Agri-Fin Mobile Programme

Internal Review 2014

Final Report

December 31, 2014

Prepared by

Herbert Schmid
Independent Consultant

Executive Summary

Agri-Fin Mobile is an innovative and promising programme, active in the three countries Uganda, Zimbabwe and Indonesia. It started in 2012 and is now well-established, and supported by the governments of the three countries. We recommend continuing supporting the programme with a number of adjustments in order to get to a clear assessment of the sustainability of the model after Phase II. The programme should keep its focus on the sustainability of the Agri-Fin model and furthermore define a clear exit-strategy.

The Agri-Fin Mobile programme is implemented in three countries: Uganda, Zimbabwe and Indonesia. This allows testing the model in different socio-economic contexts through facilitation with the private and the public sectors. It has produced relevant responses in "bundled services" with different components, which address main challenges in agricultural development:

- Farming information (e.g. on technologies, inputs)
- Price information
- Weather information
- Mobile financial services
- Weather-based crop insurance
- Financial literacy courses.

The programme is welcomed by the respective governments. Cooperation has been established in all three countries despite some challenges in Uganda and Zimbabwe.

A number of replications have been undertaken, such as in broadcasts in Uganda, in cooperation with CGAP or FAO in Zimbabwe, or in cooperation with Bank Andara Indonesia. Further institutions have indicated interest.

Testing sustainability should remain the primary objective of the programme. The project is set up as a facilitation and learning project. The final criterion for sustainability will be the acceptance in the market. Acceptance among farmers is in general good but will have to pass the test of higher fees under Phase II.

On the basis of this assessment the review formulates the following summarised recommendations:

- Continue supporting the programme under a Phase II with a continued focus on testing the sustainability of the Agri-Fin Mobile model. A clear exit-strategy should be developed and implemented in Phase II.
- Financial contributions by the target populations and by service providers should be increased so as to reach sustainability.
- Despite being a private-sector focused programme, cooperation with the three respective governments should be further strengthened in order to guarantee coherence of agricultural extension/policy and the necessary institutional support.
- Should additional funding for the Agri-Fin Mobile programme become available it should be channelled into separate, parallel projects so that testing the sustainability is not interfered.

- Good practices such as testing approaches in small pilots, “showcasing” or the dashboard should be further developed. If promising results can be anticipated they should be applied in the other programme countries as well.
- Dissemination activities and presentations in international conferences and fora is recommended to continue. The dissemination activities should be selected according to effectiveness, and the audience that can be reached. Contributions to online discussions, blogs etc. could probably be enhanced.
- Analyse whether additional personnel, e.g. an additional technical advisor, would be beneficial.

Table of Contents

Executive Summary 2
1. Acronyms and Abbreviations 5
2. Acknowledgements 6
3. Introduction 7
4. Findings 8
4.1 Context 8
4.2. Relevance 8
Country-specific findings 9
4.3 Effectiveness 10
Further effects 10
Replication of the model 11
4.4 Efficiency 11
4.5 Impact 12
4.6 Sustainability 12
5. Recommendations 14
Overall recommendations 14
Recommendations country by country 15
Annex 1 : Terms of Reference 17
Annex 2 : Inception Report 21
Annex 3 : Evaluation Matrix 31
Annex 4 : Schedule of the field mission 34
Annex 5 : Reporting on the field missions 37
Uganda 37
Zimbabwe 46
Indonesia 54

1. Acronyms and Abbreviations

AGM	Agri-Fin Mobile Programme
CGAP	Consultative Group to Assist the Poor
GDP	Gross Domestic Product
HDI	Human Development Index
LISA	Layanan Informasi Desa / Village Information Service
MAMID	Ministry of Agriculture, Mechanization and Irrigation Development
MCI	Mercy Corps International
NAADS	National Agricultural Advisory Services
PIA	Production Information Advisor
SDC	Swiss Agency for Cooperation and Development
UNDP	United Nations Development Programme
WB	World Bank
ZFU	Zimbabwe Farmers’ Union

2. Acknowledgements

I would like to thank all those colleagues and partners who have informed this review. Without their rich and frank inputs and discussions the review would not have been possible.

I would like to thank Mercy Corps International, their three country offices in Uganda, Zimbabwe and Indonesia, and in particular Carol Kakooza and Daniel Odinga, Moyra Mahari and Mildred Makore, and Andi Ikhwan and Paul Jeffrey in the respective countries. They prepared very insightful and well-organised programmes. They also supported the review with their time and attention and have shared experiences and expectations that contributed to substantiate this study.

Finally, I would like to thank the colleagues at SDC's Global Programme for Food Security, Pierre-André Cordey, Peter Bieler and Markus Bürli, for a profound exchange and for guidance throughout the review.

3. Introduction

The overall goal and the objectives of the Review were defined in the "Terms of Reference (TOR) for Review of Agri-Fin Mobile Programme" (see Annex 1). They were discussed with SDC Head Office and with the Programme Director, Carol Kakooza during the preparation process.

The methodology for the Internal Review was laid out in the Inception Report (Annex 2). It was discussed with SDC Head Office, and during the inception meetings with the three AGM country offices. The focus was laid on a discussion of the "Evaluation Matrix" (see Annex 3). Where appropriate, the evaluation matrix was adjusted after the inception meetings. This was mainly the case for indicators and sources of information. For this reason the Evaluation Matrix is annexed in its final form as an annex on its own.

The review was launched in September 2014. It consisted of a number of interviews at SDC headquarters and some days of desk review. Field visits took place consecutively in the 3 programme countries. Meetings were held with government representatives, direct project partners, other development agencies, resource persons. Field visits included interviews and discussions with implementers and direct beneficiaries.

Some evaluability challenges should be mentioned: The programme is still in an early phase; consequently there was hardly any counterfactual evidence to compare with. The AGM programme is of a dynamic nature, which implies that each country uses the opportunities in its context. This limits comparability. Time allocated for the review and the preparation was comparatively short. The review concentrated therefore on the field visits. Time was in particular not sufficient for an in-depth analysis of the political and economical context in which the programme is implemented. The scope of the review does not allow yet a proper cost-benefit analysis as suggested in the Terms of Reference.

During the three field visits I had the privilege to closely collaborate with a local expert in each of the three countries:

- Rose Atiang Adokorach (Uganda)
- Odreck Mukorera (Zimbabwe)
- Caroline Mangowal (Indonesia)

They participated in the field visits and in most of the meetings. Their advice and their knowledge of the political, economic and social context were invaluable. I would like to sincerely thank all of them for their contributions and their interest in the AGM programme and in the review. Without their support and our intensive discussions this review would not have been possible. They provided contributions to this report, which was used to write the overall report. The final responsibility for the report lies however with the under-signed.

4. Findings

4.1 Context

As a programme that intends to test the AGM model under different conditions, the programme is realised in 3 countries at different development levels (2013 data). A brief comparison of main development indicators add up to the following picture:

Country	GDP per capita (WB)[1]	"Doing business" ranking (WB)[2]	Human Development Index (UNDP)[3], overall	Human Development Index (UNDP)[3], Education Level
Uganda	$ 572	150	164 (0.484)	164 (0.479)
Zimbabwe	$ 905	171	156 (0.500)	156 (0.492)
Indonesia	$ 3475	114	108 (0.684)	108 (0.603)

In all regards, Indonesia has reached higher standards than Uganda and Zimbabwe. The latter two are at comparable level. While Zimbabwe reaches higher GDP- and HDI-values, Uganda performs better concerning "Easiness of doing business" and made faster progress for economic growth and HDI-values over the past few years.

4.2. Relevance

The Agri-Fin Mobile addresses poverty in an innovative way. Work with poor rural communities has been initiated and can be assessed at different degrees. It is yet too early to say what impact AGM will finally be able to have. Overall, the Agri-Fin Mobile reaches significant relevance, i.e. creates value with regard to its context.

The programme addresses the need of access to agricultural information for farmers with low income in all three countries. It consists of "bundled services" containing various of the following components:

- Agricultural information (on technologies, inputs etc.)
- Price information (of inputs such as seeds or fertilizers, and of prices offered for harvested products on relevant markets)
- Weather information
- Financial transfers through mobile telephones
- Weather-based crop insurance (Zimbabwe only)
- In addition "financial literacy" courses (courses of several hours duration, that teach participants basic financial knowledge about savings, loans etc.) have been provided to farmers' groups, as a support measure. In Indonesia they were provided in order to facilitate women's financial inclusion. 10000 women participated. This was not foreseen in the initial logframe but emerged as an additional necessity during implementation.

Relevance is evident also in the following data about Indonesia: Only 5% of bank financing flows to agriculture, which however produces 14% of GDP and is the main source of livelihood for +/- 40% of the population (and 50% below the poverty line).

---

1 World Bank Data for 2013, Current US-$
2 Ease of Doing Business Index, 2013, in: World Bank, Doing Business Report
3 Human Development Report, UNDP, 2013

The number of mobile phones among farmer families is often astonishingly high. This creates a high potential for the project. Often they are however not sufficiently used because users (older farmers) are not able to handle them. It may be useful to provide some targeted training (something similar to "financial literacy" training)

The programme provides possibilities of secure financial transfers and bill payments to rural farmers, who in general do not have a bank account. Transporting cash is often a dangerous undertaking. This was often expressed in Northern Uganda, a region marked by high security problems in the past few years. Security is less an issue in Zimbabwe or Indonesia. Nevertheless financial transfers via mobile phones are welcomed there, too, as financial transfers, such as via "Western Union", are more expensive.

Poverty orientation: AGM in all three countries addresses the needs of populations with low incomes, often below the national poverty line. It is in general active in the least-developed regions of Uganda and Zimbabwe. In Zimbabwe it cooperates with the Zimbabwe Farmers' Union, the organisation of small-holder farmers[4].

Country-specific findings

Uganda

- The response at the level of Uganda development policy and of its political institutions is not entirely clear. Even though the programme aims development in the private sector it is important that it is recognised by the Government and lessons learnt are taken over. The dissolution of NAADS[5] creates a new challenge, to which the AGM programme has to find a solution.

Zimbabwe

- The response at the level of Zimbabwean development policy and of its political institutions shows different aspects: There is a genuine interest the project. Participation at launches e.g. was strong and at ministerial level. There are however bottlenecks, such as the database for agricultural advice, that need a solution. Even though the programme aims development in the private sector it is crucial that the Government is supported, and that good cooperation continues in particular concerning the content of agricultural advice.
- Markets and market access is an important development challenge now in Zimbabwe, and the programme is addressing a real need on the ground.

Indonesia

- A positive response of the State authorities to the AGM (Min. Agriculture, PISAgro) is evident. Agreements have been signed. As the country is in a decentralisation process the implementation capacity of the State seems to be limited at district and local level. (Information received in various meetings, which could not be verified by the review)
- Interest of other actors, funders is equally evident.

[4] In Zimbabwe there are 3 national farmers' organisations, the remaining two being (a) Commercial Farmers' Union (large-scale farmers, mainly white) and (b) Zimbabwe Commercial Farmers' Union (large-scale farmers, mainly black)

[5] National Agricultural Advisory Services

- Very a promising cooperation has been set up with the University Gaja Mada (Jogjakarta), prominent state-owned university – with potential for national impact. Would cooperation with universities not be a potential in other two countries?
- Peer-to-peer advice is an interesting model (might be replicated in other 2 countries)

4.3 Effectiveness

A differentiation is indicated concerning the level of effectiveness: The programme has been effective in setting up numerous partnerships at an intermediary level. Effectiveness at the final level (target population) has been reached only in specific cases. This is in accordance with the programme's logframe. Overall, after somewhat more than 2 years, the benchmarks values as set in the project's logframe have not yet all been reached.

The programme has engaged in a number of partnerships, the most important ones being:

- Uganda: Ensibuuko, Beyonet, FIT-Uganda.
- Zimbabwe: EcoNet, ZFU,
- Indonesia: 8villages, Bank Andara, University of Gaja Mada

These partnerships have led to a variety of products that are used by the target population:

- An insurance scheme has been set up in Zimbabwe and is used by farmers for insuring their crop against unfavourable weather conditions (criterion: 21 consecutive days without effective rainfall)
- Financial transfers and bill payments are possible in Uganda, Zimbabwe and Indonesia
- The Midline Survey Zimbabwe[6] states "an improvement of yields, incomes and margins, although attributable change remains marginal...". Group interviews with farmers confirmed this statement. It is however too early to draw a clear conclusion out of it.

Further effects

In Uganda, radio stations have entered into partnerships with AGM. They disseminate content and get feedbacks from farmers through call-in programmes. This is an effective means to allow participation and feedbacks from farmers.

Information services of the AGM project are welcomed in all three countries. A common thread in comments received from farmers and extension workers is that the information should become more area-specific. With its further development, the programme should certainly evolve in this direction. This, however, will lead to more expenditure. It is however worth analyzing the situation and finding the right mix between precise, area-specific information and cost-effectiveness.

[6] AEMA Development Consultants: Mercy Corps Agri-Mobile Program Midline Survey: Mashonaland East Province, Zimbabwe. October 2014

Uganda: The programme is actively using existing initiatives and developing them further. An example: FARMIS was already on the market as a platform but AGM helped further developing them into a "bundled service".

There is only limited information to answer the question whether bundled services deliver better results than unbundled ones. One statement received in Indonesia seems conclusive for the additional benefits the programme implies: "The Indonesian government has numerous credit programmes. However, farmers are then often left alone due to lack of adequate knowledge and agricultural information."

Replication of the model

Examples where replication of the model has taken place:

- In Uganda, it is not properly replicated but is taken up by radio stations for their emissions.
- In Zimbabwe, the AGM model was chosen by CGAP as one of four approaches (out of 65 proposals) for a new project that intends to address the effects of the present financial crisis in Zimbabwe and in particular "savings" as a further area of exploration. The approach AGM was explicitly mentioned as one of the reasons why it was selected.
- In Zimbabwe again, the AGM approach is replicated in FAO projects in Manicaland Province.
- In Indonesia, the project is replicated in Dompu, where a partnership of Syngenta and Bank Andara will implement it.
- Further institutions interested and in discussion about replication: Citibank, NetHope, DFAD (AUS development agency, VISA, Mastercard.

4.4 Efficiency

The programme is still in an intermediary phase. As we do have only limited quantifiable results it is not yet possible to make definite statements about its efficiency. Some indications are however possible:

- The models that are developed can be replicated (see 4.2). There is thus a high potential of efficient use of the available resources.
- Project personnel staffing are low as far as can be assessed after our short visits. The question can be raised whether more personnel could not be justified (see recommendation below)
- The Agri-Fin Mobile offices (each time located in a Mercy Corps office) were visited in all three countries. The economical use of resources (minimal office space, limited personnel, synergies with remaining MCI programmes) can be stated.
- A cost-benefit-analysis cannot yet be made. A specific study may be planned for Phase II. Factors that would influence a CBA are: (a) the number of subscribers, (b) What percentage of total costs are farmers willing to pay? (c) What percentage private businesses? (d) What production increase is generated by the project? (e) By how much can better prices be obtained?

4.5 Impact

Time is not yet mature for a definitive statement about the programme's impact. The programme received a positive response from some important market players, such as EcoNet or PISAgro or FITUganda. If it is able to further build on these linkages the chances are good that it reaches impact.

Government response is basically positive but different in the three countries. In Uganda, agreements have been signed but government is not really present at the moment (dissolution of NAADS). It is important that reliable networking is continued by the programme so that government support continues. In Zimbabwe strong support is evident, however hampered by the fact that the MAMID[7] does not dispose of sufficient resources. In Indonesia there is a highly positive attitude at the MINAGRI, which is also evident in the close cooperation and support to PISAgro. There is a possibility that the Agri-Fin Mobile approach will be taken over by the new government (see discussion with the Dean of Agriculture at University of Gaja Mada). This would allow an extraordinary impact of the AGM programme.

