of this consultation is agreement with the farmers on a suitable date and venue for the workshop to analyse their needs (Step 10).

Note that in all interaction with community groups, it is vital to actively encourage both men and women to be involved and, where necessary, provide mechanisms for this to happen. Chatting with farmers over lunch is a good mechanism for men and women to be equally involved as it gives you one of the few opportunities to interact with the entire farming family.

Step 10: Identify the farmers' main drivers and needs

This step aims to identify the farmers' priority needs, and the preferred ways of addressing those needs, with all members of the farmer group together at a special workshop.

Although the workshop is focused on the farmers, it is a good idea to also invite some of the key officials from the LGUs and other institutions, so they may observe the farmers identifying their needs and priorities.

The idea of the workshop is to build the farmers' ownership of both the process and the outcomes. As mentioned above, it is vital that both men and women from the farming units are actively involved in the workshop. The more that women can be involved, the richer the outcomes will be and the greater the ownership of those outcomes.



Farmers in a group workshop, under the watchful eye of a LIFE facilitator, identify their main drivers and needs. It is important to obtain input from both men and women in a participative process. Creating a family-friendly environment where men and women can safely bring their children is an important feature of LIFE workshops.

We recommend a detailed three-step process of: contextualising their current farming and community situation and their main drivers; envisioning where they would like to be in two years' time and the two most important agricultural activities they could undertake to produce the desired changes; and, for each of the nominated priority activities, having them review which of the available and relevant institutions are most able to help them achieve their next steps.

Step 11: Conduct an 'inspirational cross-visit'

We know from experience over many years that farmers learn best from other farmers. The inspirational cross-visit provides an opportunity for your farmer group to learn and be inspired by other farmers who are doing something highly innovative in the same field of interest. Inspirational cross-visits equip the farmers with ideas and possibilities and can significantly improve adoption and the rate at which it occurs.

While the cross-visit is mainly for the farmers, we recommend also inviting the extension personnel relevant to your farmer group. These may be LGU or NGO staff with whom you are collaborating or are likely to collaborate in later stages of the LIFE Program. Including them builds connections with your farmer group as well as building unity and collective understanding of the strategies the farmers may take when they return to their farms after the cross-visit.

Step 12: Implement activities to develop livelihoods

This step, which may be concurrent with the inspirational cross-visit, is to develop and implement a program of activities to improve livelihoods, based on the needs and strategies identified in Step 10.

Possible activities include farmer field schools, on-farm demonstrations, field days, farm walks, demonstration farms and technical seminars.

Sourcing the technical expertise starts with tapping into available experts, firstly within the community, then within the municipality, the province, and so on.

The task then is to manage this expertise in a planned and systematic way that allows farmers to learn at their own pace and adopt, adapt or reject the various elements of a new technology. The important tasks for the facilitator are making sure the farmers are leading the process (making all of the important decisions) and supporting the involvement of both men and women from the farmer group.

Step 13: Regularly review and discuss ways to improve social capital, group health, gender equity and farmer leadership

It is important to be always thinking ahead to the next step when introducing new learning, and continually re-visiting the action plan. You can also look at other important aspects of farmer group development, such as social capital, group health, gender equity and farmer leadership. We list key questions that you can use to benchmark progress. Remember that real change comes only when technical innovations run alongside improvements in social capital and human development.

It is also important to progressively facilitate the farmer group's involvement in the legislative process to the point where the farmer group can become a part of the *barangay* development council, and potentially even the municipal development council. This is the ultimate step in sustainability of the LIFE Model within the community.

Step 14: Train and deploy farmer facilitators where possible and appropriate

Farmer facilitators are innovative farmers within the group or community who are specially trained to maximise local farmer to-farmer learning within their community. They are an important part of farmer-to-farmer learning and exchange. Ideally, they can be deployed in a voluntary capacity, which, apart from the cost of the training, can be put in place at a minimal cost. However, the best and most durable option is for municipal LGUs to adopt a formal program of support for farmer facilitators. We briefly profile an outstanding example of a municipal deployment of farmer facilitators from a related project in Bohol.



Victor Malangan is a farmer facilitator with the MAGKUNO farmer group in Kabasalan, Zamboanga Sibugay. Farmer facilitators value and enjoy the role they play in assisting their communities.

Step 15: Keep institutional partners informed and, where possible, involved in activities

Throughout the implementation of the model, we emphasise the importance of effective communication and collaboration with the institutional partners. This step is a reminder to reinforce this process. Do not leave this to chance. We recommend a planned communication program be put in place and rigorously adhered to. The important thing is to communicate regularly and with all stakeholders, even if they do not appear particularly interested or engaged in the process.

We recommend promoting the success stories and impacts as widely as possible, using social media and, where possible, videos featuring testimonials from farmers and local extension personnel.

Step 16: Regularly monitor, record and reflect on changes necessary to improve outcomes

In Step 6, we emphasised the importance of establishing some form of baseline for the community. In its simplest form, the baseline would involve gathering some basic data about the community, and in a larger project might involve a formal survey. The importance of the baseline is to allow you to make a later comparison of how effective your work has been.

Regularly monitoring and evaluating your work against the baseline ensures the project is achieving its objectives (economic, social and human capital changes), and identifies the important factors in building self-reliance in farmer groups and institutional partners. If you do this well through regular documentation during your visits and training events, you will find that not only are you more inspired, but the farmers are more inspired to keep innovating.

It is important not to get hung up on things that may not have worked as well as expected. Nothing is ever a failure; everything can be a positive learning experience. Everyone appreciates open and transparent discussion of what worked well and what did not.

The chapter concludes with a working example of the application of the 16 steps of the LIFE Model at one of the primary pilot sites of AMAEP Project – Sitio Olo-clofe, Barangay Assumption, City of Koronadal, province of South Cotabato. This example portrays the theory of the steps applied in a real-world setting.

Chapter 6 – Outcomes and impacts of the LIFE Model

In the final chapter, we summarise the outcomes and impacts achieved to date by the LIFE Model. All but one of the 27 farmer groups in the LIFE Program have made rapid and significant improvement in their livelihoods, both economic and social. Improvements have also been made in terms of human capital, natural capital and institutional capital.

Economic improvements to livelihoods

Technical innovations introduced by the project in response to identified farmer needs had a significant economic benefit. These innovations were primarily vegetable growing, cacao-based agroforestry, and nursery production of fruit and timber trees. These innovations provided for a higher, more diverse, and more resilient income stream than the previously predominant single income stream from activities such as corn monocropping.

Active participation of farmers in the new livelihood activities ranged from 45% to 100% across all the farmer groups, with most groups exceeding 80% participation. From a range of published and unpublished case studies, the extent of the economic benefit from tree nurseries was an increase of about 10% to 20% in farmers' annual income (a return on investment of 69% to 225%). Similarly, the increase in farmers' annual income from vegetable growing ranged from about 20% to 69% (a return on investment of 96% to 420%).

Social improvements to livelihoods

In Ipil, Zamboanga Sibugay, which is a community of Muslim, Christian and IP farmers, our baseline research showed very little trust and cooperation between the groups when the project started. Now, as a result of the frequent exchanges and interactions between the groups in pursuing livelihood improvements, our research shows a significant increase in the level of trust, which breaks down previous prejudices and increases the level of cooperation and community action.

The value of this social capital was demonstrated in our study of 185 households across the three original AMAEP sites in Zamboanga Sibugay, Maguindanao and South Cotabato. The study showed a clear correlation between social capital and economic welfare, with those households possessing higher social capital having higher income. The correlation between social capital and economic welfare supports our principle of agricultural extension with a strong social capital element.

Our research also shows the vital role that women play in building social capital and achieving a more peaceful community. While women are often unrecognised by formal structures, they are recognised informally by their local communities as negotiators, mediators and advisers in conflict resolution. Our research verified that women's communication and negotiation skills provide a less-threatening means of engaging with previously untrusted groups, and women have much greater ability to listen and provide appropriate advice to both men and families. Significantly, from a conflict perspective, women are more encouraging about getting involved in activities that promote cooperation and peace.

Our surveys of farmer groups conducted about two years after our initial engagement also show a clear improvement in family nutrition, school education and other welfare indicators.



There are many opportunities for developing social capital in LIFE farmer groups, and women play a vital role in extending it across the broader community.

Other improvements to livelihoods – human, natural and institutional capital

In terms of human capital, our research through surveys has confirmed that individual farmers improved their knowledge, attitudes, skills and aspirations. For example, members of the Kauran Christian Upland Farmers Agriculture Cooperative in Maguindanao outlined their journey from a situation before the project where they were relatively idle on their farms with limited technical knowledge about their farm enterprises, to the present where they are much more productive with new cropping systems. Importantly, the group members recognise the link between training and additional income generation.

In terms of natural capital, our project partner, the Landcare Foundation of the Philippines Inc. (LFPI), a proponent of sustainable farming systems, has successfully integrated contour farming systems and other conservation practices into the agroforestry and vegetable farming systems being pursued by farmers. More than 60% of participating farmers have adopted these practices as an integral component of their new farming systems. Another interesting case of improving natural capital is in the South Cotabato site where the livelihood activity of charcoal production from native timber – an environmentally destructive practice banned by the government – has almost completely ceased as a result of improving livelihoods from tree nurseries and vegetable growing.

In terms of the farmers' political and institutional capital, the LIFE Program has been successful in facilitating farmer groups to become part of the local government planning and development process. By facilitating farmer groups to be properly organised constitutionally, and registered with the Department of Labor and Employment, the farmer groups have been able to access local government programs, receive grants and contribute to the *barangay* development council planning process, ensuring an ongoing political commitment to their program activities.

Extension agency involvement and ownership

At almost all project sites, there have been noticeable changes in the attitudes and approaches of the municipal LGUs, which have the primary responsibility for extension services devolved from the national government. Examples:

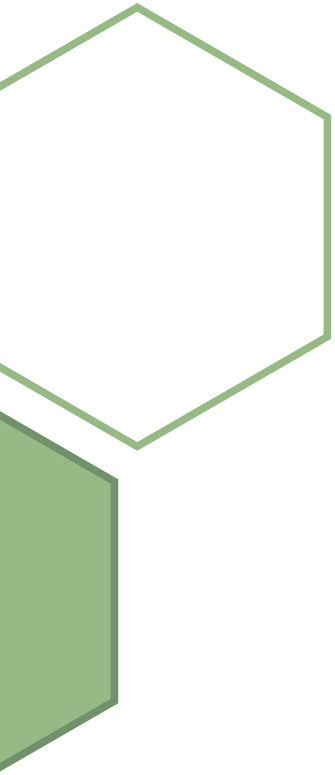
- In South Cotabato, the City Environment and Natural Resources Office of the City of Koronadal LGU has re-tooled an existing community tree-growing program as a result of their involvement in our LIFE project.
- In Zamboanga Sibugay, our project has reversed negative long-held perceptions by the Ipil Municipal Agriculture Office about the safety of visiting and working with farmers in one of the more remote *barangays*.

- In Maguindanao, our project brokered a special three-way partnership with the Ampatuan Municipal LGU and the Philippine Coconut Authority (PCA) to make PCA programs available to farmers. Because the PCA programs are only available to viable farmer groups with at least 50 members, our project's focus on farmer group development was instrumental in not only achieving the required number of farmer group members, but also strengthening the capacity of the farmer groups to manage an effective ongoing relationship with PCA.
- Both the Koronadal City and Ipil LGUs have developed memorandums of agreement to endorse the LIFE Model in their programs.

Of the 26 pilot sites, only one instance lacked traction, with a relatively low level of participation by farmers. We are mindful of the need to reflect on this. The group in question was an IP group in Maguindanao and perhaps this highlights the greater difficulty of achieving extension success in IP communities that are highly conflict-vulnerable. Our reflection concluded that the lack of participation of farmers was primarily due to either the poor identification of the relevant leaders and power brokers (and engagement with them), or our lack of understanding about the constraints and drivers to improving livelihoods in highly disadvantaged communities.

The chapter concludes with three questions that would-be adopters might ask about the LIFE Model:

- **How much does it cost?** It should cost no more than any conventional extension program. Our research confirms the cost-effectiveness of the LIFE Model. From a recent cost-benefit analysis of the model, we showed a positive return on investment of 1.6 million Philippine pesos (PHP) of benefits to PHP1.1 million of costs. This represents a benefit:cost ratio of 1.45:1 and an internal rate of return of 34%.
- **How flexible is the model?** It is inherently flexible to just about any situation. A good example is the experience of one of our scaling out partners, the Municipal Social Welfare and Development Office (MSWDO) in Ipil, Zamboanga Sibugay. MSWDO adapted the model and made it work very successfully for rural women who are not primarily involved in farming.
- **How quickly can you expect impacts from the LIFE Model?** It depends on what you are comparing it with. With an experienced facilitator, it normally takes up to six months to get through the so-called preparatory steps (Steps 1 to 9). However, if these preparatory steps are done thoroughly and methodically, things start to happen fairly rapidly from this point on, with the advantage of a higher 'quality' of the resulting outcomes. In extension theory, six months is considered a relatively short time frame to start the process of significant change.



Introduction to LIFE

Previous research conducted in less conflict-vulnerable communities in Mindanao by ACIAR and other institutions has shown that certain types of community-based agricultural extension approaches can rapidly improve the livelihoods of farming households. The question was whether these approaches could be re-tooled to be effective in conflict-vulnerable areas. Over the last eight years, this question has been answered by a team of Australian and Filipino research and extension specialists working together under a project funded by ACIAR – the ACIAR Mindanao Agricultural Extension Project (AMAEP).



Previous ACIAR research in Mindanao had focused on the use of the landcare approach to diversify farming systems based on contoured natural vegetative strips and agroforestry. A key component of the approach was the use of trained extension workers, called facilitators, to work with farmers on improving the adoption of sustainable farm practices.

Starting in 2013, the AMAEP team carefully reviewed existing agricultural extension approaches and, from this, developed an extension model targeted at conflict-vulnerable communities – the Livelihood Improvement through Facilitated Extension (LIFE) Model. From 2014 to 2021, the AMAEP team rigorously tested the LIFE Model through a process of action research in 26 conflict-vulnerable pilot communities in the western Mindanao provinces of Zamboanga Sibugay, Maguindanao and South Cotabato. The objective was to evaluate the model for its ability to rapidly improve farmers' livelihoods (primarily economic and social livelihoods) and for its potential to be easily adopted by extension institutions operating in the pilot sites.

Evidence of the success of the LIFE Model at pilot sites includes increased farmer incomes of up to 80%; greatly improved trust and cooperation between previously disparate Muslim, Christian and IP communities; a positive correlation between social capital and economic improvement; and widespread interest in, and adoption of, the model by *barangay* and municipal LGUs. In almost all pilot sites, the improvements have occurred within only six to 12 months from initial engagement.



Farmers from the AMAEP LIFE pilot site in Nga Bango, Saravia, South Cotabato, proudly display the fruits of their now improved and diversified farming system.

Following the initial success of the LIFE Model, the Department of Science and Technology – Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development (DOST-PCAARRD) commenced a complementary project in 2017 to evaluate the LIFE Model under different institutional arrangements. DOST-PCAARRD is the national government agency that has a particular interest in developing and testing new extension modalities. Through its Technology Transfer and Promotion Division (TTPD), DOST-PCAARRD had been observing the progress of LIFE in AMAEP as part of its role in monitoring ACIAR projects.

This complementary project was implemented from 2017 to 2021 by a DOST-PCAARRD research consortium comprising the University of the Philippines Mindanao (UPMindanao) and the Landcare Foundation of the Philippines Inc. (LFPI), with mentoring support from the AMAEP team. Known as the PULL (PCAARRD–UPMindanao–Landcare–LIFE) Program, it has been further testing the LIFE Model in six additional sites in western Mindanao, again with promising results.



The PULL Program has evaluated the LIFE Model in new settings, including for improving the livelihoods of seaweed farmers in Katipunan, Ipil, Zamboanga Sibugay.

A note on conflict terminology

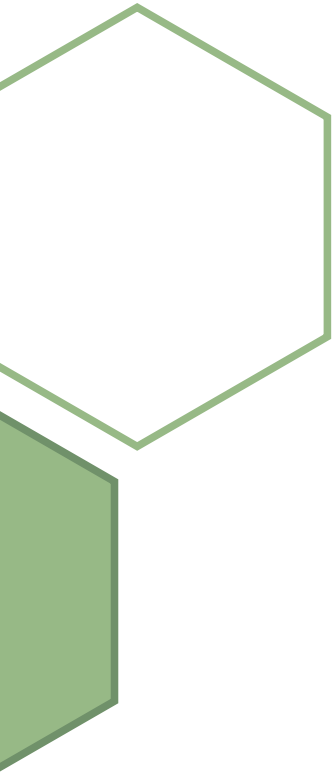
The term ‘conflict’ can have different meanings for different people. In its simplest form, it can mean any sort of disagreement or dispute, often with very little impact. At the other end of the scale, it can refer to all-out war, with significant loss of life and property.

When we started AMAEP, we used the term ‘conflict-affected’ for the people and areas in which we were working. We understood this to be the accepted political term adopted in the early 2000s as a result of the World Bank’s Post-Conflict Needs Assessment, which attempted to define the conflict-affected areas of Mindanao as including the whole of the ARMM; the whole of central Mindanao or Region 12; the whole of western Mindanao or Region 9; part of southern Mindanao, including Davao del Sur, Davao City and Davao Oriental; and Lanao del Norte in northern Mindanao.

However, despite this concept being widely accepted, we quickly found that there is significant stigma attached to the term ‘conflict-affected’, with possible negative connotations for a particular community. We also found that the term had widely differing interpretations. For example, in some cases, it was interpreted as encounters, threats or the incidence of family, clan or ethnic disputes. In other cases, it seemed to relate to the most recent incidence of these activities, such that a long period without conflict may have reduced the perception of the area being ‘conflict-affected’.

As a result, we changed our terminology to ‘conflict-vulnerable’, which, we believe, reduces the stigma, as it can refer to anything from a minor to major conflict and anything from a recent short-term conflict to a long-term or perpetual conflict. This is the term we use consistently throughout this book, for the people and areas in which we worked.

For clarity, our definition of conflict for the LIFE Program is: Disruption to peace and order at a community and/or regional level affecting the normal pursuit of livelihoods.



Chapter 1: An overview of conflict in Mindanao

The history of conflict

Mindanao has a long history of conflict going back to before Spanish colonisation. In this era (about the 14th century), Arab traders from Malaysia and Indonesia settled among the largely animist indigenous people of Mindanao, mainly in the western part of the island. Many of the indigenous people in this area were subsequently converted to Islam, leading to the development of a thriving Islamic 'sultanate'. The sultanate appeared to coexist relatively peacefully with the other indigenous tribes, with both groups pursuing their own ideologies and livelihoods.

Following the 'discovery' of the Philippines by Ferdinand Magellan in 1521, Spain claimed and colonised the country and started a process of progressively Christianising the people, working from the north to the south. While this was done under the veil of 'the cross', it unfortunately also involved 'the sword', as the Spanish tried to convert the Muslim and indigenous people of Mindanao as much by force as by gentle persuasion. The tactic was exacerbated by a strategy of divide and conquer, which pitted ethnic and local groups against each other to help the Spanish to win the broader war. It was the Spanish who coined the term 'Moro' for the Mindanao Muslims, based on the Spanish term 'Moors' which they used to refer to Muslim Arabs in southern Spain and northern Africa at the time of the Spanish colonisation of the Philippines.



Commander 'King Boy' of the Moro Islamic Liberation Front (second from left) is from Malisbong, Palimbang, Sultan Kudarat. Here, he discusses vegetable production with Landcare Facilitator Eldon Ruiz (white shirt) in 2008. Malisbong, the site of a major massacre of men, women and children in 1974, became the catalyst for the development of the LIFE Model.

Mindanao was the last bastion for the Spanish Christianisation of the Philippines, and it was only ever partially converted and never really controlled, with both the Moros and many indigenous tribes fiercely resisting both Christianisation and Spanish rule. This resistance continued right up until the next major colonial event, the Spanish–American War in 1898. This war coincided with an intense revolution by a group of Filipinos against the Spanish, which had started a few years earlier under the leadership of Andres Bonifacio, Emilio Aguinaldo (Bonifacio's military officer) and José Rizal, the latter being executed for treason in 1896.

The defeat of Spain in the Spanish–American War and the consequent ceding of the Philippines to the Americans, provided an opportunity for the rebels to push for independence, and a republic with a revolutionary government was briefly in place. However, another war known as the Philippine–American War followed in 1899–1902, during which the Americans put down the rebellion with the loss of many lives.

Meanwhile, the Moros in Mindanao continued their opposition to the next colonial power – the Americans – culminating in the Moro Rebellion against the American military which lasted from the Philippine–American War until 1913. While the Americans eventually prevailed, and for the first time brought the island under a semblance of central control, they followed with a somewhat aggressive approach to land occupation and the development of large plantations, both of which further disenfranchised the Moro people and many of the indigenous tribes. Though there were periods of relative calm through subsequent years, the situation remained unsettled, with endemic hostility and conflict continuing right through until the Philippines gained full independence from the Americans in 1946.

Interestingly, while Philippine independence leaders were lobbying the Americans for full independence, part of the Moro leadership opted for Mindanao to remain under American rule and for independence to be granted separate to the rest of the Philippines whenever the right time emerged. This culminated in the Dansalan Declaration being presented to the US president and congress in 1935. In essence, the declaration promoted the view that Mindanao, being mainly Muslim, needed to be treated differently to the Christian-dominated Luzon and the Visayas because different religions and cultures could not peacefully coexist. However, the concept was ultimately defeated by the lobby of pro-Philippine independence leaders under president Manuel Quezon.

My LIFE story – 1: Mohammad Omar

**Project Manager,
Consortium of Bangsamoro Civil Society**

*The essential link between improved
livelihoods and peace*

The Consortium of Bangsamoro Civil Society (CBCS), based in Cotabato City in Maguindanao, represents more than 150 Moro NGOs and POs (Peoples' Organisations) in advocating peace, human rights, good governance and development within the Bangsamoro Autonomous Region of Muslim Mindanao. CBCS was one of five agencies that tested the LIFE Model in the scaling-out phase at one of their target sites – Barangay Saniag, Municipality of Ampatuan, Maguindanao.

'The LIFE Model is a huge breakthrough for CBCS,' says Mohamad Omar, a project manager with CBCS. 'It enabled us to add a livelihood-improvement element to our socioeconomic program and integrate this more effectively with our peacebuilding program,' he adds.

'LIFE has not only increased farmer participation but also helped strengthen the relationship of the people within the community through meetings, frequent workshops and exposure visits to other areas,' says Mohammad. 'It also helped us bring together farmers into formal organisations, such as the Saniag A3B Beneficiary Farmers Association and the Saniag Free Farmers Organisation.'

Another significant outcome was that 'LIFE fostered bonding among the tri-people [Moros, Indigenous Peoples and Christian settlers], which was for us a long-standing problem in the area'.



Farmers from the CBCS scaling-out site of Saniag participate in an inspirational cross-visit to the innovative farm of Jury Alimojanid (right) in Salman, Ampatuan, Maguindanao. Jury demonstrates new coconut production technologies to the Saniag farmers.

After independence in 1946, there was comparative calm for a time, but serious conflict flared again in the 1960s when the presidencies of Ramon Magsaysay (1953–57) and Ferdinand Marcos (1965–86) promoted Mindanao as a land of frontier, with the government sponsoring a huge resettlement program of people from Luzon and the Visayas. This influx of mainly Christian settlers eventually turned the Moros and indigenous people into minorities, with the Muslim minority concentrated in central and western Mindanao and the indigenous people displaced to the peripheries of their ancestral and occupied homelands. The rapid development of a Christian majority can be gauged by the fact that 76% of the population of Mindanao was Muslim in 1903 and this had dropped to 19% by 1990.

Resentment of the Christian settlers and resistance to central control saw a rise in Moro nationalism and an increased fight for independence. This was also propelled by sometimes indiscriminate losses of land to logging and mining. These factors catalysed the formation of the Moro National Liberation Front (MNLF) in the late 1960s, which then launched a campaign of armed rebellion in pursuit of an independent Muslim homeland.

