



**G50s and the UMVA platform**  
**Mid-term evaluation of the AUXFIN Burundi programme**

**Bujumbura/Zeist**  
**Frank W. Bakx**

## Table of Contents

Abbreviations and Acronyms .....	4
Summary of mid-term evaluation .....	5
1. Introduction to mid-term evaluation .....	11
1.1 Context of the evaluation.....	11
1.2 Objectives and execution of the evaluation.....	11
1.3 Evaluation report outline .....	12
2. Methodological approach to the mid-term evaluation.....	13
2.1 Adjustments in the evaluation scope .....	13
2.2 Interview methodology of G50 .....	13
2.3 Jeanne chatbot for weekly questions.....	14
2.4 Interviews with local authorities .....	14
2.5 Other interviews.....	14
3. AUXFIN and its roles in Burundi .....	16
3.1 AUXFIN’s 6-pillar approach to rural development: .....	16
3.2 Youth Entrepreneurs .....	17
4. Transaction Partners attached to the UMVA Platform: .....	19
4.1 World Food Programme - WFP .....	19
4.2 PNSEB – FOMI.....	19
4.3 COPROSEBU.....	20
4.4 IFDC - PSSD .....	21
4.5 MUTEC – N’iCash .....	21
4.6 Role of and Partnership with other Financial Service Providers .....	22
4.7 BBIN .....	22
4.8 BIJE, Gitega .....	22
5. Assessment of the 9 outputs and outcomes of the project’s Log Frame.....	23
5.1 Activation of G50s with UMVA services .....	23
Impact on crop productivity .....	24
5.2 WFP local grains sourcing.....	24
5.3 Health and Nutrition Coach and Services.....	25
5.4 YEB Platform .....	26
5.5 Basic Financial Services .....	27
6. A closer look at the G50 model and operations.....	29
6.1 Size, composition and registration of G50s.....	29
6.2 The Key Activator (K.A.).....	30

6.3 G50 and the Sangwe Cooperative .....	31
6.4 Appreciations and other views collected from G50s .....	31
6.4.1 Jeanne Chatbot results .....	31
6.4.2 Appreciation and other comments collected from local authorities .....	32
7. Findings and Conclusions on the G50 approach .....	33
7.1 Tablet navigation and access to the applications and Coaches .....	33
7.2 Content and utilization of the tablet .....	33
7.3 Impact on Work & Income .....	34
7.4 Impact on social inclusion .....	34
7.5 Other issues by G50s .....	34
8. Findings and conclusions on the Project .....	36
Coherence issues.....	39
9. Sustainability of the UMVA platform and e-Coaches.....	41
9.1 Ownership of the UMVA applications and off-line e-coaches .....	41
9.2 Big data: ownership and privacy .....	41
9.3 Financial sustainability .....	42
9.4 Fee-based Platform services .....	42
9.5 Cost coverage of the UMVA Platform .....	42
10. Recommendations.....	44
10.1 To the Embassy of The Netherlands.....	44
10.2 To AUXFIN:.....	44
AUXFIN Burundi organisation.....	44
On the G50s and coaches.....	44
On linking MFIs to the UMVA Platform.....	45
10.3 On sustainability.....	45
Annex 1: Terms of Reference mid-term evaluation AUXFIN.....	46
Annex 2: List of persons met .....	46
Annex 3: Subjects at G50 field interviews .....	46
Annex 4: Data on 12 G50 field interviews .....	46
Annex 5: Chatbot questionnaire to G50s .....	46
Annex 6: Organigramme AUXFIN Burundi .....	46
Annex 7: Debriefing PowerPoint presentation .....	46
Annex 8: Methodology Proposal April 2022 .....	46

## Abbreviations and Acronyms

BBIN	Burundi Business Incubator
BIJE	Banque d'Investissement des Jeunes
BRB	Banque de la République du Burundi (Burundi Central Bank)
CoProSeBu	Collectif des Producteurs de Semences du Burundi
DP(E)AE	Direction Provincial (de l'Environnement,) de l'Agriculture et de l'Elevage
EKN	Embassy of the kingdom of The Netherlands
FOMI	Fertilisants Organo-Minéraux Industries (fertiliser company)
FSP	Financial Service Provider
G4AW	Geodata for Agriculture and Water (Dutch programme)
GAP	Good agricultural Practice
GoB	Government of Burundi
IFDC	International Fertiliser Development Company
K.A.	Key Activator
KIT	Royal Tropical Institute, The Netherlands
KYC	Know Your Client
MoU	Memorandum of Understanding
MFI	MicroFinance Institution
MinAgri	Ministère de l'Environnement, de l'Agriculture et de l'Elevage
NGO	Non-Government Organisation
ONCCS	Office National de Contrôle et de Certification des Semences
PADFIR	Projet d'Appui au Développement de la Finance Innovatrice rurale au Burundi
PAM	Programme Alimentaire Mondial
PNSEB	Programme National de Subvention des Engrais au Burundi
PSSD	Private Seed Sector Development
SMART	Specific - Measurable – Acceptable/Ambitious – Realistic – Time-bound
SOP	Standard Operating Procedure
UMVA	Universal Method of Value Access
VSLA	Village Savings and Loans Association
WFP	World Food Programme
YEB	Young Entrepreneur in Business
ZOA	Dutch NGO in Burundi active in agriculture and land registration