4.6 Sustainability

The final criterion for the sustainability of the programme will be its acceptance in the market. The programme management has been guided by this fundamental question, and it should continue with this approach.

At the moment it can be assumed that the insurance model in Zimbabwe is sustainable in the market. Farmers who subscribed were pleased with the model and said they would take the insurance again this year. However, it has to be taken into account that most of them received a payment last year. Continued acceptance in the market will furthermore depend on information work by the insurance providers about the system, i.e. on what factors payments depend.

Will farmers continue using the programme's services if they have to pay for the services (weather, prices, agricultural information)? Price and agricultural information were highly appreciated and there is good potential that farmers will pay for them. In our opinion, this is less evident concerning the weather information, which can also be obtained from other sources.

In ecological terms the programme is sustainable. It leads to a significant decrease in transportation. Probably more sustainable agricultural practices (e.g. less application of fertilizer due to improved knowledge and advice from the programme and extension workers) will be applied.

Is Mercy Corps (MCI) a sustainable partner?
MCI is an interesting organisation, which has long, world-wide experience and puts a focus on cooperation with the private sector. For the three offices, the AGM programme is an important one, often referred to as a "flagship programme". The programme is attractive for additional funders as various replications show.

[7] Ministry of Agriculture, Mechanization and Irrigation Development

The initial set-up, Mercy Corps' division "social innovation" being responsible, led to delays in the programme execution and at times double-reporting to SDC. The fact that the responsibility for the programme was transferred to the line offices in 2012 makes it easier to handle now. This should imply stability.

Nevertheless, the management of a programme implemented in three different countries is a great challenge. As the three country programmes follow different approaches we are in favour of a continued decentralised approach, that gives high responsibility to the respective country offices.

5. Recommendations

Overall recommendations

AGM is a product/approach, which finds interest among end-users, business and service providers and in the international community. It has produced first results and has the potential to produce further results. To test full sustainability needs more time.

We recommend continuing supporting the programme over the next years, a Phase II, with the following adjustments:

1. In all three countries further financial contributions from the final beneficiaries need to be requested, in order to test AGM's acceptance and sustainability. For most services users do not yet have to pay. AGM should say during the preparation of Phase II how they want to tackle questions such as: Is payment of the entire costs realistic? Should the introduction of payment be phased? How far should the approaches be country-specific?

2. In all three countries, strong involvement by the respective government at all levels has to be assured. Even though the programme at first instance addresses the private sector, it cannot be successful without strong government support. Government entities have to coordinate in particular the content of the agricultural advice. It is also indispensable that governments provide the necessary regulations (as is the case in these weeks in Indonesia with the new guidelines for the "Financial sector"). It should be kept in mind that close cooperation with the governmental activities at all levels such as rural extension services is absolutely essential for the success of the AGM programme.

3. Formulate a clear exit-strategy under Phase II. The exit-strategy should define by when and how the activities of the programme will be closed, i.e. be taken over by private-sector actors.

4. If contributions from other funders become available they should be allocated to separate, parallel Agri-Fin Mobile programmes. Otherwise the sustainability of the SDC-funded programme, and the model as such, will be become difficult to assess.

5. Use of mobile telephones: It may be useful to provide some targeted training (something similar to "financial literacy" training)

6. The Indonesia programme is implemented with a number of short, well-designed trials to test a new approach. This might be a good practice to apply in the other 2 countries.

7. "Showcasing a model farmer on the platform" in Uganda and Indonesia. Would this be replicable in Zimbabwe?

8. Dissemination, presentation in international conferences: This is a positive development of the programme and should be continued. The dissemination activities should be selected according to effectiveness, and the audience that can be reached. Equally so, the three programmes often place contributions on specialised blogs.

9. The dashboard has been established over the past few months as a good operational instrument. However, the figures should become more comparable and cover a longer time period. A comparison with the average of the past 3 or 6 months would be more meaningful than the present comparison with the precedent month.

10. Analyse whether more personnel, e.g. an additional technical advisor per office, would be beneficial.

11. All three countries show that farmers wish to become more commercial, and they need area-specific information: This implies that the project needs to create profiles of farmers so that targeting of information is made possible.

12. Where possible: Broadcast information services in vernacular. This applies in particular to Uganda and Zimbabwe.

Recommendations country by country

Uganda

1. A solution needs to be found concerning the governmental partner(s) after the dissolution of NAADS.
2. Diversify partners
3. Cooperate with rural Credit and Savings Cooperatives Union as initiated.

Zimbabwe

1. Discussions should be held with the Embassy of Switzerland about whether AGM could also be used in Switzerland's bilateral cooperation programme (this was addressed as a possibility in the discussions with the Ambassador and his team).
2. Search for cooperation with further MNOs so that AGM is not perceived as a project linked only to EcoNet.
3. Enhance ZFU's role so that membership in ZFU gets value added and becomes more attractive.
4. Negative PR, such as announcing the extension worker would not be necessary anymore by EcoNet (the contrary proved to be right) needs to be avoided in the future.

Indonesia

1. Continue the good and intensive cooperation with corporate business (Syngenta, Nestlé, Bayer) monitoring well that their information provided remains “neutral”, i.e. does not unduly promote their own products.
2. Propose the opening of PISAgro to small and medium enterprises (SMEs) and their umbrella organisations.
3. Monitor closely the Bank Andara’s financial development (capital increase)

Annex 1 : Terms of Reference

Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Agency for Development
and Cooperation SDC

TERMS OF REFERENCE (TOR) FOR REVIEW OF AGRI-FIN MOBILE PROJECT

Introduction

An independent review of the Agri-Fin Mobile project (Agri-Fin) funded by the Swiss Agency for Development and Cooperation (SDC) will review the current actions and results achieved (Outputs and Outcomes) to date and will identify learning that will inform the final year of Agri-Fin as well as used to inform a second phase that will focus on extending the application of the project, including suggestions for additional countries to be included in a second phase, starting June 2015. The study will identify key internal features of the project and of the different contexts that influence the efficiency and effectiveness of the various models that have evolved in each current country. It will also identify contextual factors that dictate the adoptability of specific approaches in particular areas, since all three countries presently have taken on different approaches

Background of Agri-Fin

Access to mobile phone networks is growing dramatically in rural areas of developing countries, providing a powerful channel of communication and the ability to link excluded rural communities to up-to-date information. The aim of the present project is to “bundle” key services of agricultural advice from private sector, research and extension institutions with financial services providers and telecommunications companies.

The Agri-Fin approach works with partners to build sustainable models, where farm and crop management tools and financial services are "bundled" on affordable, unified platforms on mobile phone channels to promote mass uptake in a commercially sustainable manner. The project targets partners with existing financial, MNO and agricultural technical service mobile platforms or applications, or demonstrated interests in developing and investing in them, and facilitates development of a business model whereby the bundling process provides an increased value proposition for each partner, such as, increased fee income, greater outreach or reduced risks. The overall goal is that smallholder farmers (SHFs) increase and stabilize their incomes and manage their production cycle in a more effective way. This will contribute to improved livelihoods and increased food security at household and systems levels.

Primary outcomes of the project are:

1. Demand-driven bundled financial and rural advisory services via mobile phones and other technology platforms are elaborated and made available;
2. Sustainable, scalable and economically viable business models are established and function;
3. Smallholder Farmers have sustainable access to and make accurate use of financial and rural advisory services;
4. Knowledge of models, services and products are captured and shared for dissemination and replication.

Purpose of this Study

This is an interim project review that will aim to address the following 3 fundamental questions:

- **What have we learned about the hypothesis that bundling information and financial services is an amplifier of impact? Accessing access, uptake and utility ?Consider 3 components : Bundled services , Business Models used, the Value-add for the Small Holder Farmer**
    - What actual "bundles" of technology features did Agri-Fin support to launch? What were the technology features? How were they combined to be a bundle?
    - Has the Agri-Fin program actually supported partners to provide info/financial bundles?
    - What was the effectiveness of each bundle? (uptake and impact)
    - Can we compare the effectiveness of bundles to similar unbundled services?
    - Do we have conclusive data on success or failure of specific bundles?
    - If not, what further work does Agri-Fin need to do to reach a conclusive result?
- **What have we learned about the economic viability of the service offerings to date?**
    - What is the business model for each of the partners? Which ones do we see an economically viable path (clear revenue stream that will be able to cover service costs as scale increases)? If not, how will the service be sustained without subsidy?
    - What is the overall relevance of the AgriFin Mobile program
    - Have the partners benefited from the program , Are partnerships stable or unstable
- **What are the results achieved to date? In terms of performance consider the efficiency and effectiveness of the program in the 3 countries**
    - Value-add to the SHF
    - Additional value-add resulting from bundling that would not have been present in un-bundled offerings.
    - What is missing considering the past studies (baseline and reports/documentation generated by the program todate)

This review will also provide additional input into planned impact assessments of Agri-Fin in year 3. The findings will inform the design of a possible Phase II and provide evidence that Mercy Corps and SDC may use to promote the model to other donors. The review should assess how responsive the implementation of Agri-Fin has been to the circumstances of SHFs; in other words what impact has resulted at the SHF level. It should also be able to identify key internal and external contextual factors which influence the appropriateness, efficiency and impact of the Agri-Fin approach across all three countries.

Scope of the Assessment

This review will look at project activities in Uganda, Zimbabwe and Indonesia and will:

- Analyze performance of intended objectives and goals outlined in year 1 and year 2, including some cost-benefit considerations.
- Establish evaluation points for identifying key audiences and areas where the implementation of Agri-Fin could result in impact
- Evaluate the relevancy of 'Bundling' services
- Evaluate the business models of the various partners technology platforms

- Evaluate the overall impact of the partnerships
- Assimilate the activities done in comparison with the log frame
- Define and agree on a set of criteria for assessing the relevance, quality and utility of Agri-Fin-supported approaches/models to both SHF and the private sector (financial services, MNOs etc.)
- Recommend how Agri-Fin project data and analysis could be improved in a new phase, including improvements to what data Agri-Fin mobile project collects; how Agri-Fin could generate more relevant and useful outputs; how Agri-Fin project information can be more effectively disseminated to key stakeholders; and what relevant internal and external partners could work with Agri-Fin (scaling-up and scaling-out)
- Evaluate and analyze the appropriateness of program setup and access if Mercy corps is going about the brokering the right way or should change or is there another agency well fitted to handle and manage the program
- Make some end of project considerations in view that this first phase of three years will be complemented with a second and last phase of an additional 3 years (end of project foreseen for mid 2018)

Key Evaluation Questions

- Summary of each AgriFin initiative supported in the three target countries
- SWOT analysis of each initiative.
- Any key lessons learned from implementation for each initiative.

Approach/ methodology

The review will employ a variety of methods and tools (literature review, group and/or individual interviews, workshops, participatory methods) and will involve the spectrum of concerned stakeholders (male and female SHFs, MNOs, financial institution, cooperatives, strategic partners).

An initial step will be to engage the Agri-Fin project team in a workshop setting, and ask the question: what does a well-functioning project look like? Using Agri-Fin's Theory of Change (ToC) as a starting point, and focusing on the parts of the TOC where Agri-Fin has more influence, a more pragmatic articulation will be developed that can be used as a reference in subsequent fieldwork with key stakeholders.

An evaluation plan, detailing information sources and data collection methods to be used in conjunction with each evaluation question will be developed as an output of an inception meeting with Agri-Fin project staff. Criteria will be developed in consultation with the Project Director and Country Directors, for selecting a sample of data sets in the three countries for development of case studies documenting the interventions and impact of the project to date.

Deliverables

During the inception meeting a task matrix will be compiled to illustrate specific responsibilities for each step of the Evaluation work.

- A final completed inception report and evaluation plan
- Desk study report
- Field visit reports

- Raw data from Qualitative and quantitative study plus a compiled report from the same
- A briefing to the team with draft report and power point presentation
- A final report that will include recommendations on for future interventions and options for Agri-Fin

In terms of Facilitation/Budget

1. All back ground documents referred in herewith will be provided to the consultant/s
2. Consultant /s shall budget for the time and travel and any other cost to be agreed on first before spending
3. All reports and consultation should go through the Program Director

Time line

The program review will carried out in 20 days covering all the parameters mentioned above, the consultant/s should send a time schedule showing how the time will be split to accommodate all the above questions evaluated and accessed

Annex 2 : Inception Report

Agri-Fin Mobile Project

Internal Review 2014

Inception Report

October 30, 2014

Prepared by

Herbert Schmid

1. Introduction

This Inception Report (IR) reflects the Evaluator's understanding of the mandate and the Terms of Reference (Annex 2) for the Evaluation. The Report further presents an evaluation matrix, which contains the main elements of the methodology. These elements will put to discussion in the inception workshop. The inception report will thereafter be put in its final version.

2. Context

In rural areas of developing countries access to mobile phone networks is expanding rapidly. This provides an extraordinary opportunity to link excluded rural communities to up-to-date information and to improve their access to markets. The aim of the Agri-Fin Mobile Project is to "bundle" key services agricultural advice from private sector, research and extension institutions with financial services providers and telecommunications companies.

The Agri-Fin approach works with partners to build sustainable models, where farm and crop management tools and financial services are "bundled" on affordable, unified platforms on mobile phone channels to promote mass uptake in a commercially sustainable manner. The project targets partners with existing financial, MNO and agricultural technical service mobile platforms or applications, or demonstrated interests in developing and investing in them, and facilitates development of a business model whereby the bundling process provides ian increased value proposition for each partner, such as, increased fee income, greater outreach or reduced risks. The overall goal is that smallholder farmers (SHFs) increase and stabilize their incomes and manage their production cycle in a more effective way. This will contribute to improved livelihoods and increased food security at household and systems levels.

The primary outcomes or the project are:

1. Demand-driven bundled financial and rural advisory services via mobile phones and other technology platforms are elaborated and made available;
2. Sustainable, scalable and economically viable business models are established and function;
3. Small Farmers have sustainable access to and make accurate use of financial and rural advisory services;
4. Knowledge of models, services and products are captured and shared for dissemination and replication.

3. Objective of the Review

The review will analyse what has been learned in the project about the hypothesis that bundling information and financial services will amplify the impact of agricultural advice, and about the economic viability of such service offerings. It will review what results have been achieved to date.

It will also provide additional input into planned impact assessments of Agri-Fin in year 3. The findings will inform the design of a possible Phase II and provide information that Mercy Corps and SDC may use to promote the model to other donors. It should assess how responsive the implementation of Agri-Fin has been to the circumstances of SHFs as far as this is possible now already. It should also be able to identify key internal and external contextual factors which influence the appropriateness, efficiency and impact of the Agri-Fin approach across all three countries.

4. Methodology

The evaluation will be guided by the Terms of Reference (Annex 1) and follow SDC's Evaluation Policy, including the underlying evaluation principles established by OECD, with a focus on outcomes and impact, where possible, with identification of plausible patterns and trends, while recognising the challenges of capturing results in complex systems with many actors.

An evaluation matrix will be applied in order to ensure consistency during data collection in the review process (see Annex 2). It outlines evaluation questions according to the evaluation criteria identified in SDC's Evaluation Policy:

- Relevance
- Effectiveness
- Efficiency
- Impact
- Sustainability

The review will in particular use the following the tools, desk study and Interviews for data collection. Projects in the three countries Uganda, Zimbabwe and Indonesia will be visited.