At about the same time in the late 1960s, another movement formed, which would have further significant implications for conflict in the Philippines, including Mindanao. This was the Communist Party of the Philippines (CPP) people's revolution against the government, which took the form of a countryside guerrilla war fought by the CPP's armed wing – the New People's Army (NPA). While the insurgency started in the north of the Philippines, it quickly spread to Mindanao, where it continues today.



Fred Lagsing is a member of the B'laan indigenous tribe in Saravia, Koronadal City, South Cotabato. The LIFE Program is working with a number of IP groups who are generally marginalised and disadvantaged.

Meanwhile, the non-Malay or non-Muslim indigenous peoples (officially classified as Indigenous Peoples (IPs) and often collectively referred to as *Lumads*), who had been historically pushed aside by both Spain and America, continued to be further displaced by the Christian settlers and the Moros. Initially, they were displaced from the lowlands to the highlands, and then further displaced in the highlands as development pressures increased for timber and mineral resources, particularly gold. The result was that the 18 distinct IP groups across Mindanao became significantly marginalised and dispersed.

The MNLF rebellion continued through the 1970s and 1980s with periods of conflict interspersed with negotiations with the Philippines Government. A key moment in the negotiations occurred in 1976 when the government, under the Marcos administration, signed the Tripoli Agreement with the MNLF under the auspices of the Organization of the Islamic Conference (now the Organization of Islamic Cooperation). In 1977, a breakaway of the MNLF, the Moro Islamic Liberation Front (MILF), formed, unhappy with some of the negotiations between the MNLF and the government, but with a similar objective of an independent Moro homeland.

Ongoing negotiations between the government and the MNLF were ultimately instrumental in 1989 in the government setting up the Autonomous Region in Muslim Mindanao (ARMM), which included five provinces – Maguindanao, Lanao del Sur, Basilan, Sulu and Tawi-Tawi. While the ARMM was a step in the right direction, the MNLF continued to push for further concessions, and in 1996 reached a final peace agreement with the government, which for a time eased the level of conflict but did not completely end it. This was largely because the MILF, which had become a larger rebel group, continued to take a more aggressive approach to the pursuit of a truly independent state.

For the next 15 years or so, the MILF continued their campaign, while successive government administrations tried to negotiate an improvement on ARMM that would be acceptable to both parties. As time went on, the MILF modified their demands towards acceptance of an upgraded autonomous model and in 2012 achieved a peace agreement with the government – the Framework Agreement on the Bangsamoro (FAB) – which envisioned the establishment of a self-governing region in Muslim-dominated areas of western Mindanao, called the Bangsamoro Autonomous Region in Muslim Mindanao (BARMM), replacing the ARMM. The central idea of power sharing was that the government would retain power over national administrative issues such as foreign diplomacy, defence, citizenship and currency, while the BARMM Government would look after regional issues such as taxation, economic development and justice.

My LIFE story – 2: Ustadz Nok S. Adam

MILF BIAF Brigade Commander, Maguindanao

An MILF perspective on the LIFE Program

Ustadz Nok S. Adam has seen both sides of the conflict in Mindanao. As a brigade commander with the MILF's Bangsamoro Islamic Armed Forces (BIAF), he has been at the forefront of the pursuit for a better deal for the Moro people. As a farmer, he has struggled with the challenge of making a sustained living in a region continually vulnerable to conflict.

Ustadz lives in the *barangay* of Salman, Municipality of Ampatuan, Maguindanao – a *barangay* notoriously etched in history as the site of the infamous Maguindanao Massacre of 2009. But that history has not deterred him from trying to take his *barangay* forward by assuming a leading role in interfacing it with projects such as LIFE. Ustadz's son, Said Z. Nok, a BLGU councillor, a former *barangay* chairperson for agriculture, and Barangay Chairperson for Peace and Order, is also a strong supporter of LIFE.

From the start, Ustadz perceived LIFE as being different. Unlike other programs, which promise a lot but do not deliver, LIFE focused on the basics, including technologies which were of benefit to farmers and building social capital within the community. As Ustadz explains, previous cropping was centred around corn, rice and peanut. 'As a result of LIFE, we started to diversify with fruits, vegetables and coconut. Now my farm is planted with soursop, rambutan, coffee, coconut, vegetables, and even avocado. Who could say that this is not good? Our life is definitely better, and we have more income.'

In terms of social capital, the LIFE project formed the Salman Farmers Association, now the Salman Kagkalimoa Marketing Cooperative, of which Ustadz is President. As he explains: 'At first, we started as a small group, but, as other farmers saw the good results, we got bigger and then moved to a cooperative. This enables us to generate funds and broaden our minds.'

From an MILF perspective, Ustadz is optimistic about the future. He would like to see LIFE continue and expand into MILF camps so that many more people can benefit. He says that many former MILF combatants would like to join the program and enjoy the benefits of improved livelihoods as well as improved community social capital. Together, he says, we see it as a journey 'from the battlefield to the greenfield!'





Farmer members of the Salman Kagkalimoo Marketing Cooperative, including Barangay Council Member and Chair of the Peace and Order Committee Said Nok (yellow shirt), participate in a local thanksgiving celebration called KANDULI during the annual anniversary of the cooperative. LIFE encourages farmer groups to celebrate their achievements and progress. Most of the farmer members of the cooperative are former MILF combatants.

In 2014, the Framework Agreement on the Bangsamoro was formally adopted as the Comprehensive Agreement on the Bangsamoro (CAB), and later that year a Draft Bangsamoro Basic Law was submitted to Congress. While progress was halted temporarily in 2015 because of an incident in Mamasapano in Maguindanao, the Bangsamoro Basic Law was eventually ratified by the government in 2018. In 2019, a referendum of people within the ARMM endorsed the concept, which paved the way for the establishment of the BARMM Government.

While the establishment of BARMM has considerably defused tensions in the Moro areas, it has not completely eliminated conflict in and around the Moro areas. This is because, at the time of writing, several other sources of conflict remain unresolved:

- Breakaway factions that have emerged from both MNLF and MILF remain opposed to the current peace processes and continue to seek full independence for Muslim Mindanao rather than autonomy. An example is the Bangsamoro Islamic Freedom Fighters (BIFF), which split from MILF in 2010, and has been recently identified by some jurisdictions as a terrorist group.
- Longer-term localised and widely recognised terrorist groups continue to exist, such as the Abu Sayyaf Group (ASG), a militant jihadist group linked with ISIS, operating primarily in Basilan.

- The insurgency of the Communist Party of the Philippines – New People’s Army – National Democratic Front (CPP–NPA–NDF) is ongoing. While not highly active within the BARMM, the group is highly active in neighbouring provinces. Peace negotiations between the group and the Philippines Government, mediated by Norway since 2001, ended in 2017 without resolution.
- Clan wars or feuds, known locally as *rido*, are recurring hostilities between families and kinship groups, characterised by a series of retaliatory acts of violence carried out to avenge perceived injustices. The rivalries arise partly from the fact that the Moros are very diverse in culture, linguistics and religiosity. Clan wars are generally sporadic but sometimes last for generations. Importantly, they are often mistaken for insurgency activity and can become flashpoints for conflict between law enforcement authorities and armed groups. Research by the Asia Foundation suggests that clan wars are a more common source of conflict than insurgency-related violence.
- Other localised power plays occur, including by political elites, strongmen, vigilante groups, general bandits, and kidnap-for-ransom or extortion gangs. These are sometimes clan members, but often they are non-Moros, such as extremist Christian settlers. The power plays often lead to the development of ‘shadow economies’, within which a range of criminal and other illicit activities often occur.

In the remainder of Mindanao (non-Moro), conflicts are generally related to: activity of the NPA; claims to aboriginality and territorial rights by the 18 IP (or *Lumad*) groups spread across Mindanao; and local hostilities over land, political power, and natural resources such as water and minerals. Power plays between competing electoral candidates are particularly common at or near elections.



Remoteness is a key factor in the provision of services as well as safety and security. Here, farmers in the remote village of Takilay, Saravia, Koronadal City, South Cotabato, work on their demonstration farm on a remote hilltop in the village. It is in this kind of landscape that agroforestry and soil and water conservation measures introduced by the project are now well appreciated.

Understanding the drivers of conflict

To better appreciate how the LIFE Model applies to conflict-vulnerable areas, it is important to understand a little more about the context of conflict in Mindanao and what drives it.

As the history above clearly shows, conflict in Mindanao is complex, diverse and multilayered, involving a range of often-overlapping religious, ideological, cultural and political divisions. Conflict, in various forms, has also been going on for a long time. For example, it has been reported that the five-century-long conflict in western Mindanao involving the Moro quest for self-determination is the second-oldest conflict in the world after the conflict in the Sudan which started in the 10th century. The conflict between the NPA and the Philippines Government is also regarded as one of Asia's longest-running insurgencies.

The conflict in Mindanao also carries a lot of hurt among the people. Various sources verify that the death toll for the Moro conflict alone is estimated at 150,000, with more than two million people displaced from their homes or farms. There is also the legacy of atrocities, committed by both sides, which are deeply etched into the memories of those affected.

An important issue in understanding the conflict is that surveys have shown that while the Moro conflict dominates the attention of international and even local media, clan wars or feuds (*rido*) are more pertinent in the daily lives of the people. People are generally more concerned about the prevalence of these clan conflicts and their negative impact on their communities than they are about insurgency activities. Research across the 20-year period from 1984 to 2004 (published by Wilfredo Torres III) showed a steady rise in clan conflicts in Mindanao, with 50% (637) of cases occurring in the last five years of the period (2000–04). This is equivalent to about 125 new cases each year. Interestingly, 64% of the clan conflicts remained unresolved at the completion of the study.

My LIFE story – 3: Jury Alimojanid

Farmer, Maguindanao

Diversifying pays many dividends

Jury Alimojanid is a farmer from Ampatuan in Maguindanao, which is the site of the infamous Maguindanao Massacre of 2009 where 58 people were killed in an attack sparked by political rivalry. Unrest remains and continues to threaten the lives and wellbeing of the local people. Jury has been involved with the LIFE project since 2016 and is an active member of the Salman Farmers Association (now Salman Kagkalimoo Marketing Cooperative), which the LIFE project helped to form.

‘Before the LIFE project, we only had a few crops and low income because we lacked knowledge on farming technology,’ Jury says. ‘When the project arrived, we learned a lot, especially on the proper use and application of mulching, water impounding, and [making] organic fertiliser which we then used on our crops.’

From growing mainly corn and coconut before, he now also grows rice, banana, vegetables and fruits, in addition to raising goats and chickens. As Jury says: ‘LIFE helped us learn how to properly plant and manage new crops and our income has increased. This is a big help for us since we get our income for household needs and education of our children from these.’

Jury also highlights the benefits of being part of the Salman Marketing Cooperative. He not only benefits personally from the programs now accessible to the group from the LGU, the Philippine Coconut Authority, the Department of Agriculture and other institutions, but also uses his farm as a group learning and demonstration site for agroforestry and vegetable technologies.

‘My advice to my fellow farmers is that we just have to persevere and sacrifice so we can reach whatever dreams we have for our family. Because all of us have dreams,’ Jury says.



Jury Alimojanid discusses vegetable production with Joey Amit, President of the Kauran Christian Upland Farmers Agriculture Cooperative in the neighbouring *barangay* of Kauran. LIFE places a major emphasis on building social capital in and between groups. Here, Jury (a converted Moro) and Joey (a Christian) collaborate and freely share knowledge and experience between the two farmer groups.

Importantly, the main drivers of conflict that need to be addressed in any efforts to improve agricultural extension services in conflict-vulnerable areas of Mindanao can be grouped into five key areas:

- We must recognise the legacy of Spanish and American colonisation, and the impact it has had on people's identity, cultural values, physical security, livelihoods and participation in politics. We must recognise that some people carry prejudices against the minority Muslim and indigenous population, and that there has been significant discrimination and human rights violations over the years.
- We must address the endemic poverty that underlies much of the conflict. We know that four of the five poorest regions in the Philippines are in Mindanao, where an estimated 50% of people live in poverty.
- We must understand that local political dynamics and the ethnic configuration of communities can have a significant impact on how people will approach participation in new programs. We must be sensitive to intercommunal issues and potential tensions between Muslim ethnic groups, Christians and the non-Muslim IPs.
- We must appreciate the difficulties that local governments and other providers have in servicing their constituents in conflict-vulnerable areas. We must be able to provide practical, cost-effective methods to support them in providing services in the face of conflict and with limited resources.
- We must promote the concept that peaceful negotiation, backed up by progressive livelihood improvement and positive community development, is a far more productive and long-lasting process than violent conflict. This is evidenced by research conducted by the Asia Foundation across 15 national public opinion surveys since 1999, which shows that people by a margin of up to five to one consistently see peaceful negotiations as more effective than force in dealing with conflict in the Muslim areas.



Katipunan in Ipil, Zamboanga Sibugay, has long been isolated from services because of its reputation for conflict. But the LIFE project has worked through that perception and established a productive working relationship with the local community. Here, farmers and their family members, mainly from the Kolibugan Muslim tribal group, work together on a vegetable training exercise.

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Chapter 2: The impacts of conflict on livelihoods and delivery of extension services

The impact of conflict on the livelihoods of farming families is known to be pervasive, although there is a dearth of micro-level documentation. Recent unpublished research in western Mindanao, which involved AMAEP, throws some light on these impacts. This research identified the impacts on farmers to be primarily economic and social. Economic impacts included displacement from their farms; frequent disruption to production, labour deployment, purchase of farm inputs and marketing activities; and lack of confidence in investing in longer-term crops and farming infrastructure. From a social perspective, farmers felt socially isolated with less ability to network together because there was less movement of farmers and other innovators in and out of their area. Women were found to be particularly vulnerable to social isolation. In addition, farmers noted a significant reduction in the flow of information and social support services from various external sources. Importantly, the impacts of conflict were similar across religious, ideological and cultural divisions. As might be expected, the social impacts were less important under lower levels of conflict.

These findings are supported by broader research in Mindanao and elsewhere. Combining all this research, we can summarise the main impacts.

Economic impacts of conflict on farmers' livelihoods

- Displacement from farms, restriction on movements, and general hesitation about current and future crops, all of which dislocate the farmers from working on their farms, producing crops and buying farm inputs. The obvious effects include food insecurity, seasonal hunger and a debt trap created by a reduction in income. Within the Mindanao context, this is particularly important for the Moro people, where, according to World Bank estimates, 85% of displaced people are Muslim.
- Disintegration of agricultural marketing with withdrawal of local marketing outlets, and difficulties with transport to more distant markets.
- Difficulties with obtaining labour and reduction in part-time labour opportunities for farming families.
- Lack of confidence in investing in longer-term tree crops and farming infrastructure, such as irrigation.
- Disruption of rural credit flows and less availability / greater competition for agricultural inputs, such as seeds and fertilisers.
- Destruction of property and loss of productive assets when the farmer is displaced from the farm. Productive assets can include crops, draught animals such as carabaos, water storage and the land itself.
- Loss of life or injury to family members, thereby disrupting productive potential.



Members of the Salman Farmers Association – now the Salman Kagkalimoa Marketing Cooperative – in Salman, Ampatuan, Maguindanao, monitor their vegetable demonstration farm developed under the LIFE Program. Salman has for many years suffered the stigma of the infamous Maguindanao Massacre of 2009, which has affected livelihoods and the delivery of extension services.

Social impacts of conflict on livelihoods

- Disruption of community social capital. Social capital is essentially trust capital which, unlike physical capital, grows as it is used. In conflict situations, farmers feel socially isolated with a reduced ability to network together because there is less movement of farmers and other innovators in and out of their area.
- Women are particularly vulnerable during conflict and often choose to migrate from affected areas as a coping strategy.
- Changes in gender roles within families and the community. This can have both positive and negative impacts. On the positive side, women participate more fully in the peace process and governance, often providing a much more practical and reasoned approach to the nexus between arms and violence. On the negative side, women's roles in care giving and family capacity is compromised.
- Possible emergence of informal shadow economies which can include crime and illegal activities, drug trafficking, underhand practices and extortion from informal credit providers.
- Possible exploitation of weaker families and groups from a loss of the normal community protection networks.

My LIFE story – 4: Helen Anaud

City of Koronadal LGU, South Cotabato

LGUs see a clear benefit in the LIFE Model

The Koronadal City LGU in South Cotabato, through its City Agriculture Office and City Environment and Natural Resources Office, has been involved in the LIFE Program since its inception in 2014.

Helen Anaud, the LIFE Program Focal Person with the Koronadal City CAO, says the LIFE approach has changed the way her office implements its programs with farmers. 'LIFE really changed the way of our program implementation, especially in prioritising our projects, as well as identifying our beneficiaries and the areas where we are supposed to implement our programs. Before, we just received or accepted projects or packages of technology that were downloaded to us by the national government through the Department of Agriculture. The focus was more on the technology rather than what the farmers really needed,' she says.

'Now, our farmer partners are involved in the cycle of program implementation, from planning to monitoring and evaluation. We interview the farmers, we talk to them, we interact with them, and we ask them to identify their main problems and main concerns. We then ask for a budget from the City LGU and have this approved in legislation. We like to see farmers have a demonstration area where they can learn some of the new technologies and apply them to their farms.'

Helen adds: 'I think LIFE is a useful tool or model for other LGUs because farmer beneficiaries, at the end of the project, become entrepreneurs – empowered and capacitated. I think that one of the most important and satisfying things for an extension worker is to see their farmers able to improve their economic conditions.'

For maximum benefit, Helen recommends that LGUs maintain the program for the longer term – preferably three to five years.



Helen Anaud talks with Aurora Rosal, a farmer in Assumption, Koronadal City, South Cotabato, who has participated in the LIFE Program since 2015. An important part of an LGU's involvement in LIFE is the provision of technical support and material inputs, such as seeds.

Impacts of conflict on delivery of extension services

- The involvement of government staff in affected communities may be reduced or stopped entirely, as staff and services are withdrawn due to the risk of conflict. This can affect the whole range of government services, including agriculture, health and education. In some cases, civil registries can be removed, inhibiting access to social welfare and employment. In other cases, justice and security systems may also be removed. The absence of government services and the associated reduction in government spending greatly increases the fragility and instability of the affected communities.
- In a similar vein, national and international aid and development institutions and projects, which in some cases are as important or more important than government programs, may also be withdrawn.
- A greater risk of political instability, particularly around elections, potentially puts at risk policy and legislative initiatives that support farming communities.

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Chapter 3: Agricultural extension in conflict-vulnerable areas

A brief overview of extension

Extension is the process of enabling change in individual people and communities. Agricultural extension is the process of enabling this change in farmers or farming communities. In its purest form, it involves extension practitioners working with farmers to encourage and support voluntary change to improve their production, profitability, and environmental and/or social outcomes, and includes increasing awareness, understanding, skills, motivation and pathways to change.

While the purpose of extension in enabling change is easy to understand, the process of getting there is a little more complex. This is because there are several different 'models' of extension which have evolved over time in line with our better understanding of the processes of adult learning and change. We use the term 'models' reservedly as the reality is that most extension programs use aspects of different models. While several models are still in use and have their specific roles, the trend over time has been a shift from the simpler 'persuasive' models to the more complex 'facilitative' models that use more group capacity building and empowerment.



Zamboanga Sibugay Life Facilitator Mary-jay dela Peña-Titan (standing, in yellow and white shirt) conducts a planning workshop in the field with farmers of the Magdaup Vegetable Growers Association. The emphasis of LIFE is on facilitating change in the farmers, rather than persuading change or simply transferring technology.

To understand the basis of the LIFE Model, it is important to take a brief look at the five basic recognised agricultural extension models that have evolved over time.

The transfer of technology model

Popularised in the 1960s by Everett Rogers, the transfer of technology (ToT) model proposed the diffusion of innovation theory whereby new technologies were developed by scientists, transferred by extension personnel and adopted by farmers. In this view, it was proposed that extension could also provide feedback to researchers about farmers' problems. The ToT model is widely referred to as the linear model, since it assumes a linear and generally one-way relationship between research, extension and farmer, with organised, publicly sponsored science as the source of all innovation. Many people continue to adhere to this linear model which sees agricultural research as the source of all agricultural innovation, and it remains in widespread use in the Philippines and elsewhere.

The farming systems research model

Popularised in the 1970s, in response to failures of the ToT model, the farming systems research model proposed developing either real or simulated technical innovations within a farm context to try to make research results more directly applicable to farmers. The key difference was that the farmer, extension officer and researcher worked together collaboratively, rather than in a linear manner. A common technique of the model was the use of farmer discussion groups to set priorities for research and extension.

The systems thinking model

Popularised in the 1980s, the systems thinking model placed the farmer at the centre of the research–extension interface, with a focus on responding to the farmer's needs from the farmer's perspective rather than from the research perspective. It reflected a group action methodology with a greater level of participation and consultation between researchers, extension officers and farmers.

The pluralism model

Popularised in the 1990s, the pluralism model took farmer involvement to the next level by recognising that farmers' needs are diverse and farmers need to develop their own information and learning networks to find solutions to those needs. It represented the first true devolution of power to farmers in agricultural extension, and came at a time when private-sector research and extension services were making their mark alongside those of traditional government-funded providers. The model also represented a further step up the ladder for participatory group methods, with learning coming from social networks as well as from the traditional technical networks.

Capacity-building and community-engagement model

Popularised in the 2000s and beyond, this model takes the farmer learning networks from the pluralism model to another dimension, focusing on farmers expanding their networks more broadly within their community, and, within those networks, increasing their own skills and capacity in the planning and decision-making process. In this model, the role of the extension officer changes from being a manager of learning networks to a 'facilitator' of the networks. As for the pluralism model, private sector research and extension are essential components of the farmer learning networks, and businesses are encouraged and supported to be part of the networks. Community organisations are also encouraged to be part of the networks, where appropriate.

My LIFE story – 5: Dr Melvin Carlos

DOST-PCAARRD, Laguna

A perspective on LIFE from the national government

DOST-PCAARRD is the Philippines' national government agency that has a particular interest in the development and testing of new extension modalities. Through its Technology Transfer and Promotion Division (TTPD), DOST-PCAARRD has been observing the progress in implementing the LIFE approach as part of its role in monitoring ACIAR projects in the Philippines.

Dr Melvin Carlos, Deputy Executive Director for Administration, Resource Management and Support Services, and former Director of the TTPD, visited the LIFE pilot sites in 2015 and saw the LIFE approach in action firsthand.

'I was particularly impressed with the competence and dedication of the project's community facilitators. In all project sites, I saw that they were well connected – not only credible, but also well respected by the individual farmers and the communities. They were very effective change agents, which made a big difference for the LIFE Model,' he says.

Dr Carlos and his TTPD team then worked closely with the LIFE project team in configuring an appropriate strategy for scaling out and scaling up the LIFE Model. 'After looking at many different extension modalities, we see the LIFE approach as a special way of dealing with extension in conflict-vulnerable areas, such as those located in Mindanao,' he says.

This led DOST-PCCARD in 2017 to fund three new LIFE projects in South Cotabato, Maguindanao and Zamboanga Sibugay at a cost of about PHP30 million (A\$850,000) over three years to extend LIFE into new areas and test its potential within a different institutional environment. These three projects are grouped under what is known as the PULL (PCAARRD–UPMindanao–Landcare–LIFE) Program, to which AMAEP has provided mentoring and support since PULL's inception.



Dr Melvin Carlos (left) visits the LIFE pilot site of Nga Bango, Saravia, Koronadal City, South Cotabato, in 2015 to view firsthand the process and impacts of the LIFE Model. Soon after, he became involved with the LIFE team in creating a special scaling out and scaling up strategy for the model.

In recent years, the capacity-building and community-engagement model has seen further modification with a strong focus on all members of a farmer network becoming more involved in 'co-designing' their learning programs, and with problems or opportunities being put in front of all the members of the network (plus others) to find solutions (a process called 'co-innovation').



Effective extension work involves getting your hands dirty! Here, in Assumption, Koronadal City, South Cotabato, LIFE facilitators Albert Espina (left) and Nikki Cordero (right) work alongside the farmers in developing raised beds for growing vegetables.