## Summary of mid-term evaluation

During April- May 2022 a short mid-term evaluation was conducted of the project 'G50/UMVA expansion' funded by the Embassy of the Kingdom of the Netherlands in Bujumbura. The evaluation is meant to be conducted by an independent and external consultant.

The objectives of the Intermediate External Evaluation are:

- 1) Evaluate the overall appreciation by G50 members, local authorities, and input suppliers (fertilizer and seeds) of AUXFIN, the G50 approach and UMVA platform
- 2) Establish the level of achievement of activities and outputs by AUXFIN Burundi under the EKN contracts 'G50/UMVA expansion' and Amendments, as well as related activities. Activities part of the EKN contracts 'G50/UMVA expansion' and Amendments are found in the main text, as well as related activities of AUXFIN Burundi.
- 3) Make recommendations how activities can be improved and identify any needed adjustments.
- 4) Propose what actions need to be taken in order to sustain the project's achievements at the end of the project (end 2023) after financing by EKN.

The evaluation should respect the six OECD criteria for evaluating interventions: relevance, coherence, effectiveness, efficiency, impact, sustainability.

The mission of AUXFIN being "Delivering financial solutions that are accessible to all" it is tried to be realized by the delivery, at very low prices, of basic elementary banking functions such as registration, savings, loans, and payments, thus enabling financial and social inclusion. AUXFIN main goal is to build a digital highway in Burundi that is open for all. Its financial and value chain solutions are hosted in its UMVA platform.

In an initial methodology paper, the evaluator proposed to narrow down the scope of the evaluation in view of limited time and resources. Next to documentary analysis, interviews with stakeholders, beneficiaries and local authorities were held in three Provinces Cibitoke, Karusi and Gitega.

Analysis of the LogFrame of the Project and progress reports showed a very loose and often not logical alignment of inputs, outputs, and outcomes. No SMART indicators for outcome measurement or monitoring have been set in the project Logframe. Outcomes are often ascribed to stakeholders outside the direct control of AUXFIN.

AUXFIN itself is opposed to the LogFrame use in project monitoring and evaluation as it considers the Project too innovative and flexible for setting targets and milestones in the planning phase.

For analytical purposes (and without any intention of value judgements!) the evaluator distinguished four sometimes conflicting roles of AUXFIN Burundi, namely a) Development Agent with the: G50 concept of regrouping farmers in the zones for social activation, b) Software (private) company, c) Fintech (private) company and d) Training institute and think tank – often in collaboration with international and local NGOs.

Two main functionalities of the UMVA Platform are the digital payment facility N'iCash that is extensively used for fertilizer orders under the PNSEB programme. Until early 2021 improved seeds could be ordered under coordination of CoProSeBu. But as IFCD and KIT are working on a new system for seed production and multiplication, the payment platform has suspended the facility. The second function is the hosting of the Coaches for arable crops, health and nutrition, and finance.

The UMVA Platform is also used for recording of savings and small loans with G50 members, although there is no suitable application yet.

In order of the Project's LogFrame, the realisations of the 9 outcomes are as follows:

Outcome 1: Activation of G50s with UMVA services. A total of 4,777 unique G50 groups (and 57,065 farmers) in the 7 provinces of the geographical scope purchased fertilizers through the payments App. The outcome result has surpassed its target by 22.1%. The evaluator has not been able to assess the impact of the AUXFIN support and services on farm production and productivity independently; AUXFIN conducted farm measurements that demonstrated 35% increase in maize yield and a doubling of the beans yield. In the same surveys significant improvements in farm income and food security among the G50 members were recorded.

Outcomes 2 and 3 relate to the WFP programme of local sourcing: "Local farmers in 6 provinces have an increased production and supply schools against fair market prices, thus having an improved household economy" and "WFP sources food from local farmers instead of importing it from foreign companies, respectively".