30.10.2014

Herbert Schmid

Annexes

1. Evaluation Matrix
2. Terms of Reference
3. Tentative Mission Programme

Agri-Fin Mobile Project, Internal Review 2014

Evaluation Matrix

Evaluation Criteria	**Key Evaluation Questions**	**Indicators**	**Sources**
Relevance	What is the overall relevance of the Agri-Fin-Mobile Project (AGM)?	Participation by other actors, and government agencies	Interviews
	Does it respond to urgent needs in its immediate context?	Availability of agricultural advice	Interviews
	Does the project have an impact on poverty reduction? Is this measurable yet?	Poverty indicators	Statistical data Interviews Annual Plans
Effectiveness	Is "bundling" information and financial services an amplifier of impact?	Initiatives that achieve results for SHF	Documentation Interviews
	Has the AGM[8] actually supported partners to provide info/financial bundles?	Support received by partners	Agreements Interviews
	What was the effectiveness of each bundle (uptake and impact)?	Results per bundle, in terms of utility and access. Criteria: → Accessible → Relevant → Understandable → Reliable → Affordable	Documentation Interviews
	Can we compare the effectiveness of	Relative results	Interviews

[8] Agri-Fin Mobile Project

	bundles to similar unbundled services?		Statistical data of both approaches
	Does it "multiply" agricultural advisory services?	Services available in "bundled" packages	Documentation Interviews
	Do MNO engage in "bundling projects"?	Existing agreements Partnerships	Documentation
	Do target communities (farmers, farmer associations etc.) actively participate in the project?	Participation in consultations, recommendations to farmers	Documentation
Efficiency	Performance of intended objectives and goals outlined in year 1 and 2, including some cost-benefit considerations	Logframe Reported results Estimates of cost-benefit relations	Documentation
	Improvement of project data and analysis Possible cooperation with relevant internal and external partners	Data collected by AGM Distribution channels to key stakeholders	Documentation Interviews
Impact	Overall impact of the partnerships	Results achieved in particular in agricultural output Replication by other actors	Interviews Statistical data
Sustainability	What is the business model for each of the partners? Which one do we see an economically viable path (clear revenue stream that will be able to cover service costs as scale increases)? If not, how will the service be sustained without subsidy? Are there subsidies that could be justified economically?	Business models Effective or realistic expected revenue stream	Documentation Calculations
	Which political environment does impact	Interested stakeholders	Interviews

	on the project and its sustainability?		Stakeholder analysis
	Have partners benefited from the programme? Are partnerships stable or unstable?	Stability of partnerships Duration of partnerships Results achieved by partner	Documentation Interviews
	Appropriateness of programme set-up and access. Is Mercy Corps brokering the right way or should it change? Is there another agency well-fitted to handle and manage the programme?	Set-up of Mercy Corps, institutional stability, support available for AGM Other actors available and their track record	Documentation Interviews
Further questions	Do we have conclusive data on success or failure of specific bundles?	Quality of data	Documentation Interviews
	If not, what further work does AGM need to do to reach conclusive results?	Ideas for action	Interviews

HS, 28.10.2014

Annex 2

TERMS OF REFERENCE (TOR) FOR REVIEW OF AGRI-FIN MOBILE PROJECT

Introduction

An independent review of the Agri-Fin Mobile project (Agri-Fin) funded by the Swiss Agency for Development and Cooperation (SDC) will review the current actions and results achieved (Outputs and Outcomes) to date and will identify learning that will inform the final year of Agri-Fin as well as used to inform a second phase that will focus on extending the application of the project, including suggestions for additional countries to be included in a second phase, starting June 2015. The study will identify key internal features of the project and of the different contexts that influence the efficiency and effectiveness of the various models that have evolved in each current country. It will also identify contextual factors that dictate the adoptability of specific approaches in particular areas, since all three countries presently have taken on different approaches

Background of Agri-Fin

Access to mobile phone networks is growing dramatically in rural areas of developing countries, providing a powerful channel of communication and the ability to link excluded rural communities to up-to-date information. The aim of the present project is to "bundle" key services of agricultural advice from private sector, research and extension institutions with financial services providers and telecommunications companies.

The Agri-Fin approach works with partners to build sustainable models, where farm and crop management tools and financial services are "bundled" on affordable, unified platforms on mobile phone channels to promote mass uptake in a commercially sustainable manner. The project targets partners with existing financial, MNO and agricultural technical service mobile platforms or applications, or demonstrated interests in developing and investing in them, and facilitates development of a business model whereby the bundling process provides an increased value proposition for each partner, such as, increased fee income, greater outreach or reduced risks. The overall goal is that smallholder farmers (SHFs) increase and stabilize their incomes and manage their production cycle in a more effective way. This will contribute to improved livelihoods and increased food security at household and systems levels.

Primary outcomes of the project are:

5. Demand-driven bundled financial and rural advisory services via mobile phones and other technology platforms are elaborated and made available;
6. Sustainable, scalable and economically viable business models are established and function;
7. Smallholder Farmers have sustainable access to and make accurate use of financial and rural advisory services;
8. Knowledge of models, services and products are captured and shared for dissemination and replication.

Purpose of this Study

This is an interim project review that will aim to address the following 3 fundamental questions:

- **What have we learned about the hypothesis that bundling information and financial services is an amplifier of impact? Accessing access, uptake and utility ?Consider 3 components : Bundled services , Business Models used, the Value-add for the Small Holder Farmer**
  - What actual "bundles" of technology features did Agri-Fin support to launch? What were the technology features? How were they combined to be a bundle?
  - Has the Agri-Fin program actually supported partners to provide info/financial bundles?
  - What was the effectiveness of each bundle? (uptake and impact)
  - Can we compare the effectiveness of bundles to similar unbundled services?
  - Do we have conclusive data on success or failure of specific bundles?
  - If not, what further work does Agri-Fin need to do to reach a conclusive result?
- **What have we learned about the economic viability of the service offerings to date?**
  - What is the business model for each of the partners? Which ones do we see an economically viable path (clear revenue stream that will be able to cover service costs as scale increases)? If not, how will the service be sustained without subsidy?
  - What is the overall relevance of the AgriFin Mobile program
  - Have the partners benefited from the program , Are partnerships stable or unstable
- **What are the results achieved to date? In terms of performance consider the efficiency and effectiveness of the program in the 3 countries**
  - Value-add to the SHF
  - Additional value-add resulting from bundling that would not have been present in un-bundled offerings.
  - What is missing considering the past studies (baseline and reports/documentation generated by the program todate)

This review will also provide additional input into planned impact assessments of Agri-Fin in year 3. The findings will inform the design of a possible Phase II and provide evidence that Mercy Corps and SDC may use to promote the model to other donors. The review should assess how responsive the implementation of Agri-Fin has been to the circumstances of SHFs; in other words what impact has resulted at the SHF level. It should also be able to identify key internal and external contextual factors which influence the appropriateness, efficiency and impact of the Agri-Fin approach across all three countries.

Scope of the Assessment

This review will look at project activities in Uganda, Zimbabwe and Indonesia and will:

- Analyze performance of intended objectives and goals outlined in year 1 and year 2, including some cost-benefit considerations.
- Establish evaluation points for identifying key audiences and areas where the implementation of Agri-Fin could result in impact
- Evaluate the relevancy of 'Bundling' services
- Evaluate the business models of the various partners technology platforms
- Evaluate the overall impact of the partnerships

- Assimilate the activities done in comparison with the log frame
- Define and agree on a set of criteria for assessing the relevance, quality and utility of Agri-Fin-supported approaches/models to both SHF and the private sector (financial services, MNOs etc.)
- Recommend how Agri-Fin project data and analysis could be improved in a new phase, including improvements to what data Agri-Fin mobile project collects; how Agri-Fin could generate more relevant and useful outputs; how Agri-Fin project information can be more effectively disseminated to key stakeholders; and what relevant internal and external partners could work with Agri-Fin (scaling-up and scaling-out)
- Evaluate and analyze the appropriateness of program setup and access if Mercy corps is going about the brokering the right way or should change or is there another agency well fitted to handle and manage the program
- Make some end of project considerations in view that this first phase of three years will be complemented with a second and last phase of an additional 3 years (end of project foreseen for mid 2018)

Key Evaluation Questions

- Summary of each AgriFin initiative supported in the three target countries
- SWOT analysis of each initiative.
- Any key lessons learned from implementation for each initiative.

Approach/ methodology

The review will employ a variety of methods and tools (literature review, group and/or individual interviews, workshops, participatory methods) and will involve the spectrum of concerned stakeholders (male and female SHFs, MNOs, financial institution, cooperatives, strategic partners).

An initial step will be to engage the Agri-Fin project team in a workshop setting, and ask the question: what does a well-functioning project look like? Using Agri-Fin's Theory of Change (ToC) as a starting point, and focusing on the parts of the TOC where Agri-Fin has more influence, a more pragmatic articulation will be developed that can be used as a reference in subsequent fieldwork with key stakeholders.

An evaluation plan, detailing information sources and data collection methods to be used in conjunction with each evaluation question will be developed as an output of an inception meeting with Agri-Fin project staff. Criteria will be developed in consultation with the Project Director and Country Directors, for selecting a sample of data sets in the three countries for development of case studies documenting the interventions and impact of the project to date.

Deliverables

During the inception meeting a task matrix will be compiled to illustrate specific responsibilities for each step of the Evaluation work.

- A final completed inception report and evaluation plan
- Desk study report
- Field visit reports
- Raw data from Qualitative and quantitative study plus a compiled report from the same

- A briefing to the team with draft report and power point presentation
- A final report that will include recommendations on for future interventions and options for Agri-Fin

In terms of Facilitation/Budget

4. All back ground documents referred in herewith will be provided to the consultant/s
5. Consultant /s shall budget for the time and travel and any other cost to be agreed on first before spending
6. All reports and consultation should go through the Program Director

Time line

The program review will carried out in 20 days covering all the parameters mentioned above, the consultant/s should send a time schedule showing how the time will be split to accommodate all the above questions evaluated and accessed

Annex 3 : Evaluation Matrix

Agri-Fin Mobile Programme, Internal Review 2014

Evaluation Criteria	Key Evaluation Questions	Indicators	Sources
Relevance	What is the overall relevance of the Agri-Fin-Mobile Programme (AGM)?	Participation by other actors, and government agencies	Interviews Dashboard Workshop reports Minutes
	Does it respond to urgent needs in its immediate context?	Availability of agricultural advice Access to financial services	Interviews Dashboard Midline survey Study Econet
	Does the programme have an impact on poverty reduction? Is this measurable yet?	Poverty indicators	Statistical data Interviews Annual Plans
Effectiveness	Is “bundling” information and financial services an amplifier of impact?	Initiatives that achieve results for SHF	Documentation Interviews
	Has the AGM[9] actually supported partners to provide info/financial bundles?	Support received by partners	Agreements Interviews
	What was the effectiveness of each bundle (uptake and impact)?	Results per bundle, in terms of utility and access. Criteria: → Accessible → Relevant → Understandable	Documentation Interviews Midline Survey

[9] Agri-Fin Mobile Project

		→ Reliable → Affordable	
	Can we compare the effectiveness of bundles to similar unbundled services?	Relative results	Interviews Statistical data of both approaches
	Does it “multiply” agricultural advisory services?	Services available in “bundled” packages	Documentation Interviews
	Do MNO engage in “bundling projects”?	Existing agreements Partnerships	Documentation Interviews
	Do target communities (farmers, farmer associations etc.) actively participate in the project?	Participation in consultations, recommendations to farmers	Documentation Interviews
Efficiency	Performance of intended objectives and goals outlined in year 1 and 2, including some cost-benefit considerations	Logframe Reported results Estimates of cost-benefit relations	Documentation
	Improvement of project data and analysis Possible cooperation with relevant internal and external partners	Data collected by AGM Distribution channels to key stakeholders	Documentation Interviews
Impact	Overall impact of the partnerships	Results achieved in particular in agricultural output Replication by other actors or existing partners in different contexts	Interviews Statistical data
Sustainability	What is the business model for each of the partners? Which one do we see an economically viable path (clear revenue stream that will be able to cover service	Business models Effective or realistic expected revenue stream	Documentation Calculations

	costs as scale increases)? If not, how will the service be sustained without subsidy? Are there subsidies that could be justified economically?		
	Which political environment does impact on the project and its sustainability?	Interested stakeholders	Interviews Stakeholder analysis
	Have partners benefited from the programme? Are partnerships stable or unstable?	Stability of partnerships Duration of partnerships Results achieved by partner	Documentation Interviews
	Appropriateness of programme set-up and access. Is Mercy Corps brokering the right way or should it change? Is there another agency well-fitted to handle and manage the programme?	Set-up of Mercy Corps, institutional stability, support available for AFM Other actors available and their track record	Documentation Interviews
Further questions	Do we have conclusive data on success or failure of specific bundles?	Quality of data	Documentation Interviews
	If not, what further work does AGM need to do to reach conclusive results?	Ideas for action	Interviews

HS, 15.11.2014

Annex 4 : Schedule of the field mission

Program review schedule (3rd - 21th November, 2014), Tentative

Date	Time	Meeting
3rd November, 214	9:00am to 11:00am	Inception meeting at Mercy Corp Uganda office
3rd November, 2014	11:30am to 12:30pm	Meeting with FIT Uganda at FIT offices (Ag advisory and financial literacy)
	12:30pm to 1:30pm	Lunch
	2:00pm to 3:00pm	Meeting with Beyonic at Beyonic offices (Ag value chain payments)
	3:15pm to 4:00pm	Meeting with Ensibuuko at Outbox offices (Financial services)
	4:15pm to 5:15pm	Meeting with Bank of Uganda/GIZ at BoU offices (Financial Literacy)
4th November, 2014	8:00am to 5:00pm	Travel to the field (All day travel and will require leaving early)
5th November, 2014	9:00am to 4:00pm	Field visit meeting with farmers (Model or cooperative) under FARMIS, Cooperatives and Radio stations
6th November, 2014	9:00am to 4:00pm	Field visit and meeting with agents under Beyonic and later meeting with SACCO Managers
7th November, 2014	6:00am to 3:30pm	Travel from the field to Kampala(will require to leave early to reach office on time and avoid traffic Jam)
7th November, 2014	4:00pm to 5:00pm	Debrief meeting at the Mercy Corps office with Agri-Fin Mobile Team + Country Director

8th November, 2014	Arrival in Zimbabwe	
10th November, 2014	9:00am to 11:00am	Inception meeting at Mercy Corp Zimbabwe
	11:30am to 12:30pm	Meeting with EcoFarmer at Econet

		Offices
	12:30pm to 1:30pm	Meeting with ZFU at ZFU offices
	2:00pm to 3:00pm	Meeting with the Ministry of Agriculture at Ngugunyana House.
11th November, 2014	8:00am to 5:00pm	Field trip to Mutoko (Distance 148km) for meeting with EcoFarmers including those who received Insurance payouts.
12th November, 2014	9:00am to 4:00pm	Field trip to Seke District to meet with EcoFarmers.
13th November, 2014	8:00am to 5:00pm	Debrief with team and country Director .
16th November, 2014	2:20pm to 3:35pm	Departure to Jogyakarta
17th November, 2014	9:00am to 12:00am	Partnership signing ceremony between the Agriculture Faculty, Gajah Mada University and Mercy Corps Indonesia Farmer Apps Launch Training Farmer apps for Agricultural Extension Workers and Local Experts
	1:00pm to 3:00pm	Meeting with Mercy Corps Indonesia Country Director and Agri-Fin Team
	3:00pm to 5:00pm	Meeting with GM/FO 8villages (CEO 8villages will join through Skype call)
18th November, 2014	8.00am to 9:00am	Travel to Bantul District
	9:00am to 10:15am	Field visit to farmer group is participating in the Rumah Pintar Petani/Farmer Smart House
	10.45am to 12.00am	Field visit to farmer Group received bundled services (BRI Loan/Saving and 8villages platform)
	12.00m to 1.00pm	Travel to Jogyakarta Airport
	2:15pm to 3:35pm	Depart to Jakarta
	4:30pm to 5:30pm	Meeting with Acting CEO of Bank Andara .
19th November, 2014	7:30am to 9:00am	Travel to GIZ Energy Development Office
	9:00am to 10:30am	Meeting with GIZ Energy

		Development Team
	11:30am to 12:30pm	Meeting with PISAgro Executive Director
	2:00pm to 3:00pm	Meeting with Director of Cereal, Directorate General of Food Stuffs, Ministry of Agriculture
20th November, 2014	7:30am to 5:00pm	Group discussions with LISA's user Group discussions with Financial Literacy participants (Female Farmers) Visit Farmer Group Union Cooperative installed Andaralink
21st November, 2014	8:00am to 9:00am	Meeting with Corporate Affairs and Food Security Agenda Project Manager, PT. Syngenta Indonesia
	9:00 to 10:00am	Travel to Bogor District
	10:00 to 11:30am	Group discussion with female farmer and female agricultural extension worker received financial literacy and LISA training
	2:00pm to 4:00pm	Debrief meeting with Mercy Corps Indonesia Country Director and Agri-Fin Team
22nd November, 2014	12:00am to 1:30pm	Lunch meeting with South and East Asia Regional Program Director and Mercy Corps Indonesia Country Director
	2:00pm – 3:00pm	Travel from Grand Kemang Hotel to Soekarno Hatta Airport
	5:45pm	Departure for Switzerland

Annex 5 : Reporting on the field missions

Uganda

Report of the Consultancy to Review AGRI-FIN Mobile Project implemented by Mercy Corps

Background:

The ***Agri-Fin Mobile*** program works with partners to build sustainable models, wherein farm and crop management tools and financial services are "bundled" in affordable platforms on mobile phone channels to promote mass uptake commercially. The program targets partners with existing financial, MNO and agricultural technical service mobile platforms or applications, or demonstrated interest in developing and investing in them, and facilitates development of a business model whereby the bundling process provides an increased value proposition for each partner, such as, increased fee income, greater outreach or reduced risks.