The Coutts–Roberts approaches to extension

While the above is an outline of the evolution of what we might call historical extension models, extension can also be viewed within a different model concept. The concept popularised by Australian extension specialists Jeff Coutts and Kate Roberts has considerable merit. They propose five approaches (essentially models) to extension:

Group facilitation/empowerment

This approach focuses on farmers in groups taking initiative to increase their capacity in planning and decision-making. It also encourages them to meet their own education/training needs based on their unique situation. Groups may even undertake their own research. The approach is based on empowering farmers to take their destiny into their own hands and use the power of their group networks to resolve their problems. A key feature is the role of the extension officer as a facilitator – not managing or directing the group, but empowering it to make its own progress. In some cases, a project or a group will provide or fund their own facilitator to work with them in defining goals and learning needs, and then help them achieve their goals and meet their needs. Self-formed groups that can select their own facilitator are considered to have the best chance of success.

Technological development

This approach has individual farmers, researchers and extension officers working together to develop specific technologies, management practices or decision-support systems, which are then made available to other farmers or groups. It often involves local trials, demonstrations, field days and on-site visits. It is a hands-on approach within defined boundaries and time frames, and works best where there is a strong on-farm practice component to ground-test the technology. The quality of the technological partnership is important.

Programmed learning

This approach delivers specifically designed training programs or workshops to targeted groups of farmers. The aim is to increase their understanding or skills in defined areas. The training can be delivered in a variety of modes and learning methods. It requires a strong grassroots involvement in defining needs and testing the training to ensure relevance and high participation.

Information access

This approach provides a range of blanket information that individual farmers and farmer groups can access from a distance and at a time that suits them. It can be hosted on a website, at an information centre or some other central location. To be effective, it requires the information to be assembled and made available in an intuitive way that mirrors the way that farmers access and use the information. Access points and availability also need to be clearly communicated.

Personalised consultant

This approach recognises the interaction between a mentor or consultant who works over a period of time with an individual farmer or farming community to improve their managerial, technological, social or environmental situation. A key is the need for the mentors or consultants to continually encourage farmers to make their own decisions based on their understanding of the facts and their own unique situation, rather than the mentors or consultants providing ready-made answers.

My LIFE story – 6: Leonardo Asperga, Rene Ganado and Mia Villanueva

City of Koronadal City LGU, South Cotabato

Livelihood improvement is not just about technology transfer

With the success of LIFE in the first two pilot sites in Koronadal City in 2014 and 2015, the City Agriculture Office and City Environment and Natural Resources Office took the opportunity on offer from AMAEP in 2016 to try scaling out the LIFE Model to other sites within the city municipality. Three of the people assigned this task were Leonardo Asperga (City Agriculture Technician), Rene Ganado (City Agriculture Technician) and Mia Villanueva (City Environment and Natural Resources Technician). All three worked closely with then municipal agriculture officer Helen Anaud, who had been actively involved with the LIFE team in the first two pilot sites, Assumption and Saravia. [Helen's story is My LIFE story 4.]

Leonardo Asperga reflects on his early experience with the LIFE Model: 'Our extension work before LIFE was primarily focused on transfer of technology to the farmers – imposing programs assigned by the LGU (from the Department of Agriculture). After LIFE, it was more systematic – detailed, scheduled and with less focus on just imposing technology transfer to the farmers.'

Leonardo explains that he could see the difference – the process did not end with the transfer of technology; it started there. 'After the technology was transferred, there was a continuing follow up that helped the farmers concentrate on the areas that are their main source of income.'

Rene Ganado also reflects on his experience in using the LIFE Model: 'There are those who are not receptive to training but there are those who are positive about it.' He observed that LIFE motivated the farmers so that they were less dependent on extension workers. They 'just got on with what they ought to do!'

Rene emphasises the importance of understanding the needs of the farmers and exchanging knowledge: 'As an extensionist, you need to have patience, be dedicated to your work, and be able to understand the needs of the farmers in the particular place. You need also to learn and exchange ideas with other extensionists and with the farmers too.'



Mia Villanueva's experience with LIFE comes from the slightly different perspective as an Environment and Natural Resources extension worker. Mia loves her role as an extension officer, which is reflected in her attitude: 'For me it is easy as long as you love your work, which is to help the community to uplift their lives and give them opportunity to gain extra income.'

She says she understands the challenges of access and language differences but is philosophical about how to overcome them: 'Just adopt their culture, show respect for each other, love them by helping them, and give what is good.'



Rene Ganado (standing) provides facilitation support to farmers in their community garden in Salkan, Paraiso Village, Koronadal City, South Cotabato. The site is one of the scaling out sites for the City Agriculture Office.



Designing extension programs today

Whether we are designing extension programs for non-conflict or conflict-vulnerable communities, we can draw important conclusions from the development and evolution of the above extension models and approaches:

- Rarely does one model or approach in isolation achieve the desired result. This requires extension officers to understand each model and approach, and to choose those elements that provide the best learning and decision-making environment for their farmer group.
- While there are some instances where the simple transfer of a technology can work, the reality of modern farming is that there are many complexities which generally require a more holistic approach. As complexities of the farmer situation increase, there needs to be more focus at the 'higher' end of the extension scale – the human development process involving empowerment, group facilitation, capacity building and community engagement. The more participatory these activities can be, the better the outcomes will be.
- Flexibility and a real empathy with the human development needs of farmers are keys to success. Rigid and hierarchical structures are often too slow to adapt to changing needs and circumstances.
- The more the extension process focuses on empowerment and capacity building, the more important is the role of facilitation in assisting groups to define and achieve their own goals and learning processes. Facilitation needs to be viewed as a specialist skill acquired through training and experience, and with the right attitude to match.
- Peer-to-peer learning is a vital concept in modern extension. It is well known that farmers are traditionally less trusting of traditional experts, particularly agricultural scientists from government and universities. This is because the farmers believe that scientists do not always empathise with their real needs. Farmers tend to trust other farmers and, therefore, the sharing of localised and relevant information through this trust network is an important process for the extension facilitator to manage.
- Respect for gender and gender equality is important in all models and approaches. It is recognised that women 'humanise' the learning process, have strong organisational skills, and empower other women in the group or community. These qualities are very important in group dynamics and for overall group success.
- All of the extension processes described above place great importance on social capital – social relations that are productive and allow individuals and groups to increase their wellbeing. We have already emphasised the importance of trust and the importance of women and gender equality. But equally important is an understanding of the need to support both 'bonding social capital' (the trust and reciprocity in the farmers' closed networks) and 'bridging social capital' (the crossover between networks where farmers access new resources and opportunities across their networks).

Agricultural extension in conflict-vulnerable areas

- Key elements of responsive extension – capacity building and community engagement – cannot be effectively undertaken without giving all community stakeholders the opportunity to be involved in the farmer network. This particularly includes the private sector. While not all stakeholders may need or want to be involved, giving them the opportunity to do so is important.
- Information provided to the farmer network must be relevant to the farmers' needs, not, as is often the case, relevant to the researcher or extension officer. Also, providing good access to the information and expertise is as important as the information and expertise itself.
- Regardless of which extension model or approach is used, the 'theory of change' that underpins the extension process suggests that it is important to first identify the outcomes that farmers (and others) seek, and then identify the steps and interventions required to get there. In many cases, projects seek to first identify the steps and interventions, which may then prove to be irrelevant to the needs and aspirations of the farmers.

My LIFE story – 7: Kedtol Kamsa

Philippine Coconut Authority, Maguindanao

Partnership is like a multistranded broom!

The Philippine Coconut Authority (PCA) is an agency of the Philippines Government under the Department of Agriculture. It is responsible for developing the coconut industry and assisting farmers to be productive and efficient. Because coconut is often part of the cropping mix for many farmers at LIFE project sites, or has potential as a new crop for farmers, collaboration with PCA has become an important part of the LIFE implementation.

Kedtol Kamsa, a coconut development officer with PCA, based in Maguindanao, quickly saw the benefits of working closely with LIFE. This is because PCA programs require farmer group partners that are active and well organised, as well as being registered with the Department of Labor and Employment as an association or cooperative. LIFE's process of organising trained and effective farmer groups works in perfectly with PCA's requirements.

'The LIFE process made it so easy for me to be with the community,' Kedtol says. He adds that it was great to work as part of a team with the LIFE facilitators, as they were regularly checking on progress on the ground, monitoring security concerns, and assisting farmers to most effectively manage the technological and material inputs from PCA.

'It was also more efficient for me, as I have a huge area to handle, so working with the facilitators that are well known in the area makes it much easier for me.' Kedtol has a good analogy for the importance of the partnership: 'A one-stranded broom cannot sweep the dirt, but a broom of many strands can!' he says.

Besides expanding the productivity of coconuts, the partnership between Kedtol and the LIFE facilitators is providing other innovations. For example, banana and vegetables are now being planted under the coconuts, adding diversity to farmers' incomes and food security.

Kedtol is philosophical about the future of extension for PCA. He emphasises the importance of ensuring that programs are geared to the needs of farmers, not the other way around – a fundamental feature of the LIFE Model. 'It does not matter how good a project is; if it is not wanted by the farmers, it will not work. It is essential to ask what they [the farmers] want.'





Kedtoll Kamsa from the Philippine Coconut Authority (PCA) speaks with farmers in Maguindanao about the support provided to them by his institution. The PCA works only with active and well organised farmer groups, through which it can provide its services, such as provision of seeds in this case.

Extension programs for conflict-vulnerable areas

The discussion on extension for conflict-vulnerable areas would not be complete without reference to the concept known as community-based development (CBD). This concept is widely used and accepted for providing assistance in conflict-vulnerable situations, particularly from an aid perspective, supposedly because CBD approaches channel benefits of aid directly to the community level and often prioritise participation and ownership by the community in implementation.

In 2013, the performance of CBD within Mindanao conflict zones was studied in some detail by the Asia Foundation. Their report notes that CBD can help reduce intra-community violent conflict by incorporating participatory practices and joint problem solving. This, in turn, improves self-reliance. The Asia Foundation points out that one of the reasons why CBD approaches have been widely used in conflict areas is the assumption that projects implemented at the community level allow for greater responsiveness to local concerns and conditions.



LIFE Facilitator Lucio Bunayog (right) is a trusted and valued part of the MAGKUNO farmer network in Sanghanan, Kabasalan, Zamboanga Sibugay. Here, he assists farmers in their tree nursery.

The relevant key findings from the Asia Foundation study:

- Project design must be flexible and adaptable because conflict dynamics in the Philippines are complex, diverse, multilayered and localised. For these reasons, it is important not to be too rigid in project design, but creatively adapt to constructively address and meet community needs. In some cases, projects can lead to further polarisation in the community; for example, if one segment of the community is seen to be favoured over another.
- It is important to undertake community and subregional conflict analysis. Projects should try to conduct their own analysis of local conflict and try to map power relations at the local *barangay* or municipal level. This is to understand and address local conflict and security dynamics that could undermine the effort.
- It is essential to collect evidence of impacts, especially transformative impacts, along with the normal development impacts. Transformative impacts include strengthening institutions, increased social cohesion, reduced violence levels, better relationships between the community and government, and better capacity for problem solving and collective action.
- CBD approaches need to be long-term, as it generally takes three to five years to build trust in local institutions.

While these findings on CBD are highly relevant to the LIFE Model, we see our model as community-based extension rather than community-based development. This emphasises the importance of the extension methodology as well as the fact that LIFE is mainly concerned with transformative outcomes rather than development outcomes.

My LIFE story – 8: Loel Nillos

Surallah Municipal LGU, South Cotabato

A new site and a new direction

The municipality of Surallah in South Cotabato is one of the newest LIFE sites, with work there commencing in early 2018. The site is one of DOST-PCAARRD's evaluation sites under the PULL Program, in collaboration with AMAEP.

Loel Nillos, Surallah's Municipal Agriculture Officer, has been involved with the PULL team since LIFE's inception in Surallah. Loel describes the partnership with the LIFE team as 'very exciting because we have already seen the improvement of living condition for our clients in the remote areas of Surallah'.

The differences he has noticed include development of farmers' self-confidence and their new-found courage to ask partner institutions for assistance – even for the improvement of their access road.

Loel also appreciates that the delivery of municipal agriculture office services to the more remote farming communities has been made much easier. He cites three examples:

- 'We were able to connect our farmers to our partner institutions like the Philippines Crop Insurance Corporation (PCIC) where there are funds available in the event of failure in their crops and livestock.'
- 'We were also able to connect farmers to our partner agency to learn how to nurture tilapia fish in order for them to provide for their consumption.'
- 'We have been able to distribute coffee, fertilisers, seeds, catfish, planting materials and tools to help them.'

Loel sums this up: 'We want to replicate this program because we can testify to its big impact in the community. We want to help them [the farmers] realise that there is continuous income through planting crops and rearing livestock.'

In particular, Loel applauds his institution's change of focus. 'Before LIFE,' he says, 'our focus was only in the lowland areas. When LIFE became our partners, we changed our mindset and it helped us make a major decision to improve and develop areas that we have not reached before. We also added extension workers to the assigned technician in every area and chose focal persons who will replicate our projects.'

Loel suggests that the change of mindset should not stop at the municipal agriculture office: 'Replication of the LIFE Model should be promoted to the Sangguniang Bayan (municipal council) and our local chief executive because they are the lawmakers and make the budget. As we have realised, it not just an agriculture problem but also in the infrastructure, and maintaining peace and order,' he says.





Loel Nillos (left) works with agricultural technicians from the Surallah Municipal Agriculture Office on mobilising inputs for farmers.

Additional principles

We suggest the following additional extension principles for conflict-vulnerable communities:

- The facilitation approach where extension officers work locally with groups of farmers to identify common problems and develop shared solutions is important and valuable. In this way, extension officers become knowledge brokers rather than knowledge providers.
- Decentralised, participatory, market-driven extension is more successful in developing farmers' capacity than a rigid and hierarchical approach.
- It is better to build on existing systems (which are often surprisingly resilient in the face of conflict) rather than impose solutions that may not be sustainable after the project.
- Encouraging farmers to experiment with potential new technologies can work more or less independently of conflict.
- Disaster relief, such as providing seeds and tools, is not enough in situations of chronic conflict. Livelihoods must also be supported from a more holistic and longer-term perspective.
- Institutional capacity building with a strong level of community participation helps to strengthen local institutions while increasing the self-help capacity of the farmers. There should always be a balance between improved extension capacity and improved livelihoods for farmers.
- Place emphasis on providing services to groups of farmers. It is believed that groups have greater potential to reach across the conflict divide, particularly where they involve a tri-people (Moro, Christian, IP) collaborative approach.
- Integrate gender into the mainstream of the process in a way that addresses the needs of both women and men, while recognising that women and girls are often disproportionately affected by conflict.
- Although rarely possible, it is good if the farmers can be involved in selecting, supporting and evaluating extension staff. The relationship that an extension officer has with his or her community and the trust they enjoy are vital in achieving rapid results.
- Where effective NGOs and CSOs are present in a community, they may encounter less resistance from extremist groups, in comparison to a government agency. The key then is for public-private partnerships to leverage the benefits for all parties.
- The development of social capital is clearly a key component of effective community-based agricultural extension in conflict areas, where isolation is a consequence of conflict. It should lead not only to improved agricultural and economic productivity, but to increased levels of trust, better networks and an enhanced capacity to work collectively for mutual gain.



It is important in extension to include women, as well as men, in the learning process, particularly in conflict-vulnerable areas where women are often disproportionately affected. Women help to 'humanise' the learning process, they have strong organisational skills, and they empower other women in the group or community. Here, women from Nga Bango, Saravia, Koronadal City, South Cotabato, lead the trial planting of sweetpotato.

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Chapter 4: The evolution of LIFE

Background to the project

From 1999 to 2011, ACIAR conducted research on agricultural extension approaches in relatively stable areas of Mindanao and the Visayas (Misamis Oriental, Bukidnon, South Cotabato, Agusan del Sur and Bohol). This research was primarily around using a landcare-based approach to improve the adoption of soil-conservation farming systems in upland areas, and subsequently to improve farmers' livelihoods through the incorporation of high value crops into the conservation farming systems. The landcare approach was essentially about bringing farmers together in groups where they could collectively coordinate action, particularly in managing natural resources. It focused strongly on farmer participation, capacity building, self-help and the development of social capital. Extension workers called 'landcare facilitators' partnered with the farmers, local government units (LGUs) and technical providers to service the landcare groups.

The research highlighted how this type of community-based agricultural extension could rapidly enhance agricultural livelihoods through improving both the farmers' learning networks and the communities' social capital. The results are well documented (papers are listed at the end of this chapter).

The research established a platform from which a broader application of the extension methods in other areas of Mindanao was possible. A key step in this process was a small pilot program conducted from 2007 to 2009 in the remote conflict-affected community of Malisbong, Palimbang, Sultan Kudarat, in central Mindanao. This pilot program consisted of a livelihood-improvement extension program for farmers. It involved community consultation, farmer-based technical training, cross-visits to showcase farmers in other regions, development of a communal farm learning site, and strengthening ties with the local Peoples Organisation and other community development institutions. This relatively short and inexpensive program produced some excellent results and anecdotally demonstrated the promise of such facilitated community-based extension methods in rapidly achieving improved livelihoods in isolated conflict-vulnerable communities.

Subsequently, in late 2013, a new ACIAR project, involving Australian and Filipino researchers, began to build on this knowledge to develop an extension model suitable for conflict-vulnerable areas, and then test this model through a process of action research at pilot sites in the conflict-vulnerable areas of western Mindanao. The model was subsequently titled the Livelihood Improvement through Facilitated Extension (LIFE) Model. The objective of this new project was to evaluate the extension model for 1) its ability to rapidly improve farmers' livelihoods (primarily economic and social aspects) and 2) its potential to be easily adopted by extension institutions operating at the pilot sites.



A resident of Malisbong in Palimbag, Sultan Kudarat proudly shows off some of the vegetables planted around the homes of villagers to provide a more diverse and nutritious food source as well as a potential cash crop. The initiative was part of the ACIAR Philippines–Australia Landcare Project at the site between 2007 and 2009. The site had a history of conflict going back to a major massacre of men, women and children in 1974.

My LIFE story – 9: Joey Amit

Farmer, Maguindanao

A recipe for long-term livelihood change

When farmers try to improve their economic livelihoods, they can easily make some short-term changes, but the question is whether they can sustain it for the long term. Joey Amit, farmer and President of the Kauran Christian Upland Farmers Agriculture Cooperative in Kauran in the municipality of Ampatuan, Maguindanao, is a good example of a farmer who has carefully thought this through.

Joey describes his farming before LIFE: 'Our farming here before was usually corn only and nothing else. After harvesting, the area was clear – you cannot see any trees. Our technique of farming then was known as monocropping. No other farming technique.'

When the LIFE project arrived in 2014, Joey's farm was quickly transformed. 'We learned how to make our farms lovely, which is called agroforestry or diversified farming,' he says. 'We have plants now that will last a lifetime – crops like coconut, cacao and banana. After harvest, you still see the trees standing, and you harvest again and again, unlike corn, which you harvest only once.'

Joey also describes the other benefits of the LIFE project: 'We learned water impounding technology, as well as soil conservation, contouring and mulching. We also use organic, so we have less expense on fertiliser. And because we now have various crops in our farm – vegetables, rice, corn, fruit trees and timber trees – our income has increased. We no longer lack in terms of our everyday needs because we have produce harvested more regularly,' he says.

Joey offers good practical tips on creating long-term livelihood change for other farmers:

- 'Based on what I learned from the LIFE project, I can advise my fellow farmers that we should learn how to plan. We should study and analyse our farm to work out what can help. One of these things is agroforestry, which is permanent.'
- 'Then you should think about what is in demand in the market, especially with vegetables. What is in demand in certain months, for example, so that you will not be in deficit. You should also not plant just one crop so that whenever one crop sells cheap while the other is high, you can still earn. You will not be in deficit when you have plenty of varied crops.'
- 'We have to train ourselves on diversified farming, integrated farming, so that we can provide for our family. Presently, I have my weekly income from my banana plants. Along with this, I am raising some animals like goats, chicken, ducks, turkey and guineas. In addition, I have my vegetable farm which is the other source for the every need of my family. We will not have a hard time finding money for our daily needs.'

Joey ends on a philosophical note about long-term income: 'After 10 years, if things go well, you would become a pensioner receiving income from your land. And then your children will also be better off. Not just your children, but also your grandchildren. They will be born with a silver spoon as they won't be hard up anymore – their grandfather by then is rich!'





Joey Amit tends to one of his cacao trees on his farm in Kauran. Cacao is one of the crops he has been developing as part of diversifying his farm as an agroforestry example.

The LIFE Model was developed in six stages.

Stage 1: Developing the extension principles

The first stage in developing the model was to carefully review the experiences of previous ACIAR projects in Mindanao to identify key learnings. Nine such learnings were identified from the review:

- **Use trained community-based ‘facilitators’ to work with farmers on improving their livelihoods.** Facilitators facilitate action, but do not command it or lead it. They emphasise the importance of the farmers taking ownership of their future and then help them on their journey to achieve their goals. In this process, they link the farmers to research support, material support, other farmers who may be able to help or inspire them, government institution support, and the services of other institutions such as NGOs. To be successful in the role, facilitators need to gain the trust of the farmers; this means being open and honest with them, and not having any hidden agendas.

- **Encourage farmers to take a lead role.** Although a technical or resource person will generally initiate a project or activity, it is important that farmers are encouraged to quickly assume the lead role because this increases ownership of the process and the outcomes. This process involves identifying farmer leaders (those that can help the farmers develop greater self-sufficiency) and mentoring and fostering these leaders. Supporting farmers to take the lead has three important dimensions:
 - Through leadership, communities can build human assets, such as local and indigenous knowledge, and work on developing these assets.
 - By actively participating in the research – expressing their needs to researchers, and adapting and experimenting with new recommended practices – farmers are able to better evaluate technical claims and not accept the regular ‘techno-fads’. It also helps them to better assess the real costs and benefits of research innovations.
 - Actively participating in the extension – relying less on technical experts and more on farmer-to-farmer learning and training – can extend to farmers becoming the main extension workers, where they are trained and mentored as farmer facilitators. This may even involve them receiving incentives and rewards. The concept of a farmer training group (FTG) – farmers training other farmers – is a variation of this principle.
- **Encourage farmers to work in existing groups or newly created groups.** In general, groups facilitate better sharing, better learning, better social networking and better collective action. A key outcome of the social networking is the building of social capital – both ‘bonding’ (within the group) and ‘bridging’ (outside the group).
- **Maximise the opportunity for farmers to be inspired with new innovations.** In most cases, the potential for poor farmers in remote areas to experience new innovations are constrained by two factors: firstly, few innovators visit their *barangay*/municipality; secondly, they are unable to travel very far outside of their immediate *barangay*/municipality to view new innovations. Inspiration comes from farmers being able to see new innovations with their own eyes and set these innovations within the context of their own farm. A very effective process used by the ACIAR Philippines–Australia Landcare Project (‘the Landcare Project’) was the farmer-to-farmer cross-visit, where a group of farmers was transported to the farm of a farmer innovator to see firsthand what they were doing. The visits also included interactions with technical specialists on the farms as well as visits to specialist research farms.



Farmers and LGU officials from Ampatuan in Maguindanao visit northern Mindanao to study agroforestry and vegetable innovations. Inspirational cross-visits are a vital step in the LIFE process.

- **Link farmers more effectively with LGUs and other potentially supportive institutions.** Within any locality, LGU staff and farmers have a common interest in improving rural livelihoods – for LGU staff, this is their mandate, and they have a vested interest in seeing their jurisdictions grow and be more productive; for farmers, they have a vested interest in improving their income and other aspects of their livelihoods. Similarly, NGOs and other institutions have interests in seeing their programs succeed and have an impact. However, the interface between the farmers and LGUs/institutions is often poor, generally because of a lack of resources, poor communication, and/or inappropriate perceptions. Sometimes all it takes is someone to better facilitate the initial linkages for mutual benefits to quickly flow. An effective early-stage linkage process is to invite staff from the relevant LGUs and NGOs on the farmer-to-farmer cross-visits (mentioned above). This not only improves the social capital between farmer and institutional staff, but offers the institutional staff an opportunity to raise their technical awareness and be inspired.