The goal is that G50 farmers can sell their produce to WFP through the UMVA Platform. Since WFP does not recognise the G50 as legal entity, the farmers deliver their crops through co-operatives. This required AUXFIN to start partnering with cooperatives. So far, AUXFIN has just registered 102 cooperatives in 5 provinces, and trained 20 of them to be operational on the Platform.

Many difficulties have arisen in the partnership with WFP. AUXFIN complains about the high due diligence standards and procurement and transacting requirements of WFP that FSP cannot meet. Hence, they do not pass WFP's due diligence process. On the other hand, WFP complains about MUTEK with its limited branch network being the sole banking partner of UMVA.

In 2021 WFP only bought beans through the UMVA Platform: 151 tonnes for BIF 165.9 M.

Outcome 4 relates to the use of the Health Coach, and its upscaling to all farmers in the Platform. At the end of 2021 over 2,000 G50 reported to make regular use of the HealthCoach application with an estimated outreach to over 100,000 households. The first part of the target has been reached. Apparently, around 52% of the G50s make use of the Nutrition and HealthCoaches. The range of utilization is quite broad: while some Communes report up to 100%, the Health and Nutrition Coaches are hardly used in other Communes. Active support by the key activator seems to be key in adoption of the messages in these e-Coaches.

Outcome 5 relates to young entrepreneurs joining the UMVA Platform.

Little progress has been made in the development of YEB, a digital platform for young entrepreneurs (training, sales platform, sharing of experience, access to investors). The existing website [www.yeb-bi.com](http://www.yeb-bi.com) does not offer much content and is hardly accessed by rural youth owing to connectivity issues.

Therefore, new offline tools are being developed. So far, a total of 309 entrepreneurs have been registered in the UMVA Youth Platform with access to N'iCash and the UMVA YEB Bank. These are all from a single enlistment-campaign; no new registrations are made these days. The target of 20,000 young entrepreneurs is by far not reached. It is unlikely to be reached in the coming 18 months, the more so since relevant YEB services have not been mapped and developed on the UMVA tool yet,

Outcomes 6, 7, 8 and 9 relate to the access of finance for G50 groups and their members.

Two years ago, six MFIs concluded an agreement to work with N'iCash and the UMVA Platform for offering more accessible financial services to present clients and to expand their client base through digital products and services.

Implementation is seriously delayed even though a range of international experts work on this project. Exact reasons of the delay are difficult to trace because the stakeholders state quite different reasons on which AUXFIN holds an opposite view. There seems to be various misunderstandings. Communication between AUXFIN and the MFIs is stiff and thorny even though MUTEK – being a competitor MFI - is no longer directly involved in the operations of N'iCash.

Very little has been realised on Outcomes 6, 7, 8 and 9 of the Project. The very first output which pre-conditions others has not been achieved. Only MUTEK is connected but the MFI has not started offering new products and services to G50 farmers.

It is unlikely that AUXFIN will be able to achieve the outcomes in the remaining 18 months before Project closure. This is not entirely a question of implementation shortfall. Many outcomes are neither formulated in a SMART way nor are logically aligned to inputs and outputs. Some rather refer to 'impact' on stakeholders or beneficiaries. The restrictions imposed by GoB in combatting the pandemic (group meetings, mobility of staff) too contributed to delays for extended periods in 2020 and 2021.

Overall, the evaluation concludes that AUXFIN Burundi has too limited operational capacity to execute such large project with nation-wide scope. It continuously faces challenges to recruit technicians at local conditions.

#### Appreciation of the e-coaches

The oldest and most developed tool of AgriCoach is highly appreciated by the rural population as well as the local authorities. Yet, it strikes that respondents mention that they focus on the 9-days weather forecast, and GAP of only a few crops (maize, beans, Irish potato, sweet potato, banana, and soybean). The HealthCoach has been effective during the times of the Covid19 pandemic while G50 leaders highlight that some subject matters of the NutritionCoach have an immediate effect although this Coach is somewhat less consulted in the weekly meetings.

#### Findings and conclusions

The main report offers 28 findings and conclusions on AUXFIN's G50 approach and use of tablets, the most important of which are:

- In most G50s only few people master complete navigation of the tablet. This may be the reason that the group leaders are relatively young and more digitally literate.
- Access to the mobile network limits full exploitation of all functionalities offered by the tablet and Coaches.
- While many G50s practice group savings and loans (along the VSLA model), the UMVA platform does not offer a tool yet to register their transactions.
- When the relationship with the Sangwe Cooperative is good, the AgriCoach is often shared in the Sangwe meetings.
- A more agile registration process of new G50 members is widely solicited. It is unclear whether this is formal procedure or just administrative delay.
- While the AgriCoach offers cultural information of forty-three crops, G50s use a very limited number of them. The typical cash crops like coffee are neglected.
- G50 members are anxiously awaiting the complete functionality of N'iCash with possibility to withdraw savings from their UMVA account with the Activator. It has been promised for June 2022.
- Both G50 members and GoB administration point to the need for broadening the AgriCoach crop practices to animal husbandry subjects. The latter are considered important since cows and goats are sources of manure for composting.