The Agri-Fin Mobile program fully launched its products and partnerships in 2013 firstly with FARMIS platform through FIT Uganda currently reaching over 14,000 small holder farmers receiving agricultural advisory, weather and marketing information through mobile phones. A collaboration with Bank of Uganda in 2014 led to the development of financial literacy messages being rolled out to 10,000 farmers under FARMIS.

A current partnership with Beyonic Ltd through its Fund to phone platform seeks to facilitate Agricultural value chain payments through mobile phones and reducing transaction costs for buyers and farmers through the recruitment and training of agents to Mobile money agents and facilitating payments. A further collaboration is being considered with Ensibuuko, a new start-up to work with rural financial institutions through providing a core banking platform and leveraging on mobile technology for its users.

Summary of Agri-Fin initiatives supported in Uganda

1. **Agriculture and Finance Literacy Information Services**

The FARMIS Platform

Partners	FARMIS Platform in collaboration with FIT Uganda Ltd and Bank of Uganda
Agri-Fin Mobile Project Focus	The Agri-Fin Mobile project launched its products and partnerships with FARMIS Platform through FIT Uganda in 2013. Its partnership is targeted towards increasing the membership drive in the FARMIS platform.
Partner Profile and services	FARMIS is an automated farm record management information system that strives to ease the way to manage agri-business on-line. It is an information platform developed by FIT Uganda under its market Information service, trade named “INFOTRADE” The FARMIS Platform provides services that include: 1. Automated record keeping that enables one to truck all their farm business activities in one place 2. Market information such as current food prices and input prices from all major markets in Uganda 3. Facilitates access to credit by enabling proper storage of information by

	farmers and accessibility to finance institutions as well as linkages to finance institutions (work in progress) 4. Market linkages for farm produce by providing information on commodities from buyers and sellers and posting offers (work in progress) 5. Promotional services to help market produce through partnership with Local radio stations. Participants are able to promote their products and also access other information such as agri-news, farming tips and market prices. 6. Access to relevant farming Tips: Includes agri-business news, farmer success stories and tips on farming 7. Weather information: Real time weather information including rain, sunlight, humidity for a period of 5 days at a radius of 300km/location 8. Physical Farm books given to farmers for record keeping **FIT Uganda** is a private company that aims to promote innovative business services. It focuses on developing information systems that are linked to development, market and transactional data. This system is private and paid for by users. FIT Uganda has been running its market information service for over 6 years and has developed various channels for dissemination of information to actors in agriculture in Uganda. One of the channels it has developed to enable access to information to end users is the use of the Mobile phone (SMS). **Bank of Uganda**, the central bank, is partnering with the Agri-fin project to support the provision of Financial Literacy information on elements of savings and Credit *(Consultants were unable to verify this information as key contacts were not available.)*
Current FARMIS targeted beneficiaries and field partners	**Individual Farmers (Case study: Okot Joseph of Pader district)** The rural farmers have indicated their major needs as market information and Linkage as well as agri-finance information and linkage to credit institutions. They have requested that information provided should meet their demands. FIT through the FARMIS platform is profiling the Rural farmers. The profiled information includes the major enterprises the farmer is engaged in and the type of information he/she requires. The Farmer receives information on a weekly basis on payment of an annual fee of 20,000 Ug Shs. It was noted that many farmers have not paid this fee yet. **Farmer Cooperatives/Associations (Case study: Pajule farmers Marketing Cooperative society)** The cooperatives are legally registered associations of farmers who work together on various aspects of their farming needs such as bulking and storage of produce, collective marketing, collective sourcing of inputs, credit access and accessing agricultural advisory services. They are expected to pay an annual fee of 360,000Ug shs (€ 102) for the FARMIS services. This amount has not yet been paid by the cooperative in the case study. They have indicated difficulties in obtaining sufficient contributions from the users. The cooperative has indicated their critical and urgent need of bulk marketing and credit information and linkages. This information is not yet effectively addressed. FARMIS is endeavoring to address this need. **Radio program: (Case study of POL FM, Kitgum district)** This radio station started partnership with FIT Uganda in August 2013 to disseminate agricultural information and educate farmers. After receiving training

	and guidance through the Agri-fin Mobile project, the radio station now airs an Agri- business program called “Lapur” meaning Farmer. This is done twice a week on Tuesday morning and Saturday evening. The radio does an information survey to obtain the needs of the farmers and then collects and transmits information. The information transmitted includes: Market information (prices, location of markets etc, agricultural advisory information that includes pests and diseases that affect crops and livestock, weather forecasts, agri-business news. They also conduct radio talk shows where guest speakers are invited to share with the audience. Such speakers can be commercially oriented farmers sharing their experience, or technical agriculture staff educating farmers. They also air short messages at different interludes. These are trigger messages to ignite behavioral change. More recently they have introduced a financial literacy information program called “Wak kwoni ku be malac ento nge kit me tich ki cente” meaning “Magnify life, simplify the use of money”. The radio program is self-sustaining and benefits from this partnership by attracting more adverts form agricultural stakeholders such as NGOs. Others expected to advertise include banks and other financial institutions, private companies buying produce and other farmer promoters.
Achievements of the Agri Fin Mobile project	➢ The intervention of Mercy Corps through its Agri-fin Mobile project has quickly raised the membership to FARMIS from 200 in October 2013 to 15,000 farmers to date. Of these, 8500 (56%) are active users (those farmers who have paid up or are on the free trial period). ➢ Supporting inclusion of Agri-finance information into the FARMIS platform, thus increasing the information scope for farmers. FIT did not distribute finance information to farmers. They have now repackaged their information bundle and obtain aggregate feedback from farmers ➢ Supporting more training, awareness creation and partnerships to the FARMIS Platform in the field. Training of Production information advisors (PIA), radio stations. There is evidence from the field showing more awareness at the level of the field partners. ➢ Supporting expansion of FARMIS to other parts of Uganda especially the northern region thus improving outreach ➢ Radio stations have become a reference point for farmer contact and profiling, (about 7000 farmers in Kitgum and Lamor districts have been profiled). This means more listeners for radio, more farmers registering with the FARMIS program and less costs for FIT Uganda ➢ The partner radio stations (POL FM) have introduced agri-business programs that have gained instant interest from farmers and encouraged them to take agriculture as a business. It has also attracted other stakeholders such as NGOs who are promoting agriculture. This has meant increased adverts and thus revenue for the radio station. The radio station considers this an economically advantageous and self-sustaining program. ➢ Farmers have been given a toll-free line to call for validation of their information demands and any other inquiries. This is given in the local languages. POL FM advertises this number and short message codes, thus also advertising the FARMIs platform and FIT Uganda.
Challenges	o There is still low awareness, appreciation and demand by the farmers for the mobile SMS services in the field. This could be due to the still fairly low level of farmer understanding of the practical application and immediate tangible benefit of the information services. o Costs of service delivery by FIT has increased due to expansion that required restructuring and increased staffing, offices

	○ Few farmers have paid for the service. Only 2 farmers from the cooperative in the case study. The cooperative itself has not paid its annual subscription fee. This poses a concern on the demand for the service. The field indication is that the farmers have not yet gained adequate awareness of the need for the service or have not yet felt the practical benefit of the service to warrant urgent payment. ○ So far only 422 farmers are fully paid up (2.8%). FIT is targeting at least 50,000 farmers in the northern region (Nationally at least 2m farmers) for the program to be sustainable. Mercy Corps is targeting to reach 30,000 farmers. The low level of payment may pose a core challenge for viability/sustainability of the business for FIT unless it finds more innovative ways to enhance buy-in and payment for the services. ○ Sustaining flow of information content from the providers is often a challenge indicated by FIT Uganda. ○ Sustaining linkages with other actors such as banks is a challenge as some of them do not want to pay for the support in accessing information ○ Information advisors at the community level want immediate tangible benefits and do not want to wait and gain from their labor by first providing services. Such is the case with the PIAs. This may cause a setback in awareness creation about the information services offered by FARMIS ○ A major challenge mentioned by farmers in the field was that sometimes the information they received was not what they asked for. ○ Key information requirements mentioned by farmers are market and finance information and linkage. These have not yet been effectively addressed as farmers continuously demanded for direct support in this area.
Lessons	→ One cannot use the same approach for all, e.g. mobile phones for profiling farmers. One needs to vary the approach to cater for all farmer categories. → Leveraging on other partnerships already working with Mercy Corps such as BOU, Radio programs and farmer cooperatives can help increase outreach and minimize costs → Massive awareness campaigns are important for buy-in and payment for the services → Some companies such as FIT have had to adjust their structures to accommodate the changes. Thus flexibility is required in implementation → Farmers' participation in the project will fluctuate until it stabilizes. There was an initial hike in numbers, followed by a drop and now this is expected to stabilize. This is a lesson for introduction of new services. It requires patience and can have high initial cost of business → Targeting numbers sometimes limits innovation, this is a direct experience by FIT Uganda → The delivery of information in the local language is commendable and improves understanding → Farmers will neglect to pay for information or any other services until when they see its immediate tangible benefit, in this case in terms of expected higher incomes through better marketing and access to credit. → Radio stations are very effective farmer mobilisers as they have a wide outreach
Sustainability	❖ For the program to be sustainable and economically viable to the service providers there is need to improve farmer awareness, buy-in and payment for the services through further campaigns. ❖ The provision of information demanded by farmers in a timely manner can enable increased demand for the services and future sustainability

	❖ Business partners such as the radio stations are investing their own resources (money, time, staff) due to the boost in growth of business through improved radio listenership and adverts from various agricultural stakeholders. This is a good recipe for sustainability ❖ There is need to link the program to mainstream government extension service providers and cooperatives through ministry of cooperatives and trade to increase massive adoption, delivery and sustainability through partnership with government. FIT can explore this possibility. ❖ FIT is receiving massive requests for partnerships from banks, crop insurance companies, farmer organization. This is a good indicator of buy-in by the stakeholders and a receipt for sustainability ❖ FIT has a platform that can hold 7million farmers and is scalable. Thus potential for growth is high
Recommendation	✓ The program should intensify awareness and education of the people, private companies, business people, finance institutions to market the added value of the product and improve buy-in and sustainability ✓ Face-to-face Sensitization of farmers through their cooperatives should be done and this can then be complemented with the radio program and other channels. This will boost immediate understanding, access and utilization of the FARMIS information. ✓ Sensitization of farmers through the radio program appears to reach more people faster and should be continued more frequently. ✓ Need to look for ways of encouraging farmers to pay for the service. One way could be through their cooperatives and allowing them to pay in installments. ✓ A phased approach in adding on to this information system can generate more usability. The bundled information may be too much for farmers to interpret. They may need support though their PIAs in their cooperative societies. The capacity of the PIAs to interpret information for the farmers needs to be strengthened. Literacy needs to be put into consideration. FARMIS should promote initial Face to Face trainings of farmers through their cooperatives for guidance, better understanding and utilization of the information ✓ FARMIS toll free line for inquiries by beneficiaries should be disseminated widely to users to encourage communication and feedback which will make the services more relevant. ✓ The FARMIS platform services are highly appreciated by farmers and partners such as the radio stations as very necessary and important. However there is need for better awareness creation to improve understanding, utilization and impact. ✓ The program needs to incorporate gender sensitization to address gender inequalities in ownership of phones. This would increase impact since women are major producers. ✓ There is need for more frequent feedback to FIT from the radio on what farmers need. This will improve the content and process of information dissemination
Future perspective	FIT is looking at working with Mercy Corps to design a mobile phone system that can allow farmers to access and pay for financial credit and credit score system. This will help address the expressed need for linkage to financial services by farmers.

2. The Mobile Money Payment Service

<table>
<tr><td>Partners</td><td>BEYONIC MOBILE MONEY PLATFORM</td></tr>
<tr><td>Agri-Fin Mobile Project Focus</td><td>The Agri-Fin Mobile project launched its products and partnerships with BEYONIC about 3 months ago. Its partnership is targeted towards increasing the number of farmers that use mobile payments to transact business, thus reducing risks of money transfer.</td></tr>
<tr><td>Partner Profile and services</td><td>BEYONIC is a private company that plays an intermediary role between Mobile money networks and clients to improve efficiency and effectiveness of mobile money utilization. It links up with the Mobile Network Operators (MNOs) such as MTN Uganda and Airtel to undertake this program. The organization supports bulk money transfers and charges a fee of 640Ug Shs per transfer. It is currently mapping farmers and farmer groups for this purpose

The Mobile Money platform implemented by BEYONIC and supported by Agri-fin Mobile Project provides the following services:
1. Supporting transfer of bulk money to farmers from bulk buyers such as Agri-net.
2. Working with mobile money agents to facilitate access to the money transfers to farmers
3. Supporting some level of training of mobile money agents
4. Trucking transactional data that can in future be used to inform finance institutions of credit-worthiness of farmers.</td></tr>
<tr><td>Current Mobile Money transfer clients and field partners</td><td>Agri-business firm (Case Agri-Net Uganda LTD: Agricultural produce buyer)
Agri-Net is a private company that buys and sells agricultural produce and is also a market information provider. The company disburses bulk sums of money to its different agents in the rural areas to purchase produce from farmers. The process of cash transfer is however very risky. To reduce this risk, the company is now working with BEYONIC. BEYONIC is building the capacity of the Agri-net agents to become mobile money agents in order to facilitate digital money transfer to the farmers. So far 200 agents are being targeted with support of the Agri-fin Mobile project. The agents will then assist in registering farmers into the mobile money network.