- **Maintain a whole-farm perspective of change.** Any new practice represents a trade-off between improved short-term productivity on the one hand and longer-term sustainability of the farming system on the other. The farmer needs to consider a raft of issues such as labour, materials, finance, risk and resilience. It is easy for a project or program to promote and plug in a single piece of technology without due consideration of its broader implications for the whole farm business and its long-term sustainability.
- **Focus on both production and marketing improvements.** A focus on making land more productive (through practices such as multicropping, growing new high-yielding varieties, and applying fertilisers and chemicals more efficiently) risks ignoring the fact that more gains may be possible through better understanding of and involvement in the market chain. In fact, experience has shown that increased market knowledge leads to production changes, not the other way around.
- **Understand that the site context is important in determining need and interest.** The Landcare Project showed that farmers were open to change in more marginal areas – agriculturally marginal, because there was more need for a sound conservation farming platform to underpin cropping diversification and improvement; economically marginal, because the farmers’ poverty, remoteness and capital constraints make them more eager for change; and politically marginal, because poorly serviced areas are generally more appreciative of extension services on offer.
- **Understand that no single model of extension can appropriately service all people or all areas.** While the processes above can be generally applied to most situations, any extension model needs to be flexible enough to be adjusted to the peculiar needs and circumstances of each community. Here, the process of action research (plan–act–reflect–re-plan) is significant in that it enables the extension process to be re-adjusted at regular points throughout its cycle.



My LIFE story – 10: Maria Bella Javier and Albert Villaruz

Sibugay Technical Institute Inc.

LIFE provides a new perspective for an academic institution

Academic institutions are often not perceived as being at the forefront of the delivery of extension services to farmers, although their role in training extension workers is well established and well recognised. So, when the Sibugay Technical Institute Incorporated (STII), based in Ipil, Zamboanga Sibugay, came to the attention of the AMAEP LIFE team as a provider of extension services to farmers, the opportunity to test the LIFE Model within an academic institution became available. This testing commenced in 2016 as part of the institutional scaling out program of the LIFE Model by the AMAEP LIFE team.

Maria Bella Javier, CEO of STII, takes up the story: 'We have our farm at Upper Pangí, which is a demonstration farm as part of our community extension program. In this, we are able to serve our students in the Bachelor of Science (BS) of Agriculture and BS of AgriBusiness courses, as well as the farmers in the area.'

Maria Bella explains that LIFE gave their students, particularly those in their fourth year, a model for providing a structured and continuous community-based livelihood-improvement process for the farmers in Upper Pangí. She also notes that the LIFE Program improved the students' research skills.

'I am very thankful for what LIFE has given us as a partner in the program and I highly recommend that LIFE be included as one of the actual subjects for our BS Agriculture and BS AgriBusiness students,' she says.

Maria Bella's words are echoed by Albert Villaruz, STII Student President and a graduate of the BS Agriculture course. 'We can make LIFE a tool for how we are going to transfer our facilitated learnings to the farmers and to the community. I have learned many essential things on the best ways to impart knowledge on technology and how best to improve economic income. We also conducted cross-visits to other farms, which was very useful to both the farmers and to us as students,' he says.

Albert adds that what he learned was able to be usefully applied in his role as a farm manager at the STII Eco-Tourism Farm. 'On behalf of the BS Agriculture students, I would like to express my heartfelt thanks that we were given the opportunity to be a part of this program.'





Farmers from the Sibugay Technical Institute Incorporated (STII) Upper Pangi community (left) work alongside STII students and AMAEP LIFE facilitators in developing new vegetable production technologies on the STII demonstration farm.

The next step was to place these learnings within a working set of key principles vital for effective extension programs in general, and for conflict-vulnerable communities in particular. Twenty such principles were identified (see Table 1). At the same time, the review also identified what the project believed were three essential strategies for delivering the program, under which the 20 principles could be effectively grouped:

Strategy 1: Improve farmers' access to technical innovations.

Strategy 2: Build community social capital.

Strategy 3: Collaborate closely with local institutional partners to build effective and sustainable partnerships.

Importantly, the three strategies were all considered to be equally important and needed to be always delivered concurrently for the outcomes and impacts to be most effective.

Table 1. The three strategies for effective extension are underpinned by 20 extension principles

Strategy 1: Improve farmers' access to technical innovations	Strategy 2: Build community social capital	Strategy 3: Collaborate closely with local institutional partners
<ul style="list-style-type: none"> • Facilitate change rather than leading or 'imposing' it. • Get farmers to take the major responsibility for decision-making, deciding their own priorities and goals. • Use farmer-centred training and learning – learning by doing, learning from peers and learning through visualising the change (strong focus on farmer-to-farmer learning with priority on farmer cross-visits, farmer demonstrations, farmer hands-on learning, farmer field schools, farmer experimentation with new technologies and deployment of farmer facilitators). • Build self-help capacity and self-sufficiency of farmers rather than just providing technical solutions and farm input materials; in this process, build on existing or perceived strengths, as these are likely to be the most effective platform for the development of self-sufficiency. • Use communication channels that are relevant to farmers and most effective in conflict-prone areas (for example, cell phones). • Improve both the farm production system and the linkage between farmers and markets. 	<ul style="list-style-type: none"> • Work with farmers in groups, which are a more efficient and generally more effective way to achieve change. Focus on working with existing farmer groups and, where no effective groups exist, form groups for the purposes of the project. However, where an influential farmer prefers to work outside of the group, take special measures to integrate their experience and expertise with the group. • Use special group-based learning processes to enhance longer-term social capital (for example, cross-visits involving farmers and LGU officials). • Facilitate farmer groups to manage their own futures by becoming part of the formal LGU planning and development process (<i>barangay</i> and municipal development plans). • Work to better understand the impacts of conflict on men, women, farming units, community organisations and extension institutions with a view to developing more conflict-resilient extension processes. • Carefully study gender issues as part of the adaptive research and as part of the development of more conflict-resilient extension systems, and enhance the involvement of women. • Implement our programs at all times with a deep respect for, and sensitivity to, the diverse ethnic and cultural values of the target communities. • Analyse all project interventions against an appropriate measure of trust and consumer confidence. • Maintain a strong local presence in the community (for example, conduct activities within the site, not remotely; and embed facilitators in the community). 	<ul style="list-style-type: none"> • Include ALL institutions with an interest in the sites in discussions and project activities, either directly or indirectly (this requires institutional mapping to ensure all relevant institutions are effectively identified). • Regularly communicate with project partners on activities and outcomes, even when an agency does not appear to be particularly interested. • Use communication processes that are relevant to institutions in the partnership (may require collaborative identification of these). • Seek regular feedback from partner institutions on the performance of the project and the nature of their involvement. • Pay particular attention to training and other processes to build the service and decision-making capacity of extension agency personnel. • Facilitate the linkages between LGUs and farmer groups to support farmers becoming part of the formal LGU planning and development process (<i>barangay</i> and municipal development plans).

My LIFE story – 11: Celia Tole

Farmer, South Cotabato

From slash and burn to a sustainable income

Celia Tole, a farmer from the small village of Nga Bango in Saravia, Koronadal City, South Cotabato, used to practise swidden, or slash-and-burn agriculture (locally known as *kaingin*), in planting corn and root crops. Monocropping was also a common practice. Income was low and she and her family never had enough food to eat. Celia used to supplement her income by producing charcoal, an environmentally destructive practice.

Celia became involved in the LIFE project in 2016 and says she has learned so much since then. 'We now know how to do contour farming, we have a variety of crops – cucumber, eggplant, string beans, radish, banana and cacao. We have learned how to make organic fertiliser and we finally have much better income. I am proud that I was able to buy a television, materials for the roof, and cement.'

One of the significant outcomes for Celia and her fellow farmers is that their group, the Nga Bango B'laan Aksasato Farmers Association (NBBAF), was able to open their own cooperative store in the village. NBBAF was formed by the LIFE project to improve group learning and social capital. The cooperative store not only provides a much-needed service to villagers but provides the group with another income source.

Celia strongly encourages her fellow farmers and members of NBBAF to continue the journey they have started: 'With our unity, we can achieve our goals and aspirations,' she says.



Members of Celia Tole's Nga Bango B'laan Aksasato Farmers Association display their produce at their vegetable demonstration area, developed by the LIFE Program as part of the group learning process.

Stage 2: Selecting the pilot sites

Three conflict-vulnerable sites in western Mindanao were chosen for the first round of testing of the LIFE Model. The sites were chosen in consultation with regional and local stakeholders and represented three different settings to provide as wide a testing base as possible for the model. The sites and settings are listed in Table 2 and their location is shown on the map in Figure 1.

Note that although the three sites represented different religious and cultural settings and different levels of perceived conflict, the research was not aimed at comparing responses or determining whether the model worked better in one setting or another – it was purely aimed at testing the model in at least three different conflict-vulnerable settings.

Table 2. LIFE pilot site settings

Setting	LIFE pilot sites		
	Province of Zamboanga Sibugay	Province of Maguindanao	Province of South Cotabato
	Municipality of Ipil	Municipality of Ampatuan	Municipality of Koronadal City
Estimated risk of conflict	Medium	High	Low
Religious or cultural identity	Mainly Christian	Mainly Muslim	Mainly Christian but with some communities that are mainly indigenous (B'laan)
Institutional or political significance	Politically important for peace and development initiatives for the wider region outside of the Autonomous Region of Muslim Mindanao (ARMM), now BARMM	Close to the heartland of MILF and the ARMM (now BARMM)	Site of a number of community-based development initiatives targeted at IP communities

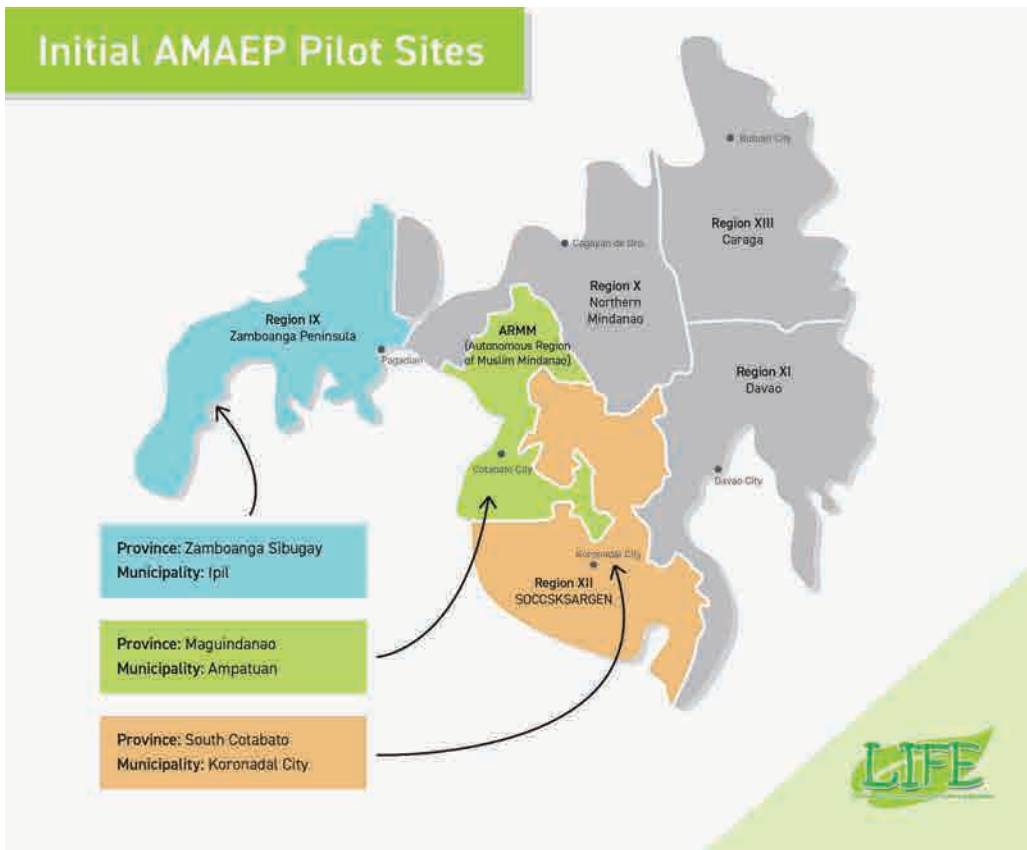


Figure 1. Map of Mindanao showing the location of the three LIFE pilot sites



A typical village scene at one of the LIFE sites, Koronadal City, South Cotabato

Stage 3: Deploying the community facilitators

In the set-up of the LIFE Model, a key decision was made to develop and use specially trained and trusted community extension workers – called ‘community facilitators’ – who lived and worked in the target community. The first ‘field’ step was to appoint the community facilitators at each of the pilot sites under the primary implementation partner, LFPI. We used the term ‘community facilitator’ to emphasise both the community-based element of the role and the participatory facilitation emphasis of their work. Because trust and empathy with the communities was considered such an important issue in conflict areas, we sought feedback from the pilot site communities on the selection of the community facilitators before we established the selection criteria. The selection criteria stated not only the necessary skill set, but that the facilitator would be resident in the site, have a good reputation and be regarded as a credible leader in their community. Both men and women were encouraged to apply.

Two community facilitators were subsequently appointed at each of the three sites under the management of a project manager employed by LFPI. Of the six staff, four were male and two were female. The deployment of two staff at each site was to improve teamwork, broaden the skills base available and improve security for staff in the field. The recruitment and deployment process included orientation and training based on each facilitator’s ongoing needs-based training plan. This was to ensure that the facilitators were culturally attuned and to check the strength of their existing local relationships with the target community.



LIFE facilitators undergo orientation training in 2014 at one of LFPI’s demonstration sites in Claveria, Misamis Oriental.

The intention was for the community facilitators to undertake most of the on-ground extension activities as well as overseeing and participating in (but not necessarily designing) the research fieldwork. This was to ensure that the research specialists from RMIT University (RMIT), LFPI, University of the Philippines Los Baños (UPLB) and University of the Philippines Mindanao (UPMindanao), as well as the technical experts, would be coordinated through the community facilitators. This arrangement was to both facilitate management of security and ensure the project presented a united front to farmers, the latter being considered important in the ongoing development of trust and empathy with communities in conflict-vulnerable areas.

My LIFE story – 12: Nikki Cordero, Mary-Jay dela Peña-Titan and Moctadir Sangki

Landcare Foundation of the Philippines Inc.

LIFE facilitators at the coalface tell their story

The art and skill of facilitation is at the heart of the LIFE Model. Facilitators make it easier than it would otherwise be for the farmers to take action, but do not command it or lead it. They emphasise the importance of the farmers taking ownership of their future and then helping them on their journey to achieve their goals.

Three LIFE facilitators have been with the LIFE Program since its inception in 2014.

Nikki Cordero is the Senior LIFE Facilitator for South Cotabato. Before he joined AMAEP, he managed an animal production and training facility before working as an agri-technician for a private company. The agri-technician role had an extension component, though it was largely a profit-driven role.

Nikki says his attitude to extension changed as a result of being a LIFE facilitator: 'I learned that agricultural extension is not all about doing your best in extending the best technology, skills, ideas or knowledge to farmers, but by helping the farmers realise or appreciate the benefits of change.' He emphasises the importance of understanding the process of change, the role of social capital, the value of partnerships, the benefits of working as a group rather than working alone, and contextualising the situation before taking the next step.



Nikki reflects on the two most important things that result from good facilitation: 'Firstly, the relationship with farmers gets stronger and closer and trust builds up; and, secondly, farmer confidence builds up through the different trainings and partnership building.' He is proud to see once-shy farmers now freely 'sharing their knowledge, skills, technology, and innovations to their fellow farmers, and sometimes even being the resource persons for some trainings in the field'.

Nikki has had many satisfying moments working as a LIFE facilitator, but, overall, his biggest thrills came from 'seeing farmers increase their income to the extent that they were able to for the first time support their household needs and actually improve their farms. I will always remember seeing their expressions of gratitude through their teary eyes while holding our hands. That makes me feel satisfied, happy and fulfilled!'

Mary-Jay ('MJ') dela Peña-Titan is the Senior LIFE Facilitator for Zamboanga Sibugay. Before she joined AMAEP, she was a community facilitator in an ACDI/VOCA project funded by the United States Department of Agriculture. The role involved servicing 300 farmers and six community leaders in farmer field schools on rice, coconut and cacao.

MJ describes the most significant things she learned as a LIFE facilitator: 'You have to connect with the farmers, understand where they are coming from, know their culture and traditions, and build rapport with them to gain their trust. Farmers learned to trust me as their facilitator, and I trusted them as individuals. They have learned from me and I have learned from them. They treated me as their family member and I value them like my parents,' she says.

One of the most satisfying moments for MJ as a LIFE facilitator was seeing the growth, development and achievement of the Katipunan Vegetable and Agar-agar Growers Association (KVAGA), given that Katipunan is an isolated area, with a perception of being dangerous, and, consequently, can be left out of government support and outside assistance. 'I am very proud of what KVAGA has achieved,' she says. 'The former horrible perception is now so far away.'

MJ also values seeing farmers being able to improve their houses through minor renovations, knowing that the money for this has come from their vegetable gardens. Something that is close to her heart is to see farmers 'being able to share the technologies they've learned to non-members, neighbours and relatives outside of their immediate communities.'

Moctadir ('Mocs') Sangki is the Senior LIFE Facilitator for Maguindanao. Before he joined AMAEP, Mocs was running his own small business growing rice and corn, a business he is still involved in during his spare time.

Mocs describes the most significant things he learned as a LIFE facilitator: 'While technological knowledge is important, being a good facilitator, motivator, communicator and mediator is just as important.' He has also developed the 'highest sense of respect for the different tribes of the region'. He stresses the importance of the partnership with farmers, understanding their needs and working together with them to ensure the program is sustainable.



The evolution of LIFE

The most satisfying thing for Mocs was seeing improvement in livelihoods, stability and peace between the tri-people (Muslim, Christian and IPs). Mocs has also been personally inspired to 'establish our own learning site so that I can continue to promote the different LIFE technologies in order to retain the legacy of LIFE in Maguindanao'. He adds: 'I am grateful to be part of this amazing journey.'



Training and widening the experience of the six AMAEP LIFE facilitators was a key component of their deployment. Here, they join the broader AMAEP team, vegetable farmers and LGU personnel in Bohol in 2015 to study advanced vegetable production and the Pilar LGU BAFTECH (farmer facilitator) Program. Also in the group are members of the AMAEP Project Advisory Group from the Regional Planning and Development Office of ARMM and the Mindanao Development Authority. Photo courtesy of Jazz Upton

Stage 4: Implementing the LIFE model at the pilot sites

Once the community facilitators were in place, the project team set about developing the implementation steps for the LIFE Model, paying attention to the principles and strategies listed above in Table 1. The steps are listed in Table 3 and further described in Chapter 5.

Table 3. Implementation steps of the LIFE Model

1	Identify or select an appropriate site.
2	Appoint an appropriate community facilitator.
3	Train and orientate the facilitator.
4	Identify priority institutional stakeholders (LGUs, NGOs, other institutions).
5	Consult with the relevant LGUs and other institutions.
6	Gain a deeper understanding of the farmers and their livelihood-improvement issues.
7	Meet the farmers and identify farmer groups.
8	Identify the best farmer groups to work with.
9	Orientate farmer groups and key institutional partners to the process and seek their input.
10	Identify the farmers' main drivers and needs.
11	Conduct an 'inspirational cross-visit'.
12	Implement activities to develop livelihoods.
13	Regularly review and discuss ways to improve social capital, group health, gender equity and farmer leadership.
14	Train and deploy farmer facilitators where possible and appropriate.
15	Keep institutional partners informed and, where possible, involved in activities.
16	Regularly monitor, record and reflect on changes necessary to improve outcomes.



LIFE Facilitator Nikki Cordero speaks with farmers of the Assumption Farmers Association in Assumption, Koronadal City, South Cotabato, about soil sampling and soil chemistry during a farmer training session.

Stage 5: Monitoring and evaluating the pilot projects

Once the implementation of the LIFE Model at the three pilot sites began in early 2014, a process was put in place to assess its effectiveness. As mentioned earlier, the primary indicator was the improvement of the participating farmers' livelihoods. To assess this, we had to consider the improvement in both economic and social aspects of the farmers' livelihoods, which were regarded as the highest priorities for disadvantaged communities in conflict-vulnerable areas. We resolved to also monitor other livelihood improvements – human, environmental and political – in the process. We also assessed the speed of change at a macro level.

A secondary indicator for assessing the effectiveness of the model was the response of local extension institutions, particularly their interest in using the model in their ongoing programs, should it prove successful. This was obviously an important issue in ensuring institutional sustainability of the model beyond the end of the pilot project.

We assessed the model using two key processes:

- Action research (a cycle of planning, acting, reflecting and re-planning) was used to regularly review the rollout of the model and incrementally improve its performance and implementation. This was primarily undertaken by the community facilitators and involved them diarising issues and reporting to six-monthly whole-of-team review meetings, where reflection and re-planning were undertaken. On two occasions, these reviews included external personnel from partner institutions and a specialist advisory group comprising representatives from important conflict-area institutions.
- Specific targeted research on livelihood changes and impacts was primarily undertaken by the research team, working with the community facilitators. They used a range of techniques, including surveying farmers and extension institutions; analysing costs and returns of farm enterprises; assessing social capital; and conducting a special farmer group 'culmination' assessment at a point when the major engagement between the farmer group and community facilitators had concluded, about two years after it had begun. The assessment of social capital included standard measures such as membership of local farmer groups and duration of those memberships, as well as a number of what we consider 'new' measures, such as the assessment of group health and the assessment of trust and reciprocity through a concept known as 'trust games'.

In mid-2015, based on the initial results from the three pilot sites and the incremental improvement of the model as a result of the action research, we expanded testing to three new *barangays* within the target municipalities, making a total of six pilot sites.



LIFE Facilitator Nenaly Jalandoni (in blue shirt) oversees a group training and maintenance day at the demonstration farm of the Salman Farmers Association – now the Salman Kagkalimoa Marketing Cooperative – in Salman, Ampatuan, Maguindanao. A key feature of the LIFE Model is ‘learning by doing’, which is regularly a part of group training events.

Stage 6: Scaling out, scaling up and training

Scaling out

In 2016, with the effectiveness of the LIFE Model being evaluated with positive results at six pilot sites, AMAEP took the opportunity to test its broader potential with five additional extension institutions within reach of the sites. The idea was to mentor these institutions in the full implementation of the model, under their own internal institutional arrangements, to verify that it could be easily adopted by other institutions. The five institutions were:

- Consortium of Bangsamoro Civil Society (CBCS), based in Cotabato City in Maguindanao
- Municipal Social Welfare and Development Office (MSWDO), based in Ipil in Zamboanga Sibugay
- Sibugay Technical Institute Incorporated (STII), based in Ipil in Zamboanga Sibugay
- City Environment and Natural Resources Office (CENRO), based in Koronadal City in South Cotabato
- City Agriculture Office (CAO), based in Koronadal City in South Cotabato.

The model was subsequently scaled out to 14 sites: one in Maguindanao, by CBCS; seven in Zamboanga Sibugay, by MSWDO and STII; and six in South Cotabato, by CENRO and CAO. In all cases, the scaling out institution fully managed the 16-step implementation, with regular support and mentoring from the AMAEP community facilitators.



Farmers get hands-on training at the Salkan (Barangay Paraiso) scaling out site of the City Agriculture Office of the Koronadal City LGU in South Cotabato. LIFE facilitators from AMAEP provided ongoing mentoring to CAO personnel in the implementation of the model, including resolution of any problems.

Scaling up

In 2017, with the initial success of the LIFE Model at the pilot sites, DOST-PCAARRD provided special funding to further expand and test the model in other conflict-vulnerable areas of western Mindanao. DOST-PCAARRD is the national government agency that has a particular interest in developing and testing new extension modalities. Through its Technology Transfer and Promotion Division (TTPD), DOST-PCAARRD had been observing the progress of the LIFE Model as part of its role in monitoring ACIAR projects. Through this process, DOST-PCAARRD recognised that the LIFE Model was the only ongoing successful agricultural extension modality specifically developed for conflict-vulnerable areas.



PULL Facilitator Elisa Nasam assists a resident of Katipunan, Zamboanga Sibugay, with harvesting vegetables from containers. The growing of vegetables in containers was introduced through a partnership between AMAEP and the Department of Social Welfare and Development in Ipil. It was subsequently expanded by the PULL Program.

The DOST-PCAARRD approach was to validate the LIFE Model under its own institutional research partnership in western Mindanao, with UPMindanao as the lead agency, LFPI in a mentoring role, and national government research institutions such as the Bureau of Fisheries and Aquatic Resources and the Department of Science and Technology (DOST) providing the technical input. This three-year PULL Program (PCAARRD–UPMindanao–Landcare–LIFE) was rolled out at three new conflict-vulnerable sites in the same provinces as the AMAEP sites but generally within different municipalities. AMAEP provided advice and support, primarily through the mentoring from the experienced LFPI community facilitators.