Individual Agent (Case study: Charles Obalim)
This agent operates a small shop in the rural community. He is also called an information Board manager by Agri-net. He receives money from Agrinet to purchase and aggregate produce from farmers. He is also an outlet for seeds sold by Agri-Net to the farmers and for market information. He is given a commission for his services.
Such individual agents operating in the rural community are being targeted, trained and assisted by BEYONIC to operate mobile money transfers. This agent is eager to engage in mobile money operations and sees it as an opportunity to expand his business options.</td></tr>
<tr><td>Achievements</td><td>➢ The intervention of Mercy Corps through its Agri-fin Mobile project has led to an increase of mobile money agents targeted and trained in the rural areas to reach more farmers. So far 200 agents are targeted to participate, of these 27 agents are already using the system
➢ More farmers in rural areas are being digitally connected. About 1000 farmers</td></tr>
</table>

	so far. ➢ The service offered leads to a reduction of costs and risks by farmers, since they can be paid directly on their mobile phones and the cost of sending money is bore by the company buying. The risk of carrying large sums of money is also reduced ➢ Farmers are also able to save money on their phones and avoid spending without planning ➢ Transactional costs to the companies buying produce is also reduced since bulk money mobile transfers are cheaper and less risky ➢ The MNOs benefit through access to wider rural communities thus increased coverage and revenue. ➢ BEYONIC obtains increased business and revenue through linkage with targeted farmers in the Agri-fin Mobile project and this will contribute to sustaining its business
Challenges	o There is still a challenge amongst farmers in knowing how to use the technology and understanding its benefits. o There are also challenges with unstable rural mobile network connections that can frustrate the use of the service at times. o Very few women farmers own Mobile phones and yet they are the major producers. Gender inequalities remain a major challenge in the rural communities
Sustainability	❖ There is buy in from the business community: BEYONIC, AGRI-NET, Business agents, other agricultural service providers, who are investing their own finances into the business making it a sustainable venture. ❖ The system leverages on well-established mobile phone networks in the country that provide stability and potential for sustainability without much added costs to the clients
Recommendation	✓ The program should Intensify Mobile literacy education amongst the communities to increase utilization and acceptability. ✓ The project should incorporate gender sensitization so as to reach women, the major producers in the communities ✓ The program can also use the radios and farmer cooperatives to do sensitization
Future perspective	✓ The program's plan to consider utilization of mobile money network to facilitate savings and credit access to farmers is good and should be rolled out after adequate sensitization

3. Access to Agricultural Finance

Partners	**ENSIBUUKO**
Agri-Fin Mobile Project Focus	The Agri-Fin Mobile project is targeting supporting Savings and Credit Cooperatives (SACCOs) to have digitalized Management Information System (MIS). This system is expected to improve accountability, transparency, record keeping, and the power to manage savings by farmers. The project is yet to launch its products and partnerships with ENSIBUUKO, who will provide the mobile solutions. Activities are still under preparation stage. The project has been guiding the partner to develop and test the solution in partnership with field actors such as Kitgum SACCO and

	Allied Uganda SACCO
Partner Profile and services	ENSIBUUKO is an Agri-Tech private company that develops mobile financial solutions. It is managed by a team of dynamic youth who are developing and testing innovative mobile solutions to help address the problem of transparency and accountability in agricultural finance organizations such as SACCOs. The financial solution being offered by ENSIBUUKO is expected to accomplish the following: 1. Enable SACCOS to have digitalized documentation to monitor activities such as loan disbursements and repayments 2. improve accountability 3. Increase transparency by SACCOs 4. Give rural farmers power to manage savings and credit using familiar services such as SMS-Short message service, and mobile money. 5. Provide simpler, safer financial and savings management
Current field partners	**Savings and Credit Cooperative (Case study: Allied Uganda SACCO Ltd located in Kitgum town)** This is a prospective partner who has undergone sensitization about the new financial solution being offered by ENSIBUUKO and wishes to pilot it. The SACCO started in 2008 and is covering almost 10 districts in the northern region. It has a membership of about 37,000 mostly rural women farmers. The towns have an average of 10-15 members who are mostly business men/women, who in general take the loans. The SACCO has 62 staff of which 48 are accounts officers. The SACCO is now well capitalized with interest on loans as their main source of income. They also undertake contractual activities to boost its revenues. Services provided include: ➢ Collection of savings ➢ Disbursing loans Interest charged on loans is at 10% for a period of three months. Payments are made on reducing balance. Payments on savings are 12%/year. The SACCO's motivation for working with farmers is to mobilize savings. Farmers, according to the directors, tend to save more than borrow and their operations are seasonal. Thus they are a good source of liquidity for the SACCO. There is sufficient demand for the money collected from farmers mostly by business persons. The major borrowers include taxi owners, transporters and other traders. Key challenges • The SACCO has had high operational costs and some liquidity problems due to earlier theft of its funds by its staff. • Infrastructure challenges such as poor state of roads also increases operational costs • Obtaining security for loans is difficult • Delayed loan repayments • Changing weather patterns affect crop harvest and thus loan payments • High risks in giving loans to farmers. SACCO is not keen on lending to farmers due to payment risks. The SACCO wants to PILOT the new finance solution offered by ENSIBUUKO to help mitigate some of the challenges by improving its efficiency through reduction of

	operational costs, improving savings mobilization, and facilitating loans disbursements. This is expected to improve the revenue base of the SACCO Other measures to address the above challenges include: expanding operations to benefit from economies of scale, giving loans for profitable crops such as sesame for better income and reducing risks by making payments for inputs required through loan facilities by farmers, directly to service providers. **Savings and Credit Cooperative (Case study: Kitgum SACCO Ltd located in Kitgum town)** This is another prospective partner who has undergone sensitization about the new financial solution being offered by ENSIBUUKO and also wishes to pilot it. The SACCO has been in operation for a long time and has been self-sustaining for the last 3 years. It has 5 branches with 23 staff in different parts of Kitgum district. The SACCO offers mainly savings and credit services-especially agricultural loans to members. The majority of its clients are farmers and over 70% of their loans are agricultural loans. The interest rates are determined by the general assembly. Loan disbursements are less than 50 million shillings in each month. Loan repayment rate is only 77%. The SACCO does not pay any interest on savings at the moment. This payment was initially made at a rate of 20% every 6 months, but this is now considered too high and is under review. The SACCO strives to satisfy the savings and credit need of its major clients-the farmers. It does not mobilize much money from commercial business loans and thus has limited capital. According to the manager, “This business is not all about disbursing loans, it is about satisfying clients”. The SACCO is also linked to banks such as Centenary Bank where they place fixed deposits and hope to access funding from once they process their land title. Key challenges • Loan repayment rate at 70% is fairly low • SACCO does not have proper risk management procedures • SACCO has limited capital base • A key challenge to sustainability is weaknesses in governance and management. The SACCO wants to PILOT the new finance solution offered by ENSIBUUKO to help mitigate some of the challenges by improving its efficiency through reduction of operational costs, improving savings mobilization, and facilitating loans disbursements. This is expected to improve the revenue base of the SACCO
Achievements	➢ This undertaking is yet to begin, thus no key achievements can yet be reported at the moment
Challenges	○ The undertaking has not yet started. Too early to assess.
Sustainability	❖ Too early to assess

By Rose Adokorach
MegaMinds consultancy Uganda LTD

Zimbabwe

NOTES of Meetings held during the Agri-Fin Mobile Review in Zimbabwe

Meeting No. 1: Zimbabwe Farmers Union

Participants:

1. Prince Kuipa – Chief Economist
2. Theresa – Eco-farmer Program

ZFU is an Apex body of farmers clubs with its structures starting from community level (village level) to district level, provincial and at national level.
ZFU gives strong support to the project. It allows ZFU to improve their work with the farmers, and farmers to improve their yields

Role: The role of ZFU on the Agri-Fin Mobile project:

i. Mobilisation of farmers so that they get aware of the project's products
ii. Registration/administration of farmers on the platform
iii. Facilitate movement and coordination of stakeholders on the project
iv. To be in touch with the ground and direct events on the ground

Selection of areas:

Selected one province because of the weather component that required automated weather stations to be installed in order to make the weather indexed insurance work. Weather stations were located at schools in various districts
The project has now expanded from one province to two: Mashonaland East and Mashonaland Central.
Registration of farmers in Ecofarmer was underway at the time of the review. ZFU facilitated the selection process for the Ecofarmer agents/brand ambassadors based on age and education.

Lessons Learnt:

There is demand for such services from other provinces but the capacity to serve all areas is not there as yet. Demand is outstripping supply.

There is demand for insurance for further crops other than maize which is currently being covered.

Farmers are demanding to be registered for crop-specific information rather than for them to receive information about all crops and livestock they have no interest in.
There is need to use the current database to create an extended one, which is commodity-specific.

The network challenges: area coverage is low and needs to be expanded, the information platform has to be live and interactive

Education of the farmers on the insurance product is important if demand is to be generated and should match the selling of product to the seasonal calendars for the various crops.

Farmers have not been paying yet for the information services in the bundle of services but only paid for the insurance product.

Other

Esoko[10] has been contracted to produce content for sending to the farmers.

Impact

It is early days for assessing the impact but positive evidence points to the fact that the program has empowered farmers through information provision.

Program has closed the information gap that existed. Farmers are now more interested in technical and market intelligence information. The project needs to “walk with the farmer” providing information that is useful in his/her present situation.

Four pillars of the Agri fin mobile – weather indexed insurance, ecocash, ecofarmer, and trading platform.

Meeting No 2: Ministry of Agriculture, Mechanisation and Irrigation Development

Participants:

1. Alfios Mayoyo, Principal Economist – Department of Economics and Markets
2. Dorcas – Chief Economist - Department of Economics and Markets

-The Ministry sees Agri-Fin as an important project. There are still significant steps to be made, however.

-Not much progress on the Ministry side in terms of what they are expected to because of the lack of resources.

-Government cannot have its database housed outside the Ministry but at the same time it doesn’t have the money for buying the hardware.

-The database system is being developed by a consultant and it is almost done.

-the ministry is not gathering the data by themselves

Technical manuals are being developed and are almost ready. These are being approved by the ministry and will be the basis for information sent to the farmers

The ministry recommends that there be a feedback platform which allows for two-way communication, support for the procurement of hardware for the database, and assistance with data collection and analysis.

---

10 **Farmers Get Market Information Through Cell Phone Messages**

This is made possible by using a system that involves ZFU members of staff collecting prices of farm produce from markets countrywide and sending them to members once every week. The cell phone message scheme is a result of collaboration between the union and ESOKO – a Ghanaian company- which provides the technology. In Zimbabwe Mubatsiri Investments Pvt Ltd is the prime licensee to sell the product. ZFU enumerators collect price information and send the information to ZFU head office where ESOKO platform managers process the prices and forward them to ZFU members via SMS using the ESOKO platform. A total of 16 markets are providing information but the scheme is expected to grow over time to cover all the major markets in Zimbabwe.

Meeting No 3: ECONET Zimbabwe

Participants

1. Godwin Mashiri -
2. George Nyashanu, CEO EcoFarmer
3. Ben Nyakanda – Technical Officer

Company Brief:

- Econet is the largest MNO in Zimbabwe with a market share of 67% down from 70% over the past 3 years.
- Started value added services in 2010with the micro-insurance product named ecolife, and broadband services.
- Launched ecocash (mobile money) in 2011
- Started engaging with Mercy Corps in 2011/12 on the idea of agri fin mobile project.
- The project is viewed from both the corporate social responsibility and commercial perspectives, whereby it is expected to start breaking even at some point and to be self sustaining.
- **Commercially** Econet would want to produce a commercially viable product, which is now on the second phase of piloting. From next year they would want to have a product that can generate meaningful commercial return.
  - As information was provided for free they would expect that recipients would start to pay for such services
  - Would want to scale up to other provinces
  - Estimated time frame for commercialization: product should be profitable by 2018, 2015 –semi-commercial, 2016/17 commercial.
- Rural areas are net recipients of information
- Perceive value add from partnerships:
  - Facilitation of key stakeholder consultation workshops – content and product development workshops, content provider workshops,
  - Helped ameliorate government fears of the technology risks
  - Has helped pooling private sector funding into development – agent recruitment,
  - Shared learning: has learnt to trust local people much more than they would before the project
  - Cross-fertilization of ideas and knowledge.
- Project has helped increase farmer productivity through information and advisory services.

- **Lessons:**
  - Would want to launch farming tips as a product on its own.
  - Have used the strength and knowledge from the partnership to access further public funding from the C-Gap –World Bank to further develop the products.
  - More could have been done but need more personnel on the ground and funding for extensive product testing
  - The partnership with government, farmers' union and Mercy Corps provides a good synergy with their business

- **Going Forward**
  - Would want to develop a product that would allow farmers to purchase inputs on ecocash from the local agrodealers but support for product development is needed
  - Planning strategic alliances e.g. the C GAP project, explore credit rating, and savings and loan products.
  - Explore ways of leveraging into the MNO's networks such as in AGRA
  - Test prototype products

- Potential to impact other countries as a result of this project because of the ready networks in those countries linked to Econet

Meeting No 4: Mutoko Agritex Staff

Participants:
1. Dorothy Ruvharo
2. Odreck Jongwe
3. Salario Dziva

General: productivity fluctuates as a result of the erratic rainfall pattern and access to inputs. The 2013/14 farming season was relatively good for the area. They have introduced conservation agriculture in the area and it has contributed to improved productivity.

Improvement on Ecofarmer product:

1. Need to have correct and updated information always. Reference material for staff and farmers needed.
2. Messages - farmers still come to Agritex and the extension workers for information verification – which means there is still a trust issue when the information comes face to face rather than via the phone .

The issue of mobility for extension workers is affecting the work for the extension staff and the issue of communication, as they don't have motorbikes to do their work.
There are 3 extension workers serving a ward with an estimated 1300 farming households. Some of the points in the district are about 15 km away from the place of residence of the extension worker.
Deforestation is an environmental issue affecting the area

Meeting No 5: Mutoko District - Farmer Group Discussion.

Date: 10 November, 2014.
Venue: Ward 11 Nyamukapa

Joined insurance – there is one agent who received the payments from farmers but did not remit the insurance money to Econet so that the farmers could be covered. .
12people were affected. First ward were insurance was marketed and thus money was embezzled by the agent.

At what period do people buy insurance? - Insurance is bought from the beginning of the season. They prepare throughout the season and get payouts at harvest.
How and when did they receive payouts? They got a payout because there was a drought.
Are there people who were affected by the drought but not paid? No. 25people received payouts but not all came from this ward.

How people intend to buy insurance?
Almost 30 people,7 have already paid.
Insurance is good because when they were growing up they only knew insurance as being only for motor vehicle. The insurance program payments should be staggered.
Farmers have problems in accessing credit. Payments should be split so that 50 is provided as cash and 50 as inputs for the following season. The money could be kept in an account. Farmers responded that they often encounter emergencies and spend the $.

But people require different inputs. Some would prefer inputs instead of cash. When you harvest inputs are cheaper so people should buy then. ZFU is advocating for bulk purchase

of inputs. Which inputs do farmers need? Fertiliser and maize SC513 maize, herbicides. Is the $100 adequate to purchase all those? No.
Further proposal: A farmer can get a bag of Ammonium Nitrate fertiliser, a bag of Basal fertiliser and maize seed and the remainder as cash. Agritex suggestion - lets buy 2 bags Basal and 1 bag of AN.

Where do you buy your inputs? - General dealers at Mtoko centre, ZFC agent, none from Harare because of transport, and also fake products at Mbare.

Info Received: - Monthly update for rainfall data. They were getting temperature information only. Rainfall figures were often not correct.
Was there really a drought? Yes, Econet came to verify rainfall and drought.