The PULL Program is significant in that it represents the first major funding collaboration between ACIAR and PCAARRD involving the outcomes of an ACIAR project. It also represents the first adoption at the national government level of an extension modality developed by an ACIAR project.

My LIFE story – 13: Amsia Empang

Farmer, Zamboanga Sibugay

Women show the way

The Katipunan Vegetable and Agar-agar Growers Association (KVAGA) is a farmers' association based in the *barangay* of Magdaup, in the municipality of Ipil, Zamboanga Sibugay. All of its members are Muslim women.

'Before the LIFE Program, our main source of income was agar-agar farming,' says 39-year-old Amsia Impang, President of KVAGA. Agar-agar is a type of seaweed that is a popular plant-based alternative to gelatine and is known for its thickening and gelling properties. Seaweed farming is the most common livelihood activity for Zamboanga Sibugay's coastal communities, such as Katipunan.

'When LIFE was introduced to us, we started growing vegetables, too. They [the LIFE facilitators] helped us learn the processes of properly caring for seedlings, the right technology in using vermicast, and even the proper distancing in plants. They introduced different methods, such as container gardening, to help us better grow our vegetables,' says Amsia.

When the PULL Program commenced in 2017, KVAGA was able to cash in on the opportunity to improve its members' seaweed farming enterprises as well, because KVAGA was well recognised as an active and mature farmer group. 'As a result of the combined efforts of the two projects, our main income from agar-agar improved and our farmer association improved,' says Amsia. 'Various government and non-government institutions also started helping our association with trainings and seminars.' Amsia herself is now producing seaweed crackers as an additional income source.

With the help of LIFE, KVAGA became a model farmer association and has won awards from the local government and has been selected for a feature story by Bloomberg Philanthropies. The association has also secured additional funding from the local government and other NGOs to further improve its livelihood activities.

Amsia concludes: 'The LIFE program is really good. It has helped us in lots of ways. Before, we were not active and no institutions helped us. But now we are empowered and we are able to meet with different institutions and present our projects. Right now, our association has bloomed, improved a lot and we are doing so well.'





Members of Amsia Empang's group, KVAGA, harvest seaweed in their communal seaweed area in Katipunan, Ipil, Zamboanga Sibugay. The development of seaweed farmers' livelihoods has been a focus of the PULL Program.

Training

In 2019, AMAEP partner LFPI began to develop a trial training package for extension officers and extension institutions interested in adopting LIFE. The package assembled the tools developed by the project over its evolution into three modules, and these were delivered and evaluated with a range of extension personnel over a six-month period in 2019 and 2020.

Module 1: Introduction and exposure to the LIFE Model

This module comprised an initial workshop where participants were given a one-day crash course on the background to the model, its extension principles and the implementation steps. This was followed by a one-day visit to an AMAEP LIFE site where they were able to observe firsthand how the model works within a community. At the conclusion of this visit, a final half-day workshop tasked each participant to plan the first few steps of their own implementation of the model on return to their respective home institutions. The plan was for LFPI staff to remotely mentor each participant in their rollout of the LIFE Model over the following few months.

Module 2: LIFE Steps implementation

For this module, the participants returned after a few months to a group workshop to share their progress in implementing the first steps of the model. The idea was for the participants to share their experiences and enrich their learning while allowing the mentors to provide guidance and help. The module concluded with another planning session to specify the next steps in the implementation process. Again, LFPI staff remotely mentored each participant over the following months.

Module 3: Culmination workshop

This module brought the participants back together at the end of their training to share their experiences and consolidate, as well as report on, the respective site outputs. The workshop also included a special session on mainstreaming the LIFE Model in the participants' institutions (LGU, NGO, CSO). An invitation was extended to local chief executives or other officials from the participants' institutions to attend the reporting session so that any positives from the implementation could be reinforced. The module also included a session on planning for the future, where participants tabled their longer-term goals.

Funding for the training trial program was provided by the Department of Agriculture – Agricultural Training Institute (DA-ATI) in another promising sign for potential scaling up of the LIFE Model at the national government level.



'Training the trainer' is a vital component of the ongoing scaling out and scaling up of the LIFE Model. LIFE sites such as this pilot site in Koronadal City, South Cotabato, are used as a key part of the LIFE training package for new LIFE facilitators.

Chapter references and further reading

- Cramb RA (2007), 'Participation in community landcare groups in the Philippines: a social capital perspective', *Australasian Journal of Environmental Management*, 14(2):93–102.
- Newby JC and Cramb RA (2011), 'Economic impacts of conservation farming in a marginal environment: the case of Landcare in the Philippines', *International Journal of Agricultural Sustainability*, 9(3):456–470.

Chapter 5: Implementing the LIFE Model

The intention of this book is to provide decision-makers with a comprehensive overview of the LIFE Model to help them assess its potential. In this chapter, we describe the 16 steps for implementing the model, with enough information for you to understand the process of each step and why it is important. The detailed 'how-to' guide for implementing the LIFE Model, including details of the tools used in each step, is available in the companion training manual, *Training for LIFE*.

After briefly discussing each of the 16 steps below, we provide an example of the application of the steps from one of the primary AMAEP pilot sites – Sitio Olo-clofe, Barangay Assumption, City of Koronadal, province of South Cotabato. This example shows the theory of the steps in a real-world setting.

Step 1: Identify or select an appropriate site

In many cases, the site will already have been decided; for example, where an LGU, NGO or CSO has a mandate for, or focus on, a particular community. In this case, move to the next step.

Where there is an opportunity to choose the site, the following factors should be considered:

- Priorities – Do you have sites within your jurisdiction that have higher priority?
- Safety and security – Is it likely that you can work with the community over two to three years without significant risk to personnel?
- Support network – Is there a platform that you can build on, such as a supportive LGU and other interested and involved institutions?
- Interested farmers – Are the farmers at the site likely to be interested in improving their livelihoods and embracing change?
- Scaling out – Is the site well positioned such that, in the event of success, it will be a good example for scaling out to other communities of interest?
- Access – Can you readily travel to the site to interact with the community about implementing the model?

Two other points, which are not relevant in all cases of site selection, are important to note:

- While the model has been developed primarily for farming communities, we believe it will also work for rural situations where farming is not the primary livelihood activity.
- It is important that any technical bias of the implementers does not influence the selection of the target community. The emphasis should be on facilitating change desired by the community, not promoting the technology agenda of the implementing institution or facilitator.



Sanghanan in Kabasalan, Zamboanga Sibugay, is a good example of a site where rapid and effective results can be achieved through application of the LIFE Model. The site has a good support network, including an enthusiastic LGU and interested farmers. It is relatively secure, has reasonable access and there is good potential for impact beyond the immediate site.

Step 2: Appoint an appropriate community facilitator

As for Step 1, in many cases, the community facilitator will already have been decided; for example, where an LGU, NGO or CSO has an appropriate staff member in place or can draw one from their current institutional staff. In this case, move to the next step.

Where there is opportunity to choose an appropriate community facilitator, the following factors should be considered:

- Does the facilitator live locally and have a good knowledge of and relationship with the target community? Do they have trust, empathy and credibility with the people and their problems? If so, the facilitator is likely to be in a better position to work effectively with the community, and be more familiar with local security protocols and political dynamics.
- If the target community is Moro, it is preferable that the facilitator is also a Moro and can speak the local language or dialect. Otherwise, a local non-Moro would be the next best choice. For example, a Maranao (Lanao) Moro or a Tausog (Sulu) Moro who cannot speak the local dialect may be less effective than a non-Moro local.
- If neither of the above applies, does the facilitator have at least two years' experience in community development, and a preparedness to work closely with the community to establish trust and empathy?
- Is the target community likely to provide positive feedback on the choice of the facilitator?
- Do the resources available allow the appointment or recruitment of a two-person team? If so, this has the benefits of sharing the workload, increasing the skills base and improving security for staff when operating in conflict-vulnerable situations. If a team is put in place, it is important that they present a consistent and unified front to the community at all times. This helps to build trust and credibility with the community.

My LIFE story – 14: Jaidy Cadag

Farmer, South Cotabato

The difference that social capital makes

Jaidy Cadag is President of the Nga Bango B'laan Aksasato Farmers Association (NBBAF) in Saravia, Koronadal City. What she learned from the LIFE Program goes beyond production and management of crops.

'We used to be a community that lacked unity. Before the LIFE Program arrived, we did not have any formal association. Each one was struggling on his own with farming and planting. Our main source of income was slashing and burning of trees (*'pagkakaingin'*) to make charcoal, cutting cogon grass, and some were making barbecue sticks and growing corn.



'When the LIFE project arrived in 2016, we formed the NBBAF, with help from AMAEP, to help build community social capital. Now we treat each other as more than siblings.'

This was just the start for Jaidy and NBBAF. They diversified into growing vegetables, fruit and nursery trees, and tapped into various support services not previously available to them from CENRO [City Environment and Natural Resources Office of the Koronadal City LGU] and CAO [City Agriculture Office]. This included vegetable incentives, and chicken and goat dispersal programs. The association also opened a community store to diversify their livelihoods and income, partly financed by a grant from the Koronadal City Mayor.

Jaidy is very thankful for what LIFE has provided to her and her community: 'They were a big help to us, and we have this new knowledge engraved in our minds and hearts.'

Jaidy Cadag, President of the Nga Bango B'laan Aksasato Farmers Association, proudly displays some of her high quality vegetables grown as part of her involvement in the association, facilitated by the LIFE Program.

Step 3: Train and orientate the facilitator

As for Steps 1 and 2, in some cases the community facilitator may already have been appropriately trained and orientated, particularly where they are experienced and have been working in a similar facilitation role on previous projects. However, the following training steps are recommended:

1. Orientation to the detail of the LIFE Model. This is available in the companion training manual, *Training for LIFE*.
2. Orientation to working effectively and safely in conflict-vulnerable communities. Some tips for this are available in the companion training manual, *Training for LIFE*. In addition, online courses on safety and security in conflict situations are available through institutions such as the UN Department of Safety and Security, and are highly recommended.
3. Profiling of knowledge and skills plus a training needs analysis. These activities benchmark the extension knowledge and skills of the facilitator and identify an individual and ongoing needs-based training plan. Pay particular attention to skills in facilitation, communication, and monitoring of outcomes and impacts. Tools for profiling and analysing training needs are available in the companion training manual, *Training for LIFE*.
4. Where possible, have someone experienced with the LIFE Model act as a mentor to the community facilitator. This can occur remotely by phone or videoconferencing, or in-person if the mentor is nearby.
5. It is a good idea to assess the facilitator's performance annually and develop a target plan.



The original group of six LIFE facilitators undergoing their initial training and orientation visit at LFPI's Scott Graham Landcare Complex in Claveria, Misamis Oriental. They are accompanied here by Marcelino Patindol (left), a landcare pioneer from Claveria and a member of the LFPI Board of Trustees.

Step 4: Identify priority institutional stakeholders

We now get down to the 'real work'. The first operational step is to carefully analyse the target community to identify all of the institutions that have a stake in its development and future. This is important for defining who you need to involve, engage with or communicate with, as it is vital that everyone with a stake in the community is aware of what you are doing and why. It also builds trust and credibility, as well as leveraging support. Institutional stakeholders could be:

- *barangay* LGUs (BLGUs)
- municipal LGUs (MLGUs)
- provincial LGUs (PLGUs)
- other government institutions working directly with the community; for example, the National Council on Indigenous Peoples and the Philippine Coconut Authority
- NGOs
- CSOs
- academic institutions
- private sector institutions.

The best approach is to introduce yourself to the municipal mayor and the *barangay* captain and briefly orientate them to your project. In Moro communities, include the political leader, religious leader and the local commander of the appropriate MNLF or MILF group.

In the process of doing this, you can respectfully find out which institutions are involved in the community and the nature of their involvement. This local validation of information facilitates a more effective and durable engagement. Follow this up with some desktop research to identify other institutions involved and, importantly, those that have been recently involved, as they may have valuable learnings. We like the partnership concept of the 'triple helix' promoted by PCAARRD, which encourages you to look at the three levels of partners – public, private and academic.



The AMAEP LIFE team introduces the LIFE concept to the Mayor of Koronadal City (left) as part of the initial communication process with institutional stakeholders in 2014. Present from right to left is the operational team comprising the two site facilitators (Albert Espina and Nikki Cordero), the LFPI Project Manager (Evy Carusos) and the LFPI Executive Director (Ben Aspera).

A good tool to use at this point is an institutional mapping analysis or a Venn diagram. This enables you to concentrically map institutional partners to identify programs and areas of mutual interest. In some ways, it can help to identify which ones have a high presence in the community and, consequently, are high priorities for your engagement. A tool for this exercise is available in the companion training manual, *Training for LIFE*.

If possible at this point, try to identify appropriate point persons in each of the priority institutions, as this will help in the next step when you engage with the institutions. For example, a key point person in the LGU (*barangay* or municipal) may be the chair of the committee on agriculture. In some cases, you may find point persons who are good crossovers between institutions; these people are valuable in leveraging liaison between institutions in the community.

Step 5: Consult with the relevant LGUs and other institutions

The previous step was about identifying the relevant institutions. Now it is time to seriously engage with them and orientate them to your project.

If you are part of an institutional team, a good place to start is to first orientate your own institution and team to the project. Then follow up your previous chat with the municipal mayor and the *barangay* captain with a courtesy letter offering a briefing presentation to their respective councils. In Moro communities, remember to include the political leader, religious leader and the local commander of the appropriate MNLF or MILF group in this process. The purpose of the briefing is to explain the project, inform them about your intentions, look for possible partnerships, find out more about existing programs, ascertain any support that the institutions may be able to offer, and find out if you missed any institutions in your initial scan (Step 4). It is also a good time to discuss any need for a memorandum of understanding (MOU) or a memorandum of agreement (MOA).

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The endorsement of the municipal mayor and other high-level officials is vital as they are generally the people who give instructions to various municipal offices and facilitate attendance at orientation or briefing meetings. Also remember the importance of the chair of the committee on agriculture (and perhaps the chair of the committee on environment) and ensure that they are actively involved in the process.

Then follow a similar process with other government institutions, NGOs, CSOs and academic institutions.

To all meetings, bring some printed information that you can leave with the people you have briefed, preferably a brochure or information sheet, or a copy of this book. Include your business card or contact details. Carefully record and document all discussions for future reference.



Moctadir ('Mocs') Sangki, LIFE Facilitator for Maguindanao, introduces the LIFE Program to officials of Barangay Salman, prior to engaging with farmers. Appropriate communication is an important step in building trust and subsequent collaboration and support.

The importance of this step is that it fosters a strong sense of ownership by the institutional partners and is more likely to result in stronger support for your project. It also creates a safer and more secure environment in which to work, as all institutions are then fully aware of your motives and upcoming operations. Note that it is important to brief all involved institutions, even those that do not appear particularly interested – this is all part of securing an open and transparent project operation that everyone respects.

In the development of this process, we have been asked whether a more efficient method of engagement and orientation would be a broader stakeholder forum, with all institutions invited to one major briefing event. Our advice is that it is best to do it in the sequence recommended above – mayor and *barangay* captain first, their respective councils second, and other institutions third. It takes longer but in our opinion is much better at building rapport, trust and credibility. A stakeholder forum can be used later for presenting results and agreeing on the next stages.

Three issues to be aware of during these consultations:

- Be aware of the hidden agenda of some politicians where promises can be made with little intention of delivery. A good way to offset this is to cross-reference your sources of intelligence so that you can transparently and appropriately deal with conflicting agendas. There may also be a tendency for some institutions to ‘piggyback’ their agendas on your project. Here, a balance is required, as there may be some inherent advantages in this. Again, a transparent approach is always best. One way to check for unwelcome piggybacking is to validate whether the institution’s proposals are consistent with its annual investment plan, the *barangay* development plan and municipal development plan. Political leaders are generally reluctant to promote ‘pet’ projects if they are not included in either the investment plan or the development plan.
- Try to get a measure of the likely power structures in the community that could affect conflict and security. In particular, find out which families may be involved in *rido*. This may be important in later stages when you start to seriously engage with the farmers and institutional personnel.
- Be aware of the different chains of command of different institutions and deal with them appropriately. For example, IP communities often have very different power structures, with both formal and informal leaders.

My LIFE story – 15: Jimmy Castigador

Farmer, South Cotabato

The story of LIFE from a new 'convert'

One of the newest converts to LIFE, Jimmy Castigador comes from one of the most remote upland communities of Sitio Lambukon, Barangay Canahay, in the municipality of Surallah, South Cotabato. This is one of the PULL Program sites aimed at testing the LIFE Model under a different institutional environment. Jimmy's involvement started in 2018 and he is a member of the Lambukan Amligan T'boli Integrated Farmers Association (LATIFA), a farmer group formed through the project.

Jimmy describes his farming situation before LIFE: 'In the past years, we were planting only corn and upland rice, so our income varied. If the price in the market was high, then our income would increase, but if the price was low, our income was not enough because of the high costs of packing and hauling.' The uncertain income made life a day-to-day existence and the only way of smoothing this out was to get some additional income from banana growing, he says.

'When LIFE came, we learned how to plant vegetables, and how to contour to protect the cropping area. Although we gained less from corn, we had extra income from the vegetables – enough to buy salt, coffee, and other needs of our family,' he says.

Jimmy also noticed increasing support for farmers in his area. For example, the Bureau of Fisheries and Aquatic Resources provided fish and information on how to process and dry them; the Department of Agriculture provided many inputs, such as coffee seedlings; and the Philippines Coconut Authority motivated him to plant coconut.

Jimmy emphasises the significance of forming LATIFA. Before LIFE, he says: 'We were not united. We all worked on our own and we were all hesitant to ask for help. If you had bad feelings towards someone, you would tend to just ignore that person. But now with LIFE, we cannot do that anymore because we belong to a group. We now help each other. We have labourers assigned to harvest, and you can ask for help if you need it.'

'LIFE also helped us in organising our group and to register it with the Department of Labor and Employment. It is good to belong to a group because it is easy to ask for help from institutions. Before LIFE, we went to government authorities for help, but it was hard to acquire assistance if you were on your own. LIFE has been a great help in acquiring assistance from the government.'

Jimmy's final advice: 'Be industrious and plant vegetables because they will really help you in a healthy and strong life. Even if you don't sell the vegetables in the market, you will have something every day for the consumption of your family!'





Jimmy Castigador (left) assists PULL Facilitator Rosiel Guillermo (right) with the planting of a rambutan fruit tree as part of his crop diversification program. Planting permanent tree crops not only improves potential income but also helps to protect the steep, erosion-prone slopes of the upland community of Surallah.

Step 6: Gain a deeper understanding of the farmers and their livelihood-improvement issues

The depth of understanding you can gain about the farmers and their livelihood issues, and the level of documentation that you can generate will depend on the time and resources you have available and the size of the project. In its simplest form, this step will involve some basic data gathering about the community. In a larger project with potential subsequent stages, the level of data gathering may need to be more extensive, so that a clear baseline for later comparison of outcomes can be established. In both cases, the importance of the step is to:

- better understand the community and its issues so that when you engage with them you will be in a better position to achieve acceptance and subsequent progress
- have a baseline for later comparisons of how effective your work has been.

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In large projects, there is a case for a more objective assessment of the baseline of the institutions you are working with – more than the basic data-gathering you may have done in Step 5. This could be done through a formal questionnaire or a workshop with relevant staff. For NGOs and CSOs, in particular, the head of the institution should be involved as well as relevant staff.

The data gathered on farmers can be primary, secondary or a mix of both. For smaller projects, secondary data may be all that is feasible. This would comprise the feedback from the mayor and *barangay* captain and from your engagement with other institutions (Step 5). It may be enriched by your own desktop research.



Gaining a deeper understanding of the farmers and their issues can be done directly with the farmers, as it is being done here in Maguindanao, or indirectly, depending on time and resources. The important thing is to do some research so that further engagement with the farmers can be appropriately planned.

For larger projects (such as AMAEP), gathering primary data is necessary to establish a baseline. This requires some form of survey of a random block of farmers in the target community. This is a specialist task and input from experienced social researchers is necessary, although some of the processes used by AMAEP are contained in the companion training manual, *Training for LIFE*.

Tips on gathering data, based on our experience:

- Seek assistance with the design of both the questionnaire and the survey process.
- Keep the questionnaire and the survey process as simple as possible. Avoid very sensitive questions; for example, questions related to conflict which might arouse suspicion. Giving farmers the option to select from a range of possible answers makes it easier for them to respond.
- Administering the questionnaire to a group of farmers at a single location (rather than individually on their farms) may be more efficient. If so, schedule it around lunch time and provide transportation and food.
- Inform farmers individually about the purpose of the survey and obtain their written permission to conduct the survey.
- Do not waste time duplicating data in the survey if it can be obtained from other sources.
- Give each participating farmer a token gift in appreciation of their time and effort.
- If the community facilitator is not from the target community, find a community resident to help collect the data. This has advantages of tapping into the local sources of trust, networks and intelligence.
- Keep key people in the community informed at all times; for example, make a regular courtesy call at the *barangay* office.

Step 7: Meet the farmers and identify farmer groups

Having gained a deeper knowledge of the farmers, the next step is to engage with the identified farmer leaders in the community to inform them about the project, gain their support and seek their input to the project. This is an important trust-building process, so it is essential to be open and transparent with no perceived hidden agendas. It is best done as an informal chat rather than a formal meeting process, as this helps build rapport and confidence. As mentioned in Step 5, be aware of the different chains of command of IP communities, which often have both formal and informal leaders. In these cases, try to talk to as many people as practicable in the quest to identify the leadership structures.

During this process, seek information on existing farmer groups, who organised them, who leads them, how they are structured, and how well they are working. If the people who organised these groups are available, it is worth chatting to them to seek their perspective on the groups' current status and future opportunities. This information is important input to the next step (Step 8). The reason for seeking information on groups is because the LIFE Model is best deployed through groups, which have inherent advantages in the extension and learning process.

When this process has been completed, it is a good idea to verify your findings on farmer leaders and farmer groups with the *barangay* and municipal LGUs, primarily to fill in any gaps in your research. Be aware that in most cases, each *barangay* has an assigned councillor for each *sitio* and this person can be a valuable source of local knowledge.



Farmer groups are a powerful medium for learning and change. This group from the sitio of Takilay, Koronadal City, South Cotabato, demonstrates the wealth of resources that groups can muster.

Step 8: Identify the best farmer groups to work with

Using information gained from Steps 5, 6 and 7, the next step is to map the identified farmer groups to identify which groups are most suitable to work with. The mapping is based on two criteria which indicate how well the group fits with the ideals of the LIFE Model:

- Relevance – Does the group aspire to improved livelihoods and a desire for positive community change in agricultural or related livelihoods?
- Influence – Does the group have a good representation of the main farmers in the community, and does it have a passion for engaging with institutions that may assist it?

We recommend using the concentric mapping tool or a Venn diagram, as mentioned in Step 4. It enables you to objectively assess the merits of the various groups. The tool for this is available in the companion training manual, *Training for LIFE*.

If no groups are available or suitable, it is appropriate to form a new farmer group. If the above analysis has been completed properly, the need for a new group will be clear, not only to the farmers but to the LGUs and other institutions that have a stake in the community. It does not mean that other farmer groups within the community will have to disband; it just means that for the purposes of your project a new group can sit alongside existing groups to achieve the specified objectives.

Step 9: Orientate farmer groups and key institutional partners to the process and seek their input

With the farmer group(s) identified (or created, if required), the next step is to engage with its members to orientate them to the project, seek their input and get an indication that they are willing to participate. It is an important step in gaining their positive acceptance of what lies ahead and a measure of commitment. If you had to form a new group to work with, this step is likely to have been part of the process of setting it up.

Follow a similar process for personnel of the key institutional partners.



There are many ways in which facilitators can interact with farmers to build trust and rapport. Here, Nikki Cordero, South Cotabato LIFE Facilitator, uses his knowledge of pests to effectively engage with farmers.

For the farmers, it is best to meet them on farm, either individually or as a group. We have found that between 10 am and 1 pm is the best time, as farmers often regard it as their 'vacant time'. You may even consider providing a packed lunch. Use a laptop to show a short PowerPoint® presentation or the video presentation of the LIFE Model. Alternatively, use another visual aid such as a printed brochure or tarpaulin.