Did they receive price information and what type?
-Information on maize, butternut, sorghum, groundnuts, prices were given for different centres. Were they getting same price? Prices were given for various markets which were far. They could not respond to messages. They preferred messages in vernacular

Are there cooperatives or groups here?
There are groups. Farmer groups which farm crops such as maize, cattle, poultry. Some do soap manufacturing. You can have 2 groups in one village with an area committee for given wards. They work with extension workers, they do field days and green shows. At harvest they have dry shows. There are 10 to 15 people per group. There are also ecosave groups. There are several groups. The money is to purchase inputs and purchase cattle. They use ecocash to buy inputs.
Q information: Is the information relevant? Is it timely?
Messages are good and are programmed to cropping calendars. Sometimes the message, come as blank messages.
Rainfall information should be specific for each ward. ZFU: this was discussed at EcoFarmer level. There are still teething problems. Agritex: perhaps it can be reported by mobile phone base station.

Are there things they have changed as a result of the messages? Helpful. Changed crop rotation so that we manage diseases better, helped to diversify to horticultural crops so we can make a living from that. Messages are encouraging us to work with extension staff. Not just intercropping. Telling us information on specific rainfall so that we can plant. Taught farming as a business. The advert on bicycle looking down on extension staff not very encouraging for extension workers. They tend to look down on them.
They want market linkages, horticultural training, potatoes, beans, sweet potatoes and asking for value addition or processing for tomatoes. Record of how much produce is being grown. There was contract farming through Hortico[11] for example so now people don't grow. people depending on rainfall how can they have access to irrigation.

Can EcoFarmer provide loans? Money is there?
ZFU does not have membership that it used to have. There are issues of membership on the ground.

Meeting No 6: Mrewa District - Farmer Group Discussion.
Date: 11 November, 2014.
Venue: Ward 16

The meeting had 15 participants, 3 M, 12F.

[11] A private company that supports horticulture production

- The group had some members who had joined the insurance product and the information service
- Information received was on:
    - Temperature
    - Rainfall
    - Marketing information
    - Planning and selection of crops
    - Agronomy/technical advice

- **How useful were the messages?**
- Helped inculcate the farming as a business mindset in farmers
- Improved crop farming practices
- Broke down the gender based silos at household levels as the information was shared with both husband and wife in a household. It empowered the women much more as they did not have to rely on the men for information. It created a platform for joint planning and decision making by farming households.
- Market price information is empowering in decision-making and farmers are also now exploring new markets.

- **Has the information services improved farming methods?**
- Has helped improve soil fertility management
- No longer rely on the extension agent only
- Marketing and income has improved because farmers are now informed before they make decisions on what to and when to sell.
- Price information brings everyone to the same level – which reduces conflicts/disputes with regards to expected income.
- Has improved decision making process.

Areas for improvement on ecofarmer?
- Include local market price information – more relevant because this is the market that can easily be accessed by everyone.
- Improve access to credit for agricultural purposes particularly purchase of agricultural inputs.
- Provide more area specific recommendations than what is relevant to other areas
- Increase the window period for purchasing insurance
- More knowledge is needed about the insurance product.
- Farmers would want more knowledge on other crops and livestock than the common crops – e.g. Chickens – diseases and management, fruit trees – avocado, oranges and pears, and on small grains.

Other: More people are practising conservation agriculture on their plots and CA has consistently given them higher yields than conventional.

LOCAL AGENTS
- The benefits to the individuals serving as agents has been a small cash incentive for registering farmers on ecofarmer, helped groom them in public speaking and self confidence
- They have helped increase the outreach of the programme
- The product also suffers from the fear that farmers have of being charged for services they did not subscribe for
- The farmers would want other tangible benefits in addition to info such as access to input loans and organised markets

Meeting No 7: SDC Harare – Mkhululi Ngwenya – Food Security and Agriculture Officer, and later on with Luciano Lavizzari – Ambassador of Switzerland to Zimbabwe
13 November 2014

Relevance of Project
Its a relevant project given the thrust of reviving markets and market development:
Reasons:

- Price information is required by farmers for their planning and decision making – especially when you consider areas that have potential for marketed surpluses
- Areas targeted by the project are the high potential areas that usually have surpluses for sale

One challenge was that the project was somehow rushed considering some of the gaps in technical information provided but these can be bridged and adequate technical backstopping provided. There was raised a need to watch out for some of the messages such as "no more need for extension agents". There is a need to make sure that the project does not undermine the government extension system through inappropriate messages.

Areas of improvement could be:

- Make market information more area-specific rather than one blanket message going to all farmers and subscribers at national level
- The same is true for the technical information provided and this will become more critical as farmers become more commercially orientated
- This implies that the project needs to create profiles of farmers so that targeting of information is made possible
- The area of information gathering needs to be looked into, so that the information can be as specific to an area as possible.

The project can be expanded to cover also Irrigation schemes particularly in areas where SDC is already funding irrigation rehab projects such as in Masvingo province. These farmers are potential users of market information and consumers of financial products that may be interested in the bundled services.

The project has been working with only one MNO and there is a political risk if this cannot be addressed in the future. The project should find means of avoiding being viewed as in favour of one MNO at the expense of others. Also for long term sustainability it would be beneficial if more MNO start developing similar products and start bringing competition.

Looking to the Future:
There will be a need for a menu of products for farmers to choose from in terms of information products so that farmers can select what is relevant to them

EU, FAO, and SDC are rehabilitating irrigation schemes nationally, and there will be scope for integrating these areas and enhance the impact of the future project.

Generally aim to have demand driven services offered to farmers.

Meeting No 8: Jennifer Mayer– Mercy Corps Country Director 13/11/14

Mercy Corps have already incorporated the products and ideas from the AGM project into new projects such as the FAO proposal that have received funding for the coming four years. The ideas and products have been rolled out in Mashonaland central province expanding from the Mashonaland East which was the pilot province, and with the FAO project it will expand to 3 districts in Manicaland. In Mashonaland central it will expand in partnership with World Vision International. The roll-out will also include new crops that will be covered.

There is a call for proposal by the USAID which is specific for livestock but will need to include AGM ideas and products in that proposal therefore scaling up the work that SDC funded through AGM project.

However, it was noted that there is need for a measured expansion to ensure sustainability is built into all the models and products being promoted with options for cash crops such as cotton and tobacco being included. This mainly refers to the viability of business models and products developed. There is need to ensure that they can be commercialised and become self sustaining products before wide scale expansion.

There was a general sense that the price of the insurance product was a bit high and there is need to for offering a menu of options such as providing a $25, $50 and $100 cover, and should target cash crops as well rather than maize only.

Involvement of state institutions:

- there is need to keep them on board for sustainability
- MNO is also learning how to and the need to have government on board
- Working with the Zimbabwe farmers' Union
- Having government extension staff as brand ambassadors as well
- There is also need to explore options of how to improve mobility of the extension staff.

Going forward:

- look at enhancing the role of ZFU by ensuring there is value add to its membership
- revival of national institutions
- need to leverage on each other's work with Sustainable Agriculture Trust (SAT) who are implementing a project to improve the data bases for agricultural extension, including content development, and to enhance the role of extension workers
- There is need to address the issue of the database which should be hosted by government.

11.12.2014

Odreck Mukorera

Indonesia

AGRI-FIN MOBILE EVALUATION
MEETING REPORTS

Meeting No	1
Date	November 17, 2014 9:00-10:00
Meeting Type	Launching of PETANI Android Application
Attendees	• Universitas Gajah Mada (UGM): Dean of Agriculture and team • About 100 attendees of UGM Expo 2014 (government officials, students, university staff, and partnering institutions) • Mercy Corps: Country Director, Agri-Fin Mobile (AGM) Project Director, Training Coordinator • 8 Villages: Project Coordinator, Training Coordinator • SDC Evaluator and local consultant
Location	Grha Sabha Pramana

- **PETANI Android Application** is an application developed by 8 Villages in partnership with UGM and supported by Mercy Corps AGM project. In the partnership UGM takes the role of agriculture content provider and Mercy Corps as supporter in the development of the platform and application by 8 Villages. Mercy Corps also takes the role of facilitating partnerships between 8 Villages and Mobile Network Operators (MNO). During the launch of the product an MOU between the UGM, Mercy Corps and 8 Villages was signed.
- **UGM EXPO 2014.** The launch of the product was conducted as part of the UGM EXPO 2014 opening ceremony, which was well attended by local government officials, students, university staff and partnering institutions. UGM EXPO is an annual event conducted by the university to showcase research projects from various departments for one week. The EXPO which is open on 17-21 November 2014 counts 172 booths from various departments of the university.
- **Highlights:** The PETANI App which is showcased in the Agriculture Department booth earned significant interest from the attendees. Right after the opening ceremony and the launching program, the Dean of the Agriculture Department accompanied Mercy Corps Country Director to the booth. They were followed by news journalists who then conducted questions and answers sessions for about 20 minutes.

Meeting No	2
Date	November 17, 2014 10:00-10:40
Meeting Type	Interview
Interviewee	Universitas Gajah Mada Dean of Agriculture Department
Interviewer	SDC team
Location	University Department of Agriculture Expo Booth Grha Sabha Pramana

- **Why the use of the PETANI app?** The PETANI app is expected to bring a solution to the current problem of the limited number of extension workers and to attract younger ones as substitution to the current workers. In the past, the mobilization of extension workers is believed to have contributed to the success of rice self-sufficiency. They are known to have worked hard and they were in the field most of the time to support farmers

- The Dean does not know exactly the number of agriculture extension workers in Indonesia, but his estimation is that we are now having one-third the number of extension workers during the era where Indonesia was at the stage of *swa sembada pangan* (rice self-sufficiency) in 1984. The problem is not just about numbers, but also about *age*. Currently most extension workers older people.
- **Who are the target?** The application is targeting the use by Researchers, Agriculture Extension Workers and Farmers Associations. It is not applicable yet for the smallholder farmers who are mainly using simple mobile phones. PETANI application will not solve all problem, but it will make things easier. There is still the need to make field visits, but the application will lessen the need. In the past, the program has been developed with XL without Android. The problem with the SMS based program is that it cannot include pictures. That's why they need android. It is now still the option for the smallholder framers
- **How is the program financed?** The university sees the PETANI app as a Corporate Social Responsibility (CSR) program of the university as they are obliged to make contribution for the community. It is dedicating the knowledge of the university teachers for the practical benefits of farmers.
  At present there is only a non-commercial program for the application, but in the future they will develop the commercial one for the larger farmer who are considered self-sustaining farmers. For the smallholder farmers, they will still be subsidized and supported. UGM will give a certificate for extension workers who are active users of PETANI apps
- **What is the future of the program?** He sees the use of the program nation-wide. He is meeting the ministry of agriculture next week and is optimistic that such an initiative will have positive response from the ministry as the government is now targeting a rice self-sufficiency program in the next 5 years
- **What is current limitation?** There are currently 3,000 users and many requests came from various regions. At present it is not possible to cater to all these needs. They need to allocate time because they still need to visit the region for the initiation of the program and collect mobile numbers
- **Is there similar program abroad?** He has not seen the same program implemented in other countries in Asia. What he had seen implemented is one that uses internet (laptop/notebook) which has so many limitation. Extension workers in general do not have laptops. Android phone is what is fitting for them.
- **What is the role of Mercy Corps?** For the program for the smallholder farmers, the university will call for support for institutions like Mercy Corps. At present the program with XL (facilitated by MCI) is supporting the 6 months free SMS program, but in the future they will need support. The university is targeting the state-owned companies to support with their CSR program and develop the program country-wide.
  They are actively implementing since May. It was during the period they came to know MCI. For the future MCI support is needed to find ways to finance the program for the smallholder farmers.

Meeting No	3
Date	November 17, 2014 11:00-12:00
Meeting Type	Workshop PETANI Android Application
Attendees	Extension workers from various districts (about 20 people) 8 Villages MCI team UGM Assistant Dean for Partnership SDC team
Location	University Executive Club, Universitas Gajah Mada

- **Who?** The UGM Assistant Dean facilitated the workshop with extension workers from various districts
- **What?** 8 Villages staff shows the registration steps and the various menu on the PETANI App
- All participants practice the registration and discuss various uses of the Apps
- **Highlights**: Majority of the attendees were not successful in their registration to the application. Some were successful and were able to use the application right away. There were high interest among the attendees on the application.

Meeting No	4
Date	November 17, 2014 13:00 – 15:00
Meeting Type	Program Inception Report and Evaluation Matrix
Attendees	MCI team SDC Evaluation team
Location	Jogjakarta Plaza Hotel

- **What is the overall relevance of the AGM Project?** As shown in the baseline study of MCI, the greatest need among farmers is access to finance and access to information. The data is to be used to show how relevant the AGM program is.
- There is growing interest among farmers from other areas and several institutions are interest to develop their program using AGM model
- Among institutions interested in the model are: Citibank, NetHope, Australian Government DFAD eastern Indonesia program, VISA).
- AGM is to remain distinctive on learning aspects as most important aspect of the project
- AGM is managed as part of the global cooperation program. The project manager is reporting to the regional office as well as to the country director.
- **Does it respond to urgent needs in its immediate context?** Currently there are limited number of extension workers (approximately 1 to 1,000 farmers). There is urgent need for information before access to finance. The program in Dompu is conducted with commercial point of view where value is shared among partners (Bank Andara, Syngenta, and Microfinance institute).
- AGM is working on all three project components: agriculture service, financial literacy, payment and loan. The agriculture service information is provided as interactive service, and has worked very well. It involves Peer to Peer advice. The daily tips had varied responses. The more advanced farmer has considered it basic, but for the less advanced, the information is considered very important.
- It is important that now the information is provided over phone.
- It is important to maintain trust from farmers, thus the information has to be reliable
- Currently information is provided for free by 8 villages. There is no direct fee charged from

farmers but there is minimum balance requirement (for phone mobile network) before farmer can access information.

- **Does the project have an impact on poverty reduction? Is this measureable yet?** It is not measurable for project at the moment because there is no baseline made for measuring poverty reduction. Currently the "Progress out of Poverty Index (PPI)" is being used for the project in Dompu (Syngenta and Bank Andara project)
- **Is bundling information and financial service is an amplifier effect?** Providing information is a risk mitigation tool for the financial service provided. It is not being measured right now, but it is something observed in case studies.
- **Has the AGM actually supported partners to provide info/financial bundles?** This is obvious in the current program.
- **What was the effectiveness of each bundle (uptake and impact)?** The current program of Bank BRI is going to be expanded to 70 branches. This is not direct partner of MCI but this is program of 8 Villages. MCI is having Financial Literacy with the partner.
- The upcoming program in Dompu with Bank Andara is a package of Agriculture input Voucher (worth 5 million rupiah) and Cash for labor cost (3 million rupiah), which is totaled to 8 million rupiah). The voucher is given after credit agreement is given by MFI. The voucher is signed by head of farmers group, trader, Syngenta, and the farmer. The cash for labor costs is deposited in the savings account of the farmer in the MFI.
- **Can we compare bundled and similar unbundled service?** Government has many credit programs which are not bundled with information service. Farmers are left alone after credit is provided and there are risks on the farm management because of lack of information.
- **Does it multiply agricultural advisory services?** Answered
- **Do MNO engage in bundling projects?** 8 Villages have built partnerships with 3 largest MNOs: Telkomsel, XL, and Indosat. These comprised of 80% of total mobile users in country
- **Do target communities actively participate in the project?** Active participation has been conducted by farmers' organization and extension officers in district level.
- **Performance of intended objectives and goals outlined in year 1 and 2, including cost and benefits consideration.** There is no robust cost and benefits measurement at present, but there are cases and testimonies documented that show the cost and benefits. Farmers have shown to have saved on cost for travel on getting information and for obtaining payment platform.
- An SMS survey is planned to obtain beneficiaries' feedback. Respondents will be rewarded with 2,500 rupiah mobile airtime. There is also a regular quiz conducted by SMS wherein farmers are rewarded 5,000 rupiah mobile airtime. It has obtained satisfactory responses of 115 farmers per quiz from 10,000 female farmers who join mobile financial literacy training in Bogor, Krawang and Jonggol in West Java.
- **Improvement of project data and analysis. Possible cooperation with relevant internal and external partners.** The project have documented lessons learned of what works. This will be discussed further during the week.
- **What is the business model for each partner? Which one do we see an economically viable path (clear revenue stream that will be able to cover service costs as scale increases)? If not, how will the service be sustained without subsidy? Are there subsidies that could be justified economically?** At present the project has achieved all project performance indicators**.** There is involvement of private sector. The project has emphasized that this is not a project, but a program planned to be sustainable. This will be discussed further during the week
- **Which political environment does impact on the project and its sustainability?** The project is in line with current government plans for achieving food security**.** There are plans by the university partner UGM to promote the project work for nationwide implementation by the government. Next year the financial authority will release a new banking regulation which

will provide significant regulation background for the advancement of the project.

- **Have partners benefitted from the program?** Are partnerships stable or unstable? At present there is Tiga Pilar as partner. The benefit of the program will be discussed further.
- **Appropriateness of program set-up and access. Is Mercy Corps brokering the right way or should it change? Is there another agency well fitted to handle and manage the program?** At present MCI exists in 21 provinces with 160 workers, among them are 4 expatriates. Economic Development is one of its core program wherein AGM and agriculture market development are major program. New Zealand and Australia are interested partners.
- Climate Change, Disaster preparedness, Water Sanitation, Maternal and Child Health are also among major program of MCI. Total program portfolio is worth 23 million dollar and the annual budget is 8 to 9 million per year. Institutional funding comprised 40% of its funding (from SDC, USAID, NZ, EC, Australian Government); 23% is from foundations (e.g. Rockefeller foundation, Ford Foundation); the rest is funding from private sector. Funding has been secured for the next 5 years.
- MCI wants to remain relevant by targeting the need of the poor communities in the country where 50% are living around or below the poverty line (earn $1.25 per day). MCI has established its local entity which allows programming in certain areas which are difficult to enter as international agency, such as Papua, Maluku, Aceh. Meanwhile it has a plan to also do for-profit activities which is allowed on its current international status.

Meeting No	5
Date	November 17, 2014 15:00 – 17:00
Meeting Type	Discussion with 8 Villages, partner of MCI
Attendees	8 Villages Program Director and Training Coordinator MCI team SDC team
Location	Jogjakarta Plaza Hotel

- **Institution information.** 8 villages is a newly established institution, started in 2012.
- 8 is a symbol of connectivity; 8 villages targets to connect villages with mobile application
- 8 Villages recruits local experts to allow them to give locally relevant content; they also have a content manager in Jakarta office; there are 10 field staff.
- **Target.** There are 40.5% of Indonesia population living in agriculture sector, which comprised 87 million farmers and 38,000 Farmers groups. In central Java (the main area of paddy for domestic consumption) alone there are 4.4 million farmers.
- **Current projects.** Partnership with UGM started in January when they met the Dean of Agriculture and presented their services. The Dean responded very positively and wanted an app for farmers and they started with development of the application.
- Partnership with *smartfriend* network provider has given mobile handset to 5,000 turmeric farmer in its program Free For Farmer (FFF). Mobile Airtime packages were given to their beneficiaries for 5 months free. On the 6th month they will have to start paying for themselves.
- In November 2, they launched *Gembala Application* targeting 16,000 livestock farmers
- They are also targeting Paddy, Corn, Soy (PJK) farmers of 6,000 people
- They also have a project of rural electrification that targets 200 villages, wherein 150,000 farmers are among their beneficiaries.
- **Product.** They are able to provide Modular content which can easily form as modules
- Content has been focused on: Tips and Tricks, Motivational, and Local Wisdom
- **Testimonies:** There has been sharing of agricultural knowledge from various places (e.g. knowledge on growing seedlings not on polybag but on soil using soil cubes.

- One extension worker has printed (as banner/posters) the agricultural lessons he obtained from PETANI apps and use it in learning booth during an agricultural expo. They found it useful
- **Lessons learned.** The use of mobile applications for farmers has attracted participation of young farmers. There is still very limited participation of female farmers. Their program has mainly participated by male farmers.
- **Challenges.** They have difficulties in obtaining the interest of other MNO. Their interest is on number of users, where they look at about 1 million users.

DAY 2

Meeting Number	6
Date	November 18, 2014 11:00 – 12:00
Meeting Type	Discussion with Setya Madya Farmers Group Setya Madya is participant of RPP (Smart Farmers Program), a program launched by 8 Villages and UGM using the platform built with MCI
Attendees	Setya Madya Farmer's Group Farmer's Group Leader – Ngatidjo (Blondo) 8 Villages Program Director and Training Coordinator UGM representative Mercy Corps Team
Location	Setya Madya Farmer's Group Bantul, Jogjakarta

- **Group profile.** Setya Madya group is a farmers group in Kebon Agung village established in 1984. It is part of Kebon Agung Farmers Group Union, which consists of 5 farmers group of 600 members. Setya Madya itself consists of 114 paddy farmers working in 22 hectares (7 ha is for organic paddy)
  Paddy yield is 8.5 tons/ha in average but with proper farming practices it can reach maximum of 10.6 tons/hectare. The group is still expecting even higher yield because in other countries (Madagascar, for example) farmers could achieve 20 tons/ha.
  Organic farming was started in 2008. They have a higher margin but less productivity compared to non-organic farming. Activities in the group include off-farm activity (processing) of paddy.
- **Support from 8 Villages.** Setya Madya is part of the Rumah Pintar Petani (RPP) program launched by the UGM and 8 Villages. It is a 5 years partnership which has started with SMS agriculture information in September 2014. They receive frequent SMS messages (5 times per week to 4 times per day) about farming practices and technology use. Information that they found to be useful are:
  - The fertilizer calculator feature
  - Information about prices
  - About harvest using technology
  - Questions and Answers facility in the platform

  Farmers think that additional information needed is on Diseases and Pest Control.
- **Information sharing.** Since they have been a model group and obtained awards from the Ministry for agriculture, farmers from other areas visit their group (i.e. Banten, Subang, Kalimantan, Sulawesi, East Java) and they have been source of information. Thus information they obtained from the SMS would for sure be shared also to others who visit them.
  The group has even received visitors from abroad. The group leaders also think that farmers in Indonesia needs to learn from best practices from other countries.
- **Price.** They buy at Rp 3,600 while the normal price is Rp 3,400 (about Rp 200 difference). By knowing the price from the SMS, they know how much to bargain because they now have

sufficient price information.

- **Cellphone ownership and use.** The old farmers (about 45-60% of the farmers) usually do not have cellphones; those who have, do not use it much because they have limitation on know-how of usage. Cellphones are used by the young generations. The old ones, (even the group leader) do own cellphone but they mainly use for calls. They have difficulty to save or reply SMS, thus they cannot fully participate in the RPP program. The old farmers think that if they could be guided in basic cellphone use, it would be helpful and are willing to learn. The young farmers are better in technology use and share the information received.
- **Financial service.** The closest banks, BPD (regional bank) and BRI, are about 1 kilometer away. Few of the farmers use formal financial services. They save at home and do not use cooperative or other informal means. They also do not borrow from banks or other financial services. For payment services they go to the banks or other payment service 1 kilometer away.
- **Women farmers.** They only have about 10% women farmers in the groups. There is one Female Farmers Group (*Kelompok Wanita Tani* or KWT), which consists of 22 members. During the discussion there are two (2) women representative.

Meeting number	7
Date	November 18, 2014 13:00 – 14:00
Meeting Type	Discussion with Gemah Ripah Farmers Group Gemah Ripah is partner of 8 Villages in their program with BRI using the platform funded by MCI
Attendees	Gemah Ripah Farmers' Group 8 Villages Program Director and Training Coordinator Mercy Corps Team
Location	Gemah Ripah Farmer's Group Union Bantul, Jogjakarta

- **Group Profile.** Gemah Ripah is a farmers' group union, which consists of 16 farmers' groups. Each farmers' group consists of about 100 members, thus the total number of members in the union is around 1600. One group (KWT Mulya Sari) is a women group of producers of snacks or catering.
  The group has also planted *padi sehat* (healthy rice; a semi organic rice) since 2003; the overall land for *padi sehat* is 1-3 hectares. Yield of regular rice has been 8-10 tons per hectare but for *padi sehat* is only 6 tons per hectare. Members tend to have small plots, i.e. 750 m2 to 1800 m2. Not all members are farmers. Some are doing fisheries (catfish), snacks business, bakery.
- **Members profile.** Members of farmers group who joined the meeting are mainly those who joined Brilliant. They are farmers who obtained loans from BRI. They have diverse microbusinesses background, from snacks (chips) producers, renting of farming equipment to workshop owner. Those who are farmers own mainly paddy farms and some also vegetable farms. There are only few young farmers. Youth who attend are doing other business.
- **Agri Mobile program.** The group has joined BRI's agriculture mobile program named BRILLIANT which uses the platform of 8 villages (built with partnership of Mercy Corps). The program is an exclusive program for BRI clients. Not all members of the group joined because not all of them are BRI clients.
- Those who have joined the Brilliant program receive 1-2 SMS per day mainly on business advises as well as agriculture information. Information provided were motivational, book keeping, administration, family finance. There have been quizzes regularly. They have found the information on prices very useful because they then have a benchmark to use when

selling their agriculture products. The feature of the SMS allows them to have questions and answers and also to discuss in groups.

- Every Friday, they are provided with one or two Profile information where a member's business is showcased. Members who have been profiled say that the profiling brings new customers to their businesses. Those who needs business services have also found is useful because they then know about providers. For example, one soy bean milk seller got new customers, the one selling rice got 15 calls and 3 new customers.
- **Cellphone use.** The use of cellphones is mainly among young people. Older farmers do not have or do not use cellphones (7 of 100 farmers are 65 years or more).
- **Sharing of information.** Members share their knowledge with other friends and they even show their friends how to register
- **Women groups.** In the village there are 5 women groups. One of the group has joined snacks business. Only few of the women group joined the program because they are not client of BRI.
- **Financial service.** Group members who attended are all clients of BRI. They have access BRI loan and savings services. The farmer group union has received loan from the ministry of agriculture at the amount of 100 million rupiah per farmer group union with term of 10 months. The loan is then distributed to each farmer group at about 3-10 million. Monthly payment is to be made for the interest. The payment is made at the village hall every 15th and 30th.
- The farmers' group members go to BRI for transfer. Those who join Brilliant have their savings and loan in BRI. Sewon sub district in Bantul was the first rural BRI office in Indonesia.

Meeting Number	8
Date	November 18, 2014 16:00 – 17:00
Meeting Type	Discussion with Bank Andara Bank Andara is partner of MCI for Agriculture Financing Mobile in Dompu
Attendees	Acting CEO of Bank Andara Mercy Corps Team
Location	Bank Andara office Jl. Sudirman, Jakarta

- **Profile.** Bank Andara is a wholesale bank, providing loans to microfinance institutions. The bank has provided a platform for MFIs for 4 years. The core banking service provided is aimed to reduce fraud and ease monitoring and increase efficiency. Their shareholders include KfW, MCI, Developing World Markets, IFC, HIVOS. The bank provides MFIs with tablet for interface and blue tooth printers. The bank also provides capacity-building for MFIs who use their service. The training provided is not a free service because MFIs have to have time deposit for 3 months before they can access the training. Training provided are varied, such as on cash-flow, IT and management.
- The main challenge for Bank Andara is on how to scale up and create business. The central bank has been asking them to not just reach people but to bring revenue. Bank Andara is at a position to invite investors at this point and preparing a capital increase.
- **Agri-Fin Mobile.** For the Agri-Fin Mobile project, MCI has been partnering with Bank Andara in providing a comprehensive financing to farmers in pilot project in Dompu. The partnership have also involves Offtaker, Input Provider (Syngenta), Farmers, Government and potentially Insurance.
- Bank Andara says that this type of partnerships has very big potential because of the great demand. The main challenge is that many banks are not experienced in loans to the agriculture sector. It is risky because it is seasonal, and dependent on weather and default

risks are high. Bank Andara is also in the process of learning and they have used the MFIs data in their learning of client behavior in the segment.
- Bank Andara is very hopeful that the pilot project is successful so that it can be replicated. They think that having at least two times harvest would be sufficient for them before scaling it up.

Meeting Number	9
Date	November 18, 2014 19:00 – 20:30
Meeting Type	Discussion with Haris Sembiring Director of Seralia, Ministry of Agriculture MoA is partner of MCI in PISAgro platform
Attendees	Mercy Corps Team
Location	Ministry of Agriculture Jl. Ragunan, Jakarta

- **Governance.** Mr. Sembiring emphasizes that the new government is bringing significant change in their approach to agriculture sector and in the way they operate. The new president is aiming for rice self-sufficiency in 5 years thus they are pushed to work hard and efficiently. The government decided on infrastructure (such as irrigation rehabilitation) as priority, for which funds from the reduction of the fuel subsidies will be available.
- **PISAgro.** The directory has facilitated regular meetings of PISAgro in their office and it has been a very important platform where private and public sectors meet. He is very happy with the working groups where he sees different models tried out. The maize working group has been more active than rice because it has more involvement from private sector while in rice the government's role is dominant. MCI has been active in the maize working group.
- **Mobile initiative.** The mobile initiative by MCI is seen as a good initiative because it will help ease the problem with lack of extension workers who tend to be old people without much new knowledge. He thinks that MCI needs to carefully consider the mobile penetration because in his opinion the use of mobile still limited because of less coverage in rural areas.
- **Organic produce, GMOs.** The government is focusing on increased yields and not so much promoting organic produce as organic production is less productive. Example: Yields in Java are 3-4 tons without and 5-6 tons with fertilizer. Organic produce is a movement but not massively promoted yet. The director states that they are open towards GMOs and do not see major risks in their use.

DAY 3

Meeting Number	10
Date	November 19, 2014 09:00 – 10:00
Meeting Type	Discussion with GIZ Rural Development GIZ is user of 8 Villages mobile platform (developed in partnership with MCI)
Attendees	GIZ Rural Development team Mercy Corps Team
Location	GIZ office Jl. Tebet Barat

- **Activities.** GIZ is active in support for rural electrification, by providing training on maintenance, trouble shooting, and monitoring. Those trainings are provided to community groups and local government. They do not provide service for installation.
- **Mobile technology.** GIZ has worked with 8 villages and use their application for their capacity building initiatives. GIZ is satisfied with 8 villages and they think that the agency, that MCI

has mentored (8 Villages), has grown stronger. They also think that it has been the reason why they also do what they do.

- **Financial Literacy.** GIZ also provide financial literacy training, and is interested to partner with MCI in sharing of resources.
- **Challenge.** The team has found a huge gap between the local government and central government. There is lack of capacity in local government and lack of communication between sectors in local government and also between central and local government. In their project technology has been less a challenge compared to the need of better framework.
- **Financial service.** Financial service is an issue but it is not a priority issue.