An important outcome of this consultation is agreement with the farmers (and institutional personnel) on a suitable date and venue for the workshop to analyse farmer needs (Step 10).

Note that in all interaction with community groups, it is vital to actively encourage both men and women to be involved, and, where necessary, provide mechanisms for this to happen. Chatting with farmers over lunch is a good mechanism for men and women to be equally involved as it provides one of the few opportunities to interact with the entire farm family.

My LIFE story – 16: Vidal Moreno

Farmer, South Cotabato

Age is no barrier to LIFE

At the ripe old age of 75, Vidal Moreno could be retired and putting his feet up. But that is not his approach to life. As President of the Assumption Farmers Association in Barangay Assumption, Koronadal City, South Cotabato, he is still actively involved in serving his community and improving his farm.

Before LIFE, Vidal's income was derived entirely from monocropping corn and coconut. 'Although I had a great harvest and good gross income, I did not make much because I used to spend a lot on fertilisers and chemicals,' he says.

'Now, we still plant corn but just for our own consumption and to raise our animals. We learned to focus on vegetable growing as it demands less finance and gives back great income. We now grow vegetables like bell pepper, green chilli, cabbage, spinach, eggplant, string beans, bottle gourd and sponge gourd. We also planted rubber, cacao, coffee and abaca, which are starting to reap rewards. And we now have livestock, including native chicken. If we compare our income now with that before, we have great income now and our farm has improved a lot.'

Vidal has also made a major contribution as leader of the Assumption Farmers Association. In this role, he has helped organise training on vegetable gardening and the making of organic insecticides and pesticides, as well as hosting farmer cross-visits and LIFE training events. He has made it a principle to conduct each meeting of the association on a different farm, so that there is always something new to learn for members.

Vidal is an outstanding example of the fact that age is never a barrier to learning and change.



With his considerable knowledge and experience, Vidal Moreno (left) is always helping other farmers in the Assumption Farmers Association. Building social capital is an important precursor to improving economic livelihoods.

Step 10: Identify the farmers' main drivers and needs

The next step is to get all of the farmer group members together in one place and run a workshop to identify their priority needs and their preferred ways of addressing those needs. Although the workshop is very much focused on the farmers, it is a good idea to invite some key officials from the LGU and other institutions so that they can observe the farmers identifying their needs and priorities. Remember that the assigned councillor for each *sitio* is a key person to invite. To ensure the integrity of the farmers' input, the officials attend as observers only, although we recommend that at the end of the workshop, they be given the opportunity to comment on the outcomes. This helps to build a strong institutional support network for the program and reinforces to the farmers the value of such networks.

The purpose of the workshop is to build farmer ownership of both the process and the outcomes. As mentioned above, it is vital that both men and women from the farming units are actively involved in the workshop – not, as happens in some instances, where the men attend the workshop and the women are left catering for the lunch or looking after the children. This means you will need to provide for someone outside of the group to cater for the lunch and run a creche for the children. The more that women can be involved, the richer will be the outcomes and the higher the rate of ownership of those outcomes.



Farmers in a group workshop, under the watchful eye of LIFE Facilitator Nikki Cordero (white and green shirt), identify their main drivers and needs. It is important to obtain input from both men and women in a participative process. Creating a family-friendly environment where men and women can safely bring their children is an important feature of LIFE workshops.

The recommended process for the workshop is to take farmers through three steps:

1. Get them to contextualise their current farming and community situation and identify their main drivers. What are they growing on the farm? What practices are they using for these crops? What issues and concerns do they have? Sometimes it is useful to get them to think about and identify the resources (or assets) they already have on their farm or within their community.
2. Get them to envision where they would like to be in two years' time. What are the two most important changes they would like to see in their farming business in that time? What are the two most important agricultural activities they could undertake to produce these desired changes? For each of the two activities, what are the most relevant next steps to achieve them?
3. For each of the nominated priority activities, get them to review which of the available and relevant institutions are most able to help them achieve their next steps.

Tools for conducting the three steps are available in the companion training manual, *Training for LIFE*.

Each of the three steps involves small-group discussions, with the groups recording their issues on flip-chart paper and then bringing them into a plenary discussion where the issues from all groups are prioritised. The process is a balance of individual pondering, small group dissection, and plenary consolidation and prioritisation.

It is a good idea to arrange all the outputs from the workshop in a matrix, with the farmers' help, and then put this on display. The institutional attendees can then be asked to comment or make suggestions. This process is helpful in achieving collaboration and ownership between the farmers and the institutional personnel.



Workshops are not the only way to get to know farmers and their issues. Here, Lucio Bunayog, a LIFE facilitator in Zamboanga Sibugay, spends time with a farmer in the field to better understand the farmer's drivers and needs.

Important tips for conducting the workshop:

- Host it in as comfortable a venue as possible, with a break halfway for lunch.
- Arrange assistance so that everything is properly documented and small groups are assisted with the process. It is a good idea to have a 'dry run' with your assistance team. Also, have a translator on hand if you are likely to have difficulty understanding the farmers' dialects.
- It may be possible to coincide the meeting with the farmer group's regular meeting, which busy farmers generally appreciate.
- Prepare good quality visual aids (electronic or print). If electricity is available and the venue is suitable, a PowerPoint® presentation with an LCD projector is an effective method.
- Explain the full workshop process at the beginning so that farmers can clearly see the extent and duration of the event. Allow some time at each new point for farmers to understand and digest the questions. This is important where the farmers are young, have limited knowledge, or where a dole-out mentality exists.
- At the end of the workshop, ensure that the farmers are aware of the project's limitations, particularly if issues that are difficult to service are of high priority to them.

My LIFE story – 17: Semion Benito

Farmer, Maguindanao

LIFE works through the triple ravages of the pandemic, drought and conflict

Over the eight years since its inception of the LIFE Model, the LIFE team has worked to test it across as wide a range of conflict-vulnerable communities as possible. These have included settings which are mainly Muslim, mainly Christian, mainly IP, and everything in between. Communities that are mainly indigenous present one of the biggest challenges for livelihood improvement because they are generally highly marginalised and disadvantaged, and with leadership and power dynamics that sometimes make a facilitated extension approach such as LIFE more difficult to apply.

Consequently, the LIFE team has always been on the lookout for good pilot sites within communities that are mainly IP. One such example has been the focus of the PULL team since 2018 – the sitio of Bisang in Barangay Talisawa, Municipality of Datu Abdullah Sangki, in Maguindanao. The community is mainly the IP Teduray group with some Ilonggos as migrant settlers. They have suffered significant disadvantage, receiving little support and outside assistance, but have a supportive municipal mayor and municipal agriculture officer.

When the PULL team commenced their trial of LIFE, they found existing farmer groups were relatively inactive, so they assisted the farmers to form a new one – the Teduray Farmers Producers Association (TFPA). This group has developed significantly under the project and is now registered with the Department of Labor and Employment. The main livelihood-improvement focus of the PULL team so far has been the introduction of vegetable growing to the group members.



Implementing the LIFE Model

The President of TFPA is Semion Benito. Semion reflects on the last year or so, as the farmers have grappled with the triple-headed setback of the COVID-19 pandemic, drought and ongoing local conflict: 'Our experience with the pandemic was difficult because we cannot go to the market; we are just on our farms. And then the long, dry spell followed. The long, dry spell is really hard because one cannot plant. You don't have an income as you cannot plant vegetables. We were also affected by the war [*rido* as well as conflict between rebel groups and the military] because we cannot go to our farms.'

Semion continues on a more positive note: 'But with the pandemic restrictions loosening, along with the war, and the rainy season has arrived, we go to our farms now to plant vegetables so we will have an income to sustain our family's needs. We sell it to our neighbours in the *barangay* because we cannot go to the market. So we also help our neighbours. We get our livelihood from planting vegetables because in vegetable production, every two or three days you can harvest, unlike corn which takes three months before you can harvest. With vegetables, you can earn money right away as long as you are hard-working.'

At the TFPA and community levels, Semion sees many benefits as a result of LIFE. 'The project has helped because there is a lot that has been provided. Now, we have a gymnasium. The road going to the sitio has also been repaired. It has helped us, especially our children, as we can send our children to school. UP Mindanao has helped us and the *barangay*, municipality and province also gave us rice.'

Semion concludes on a personal note: 'In terms of income, I earn an average of PHP3,000 (A\$80) per week (during the cropping season) and I deliver it to the market, such as Esperanza. I also sell to traders who come to our *barangay* and buy our produce. To my fellow farmer members of the association, I encourage you to carry on as we have a good relationship, and we have income. That's all I can say!'



Semion Benito works in his vegetable farm where he has adopted innovative production techniques as a result of the LIFE Program.

Step 11: Conduct an ‘inspirational cross-visit’

With the hard work done and the priority needs of the farmer group decided, it is now time to start the ‘fun’ part of the journey – organising and conducting what we call an ‘inspirational cross-visit’.

We know from experience over many years that farmers learn best from other farmers. The inspirational cross-visit provides an opportunity for your farmer group to learn and be inspired by other farmers who are doing something highly innovative in the field of interest. It works because farmers ‘speak the same language’ or use their own jargon, even when there are actual language barriers. And it works because, for farmers, ‘seeing is believing’ – when they can see what other innovative farmers are doing, they can more easily put the innovations within the context of their own farm. Inspirational cross-visits equip the farmers with ideas and possibilities and can greatly improve the adoption of innovation and the rate at which it occurs.

But where do you find these innovative farmers? Clearly, they need to be relevant to the identified need of your farmer group, whether it be, for example, diversifying into vegetables, raising goats, or establishing fruit tree nurseries. Finding them requires a lot of asking around and working your networks of professional contacts. They are often surprisingly closer than you might expect.



A group of farmers and LGU officials from Koronadal City participate in an inspirational cross-visit to Claveria, Misamis Oriental, where they study conservation measures for sloping land. The trip also included visits to several innovative farmers growing high value vegetables.

Cost is the only hurdle for the cross-visit – it costs money to take a group of farmers on a trip to visit one or more innovative farmers. There is the cost of transport, meals and possibly overheads such as insurance. However, our experience shows that it is always worth the investment. If you have limited funds, explore the possibility of funding assistance from the LGU or other institutions with a stake in the community. It is sometimes surprising how readily these institutions are prepared to fund innovative ideas, particularly if there is the opportunity for publicity, and the event has direct benefits for the farmers.

While the cross-visit is primarily for the farmers, we recommend inviting the extension personnel relevant to your farmer group, such as LGU or NGO staff with whom you are collaborating, or are likely to collaborate with in future stages of the LIFE Program. You may even like to invite some of the policymakers. Involving these people can also inspire them and expose them to new ideas, new technologies and new ways of doing things. It builds their connections with your farmer group and could also build important connections between them and extension personnel from the visit site. Importantly, it creates unity and collective understanding of the strategies that farmers may implement when they return to their farms after the cross-visit.

Whether you take the whole farmer group on the cross-visit depends on the size of the group, the funds available and the logistics of the cross-visit. In most cases, we have taken only a subgroup of farmers, a balance of men and women, carefully selected based on their attitude to innovation and learning, and their willingness to share their learnings with others in the group. A structured program for ‘re-echo’ sharing – relaying the key information to those who were unable to attend – needs to be part of the overall program, so that all farmers in the group benefit.

The timing of the inspirational cross-visit requires you to consider what is best for your situation. We believe it is best held as soon as possible after the needs-analysis workshop, when the farmers are perhaps most highly motivated. But there is a view that it might be best held after the farmers have had some initial training on their selected topic, so that potential attendees can be more carefully selected, or perhaps self-selected.



Leonila Lagunday, a farmer from Kauran, Ampatuan, Maguindanao, is one of many farmers who have benefited from inspirational cross-visits. As a result, she has moved from making charcoal from leucaena to growing a diversity of vegetables, fruit, coffee, bananas and coconut.

Like any major event, it is essential that the cross-visit is well planned, well conducted and well evaluated. A detailed process for this is contained in the companion training manual, *Training for LIFE*.

Here are some important tips from the manual:

- When preparing the itinerary, leave plenty of time for farmer-to-farmer interaction and learning. Do not make the mistake of cramming the itinerary with too many farm sites – one or two inspirational farmers is enough. If overnight accommodation is required, arrange it well in advance.
- Visit the destination farms in advance to calculate the time required for travelling, walking and other activities, so that the schedule can be managed effectively.
- Make sure that the farmers and extension personnel participating in the visit are informed well in advance and then regularly in the lead-up to the event. Advise them clearly on what they need to bring and what you expect of them on the day. Before the trip, it's important that you evaluate expectations.
- Consider whether there is any advantage in grouping farmers of the same culture and dialect because of the greater interaction that may occur. Building social capital is a vital component of the cross-visit.
- Print the itinerary so that farmers are aware of the trip details. If possible, include a short profile of the inspirational farmers they will be visiting.
- On the day of the cross-visit, keep in close communication with the farmers and others at the visit site so that you can manage any delays in the itinerary due to weather or other issues.
- Keep the program on track and softly manage the farmer-to-farmer interactions so that no one farmer is allowed to dominate the conversation. Where possible, assign a colleague to record and document the conversations and key points. This person could also record any relationship issues within the farmer group.
- Use a camera or phone to record some photos and videos of the event, including the innovations being demonstrated. These are really useful for the 're-echo' sharing afterwards.
- At the end of the visit, evaluate what each attendee has learned and what has been particularly inspiring for them. Also, where possible, ask each attendee to complete a short, simple 're-entry' action plan, indicating what they intend to do on returning to their respective farms.
- It is a good idea to present a small gift to the host farmers and other officials, and formally thank them in front of the group for their generosity.
- When the visit has been completed, devise a program for the 're-echo' sharing, featuring the pre-trip and post-trip evaluations and the photos and videos. After a month or two, evaluate what has changed for the participating farmers and what has diffused through to the other farmers in the group.
- For your own personal development, evaluate what worked well and what could be improved for any subsequent inspirational cross-visits.

My LIFE story – 18: Miladel Capitanía

Kabasalan Municipal LGU, Zamboanga Sibugay

An LGU grabs the LIFE opportunity with both hands

As Municipal Agriculturist in the LGU of Kabasalan in Zamboanga Sibugay, Miladel Capitanía is at the forefront of the challenges of providing agricultural extension services in conflict-vulnerable areas. When the LIFE team came to her in 2016 proposing Kabasalan as a pilot site for LIFE, she grasped the opportunity with both hands.

With the devolution of the agriculture and fishery program of the national Department of Agriculture (DA) to LGUs, Miladel, like all other municipal agriculturists in Mindanao, has a challenging job of balancing the expectations against the realities of budgets and resources. She explains: 'Firstly, we are expected to deliver eight DA banner programs, often with little local direction. Secondly, we have to deliver these eight banner programs across 29 *barangays* with just seven personnel. Thirdly, our budget allocation is often the lowest of all the municipal programs.'

Miladel's approach is to give priority to organising the community and to creating and supporting farmer groups so that they are better prepared for whatever programs can be sourced from other institutions. Hence, her interest in grasping the LIFE opportunity when it arrived. 'I was so happy because LIFE helped the LGU to make things possible, to make a real development program for one of our communities,' she says.

For the pilot study of LIFE, Miladel and the LIFE team chose Barangay Sanghanan, about eight kilometres from the Kabasalan township, over a very rugged road, making it a good test of the delivery of the LIFE extension program. The focus was to build on an existing group of farmers known as MAGKUNO (Malahutayong Agrikultura Alang sa Kinaiyahan Nato), who were primarily involved in watershed protection and revegetation management. The challenge was to assist them to improve their core activities, while also improving their livelihoods.

Over the next few years, as the LIFE Program was rolled out, Miladel noted the key things about LIFE that stood out to her:

- The dedication and clarity of the LIFE facilitators. 'They were very professional because their approach was so clear. They always had specific tasks (steps of the model) and knew what must be accomplished in any particular period.'
- Involvement of LGU personnel in the process. 'The facilitators always invited our LGU personnel to be involved. This helped us to enrich and enhance our knowledge and skills in agricultural technology.'
- The motivation of the target community. 'The LIFE program really stirred the community and got them motivated. This was largely because they were acknowledged as being an important partner in the development. Before, they were so shy, they would not even talk during our meetings, but after their training and involvement in LIFE, they were able to freely express themselves. You know, it's not only just about building the technical expertise; it's about the personal development of the members of MAGKUNO as well.'



- Economic improvement of farmer livelihoods. Tapping into the National Greening Program of the Department of Environment and Natural Resources (DENR), the farmers were able to improve their livelihoods through engaging in nursery production. Although it did take a year or so for the farmers to really believe that there is something better if we do it together. They would share to us and we are so happy to hear from them that they were able to repair their houses, that they already have their floors tiled. Then they changed their roofing. They could already have extra leisure, because of extra income, through the nursery production.'
- Benefits to government programs. 'As a result of the program with MAGKUNO, I would say that the National Greening Program of DENR has taken a more meaningful approach for the whole of Kabasalan.'

Miladel sums it up: '[LIFE] was a very big help for us in the local government unit. I hope that it can expand. Maybe we could process the experience from this *barangay* and use it to serve as the model for other *barangays* in our municipality and even to other local government units.'



Municipal Agriculturist Miladel Capitanía (red shirt) discusses nursery production with farmer members of MAGKUNO in Sanghanan, Kabasalan, Zamboanga Sibugay. Miladel has been a major influence on the LIFE Program being introduced to the *barangay* and continues to encourage its development.

Step 12: Implement activities to develop livelihoods

This step, which may be concurrent with the inspirational cross-visit, is to develop and implement a program of livelihood-improvement activities based on the farmers' needs and the strategies identified in Step 10. Clearly, the activities will vary greatly depending on the farmers' needs, the availability of technical expertise, and how 'new' the livelihood-improvement strategy is to the farmers.

Sourcing the technical expertise starts with tapping into available experts, firstly in the community, then within the municipality, the province, and so on. Some leads will have undoubtedly emerged from the analysis of institutions with a stake in the community (Steps 4 and 5). Apart from this, do some desktop research on expertise available in national government institutions such as PCAARRD, the Philippine Coconut Authority, the Department of Agriculture, the Department of Environment and Natural Resources and the Department of Trade and Industry. Often you will find that training modules have been developed specifically for improving farmer livelihoods.



Farmer field schools are just one of many strategies for improving livelihoods. Here, farmers from Assumption in Koronadal City, South Cotabato, proudly wear their field school shirts at a group meeting, long after their training in vegetables was completed.

The task then is to manage this expertise in a planned and systematic way that allows farmers to learn at their own pace and adopt, adapt or reject elements of the new technology. The key things for the LIFE facilitator are to ensure the farmers are leading the process (making all of the important decisions) and to support the involvement of both men and women from the farmer group.

We recommend that you involve other extension personnel (public and private) who have a stake in the community, so that you can continue to build collaboration and long-term partnerships. An important process here is to share with these extension people your overall approach and calendar of events.

In terms of the process of learning, we have used various options, some of which are listed here. Note that this is not an exhaustive list and you are welcome to be innovative in designing new processes as long as the farmers are actively involved and endorse the process.

The main learning options are:

- farmer field schools
- on-farm demonstrations, either by an expert or a farmer who has adopted a successful new practice (remembering the value of farmer-to-farmer learning)
- field days
- farm walks
- demonstration farms, which can range from a community-based demonstration farm located on public (LGU) land to the farm of one of the farmer group members, who may be willing to offer their farm as a case study of a successful new innovation
- technical seminars, though you should use these only where an on-farm demonstration of the topic is not possible (for example, with completely new technologies or innovations). When using a technical expert, check that they are likely to relate well to farmers, and discuss the content with them beforehand to make sure they use layperson's terms and pitch their presentation at the learning level of the farmers.



Farmers from Koronadal City are for the first time in their lives studying the market value chain to analyse the best vegetables to grow and when to grow them. This is an essential step in sustaining livelihood improvements at the village level.

Four things to constantly keep in mind:

- Always maintain an excellent line of communication with the farmers, particularly the farmer leaders.
- Similarly, always maintain an excellent line of communication with *barangay* and municipal officials (and others engaged in the project), so that they are aware at all times of your movements and any events. This is particularly important at sites with higher levels of conflict or potential for such, and is critically important in IP communities where power and leadership responsibilities may be more difficult to define.
- Always think ahead to the next step and continually re-visit your action plan.
- Always prioritise the farmer-to-farmer learning experience. This is vital in all cases, but particularly so in IP communities where information flows may be more restricted and/or confined to particular networks of people.



Technical experts need to be practical and relevant to the farmers' needs. Here, Wendy Galero, a technical expert from an ACIAR vegetable project in Bohol, visits farmers in Assumption, Koronadal City, to demonstrate practical tips for vegetable growing. Wendy was chosen because of her expertise in high value vegetable production in a very similar farming system in the uplands of Bohol.

Step 13: Regularly review and discuss ways to improve social capital, group health, gender equity and farmer leadership

In Step 12, we emphasised the importance of always thinking ahead to the next step when introducing new learning, and continually re-visiting your action plan. Here, we look at other important aspects of developing the farmer group and put forward questions that you should regularly ask to reveal where change might be needed:

- Social capital – Are all members of the group participating? Are they freely sharing information? Are they actively supporting each other in their learning and implementation? Have they made contacts with networks outside of their groups (bridging social capital)?
- Group health – Is the group expanding? Is it developing new leadership aspirants? Is it developing mechanisms for its long-term sustainability, such as registration with the Department of Labour and Employment and relationships with the *barangay* and municipal councils?
- Gender equity – Are men and women equally involved in activities? Are women taking on leadership roles? Are members developing a better understanding of the different roles that men and women play in improving livelihoods and building peace?
- Farmer leadership – Are group members equally developing their knowledge and skills? Are new potential leaders emerging? Do existing leaders recognise the importance of transition and succession planning?



Aurora Rosal, a farmer from Assumption, Koronadal City, South Cotabato, has moved from producing barbecue sticks to growing a wide range of vegetables and other crops. With a higher and more reliable income and food for her family's consumption, Aurora is reaping the rewards of being part of the LIFE Program.

If you ask these questions regularly (every three months or so), and back them up with some on-ground research, you can then add this exercise to your overall action plan. An action plan that involves only technical development will be effective only until the end of that technical development cycle. Real change comes only when technical innovations run alongside improvements in social capital and human development.

This is a good place in the implementation process to emphasise the importance of progressively facilitating another important indicator of the farmer group's development and success – involvement in the legislative process. A vital role of the community facilitator working with any farmer group is to facilitate its organisational development to reach a point where it can become a part of the *barangay* development council, and potentially even the municipal development council. For the purposes of group sustainability, this should be the ultimate goal.

Step 14: Train and deploy farmer facilitators where possible and appropriate

We have emphasised the importance of farmer-to-farmer learning and exchange, and farmer facilitators take this to another level. Farmer facilitators are innovative farmers within the group or community who are specially trained to maximise farmer-to-farmer learning within their community. Doing so helps to make the outcomes of the LIFE project more sustainable locally, possibly even providing future opportunities for more broadly sharing the concept with farmers in other nearby areas.

Ideally, farmer facilitators are volunteers, which means that, apart from the cost of the training, they can be deployed at minimal cost. However, while this may work during the time frame of a project that can fund the continuing upgrading of their skills and knowledge, it is not a successful long-term strategy. There is some opportunity for farmer facilitators to receive limited support through DA-ATI's Farmer-Scientist Program, but this is generally confined to particular industries. The best and most enduring option is for the municipal LGU to create a program of support for farmer facilitators.



Cacao growing has been a major means of improving the livelihoods of many farmers, both the sale of pods for chocolate making and as a source of planting material for nurseries. Here, Victor Malangan, from the MAGKUNO farmer group in Kabasalan, Zamboanga Sibugay, is reaping the benefits of a community tree-growing initiative introduced by the LIFE Program. Victor is also a MAGKUNO Farmer Technician (farmer facilitator).

Implementing the LIFE Model

A good example of this approach is found in the municipality of Pilar in Bohol. Since 1998, the Pilar LGU has deployed about 190 farmer facilitators, known as *barangay* farmer technicians, or BAFTECHs, to strategic locations across the municipality. Each BAFTECH is responsible for assisting about 25 members of small *sitio*-based farmer groups. Their brief is to adopt innovations, as facilitated by the LGU, and then assist the farmers in their group to do the same. The BAFTECHs hold monthly meetings of their groups' households. They come together twice a month for a BAFTECH municipal federation meeting and twice a year for a BAFTECH congress. For their work, they receive a small monthly honorarium from an annual program budget of more than PHP1 million (about A\$27,000). The program provides incentive mechanisms for both BAFTECHs and outstanding farmer innovators. It is a unique concept of using farmer facilitators to promote sustainable farming practices, greater food security and better nutrition for households and the community.

While the Pilar program was not initiated under the LIFE Program, it was facilitated by the forerunner of AMAEP, the Landcare Project, which pioneered many of the LIFE concepts.



BAFTECHs (in orange shirts) from the municipal farmer facilitator program in Pilar, Bohol, gather for their BAFTECH congress in August 2018. The congress, held twice a year, includes technical training, building of social capital, awards for innovation, and showcasing of their produce. This congress coincided with a visit to Bohol of an ACIAR delegation (seated front left).



My LIFE story – 19: Jennifer Pidor and Muhaimin Maharail

NGA officers

National government agencies find real benefits in the LIFE Model

The small village of Katipunan (Barangay Magdaup, Municipality of Ipil) on the coast of Zamboanga Sibugay is perhaps an unlikely place for the LIFE Model to be used as a special example of fundamental change. The village is isolated, is perceived as being dangerous, and, as a result, has consistently been left off the map for government support and outside assistance. Yet, at Katipunan, two national government agencies (NGAs) have been working closely with the LIFE team on changing the community forever.

Katipunan was initially one of the AMAEP LIFE sites where the focus was on growing vegetables in containers to improve food security, nutrition and income. In 2018, Katipunan went on to become a site for the PULL Program, with the focus being on improving the seaweed enterprises of the villagers. Both projects have been channelled through the Katipunan Vegetable and Agar-agar Growers Association (KVAGA), originally formed under AMAEP. The PULL Program formed the Mangga Fishing Seaweeds Association (MAFISA) to expand both the network of farmers and the reach of the project.

In this story, we hear about the experiences of two NGA officers working with the PULL team on seaweed livelihood improvement.

Jennifer Pidor is the Provincial Director of the Department of Science and Technology (DOST) Provincial Science and Technology Centre in Zamboanga Sibugay. She has been at the forefront of DOST's support of the PULL team, KVAGA and MAFISA. This support has included a wide range of technical inputs; more than PHP500,000 (A\$13,000) of funding for a floating dryer, a fibre boat and other materials; and involvement in a seven-month season-long farmer training on seaweed growing.

Jennifer concludes that LIFE is a 'proven and effective mechanism for livelihood improvement'. She highlights the importance of the collaborative partnership of people working together rather than in individual silos: 'DOST has been deploying a collaborative governance framework in implementing community-based projects and we want to have government, private sector and community groups communicating and working together to achieve more than any one institution alone.'

In her role as an advocate for gender equality, Jennifer notes the role of LIFE in effectively addressing this issue in Katipunan: 'I have seen firsthand in KVAGA where women were empowered, enabling them to make economic decisions for themselves and for their entire households.'



Implementing the LIFE Model

Muhaimin Maharail from the Bureau of Fisheries and Aquatic Resources (BFAR) is the alternate Regional Seaweeds Coordinator for the region and the Provincial Livelihood Coordinator of Zamboanga Sibugay. He has been the main provider of BFAR's technical resources to the PULL team and the farmers of KVAGA and MAFISA.

Muhaimin also highlights the value and importance of LIFE in providing a framework for effective and coordinated collaboration with the farmers and other providers of support. He recognises that an agency such as BFAR, although mandated to provide support to all fisherfolks and seaweed farmers, 'cannot cater to all'.

'For us, the LIFE Model helps us in organising and strengthening the fisherfolks' organisations and associations because BFAR cannot organise them due to limited community organisers. The LIFE Model came to organise and strengthen them, and raise their needs, issues and concerns.'

This gives the farmers an important voice into the planning process and policymaking, Muhaimin says.

'We are hopeful that this is not the end but just the jump-start!'



The work of DOST and BFAR conducted in Zamboanga Sibugay under the PULL Program has benefited both men and women, who contribute different skills to the business to enhance potential income.

Step 15: Keep institutional partners informed and, where possible, involved in activities

So far, throughout the implementation of the LIFE model, we have continually reiterated the importance of effective communication and collaboration with institutional partners. This step is a reminder to reinforce this process. Do not leave this to chance. We recommend putting a planned communication program in place and rigorously adhering to it. The important thing is to communicate regularly with all stakeholders, even those who may not appear particularly interested or engaged in the process.

This also is a good time re-visit any MOUs or MOAs that the facilitator or the farmer group may have in place or in progress.



A group of Koronadal City farmers learns the art of plastic mulching for improved production of vegetable crops.

We recommend promoting the success stories and impacts as widely as possible using social media and, where possible, videos featuring testimonials by the farmers and the local extension personnel.

Step 16: Regularly monitor, record and reflect on changes necessary to improve outcomes

In Step 6, we talked about the importance of establishing some form of baseline for your target community, which in its simplest form would require gathering some basic data about the community, and in a larger project might require a formal survey. The importance of the baseline is that it enables you to make some later comparison of how effective your project has been.

The process of regularly monitoring and evaluating your work using an action research methodology is important for ensuring that the project is achieving its objectives (increasing economic, social and human capital), and for identifying the important factors in building self-reliance in the farmer groups and institutional partners. If you do this well through regular documentation during your visits and training events, you will find that not only are you more inspired, but the farmers are more inspired to continue applying innovations.

Some recommended tools that you can use for monitoring and evaluating:

- Keep a daily journal. A matrix for surveying each farmer's status is a useful tool, as it allows you to regularly monitor changes in a transparent way.
- Use an audio recorder during farmer interactions.
- Include a farmer reporting session in the group meeting agenda.
- Have a regular documented chat with institutional partners to check on their progress. This is also a good opportunity for you to update them on project progress. In print, project updates are generally highly appreciated by institutional personnel as they can attach them to their submitted reports and achievements.
- Near the end of the project, a phasing out workshop (sometimes called an exit plan or a culmination workshop) is a valuable tool not only for measuring your project's impact but for giving the farmers momentum in their forward planning.

Remember to monitor not only technical progress but progress in social capital indicators as well. Also, do not get hung up on things that may not have worked as well as expected. Nothing is ever a failure; everything can be a positive learning experience. Everyone always appreciates open and transparent discussion of what worked well and what did not.



Facilitators and research staff from the LIFE team inspect coconut production innovations with farmers and LGU staff on a farm in Ampatuan, Maguindanao. Sharing knowledge across institutional boundaries not only collectively improves farmer livelihoods but significantly improves collective social capital.




A final note on the measurement of what we believe are five good indicators of sustainability of the LIFE Program, which we are continually aiming to achieve:

- the deployment of farmer facilitators
- project facilitators moving from a facilitation role to a mentoring role
- farmer groups becoming stronger
- partnerships between farmer groups and institutions becoming stronger
- the institutionalisation of the LIFE Model: farmer groups becoming part of the *barangay* and municipal development councils; LGUs committing resources (funds and staff); LGUs passing ordinances to embed the LIFE model in legislation.

We recommend that you keep one eye on progress against sustainability indicators throughout the entire implementation. It is important that both farmers and local institutional personnel are continually thinking about sustainability and the strategies they believe will provide for it.

An example of implementing the LIFE Model – Barangay Assumption

The site at Barangay Assumption, City of Koronadal, in the province of South Cotabato, was one of AMAEP’s primary sites. The implementation of the LIFE Model commenced in 2014, with a culmination workshop to conclude the main involvement of AMAEP in 2017.

Step	Process
<p>Step 1: Identify or select an appropriate site</p> 	<p>October 2013</p> <p>Barangay Assumption assessed by AMAEP as a pilot site on the following basis:</p> <ul style="list-style-type: none"> • Priority site: one of the Peace and Development Communities assisted by the UN Multi-Donor Program in support of the Philippines Government – MNLF Peace Agreement of 1996; site of national and international peace and development initiatives; impacted by past conflict from CPP-NPA, causing dislocation to livelihoods and extension services; significant potential for improving farmers’ livelihoods • Could be visited safely • Supportive LGU with CAO and CENRO active • Farmers interested in improving their livelihoods • Good potential for scaling out through CAO and CENRO • Reasonable access by motorbike.
<p>Step 2: Appoint an appropriate community facilitator</p> 	<p>November 2013</p> <p>Nikki Cordero and Albert Espina appointed as community facilitators on the basis of meeting the following selection criteria:</p> <ul style="list-style-type: none"> • Either resident within the pilot study site community or possessing some level of trust or acceptance within the pilot study community • A graduate of a four-year course related to agriculture, natural resource management or community (social) development • At least two years of experience in community development work • Some basic computer skills in word processing, PowerPoint® and data management • Can speak Ilonggo (second dialect of the local B’laan people) • Able to competently ride a motorcycle.
<p>Step 3: Train and orientate the facilitator</p> 	<p>January 2014</p> <p>Training and orientation provided by LFPI at their headquarters in Cagayan de Oro. The training included:</p> <ul style="list-style-type: none"> • peace and development issues in Mindanao, including an overview of the Bangsamoro struggle for self-determination and of the ‘Do no harm’ principle • LFPI as an organisation (its mission, history, objectives, programs, structure, staffing) • the story of landcare in the Philippines • AMAEP (its background, origin, objectives, methodologies, staffing) • how LFPI will administer the project (administration structure and protocols, finance systems, reporting systems, equipment management) • what the project will expect from the facilitators • profiling of extension knowledge and skills • completion of a training needs analysis.

Step	Process
<p>Step 4: Identify priority institutional stakeholders</p> 	<p>April 2014</p> <p>Stakeholders (institutions) relevant to Barangay Assumption identified in analysis:</p> <ul style="list-style-type: none"> • <i>Barangay</i> LGU • CAO • CENRO • City Planning and Development Office • Provincial Agriculture Office • Department of Interior and Local Government. <p>Point persons for each institution were then identified.</p>
<p>Step 5: Consult with the relevant LGUs and other institutions</p> 	<p>April 2014</p> <p>Key information revealed from consultation with above institutions:</p> <ul style="list-style-type: none"> • Incidence of conflict between the communities and the New People's Army from the early 1980s to 2002, but Barangay Assumption considered by some to be no longer a conflict area, though still within the so-called MNLF/MILF conflict-affected area • Issues of low productivity; excessive use of farm chemicals; use of slash-and-burn farming; incidence of pests and diseases, especially on corn and banana; landslides within farmlands causing damage to crops; flash floods and strong winds affecting crops • Main source of income was corn production but for some it was the production of barbecue sticks and charcoal, despite charcoal production at the time being banned by the government • Existence of community groups such as women's groups, senior citizen groups, cooperatives and <i>bayanihan</i> groups • A Japanese NGO present in the area, with advocacy on reforestation • Other institutions present in the area: Christ's Commission Fellowship, with a focus on children, and the Department of Agriculture • <i>Barangay</i> LGU very open to assistance from projects • Agriculture a priority program of the LGU.

Step	Process
<p>Step 6: Gain a deeper understanding of the farmers and their livelihood-improvement issues</p> 	<p>April-June 2014</p> <p>Two baseline studies were completed:</p> <ul style="list-style-type: none"> • Survey of a random sample of 75 farmers in one-on-one interviews to assess: technological innovations; how interested they were in change; aspirations for their farming business; cropping systems; current farming practices; average household income sources and amounts; average household expenditure on farming activities; role and level of involvement of women; community social networks; main forms of communication used; and perceptions on the impact of conflict. • Interviews with institution heads and staff to objectively assess available programs; institutional aspirations for the community; future program objectives; and opportunities for support and collaboration. The consultation from Step 5 was part of this analysis.
<p>Step 7: Meet the farmers and identify farmer groups</p> 	<p>July-August 2014</p> <p>Visit conducted in conjunction with LGU staff from CAO and CENRO to provide initial engagement and understanding of the project, and to obtain a better understanding of any formal or informal groups that were present. It was found that there were no active organised or formal groups; one organised group, the Datu Sahol Bulol Barangay Association (DASABA), was inactive at the time. However, there were a number of informal groups, including <i>bayanihan</i> groups, school groups, church groups, 4P groups (groups formed under the <i>Pantawid Pamilyana Pilipino Program</i> for poverty reduction) and a group of women specialising in the production of barbecue sticks.</p>
<p>Step 8: Identify the best farmer groups to work with</p> 	<p>July-August 2014</p> <p>The groups were mapped using the concentric target tool but no significant groups of relevance or influence were identified. Rather than form a new group at the time, it was decided to first try engaging with the informal <i>bayanihan</i> groups and see what emerged from this process.</p>
<p>Step 9: Orientate farmer groups and key institutional partners to the process and seek their input</p> 	<p>July-August 2014</p> <p>Farmer orientation to the project completed. In the consultation with key institutional partners, the following sources of support were offered:</p> <ul style="list-style-type: none"> • CAO – technical training and expertise on agricultural crops, particularly vegetables • CENRO – technical training and expertise on agroforestry and nursery production. CENRO also advised about two LGU initiatives that might be of value to farmers – a special tree-growing initiative under the National Greening Program, and a City of Koronadal tree-growing festival.

Step	Process
<p>Step 10: Identify the farmers' main drivers and needs</p> 	<p>July–August 2014</p> <p>A one-day workshop was conducted with two <i>bayanihan</i> groups on consecutive days. The first workshop involved 52 farmer members of six <i>bayanihan</i> groups. However, the workshop was abandoned when the farmers refused to work through the prescribed workshop process. Their motivation was mainly about obtaining free farm inputs, such as hybrid corn seeds and draught animals, rather than identifying their main drivers and needs.</p> <p>The second workshop on the next day involved 24 farmer members of seven <i>bayanihan</i> groups in and around Sitio Olo-clofe. Four members of institutional partners also attended, one from CAO and three from the BLGU. On this occasion, the facilitators included a contextualisation presentation for the farmers before proceeding to the farmer needs analysis. This time, the workshop was successful with the farmers completing the process. The farmers identified two priority needs:</p> <ul style="list-style-type: none"> • To diversify their farm production system from corn, banana and charcoal production. It was revealed that besides corn, charcoal production was a major source of income, despite it at the time being banned by the government. • To increase their farm income. <p>The farmers then identified two target programs to address both needs over the next two years:</p> <ul style="list-style-type: none"> • Development of small nurseries to produce trees for sale (including to the City LGU for their tree-growing initiative) • Acquisition of farm tools (sprayer, shovel, bolo) for use in <i>bayanihan</i> activities. <p>The first agreed activity was a learning and inspirational cross-visit to learn primarily about agroforestry and nursery production systems.</p> <p>Note: As a result of the needs analysis, development of vegetable production – both for cash sale and own consumption – was quickly identified as an additional means of diversifying production and increasing income.</p> <p>Subsequent to the workshop, expressions of interest in forming a new group were canvassed, which became the Olo-clofe B'laan Landcare Association (OBLA). It started with 33 members with a good mix of males and females. Its focus was on smallholder subsistence farmers who at the time were growing mainly corn and banana, and producing charcoal.</p>

Step	Process
<p>Step 11: Conduct an 'inspirational cross-visit'</p> 	<p>July–August 2014</p> <p>Inspirational five-day cross-visit to study agroforestry and vegetable production in Claveria and Lantapan. Nine farmers and LGU officials were involved. The main purpose was to showcase an innovative agroforestry farm and look at nursery production. The program included visits to three innovative farms and interaction with <i>barangay</i> and municipal officials in both Claveria and Lantapan. The inclusion of Koronadal City BLGU and MLGU staff was instrumental in the BLGU eventually bringing an ordinance into place (see below).</p>
<p>Step 12: Implement activities to develop livelihoods</p> 	<p>Over the next year or so, OBLA members were involved in the following activities:</p> <p>November 2014 – May 2015</p> <p>Season-long farmer field schools on nursery establishment and agroforestry covering: the types of seedlings to raise; how to establish nurseries; seed selection; management practices; and propagation. A process for joint funding support for basic nursery construction materials was implemented. Within six months, 22 nurseries were established growing more than 27,000 seedlings including forest species, cacao, coffee, coconut and fruit trees. CENRO purchased many of the trees for a tree-growing festival in June 2015.</p> <p>July–December 2015</p> <p>Farmer field schools for vegetable production covering: vegetable selection; seed supply; land preparation; mulching; fertilising, including organic fertiliser and vermicomposting; pest and disease control; and harvesting and post-harvest handling. The farmer field schools also had a special focus on market consolidation and marketing, including market exposure visits to Koronadal City and involvement in a City Farmers Festival in the City LGU Administration Centre. A further cross-visit to innovative vegetable farmers in Lake Sebu was undertaken during the period of the farmer field schools. Almost all members of the OBLA group adopted vegetable production which increased annual farmer income by up to 70%.</p> <p>January–June 2016</p> <p>Progressive upgrading of nursery and vegetable production continued along with the introduction of other income-producing activities, such as cacao production.</p>

Step	Process
<p>Step 13: Regularly review and discuss ways to improve social capital, group health, gender equity and farmer leadership</p> 	<p>November 2014 – June 2016</p> <p>During this time, the following activities occurred:</p> <ul style="list-style-type: none"> • Organisational strengthening of OBLA. This included training and workshops to build an official constitution with policies, rules and regulations; long-term and short-term plans; obtaining legal registration at the <i>barangay</i> and municipal levels; registration with the Department of Labor and Employment (DOLE); and the building and management of association funds. In January 2016, OBLA received its certificate of registration for DOLE and was officially registered as an association. • Leadership training in: roles, functions and duties; different leadership styles; how to manage and handle meetings; and how to manage financial resources and financial reporting. • In February 2016, OBLA opened a bank account and in June 2016 started to receive funds from CAO for projects. • Regular monthly meetings of OBLA where the community facilitator was able to monitor social capital, gender equity and group health.
<p>Step 14: Train and deploy farmer facilitators where possible and appropriate</p> 	<p>January–June 2016</p> <ul style="list-style-type: none"> • In 2015, a process of encouraging up to five farmers possessing the likely skill set to be a farmer facilitator was put in place. These farmers continue to lead many of the initiatives of OBLA in a voluntary capacity. • In 2015, City LGU staff were brought to Bohol to study its BAFTECH Farmer Facilitator program (see Step 15 below). • In 2016, the idea of a similar LGU-sponsored farmer facilitator program was again discussed, but to date the City LGU has instead elected to pursue an increase in CAO and CENRO field staff and strengthen the field links that these staff have with farmer groups.
<p>Step 15: Keep institutional partners informed and, where possible, involved in activities</p> 	<p>November 2014 – June 2016</p> <ul style="list-style-type: none"> • Regular meetings between the community facilitators and CAO and CENRO staff in the City LGU office and during field activities with OBLA. • In May 2015, a cross-visit to Bohol was facilitated involving nine CAO and CENRO personnel to study the Pilar municipal program of deployment of farmer facilitators (known as BAFTECHs). • Institutionalisation of the LIFE Model at the <i>barangay</i> level through the adoption in April 2016 of the Barangay Council Conservation Farming and Natural Resource Management ordinance. • Involvement of OBLA farmers in serving as mentors and resource personnel for the expansion of LIFE to the neighbouring <i>barangay</i> of Saravia (Sitio Nga Bango) and in Salman (an expansion site in Maguindanao).

Step	Process
<p>Step 16: Regularly monitor, record and reflect on changes necessary to improve outcomes</p>   <p>The landscape of Assumption has changed dramatically as a result of LIFE. Compare this photo with the photo from Step 1 below.</p> 	<p>November 2014 – June 2016 (culmination workshop in June 2016)</p> <p>Regular monitoring of all activities using diaries, photo-documentation and more extensive evaluation processes implemented by AMAEP researchers. In comparison with the baseline (Step 6), the following changes have been confirmed:</p> <ul style="list-style-type: none"> • Almost 90% of farmers have diversified their farms into coconut, cacao, vegetables, fruit trees, coffee and nurseries. • Farmers' annual income has increased by up to 20% from tree nurseries and up to 70% from vegetable production. • Being well organised as a group, OBLA has been able to access training and resources from the Philippine Coconut Authority, CENRO and CAO, which were not otherwise available to individual farmers or ineffective groups. • Social capital has improved, as evidenced by the increasing strength and unity of the farmer group; for example, they are attending meetings, seminars and training events in Koronadal City of their own accord; and the group is always a first priority of the LGU for training and projects. • The group is regularly cited by the City Government as a good example to other upland communities. In addition, the group has received: poultry and livestock resources for dispersal; incentives; capital for a small local grocery store; and funds for other livelihood initiatives such as bamboo handicraft processing. More than PHP200,000 worth of project support has so far been received. • The group and its community now has improved access to basic needs through their OBLA Association Store, which has resulted in the association being able to bank PHP100,000–200,000. • The production of charcoal has almost ceased, providing a significant boost to the environmental integrity of the community.



My LIFE story – 20: Jenelyn Ngato

Farmer, South Cotabato

The first LIFE group tells a story of transformation

The remote *barangay* of Assumption in Koronadal City, South Cotabato, was the first site of the LIFE Program introduced by AMAEP in 2014. Since then, the *barangay* has undergone a complete transformation. There is no better individual example of the transformation than 42-year-old farmer Jenelyn Ngato, Treasurer of the Olo-clofe B'laan Landcare Association (OBLA), a farmer group formed by the project in the sitio of Olo-clofe.

'We were so poor before that we could only afford to have one meal a day,' says Jenelyn. 'We were planting corn and banana, but we barely had income from harvesting and selling these crops. We were always short of everything.'

The LIFE facilitators worked with OBLA to identify the best strategies for rapidly improving livelihoods. As part of this, they introduced different methods, such as contour farming and organic farming. They encouraged farmers to plant different crops – coconut, banana, cassava, cacao, vegetables – and implement other livelihood activities such as goat and poultry farming.

As a result, the farming landscape of Assumption has been transformed from corn monocropping and erosion-prone slopes to land that is now filled with a diversity of crops and trees, managed with effective soil and water conservation practices. The community is now being developed as a farm tourism destination through the initiative of local people who are mainly from the B'laan indigenous tribe.



Jenelyn takes up the story: 'Our lives started to change when the LIFE project came to our community. We learned about contour farming and proper planting of vegetables, fruits and trees. Gradually our incomes increased now that we have different livelihood sources. One of my children has graduated from college – I was able to send him to school because I am now earning enough. From one meal a day, we are now able to eat three full meals a day. This is what the LIFE project has brought to us and our community – a better life,' says Jenelyn.

Jenelyn also encourages others: 'I would like to advise my fellow farmers that if there are trainings and seminars in our place, they should come and join us. I really guarantee that they will have great knowledge and it could change the status of their income and life.'

Jenelyn Ngato from remote Barangay Assumption in Koronadal City, South Cotabato, the first LIFE pilot site, has completely transformed her farm. Here, she shows her strip farming technique on steep land devoted to vegetables and other high value crops. Fruit and timber trees are being incorporated on the periphery of her vegetable plot.

Chapter 6: The main outcomes and impacts of LIFE

From the regular reviews of the LIFE model over almost eight years at 26 pilot sites, we have received positive feedback from farmers, local extension institutions, and visitors to the sites. Positive feedback has also been received from advisers to the project representing conflict-area institutions and from extension program managers of DOST-PCAARRD, the agency mandated by the Philippines Government to develop innovative extension modalities and strengthen alliances with extension stakeholders. In fact, DOST-PCAARRD have indicated that the LIFE Model was, in their view, the only ongoing agricultural extension modality specifically targeted at conflict-vulnerable areas. In this context, we believe that the model should have wide appeal and relevance for the many institutions that need to work in conflict-vulnerable areas, as well as for those that more generally want to improve the impact of their extension programs.



A sign of the increasing wealth and social capital of some LIFE farmer groups in Koronadal City has been their ability to create village *sari-sari* stores (convenience stores). The stores not only provide a much-needed service to group members and the broader community, but are also an additional source of income for the farmer group.

In general, all but one of the 27 targeted farmer groups across the 26 core, scaling out and scaling up pilot sites have made rapid and significant improvements in their livelihoods. Here is a summary of these improvements.

Economic improvements to livelihoods

Our research shows that technical innovations introduced by the project in response to identified farmer needs had a significant economic benefit. The technical innovations were primarily vegetable growing, cacao-based agroforestry, and nursery production of fruit and timber trees. These innovations provided a higher, more diverse, and more resilient income stream than the previously predominant single income stream from activities such as corn monocropping.