Meeting Number	11
Date	November 19, 2014 11:00 – 12:00
Meeting Type	Discussion with PISAgro Executive Director PISAgro provide platform for MCI partnership with Syngenta
Attendees	Mercy Corps Team
Location	PISAgro Office Jl. Thamrin, Jakarta

- **Profile.** PISAgro was founded by World Economic Forum in 14 countries in anticipating a food crisis 2050. Focus of activities has been for Food Security, Sustainable Environment and Poverty Reduction implemented in Public Private Partnership (PPP). Their target: by 2020, 20% increase of yield, 20% poverty reduction, 20% emission reduction
- In Indonesia it has started in 2010 and now has 23 members, 7 of which are from private sector. At present there are 10 commodities-based working groups and several cross cutting initiatives (e.g. agricultural finance). MCI joined the corn working group and agriculture finance.
- **Initiative.** The initiatives conducted are not philanthropy in nature. Company own the project and they have business plans with farmers. The models they work on has to be beneficial for all. Nestle has worked on the cocoa value chain working with Swiss Contact. The initiative in Dompu between MCI, Bank Andara and Syngenta is a complete one.
- **Government** has been very supportive by giving ideas and solutions. The ministry of agriculture hosts the general meeting conducted every quarter.
- **Mobile service.** Lack of extension worker has been seen as major issue. There is also lack of knowledge in other commodities because in the past they have worked almost only for rice. MCI mobile initiative is seen as an idea that could help solve the problem.
- **Agriculture financing.** Initiative on agriculture finance is important because banks are yet to see results. Many banks do not want to provide finance to agriculture sector because they see it as risky sector. Only 5% of national credit allocation has been for agriculture.

Meeting Number	12
Date	November 19, 2014 14:00 – 15:00
Meeting Type	Discussion with DFAT (Department of Foreign Affairs and Trade, AUS), Rural Development Team DFAT is co-member of MCI in PISAgro
Attendees	DFAT Rural Development Team MCI team
Location	DFAT office

Kuningan, Jakarta

- **Profile.** DFAT Rural Development has not been involved in regulation but on practical solutions in relation with rural development, including basic value chain financing. They are preparing a major project, which has been conducted under PRISMA (office in Surabaya) which now has 15 projects. Total project budget is 112 million dollar for 5 years. Major activities are conducted in east Indonesia, and in Sumatra. Total AUS funding in Indonesia is $ 600 p. year.
- **Sustainability.** To achieve sustainability in the initiatives, effort has been made to attract the private sector. DFAT has also joined PISAgro where interaction with private sectors is built.
- **Challenge.** Major challenge has been seen in the large gap between central and local government in terms of capacity.
- **Mobile initiatives** is seen as potential for rural development but the implementation has to remain relevant where mobile information has to be complemented with field visits. There has to be consideration also to the technology literacy among people in rural areas.
- **FinScope Study**. A major study of the financial sector is under preparation using a methodology that was applied in Africa. Seco has been approached for co-funding.

DAY 4

Meeting Number	13
Date	November 20, 2014 11:00 – 12:00
Meeting Type	Discussion with Farmers Group Cahaya Barokah Cahaya Barokah is MCI partner for LISA agriculture information program
Attendees	Farmers of Cahaya Barokah group Mercy Corps Team
Location	Farmers Group Field Office Kerawang

- **Profile.** The group has been formed by paddy farmers. There are 8 Farmers Group in the village with total of 200 members.
- **Agriculture Information.** Information received through mobile (LISA) has been very useful for farmers. In the past their farming practices were traditional practices, based on information they received from parents and community. With the mobile information, they were able to align their practices with best practices based on expert information. E.g. information about dosage of pesticides which they never had before.
- **Youth interest.** Among members include a few young farmers who are eager to learn farming from latest research and not just information from parents or neighbors. They have found mobile agriculture information very useful. During discussion, a few youth who are not farmers have also joined because they have become interested with the mobile use in disseminating agriculture information. This will increase their interest to be farmers because it will strengthen their confidence thanks to more agriculture knowledge.
- **Pricing.** Mobile information on pricing was found to be very helpful. It gives them a benchmark before offering their produce to buyers. The difference in pricing compare to local buyer could be around 300 rupiah per kilogram paddy (about 2 million rupiah per hectare; yield per hectare 7-8 tons). Among group members who attended the discussion was a middleman who said that the price information has been helpful for him because it gives benchmarks of price to offer to the farmers. He adjust his price consequently.
- **Pest and diseases control.** Among most useful information they receive from mobile is the information of pest and diseases. As diseases start from upstream to downstream, the information could allow those in downstream to be more prepared before it happens. This is particularly enabled by the group discussion feature of LISA. They could discuss and provide

information among themselves. They would like to see information about pest and diseases increased.

- **Financial services.** Most farmers go to BRI for loans (they borrow around 10-15 million rupiah). However, BRI is not an option for savings. They do not like the charges on admin fees and taxes in savings account. They use expensive Western Union in Post Offices for transfers.
- **Suggestions or concerns.** There are times where their questions were not responded immediately through LISA. They would like to see this improved. Some members said that the group feature were sometimes abused (too much jokes) and caused some members to withdraw. However, they found the group discussions useful and would like to see this more active. Young farmers also suggest the use of android application and not just SMS based (he was informed about the upcoming android application—PETANI)

Meeting Number	14
Date	November 20, 2014 12:00 – 13:00
Meeting Type	Discussion with Farmers Group Sinar Langgeng User of Andara Link Mobile Payment and Transfers
Attendees	Management of Cahaya Barokah group Mercy Corps Team
Location	Farmers Group Office Karawang

- **Profile.** Sinar Langgeng is paddy farmers group in Karawang with about 4,000 members with 2,000 hectares land. It is the largest paddy farmers group in Karawang which was among the most important paddy producers in the region. The group provides a complete solution for farmers, in terms of selling produce, input supply, and financial service.
- **Women farmers.** There are very few women farmers in the group. They are mainly laborers.
- **Mobile penetration.** The use of cellphones is still low among laborer farmers (approximately 50%).
- **Financial service.** The group does not provide loan and savings in cash. Farmers 'borrow' farming input, and pay with paddy. Land certificate and produce are collateral for loans. Loan for poorer farmers are provided in a group with joint liability.
- **Andara Link.** Sinar Langgeng has been a showcase of Andara Link use in rural context. For the product, the group has been provided with 3 tablets and blue tooth printers. The system has enabled the cooperative to have automated tracking of payment which can ease control. The system has been very useful and brings a big difference in their operations.
- The group has existing electricity payment service (at the office) before they are provided with Andara Link service. Andara Link payment service is used particularly for poor farmers, where the group pay their electricity in advanced and do door to door collection using Andara Link. This has reduced transport cost (50,000 rupiah for motorbike) for poor farmers, which at present is about 250 families (mainly farmer laborers).

Meeting Number	15
Date	November 20, 2014 12:00 – 13:00
Meeting Type	Discussion with women group User of LISA SMS Based application
Attendees	Women group members Mercy Corps Team
Location	Group meeting place Karawang

- **Profile.** The women group in Karawang is one that is formed only for the program LISA. There are about 30 members in the group. They obtained training from extension workers who were trained by MCI trainer. Most of them are having junior high school education.
- Most of them are housewives (not farmers) and they are dependent on their husbands. About 50% of the husbands are working in the agriculture sector and the rest are factory workers, or construction laborers (Karawang is an integrated industrial area).
- **Agriculture information.** The mobile information that they received were about farming, micro business management and household financial management. Those whose husbands are farmers had found the information useful (they convey the information to their husbands). Those who are not farmer family do not find the information useful and some of them had stopped using LISA because of this).
- **Household financial management (Financial Literacy).** They like the information about household financial management. Because of the information, now they said they know how to make priorities with their finance. They have started savings. Some of them had successfully answered the quizzes and had regularly earned 5,000 rupiah worth air time.
- **Direct teaching.** Although they appreciate the mobile information, they still like having direct teaching in group. For them the SMS is very limited and often unclear. They hope they could get more direct information.
- **Technology literacy.** According to them many would want to join the training but they do not have cellphones. In their estimation about 50% of the women do not have cellphones. Among the women group, some are not good in using mobile phones, particularly the older women. They could not participate fully with the program because they could not reply messages. They said they would like to be taught in how to use cellphones.
- During the discussion only few could show the saved messages because they have deleted them. This is due to the limited capacity of their phones. Some of them do not know how to save. They have been asked to write the messages in a notebook, but they have not done so.
- **Financial service.** Their husbands have bank accounts in BRI but for the women, they use individual collector for saving services. They visit their houses and collect savings. Some of them save monthly and most of them saves weekly at the amount of about 25,000 rupiah. They use the savings for the Ied festival**--**the main celebration of Muslims, which is families' largest spending in a year for food and clothings

Meeting Number	16
Date	November 21, 2014 08:00 – 09:00
Meeting Type	Discussion with Syngenta Partner of MCI in Agriculture Financing pilot project in Dompu
Attendees	Food Security Agenda Project Mercy Corps Team
Location	Syngenta Office Jakarta

- **Profile.** Syngenta is the leading pesticides company in Indonesia, active in every province and also possessing two factories. The Food Security Project has been formed by Syngenta to balance the commercial target of the company. Food Security provides training to farmers and aims to add value to the farmers and not just sell the product to them (as aimed by the commercial team). The Food Security is not a social initiative, it aims to build partnership with farmers. They have been aiming for 'greenfield' in the East of Indonesia (Papua, Sulawesi, Kalimantan, East Nusa Tenggara) in addition to their program in Java and Sumatra.
- They have seen increased yields by farmers who join Syngenta Learning Center, with yield from 3 tons to 8-11 tons per hectare of corn.

- **PISAgro participation.** Syngenta is a member of PISAgro and actively involves in the corn working group together with MCI. Their corn project is in Amurang (Sulawesi), Aceh (Sumatra) and Dompu (East Nusa Tenggara). PISAgro partnership has been found very important because it provides comprehensive assistance to the farmers. PISAgro platform for cross knowledge provides them learning opportunities. It is also a platform to learn from testing different models.
- **AgriFin pilot project.** Syngenta has been involved in Dompu AgriFin project together with MCI and have found it a very important project. It brings all stakeholder together, including financial service and off-taker. They have appointed 3 agronomists in that project who actively provide training to the extension workers as their co-financing contribution. The project has involved 180 farmers in transmigration areas who are working on 341 hectares of corn farm. Most farmers come from Java or Bali. For the mobile use of disseminating information to farmers, they have used Syngenta platform.
- "At the beginning the project looks complicated, but MCI makes it happen"
- There is no legislation yet concerning GMO in Indonesia. Syngenty thus refrains from GMO products .

Meeting Number	17
Date	November 21, 2014 11:00 – 12:00
Meeting Type	Discussion with Lestari Women Farmers Group Partner of MCI in Mobile Financial Literacy project (LISA)
Attendees	Members of women farmers group Mercy Corps Team
Location	Group meeting place Sukamanah Village, Tapos, Bogor

- **Profile.** The group consists of 30 members, most of them are housewives. Their husbands are factory worker and laborers. Only one among the women participants owns a farm of 2,000 m2, on which she plants Japanese soy and sweet corn. Most of them have small pots which they use to plant vegetables for household consumptions.
- **Agriculture information.** They started to join the financial literacy program which started by a one day training by extension worker in May. They then joined the LISA SMS program in which they started to receive information on farming twice a day (one on agriculture and one on financial literacy). The information on agriculture has limited benefits because they are not farmers. Only about 10 of the 30 women are farmers. One female farmer said that the information has helped her in better farming practices.
- **Financial literacy.** They like the information on financial literacy because they learn about managing household finances. Most of them had started savings since then, and now even have a joint savings group. Some of their friends, however, have unregistered from the program because they think that it has used up their airtime (misinformation by the extension worker).
- **Mobile penetration.** According to them only about 20 out of 30 women in the group have cellphones. Every household has cellphones (minimum 2) but some women do not own it.
- **Financial services.** Banks are far from their village. It cost 25,000 rupiah one way to reach there by motorbike. The government PNPM women joint liability program is not preferred because they do not like to be involved as group leaders.
- They hope that the program could be extended to a loan program by MCI which they want to use for starting businesses.

POSITION/ROLE	CONTACT DETAILS
Universitas Gajah Mada – Yogyakarta	
Dean of Agriculture Department of Universitas Gajah Mada Yogyakarta	Name: Dr. Djamhari, SP., MP. Phone: +628122730 Email: jamhari@ugm.ac.id Address: Fakultas Pertanian UGM, Jl. Flora, Bulaksumur, Yogyakarta, 55281
Assistant Dean for Partnership	Name: Yani Phone: +628156807552
Head of Unit of Cooperation, Public Relation and Alumni	Name: Prof. Dr. Ir. Achmadi Priyatmojo, M.Sc. Phone: +6281904255588 Email: ipik@faperta.ugm.ac.id
Director of Food Crops - Cereal Ministry of Agriculture	Name: Hasil Sembirin Address: Jl. AUP No.3 Pasar Minggu, Jakarta Selatan Phone: +62217806262 Email: h.sembiring60@yahoo.com
PISAgro	
Executive Director PISAgro	Name: Laksmi Prasvita Address: Sinarmas Land Plaza Tower 3, 8th Fl Jl. MH Thamrin 51, Jakarta Phone: +628111928293 Email: laksmi.prasvita@PISAgro.org
Syngenta	
Manager Food Security Agenda Project Corporate Affairs	Name: Maria Benedikta P Address: Perkantoran Hijau Arkadia Tower C, 9th Fl Jl. TB Simatupang Kav 88, Jakarta Phone: +628111715963 Email: maria.benedikta@syngenta.com
Bank Andara	
Operation and IT Director	Name: Irianto Kusumadjaja Address: Plaza Bapindo, Citibank Tower 28th Floor, Jl. Jendra Sudirman Kav 54-55, Jakarta Phone: +62215260707 Email: irianto.kusumadjaja@bankandara.co.id
GIZ	
Senior Advisor Energizing Development (EnDev) GIZ	Name: Robert Schultz Address: Jl. Tebet Barat VIII No 52, Tebet, Jakarta Selatan Phone: +628111256676 Email: Robert.schultz@giz.de
Advisor Mini Hydro Power Project for Capacity Development (MHPP)	Name: Atiek Puspa Fadhilah Address: Jl. H. R. Rasuna Said Blok X-2, Kav 7-8, Jakarta Phone: +628111040271 Email: atiek.fadhilah@giz.de
DFAT	
Manager Rural Development Development Cooperation	Name: Angela Clare Address: Australian Embassy, Jl. H.R. Rasuna Said, Kav C15-16,

	Jakarta Selatan Phone: +62 812 104 1590 Email: angela.clare@dfat.gov.au
Program Officer, Rural Development Development Cooperation	Name: Jevelin Wendiady Address: Australian Embassy, Jl. H.R. Rasuna Said, Kav C15-16, Jakarta Selatan Phone: +62 811 1360 622 Email: jevelin.wendiady@dfat.gov.au
8 Villages	
Project Director	Name: Hesti (Anita) Phone: +6228161684150
Training Coordinator	Name: Dinar Phone: +6285693419101
Mercy Corps	
Country Director	Name: Paul Jeffrey Address: Graha STK, F Floor Suite F01 Jl. Taman Margasatwa no 3, Ragunan Pasar Minggu, Jakarta Selatan Phone: +62 811 956 490 Email: pjeffery@id.mercycorps.org
AFM Project Coordinator	Name: Andi Ikhwan Phone: +8129409424 Email: aikhwan@id.mercycorps.org
Mercy Corps Training Coordinator	Name: Yuli Phone: +6281318012435
Farmers Group	
Setya Madya Farmers Group Leader	Name: Ngatijo (Blondo) Address: Setya Madya Farmers Group, Kebun Agung Village, Bantul, Jogjakarta Phone: +628175412817

14.12.2014
Caroline Mangowal