Active participation of farmers in the new livelihood activities ranged from 45% to 100% across all the farmer groups, with most of the groups exceeding 80% participation. From a range of published and unpublished case studies, the extent of the economic benefit from tree nurseries was an increase of about 10% to 20% in farmers' annual income (a return on investment of 69% to 225%). Similarly, the increase in farmers' annual income from vegetable growing ranged from about 20% to 69% (a return on investment of 96% to 420%). Although the figures are based on the farmers' self-assessment of their opportunity costs of labour at zero (owing to limited alternative productive opportunities available to them), the important thing is that the returns come off a very low base and are very high in relative terms.



Vidal Moreno, a farmer from Assumption, Koronadal City, South Cotabato, has incorporated goats and chickens into his diversified cropping farm. Animals provide a further diversification strategy for farmers, as well as providing other benefits such as organic fertiliser.

Social improvements to livelihoods

In Ipil, in Zamboanga Sibugay, which is a community of mixed Muslim, Christian and IP farmers, our baseline research showed that there was very little trust and cooperation between the groups when the project commenced. Now, as a result of the frequent exchanges and interactions between the groups in pursuing livelihood improvements, our research shows a significant increase in the level of trust, which breaks down previous prejudices and increases the level of cooperation and community action. This trust is evident in farmers visiting each other's farms, sharing advice and generally helping each other. Farmers have said that this is the first time that many of them have visited a farm in a neighbouring *sitio* (village), and the first time that they have visited a farmer of a different ethnic or religious background.

The value of this social capital was demonstrated in our study of 185 households across the three original AMAEP pilot sites in Zamboanga Sibugay, Maguindanao and South Cotabato. The study showed a clear correlation between social capital and economic welfare, with those households possessing higher social capital having higher income. The indicators for social capital were 1) membership in local farmers' associations and 2) the duration of those memberships. The indicator for economic welfare was household consumption expenditure as a proxy for farm income. The correlation between social capital and economic welfare supports our principle of agricultural extension with a strong social capital element.



There are many opportunities for developing social capital in LIFE farmer groups, and women play a key role in extending it across the broader community.

Our research has also identified the vital role that women play in building social capital and achieving a more peaceful community. While women are often unrecognised by formal structures, they are recognised informally by their local communities as negotiators, mediators and advisers in conflict resolution. Our research verified that women's communication and negotiation skills provide a less threatening means of engaging with previously untrusted groups, and that women have much greater ability to listen and provide appropriate advice to both men and families. Significantly, from a conflict perspective, women are more encouraging about getting involved in activities that promote cooperation and peace. In the Magdaup Vegetable Growers Association in Ipil, Zamboanga Sibugay – a group that was developed by the LIFE project – women see that collaboration across the religious and cultural divides within their group is essential for the group's long-term success.

Surveys of farmer groups conducted approximately two years after initial engagement also show a clear improvement in family nutrition, school education and other welfare indicators.

In this book, we emphasise the importance of transformative development of farmer groups. It is pleasing to see the research confirm that almost all of the farmer groups are now relatively self-motivated and self-sufficient, and have excellent partnership support from re-invigorated LGUs.



Some farmers in remote areas of Zamboanga Sibugay have moved from growing vegetables in containers to growing them in the field. The move represents a transition from small-scale, backyard gardening, primarily for domestic consumption, to larger-scale, commercial production for sale and income diversification.

My LIFE story – 21: Evangeline Limpong

**Municipal Social Welfare and Development Office,
Zamboanga Sibugay**

LIFE shows potential in a non-agricultural setting

Although the roots of the LIFE Model are in agricultural extension, the question often asked is: Does it apply in situations where farming is not the primary area of livelihood improvement? One answer comes from the experience of Evangeline Limpong, a handicraft worker and Women's Focal Person with the Municipal Social Welfare and Development Office based in the municipality of Ipil, Zamboanga Sibugay. Evangeline is tasked with organising women's groups in 28 *barangays* of Ipil and devising different livelihood programs for them. Of the 34 women's groups she has organised since 2010, there has been one commonality: 'All have significantly lacked livelihood means,' she says.

Evangeline took up the opportunity of testing LIFE in 2016 as part of the LIFE scaling out program. Her target was to cover three *barangays* each year, providing training, primarily in food and cooking. Some of the funding for the program came from the Gender and Development Program of the Philippines Government. Introduction of vegetable gardening to the women was provided by the LIFE Program.

Evangeline highlights the support of the Ipil LGU, headed by Mayor Anamel Olegario, which has given prominence to women leaders and women farmers. She says, 'The support from the LIFE Program is unique and different from what we have implemented before. Through LIFE, we were able to validate the association, validate the area, check land preparation, facilitate seed sowing, check distancing and plot gardens.'

The outcomes are significant: 'Aside from the technological knowledge, they also have food security now which provides income for their families. We encourage not only the women but also the entire families to get involved to have means of a livelihood.' Evangeline also notes that the LIFE Model process was effective and easy to implement.

For the future, Evangeline sees only positives. In 2020, she chose three new *barangays* for the LIFE rollout, only to see these abandoned because of the COVID-19 pandemic. However, she is determined to see them included in the program for 2021. We are sure that everyone will encourage her in this important mission.





Evangeline Limpong (right) coaches a young woman on sewing as part of the focus on livelihood improvement for women under the Municipal Social Welfare and Development Office LIFE Program in Ipil, Zamboanga Sibugay.

Other improvements to livelihoods – human, natural and institutional capital

In terms of human capital, our research through surveys confirms that farmers have improved their individual knowledge, attitudes, skills and aspirations. For example, members of the Kauran Christian Upland Farmers Agriculture Cooperative in Maguindanao describe their experience as a journey from a situation before the project where they were relatively idle on their farms, with limited technical knowledge about their farm enterprises, to the present where they are much more productive with new cropping systems. Importantly, the group members now recognise the link between training and generating additional income.

The main outcomes and impacts of LIFE

In terms of natural capital, our project partner LFPI, as a proponent of sustainable farming systems, has been able to successfully integrate contour farming systems and other conservation practices into the agroforestry and vegetable farming systems being pursued by farmers. More than 60% of participating farmers have adopted these practices as an integral component of their new farming systems. Another interesting case of improving natural capital is in the South Cotabato site where the livelihood activity of producing charcoal from native timber – an environmentally destructive practice banned by the government – has almost completely ceased as a result of improving livelihoods through tree nurseries and vegetable growing.



The changing landscape of a LIFE project site shows an increase in tree cover, diversified cropping systems and more sustainable farming practices.

In terms of political or institutional capital for farmers, LIFE has been successful in facilitating farmer groups to become part of the planning and development process of local government. By becoming properly organised constitutionally and registered with the Department of Labor and Employment, the farmer groups have been able to access local government programs, receive grants, and have input to the *barangay* development council planning process, which ensures an ongoing political commitment to their program activities.

Extension agency involvement and ownership

At almost all sites, there have been noticeable changes in the attitudes and approaches of the municipal LGUs, which have primary responsibility for extension services devolved from the national government. Here are some examples:

- In South Cotabato, the City Environment and Natural Resources Office (CENRO) of the Koronadal City Local Government has re-tooled an existing community tree-growing program as a result of their involvement in the LIFE project. Instead of buying in potted nursery trees from outside sources, CENRO was able to train and contract the local farmers to produce these nursery trees, with many obvious benefits: improved farmer livelihoods, reduced freight costs, better quality trees, and greater local ownership of the tree-growing program.
- In Zamboanga Sibugay, our LIFE project has reversed long-held negative perceptions by the Ipil Municipal Agriculture Office about the safety of visiting and working with farmers in one of the more remote *barangays*. Interestingly, in early 2017 both the Koronadal City and Ipil municipal governments developed MOAs to endorse the LIFE Model in their programs.
- In Maguindanao, our LIFE project brokered a special three-way partnership with the Ampatuan Municipal LGU and the Philippine Coconut Authority (PCA) to make PCA programs available to farmers. Because the PCA programs are available only to viable farmer groups with at least 50 members, the LIFE project's focus on developing farmer groups was instrumental not only in achieving the required farmer group numbers but in strengthening the capacity of the groups to manage an effective ongoing relationship with PCA. The resulting relationship has enabled groups to access a whole range of previously unavailable resources through the PCA network.



As farmers become more advanced technologically, they become more innovative. Here, Salvador Rosal of Assumption, Koronadal City, South Cotabato, is testing simple but innovative natural concoctions for controlling pests in his cacao.

An important learning

Of the 26 pilot sites, there was only one instance where the LIFE Model lacked traction, with a relatively low level of participation by farmers. We are mindful of the need to reflect on this. The group in question was an IP group in Maguindanao and perhaps the result highlights the difficulty of achieving extension success in IP communities that are highly conflict-vulnerable. Our reflection concluded that the lack of participation of farmers was primarily due to either our poor identification of the relevant leaders and power brokers (and engagement with them) or our lack of understanding about the constraints and drivers to livelihood improvement in highly disadvantaged communities. For the former, we believe that better mapping of the social dynamics of the IP community may be necessary before serious engagement. For the latter, we believe we need a better understanding of the disadvantage in the community, with a view to formulating a program that in the first instance addresses people's real needs.

My LIFE story – 22: Ellen Emolaga

Farmer, Maguindanao

How to transform a farm

From monocropping corn and a having a patchy income to a diversified farm of fruits and vegetables with a larger and more secure income, the transformation of Ellen Emolaga's farm in Maguindanao as a result of LIFE is dramatic. Ellen is Secretary of the Kauran Christian Upland Farmers Agriculture Cooperative (KCUFAC) in Kauran in the municipality of Ampatuan.

Before LIFE, Ellen's sole source of income was from corn. 'We let the IPs leasing our land plant, and we will just wait for them to give us the earning from the harvest every quarter,' she says. The income was always uncertain because Ellen had to borrow while waiting for the corn harvest, which regularly failed.

'But when LIFE arrived, they taught us how to use our upland area for different fruit trees – cacao, coffee, marang, soursop – hardwood timber, such as mahogany and Gmelina, and various other crops such as bananas, cassava and pineapple, while maintaining the corn on the lower areas.

'They also taught us how to grow vegetables such as string beans, eggplant and ginger near our house so it is easy to visit and manage. The vegetable area was once weedy but now it is full of vegetables! Often when I went home with the vegetables I harvested, people would ask me if they could buy them and so they never reached the market. Therefore, I realised that I should continue planting vegetables because they could pay for the allowances of my children for school. Before, I envy those who are selling vegetables and fruits in the market, but now we have lots of it and it has become our food as well.'

As a leader of KCUFAC, Ellen is proactive in sharing her newfound knowledge. She has established her farm as a showcase learning site to help other farmers. 'When people pass by my farm, they can get ideas like intercropping and try it on their own farms.'

Ellen concludes: 'LIFE can help those who have vacant or barren land become productive instead of just waiting for the help of the government.'





Maguindanao farmer Ellen Emolaga tends her now thriving vegetable patch, part of her completely transformed farm. Previously growing just corn, Ellen now grows a rich diversity of vegetables, fruit trees, timber trees and other crops.

Likely questions from would-be adopters of the LIFE Model

We hope that this book provides you with enough information to consider trying the LIFE Model in your locality or jurisdiction. We encourage you to give it a go and feel sure you will find it of value. While we have tried to clearly state the advantages of the model, we know that would-be adopters will have some important questions.

How much does it cost?

The LIFE Model should cost no more than any conventional extension program you already have in operation. This is because the fundamental units of an extension program – an extension officer and farmer clients – are no different in the LIFE Model than they are in any other extension approach. Sure, there may be increased field operational costs, such as funding the inspirational cross-visit. But we believe that the impacts of the cross-visit are so profound that they warrant the extra cost. And, as we have shown, the extra funding for activities is often easily found with a little bit of searching.

Confirming the cost-effectiveness of the LIFE Model, a recent cost-benefit analysis of the model at our pilot sites showed a good return on investment of PHP1.6 million of benefits to PHP1.1 million of costs. This represents a benefit:cost ratio of 1.45:1 and an internal rate of return of 34%, which is significantly positive and lends credibility to the idea that agricultural extension in conflict-vulnerable areas can represent an acceptable return on the money invested.

How flexible is the model?

The LIFE Model is inherently flexible to just about any situation. We have emphasised the action research process – the process of regularly and methodically reviewing the strategies to make incremental improvements to effectiveness and practicability – which has been instrumental in bringing the model to where it is today. With the model, nothing has ever been ‘set in stone’. Each implementation step can easily be adapted to your particular situation. A good example of this is the experience of one of our scaling-out institutions, the Municipal Social Welfare and Development Office (MSWDO) in Ipil, Zamboanga Sibugay. MSWDO could see the advantages of the model in pursuing one of their program objectives in Ipil, but their target group was comprised mainly of rural women, and not necessarily in a farming situation. MSWDO adapted the model and made it work very successfully, to the extent that the institution is now expanding it to other *barangays* on the basis of its rapid and significant impact.

How soon can you expect impacts from the LIFE Model?

The time to impact depends on what you are comparing it with. Our experience is that with an experienced facilitator it normally takes up to six months to get through the preparatory steps (Steps 1 to 9). If these preparatory steps are done thoroughly and methodically, things start to happen rapidly from this point on, with the advantage of higher quality outcomes. In extension theory, six months is considered a relatively short time frame for starting the process of significant change. Feedback from observers and implementers is that the process, compared to others, is rapid enough to warrant serious consideration, particularly given that the change is occurring simultaneously across economic, social and human development dimensions and may even have positive environmental outcomes.



Jimmy Lagsil, a farmer from Saravia, Koronadal City, South Cotabato, is testament to the changing face of farming and farmers in LIFE sites. He has the last word on LIFE: ‘In past years you can only see corn. Now you see coconut, banana, soursop, avocado and lanzones.’

Chapter references and further reading

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Glossary

action research – A process or method of systematic enquiry or research applied in the social sciences. It follows a cycle of plan, act, reflect and re-plan, and seeks to achieve transformative change through the simultaneous process of taking action and doing research, linked together by critical reflection.

agroforestry – Land use systems where trees or other woody perennial plants are integrated with crops and/or animals.

Bangsamoro – A local term for the Moro people of Mindanao. It is derived from the Malay word *bansa*, meaning ‘nation’, so is loosely defined as ‘nation of the Moro people’.

barangay – A native Filipino term for the smallest administrative/political division or district. A *barangay* generally has less than 1,000 inhabitants within its boundary and is administered by a set of elected officials headed by a *barangay* captain. There are more than 40,000 *barangays* in the Philippines.

bayanihan – A native Filipino term for the spirit and effort of people working together as a community to achieve a particular objective.

bolo – A large cutting tool of Filipino origin, similar to a machete. It is used largely for clearing vegetation.

conflict – Disruption to peace and order at a community and/or regional level affecting the normal pursuit of livelihoods.

container growing – The process of growing crops (mainly vegetables) in pots or poly-bags (or any other confined container) rather than in the ground.

contour farming – The practice of cultivating and growing crops across the slope, following as closely as possible the contour lines. The resulting rows slow down water run-off, reducing soil erosion.

cross-visit – A facilitated visit by a group of farmers (and accompanying local officials) to a successful or innovative farmer or farmer group, where the visiting farmers can observe innovations with their own eyes and interact closely with other farmers.

extension (agricultural extension) – The process of enabling change in farmers, farmer groups and farming communities.

extension models or modalities – Specific modes or ways of doing or implementing agricultural extension that have been tested and adopted and have specified guidelines and standards for their approach, strategies and methods.

facilitation – The process of helping people to work together effectively to reach an agreement or a solution, without getting directly involved in the process. It involves the facilitator empowering people to act, but not imposing or directing the action.

fisherfolks – People who fish for a living.

institutional mapping – A visual method of identifying and representing perceptions and relationships between individuals and institutions within a community.

kaingin – A local Filipino term for shifting cultivation – the technique of clearing land by slashing, burning the grass/underbrush/trees, and ploughing the ashes into the soil for fertiliser.

local government unit – Local government units (LGUs) in the Philippines are political subdivisions enjoying a certain autonomy and are partitioned into three levels: provincial, city/municipal and *barangay*. They are referred to collectively as LGUs.

Lumad(s) – A Filipino term used for indigenous people in Mindanao.

monocropping – The practice of growing a single crop year after year on the same land, with minimal or no rotation.

Moro – A term coined by the Spanish for Mindanao Muslims. It was derived from the term 'Moor', which was the term the Spanish used for Muslim Arabs in southern Spain and northern Africa.

pagkakaingin – A local Filipino term for clearing the land of trees. It is related to *kaingin*, which is a broader slashing, removal and burning of all vegetation.

re-echo – A term commonly used in the Philippines for repeating or 'echoing again' the outcomes of a training event or cross-visit. It is commonly used to provide the key information to those who were not able to directly participate in the training or cross-visit.

rido – A local Filipino term for clan wars or feuds; recurring hostilities between families and kinship groups.

Sangguniang Bayan – A local Filipino term for the municipal-level council or LGU. This is the local legislative entity responsible for passing ordinances and resolutions for the administration of the municipality as defined by the Local Government Code of 1991.

sari-sari store – A small village convenience store.

scaling out – The process of duplicating an innovation locally to affect more people and/or to cover a larger geographic area.

scaling up – The process of duplicating an innovation on a much larger scale than scaling out – regionally, nationally and, potentially, internationally – and where the objective is to try to affect everyone who may benefit from the innovation.

sitio – A native Filipino term for a local village or group of dwellings. A *barangay* is made up of a number of *sitios* (or '*puroks*', as they are more officially known).

social capital – Social relations between people that allow them to work together effectively to improve their wellbeing. Social capital grows as it is used, unlike other forms of capital, such as physical capital or economic capital.

transformative – Causing a major or significant beneficial change in someone or something.

tri-people – A local term for the three main ethnic groups in Mindanao – Moros (Muslim), Christian settlers and Indigenous Peoples.

Venn diagram – A widely-used diagram style visually showing the logical relation between individuals, groups and other sets of data, popularised by John Venn in the 1880s.

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Further information on LIFE

Website – ACIAR Mindanao Agricultural Extension Project (AMAEP)
<https://sites.google.com/site/improvedextensionproject/home>

The AMAEP website contains a wealth of information on the LIFE Model and the research that underpins it, including the following reference materials:

Published research papers

- Johnson M, Vock N, Fuentes AS and Carusos E (2018), 'Approaches to understanding social capital in farm communities of Western Mindanao', *Banwa*, 12A: art-003S.
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Unpublished working papers

Agricultural extension in areas currently affected by conflict, with an emphasis on Mindanao, Philippines: literature review

Economic cost of conflict in the agriculture sector of selected regions in Mindanao, Philippines

Social capital: literature review and layman's guide

Engagement with relevant institutions and potential partners: Progress Report – June 2014

Selection of project sites

Results of farmer survey Barangay Magdaup, Ipil, Zamboanga Sibugay

Results of farmer survey Barangay Kauran, Ampatuan, Maguindanao

Results of farmer survey Barangay Assumption, Koronadal, South Cotabato

Site descriptions and results of surveys of extension institutions and others with an interest in agricultural extension in the initial three target communities

Development of a prototype extension model

Social capital in the AMAEP pilot site farming communities of Western Mindanao

Selection, recruitment, training and integration of community facilitators within project sites

The use of 'trust games' in measuring social capital in a conflict-vulnerable area of Mindanao, Philippines

Understanding social capital in the AMAEP pilot site farm communities of Western Mindanao

Assessment of social capital networks in Ampatuan, Maguindanao

Social capital and economic growth: literature review

Baseline survey of indicators for monitoring project impacts in the conflict-vulnerable areas in Mindanao

Position paper on the role of social capital in the project from the perspective of measuring benefits and costs

Women's roles in peace building

Costs associated with rolling out the AMAEP extension model to new sites

The relationship between social capital and economic welfare at the initial case study sites

Economic assessment of the tree seedling nursery: The case of selected farmers of Assumption, Koronadal City in Mindanao, Philippines

Economic assessment of the vegetable production: The case of selected farmers of Magdaup, Ipil in Zamboanga Sibugay, Mindanao, Philippines

Preliminary benefit cost analysis of LIFE model application to vegetable growing in Zamboanga Sibugay

Preliminary economic returns from tree seedling nursery: The case of farmers of Sanghanan, Kabasalan in Mindanao, Philippines

Documenting the formation and development of the Olo-Clofe B'laan Landcare Association (OBLA)

A case study of participation within two Kauran farmer groups

Economic assessment of the vegetable production livelihood: The case of selected farmers of Barangay Saravia, Koronadal City, South Cotabato, Mindanao, Philippines

Assessment of the livelihood intervention of the project (AMAEP) on farmer group members in Barangay Salman, Ampatuan, Maguindanao, Philippines

Scaling up (and out) the LIFE Model

Exploring cooperation between non-members and members of Magdaup Vegetable Growers Association (MVGA)

Re-forming the Salman Farmers Association (SAFA)

Documenting the institutional processes to support Barangay Assumption's Conservation Farming and Natural Resources Management Program

Impact assessment of the livelihood intervention of the project (AMAEP) on farmer groups in barangays Saravia and Assumption, Koronadal City, South Cotabato, Mindanao, Philippines

Impacts of AMAEP on the cost-effectiveness of extension service delivery by DSWD in Zamboanga Sibugay, Philippines

Videos

AMAEP (2018), 'LIFE – A new agricultural extension approach for conflict-vulnerable areas of Mindanao' (12:17 minutes), AMAEP.

Website – PULL Program (PCAARRD–UPMindanao–LFPI–LIFE)

<https://sites.google.com/view/pull-upmindanao/>

The PULL website contains publications, newsletters and PULL site updates including the following reference materials:

Reports

KVAGA seaweeds value chain analysis: Assessing seaweeds growers in Sitio Katipunan, Barangay Magdaup, Ipil, Zamboanga Sibugay

Unpublished working papers

Baseline survey on the socio-economic situation of partner farmers in Sitio Bisang, Barangay Talisawa, Datu Abdullah Sangki, Maguindanao

Baseline survey on the socio-economic situation of partner farmers in Sitio Lambukon, Barangay Canahay, Surallah, South Cotabato

Value chain analysis and technical efficiency of small-scale seaweed farms in Ipil, Zamboanga Sibugay, Philippines

Visions of LIFE – the LIFE video library

Videos of the 22 'My LIFE stories' in this book are available on a special LIFE video library website www.lifevideos.org. Additional LIFE testimonials and other relevant videos will be added to the site as these become available.

Training for LIFE – the LIFE Training Manual

Fuentes AS, Cordero N and Bayogan E – on behalf of the LIFE Team (2021), 'Training for LIFE (Livelihood improvement through facilitated extension) – A new model of agricultural extension for conflict-vulnerable areas of the Philippines', DOST-PCAARRD.

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Community-level conflict can be a major factor in depressing agricultural productivity and innovation. Nowhere is this more relevant than in Mindanao, the Philippines second largest island and widely regarded as the nation's food bowl.

An eight-year project funded by the Australian Centre for International Agricultural Research (ACIAR) from 2013 to 2021, in partnership with the Department of Science and Technology – Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development (DOST-PCAARRD) for the last three years, has developed a successful new model for addressing this problem. Across 26 pilot sites, the LIFE (Livelihood Improvement through Facilitated Extension) Model has shown that it can rapidly improve farmers' livelihoods in the face and threat of conflict.

Proudly brought to you by the LIFE team from the Philippines and Australia

The ACIAR Mindanao Agricultural Extension Project (AMAEP) team



The PCAARRD-UPMindanao-Landcare-LIFE (PULL) Program team

This book brings together the collective knowledge of the LIFE Team. Over six main chapters, we summarise the conflict situation, the impacts of conflict, considerations for designing effective extension programs for conflict areas, how the new model was developed, how it works, and the outcomes and impacts it has achieved. Woven throughout the chapters are 22 testimonials, or 'LIFE stories', of people's experience with the LIFE Model. Each LIFE story is linked via a QR code to an online video library where each testimonial can be explored in a more visual manner.

The book primarily aims to inspire decision-makers of interested Philippine extension institutions to incorporate the LIFE Model into their extension programs to improve these programs' efficiency and impact. To achieve this, we focus on the information that is important for making strategic decisions about resources, personnel, structures and the nature of farmers' involvement.



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