- G50 leaders and members have no concerns about the costs of the UMVA Platform and extension services provided. There is no regard of financial sustainability of the system.
- Farmers cite considerable increases in productivity of their beans and maize crops. They attribute this to the application of the correct type and dose of fertilizer and better cultural practices.
- In respect of seeds, they cite they use less seed (quantity) when planting in holes. There is a combined effect of better seed quality and adapted agricultural practices.
- G50 members continue ordering improved seeds through the extension staff of DPEAE.
- Proceeds from crop sales are applied to the purchase of fertilizers and seeds for the next season and home necessities (soap, cooking oil).
- Many G50 members now practice kitchen gardens. They use the vegetables to enrich and vary the daily diet.
- The nutrition status of children and pregnant women seems to have increased by the health and nutrition learnings from the respective Coaches.
- Positive effects of G50 on social inclusion are cited. Examples are given: members know each other better, responsible behaviour (alcohol use), conflicts are resolved internally, less isolated people (Batwa minorities)
- Yet: social inclusion is difficult to measure or quantify: G50s always cite economic benefits first.
- Apart from access to credit, farmers expectations on extended support are high. They expressed a wish for nearby storage facilities both for fertilizers and/or surplus produce for sale. G50 leaders wish to be equipped with simple means of transport.

The evaluation report presents fourteen broader findings and conclusions on the Project as such. The major ones are:

- The Project's LogFrame is not formulated in SMART terms. Many outcomes are not logically aligned to the inputs and outputs. Finally, not all LogFrame indicators have been operationalized.
- AUXFIN Burundi assumes four roles or functions under its project of building an open digital highway in Burundi. In some functions AUXFIN has unique selling points (USP). In others it competes with other service providers.
- AUXFIN is competitive in timely delivery of agricultural extension, health and nutrition advice and farm inputs to Burundian smallholders. It can easily outbid competitors because of its nearly 100% donor funding. Income generation from beneficiaries is still modest.
- Its solid position raises entrance barrier to newcomers in the field of digital services and platform transactions as new entrants will have to invest heavily to reach a market position that is both competitive and sustainable.
- These integrated functions render the coherence question complicated to assess to what extent AUXFIN's e-coaches complement and/or substitute extension and information services provided by other organizations. Since AUXFIN's technology and socio-economic development functions are currently subsidized at nearly 100% by donors the company enjoys a substantial competitive edge, viz. its head-start over potential entrants in these markets.
- AUXFIN did not align its internal organisation on the distinct roles it has. There are no operational departments with dedicated managerial and technical staff.
- Among the various partnerships that AUXFIN has, only the one with WFP is explicitly formulated as intervention and outcome. AUXFIN drafts its progress reports around these Outcomes. Other partners that make use of UMVA tools are hardly mentioned in AUXFIN's reports. More comprehensive reporting by AUXFIN will render monitoring by the donor simpler.
- The use of tablets with substantive on-line and off-line access to training materials in different disciplines renders *effective and efficient* the transfer of knowledge and change of behaviour. In



combination with intensive accompaniment and monitoring in the field, results and impact are observed. On the other hand, the limited and unreliable mobile connectivity constrains broader application of the tablet, especially for data that are time bound.

- The G50 approach is well appreciated by the Burundian farmers. Yet their appreciation is primarily related to the functions of training and financial services.
- The implementation of the G50 concept is effective in financial inclusion and social activation. Yet the model is not yet proven to be low-cost or cost-effective.
- The fact that the G50s do not enjoy legal recognition will remain to be a constraint in the access of smallholders to the WFP generated markets.
- The G50 groups question the maximum membership. The weekly meetings are attended by a larger audience of neighbours.
- The integration of other MFIs than MUTEC on the UMVA Platform is delayed; in fact, hardly any progress has been made. The MFIs do not perceive immediate advantages of the UMVA N'iCash payment platform. *Competition* and *privacy* issues are not adequately addressed by AUXFIN.
- The upcoming implementation of the complete N'iCash functionality risks to result in G50 members and leaders becoming disappointed. They expect easy access to credit which is unfounded. G50 members are not aware that access to credit implies a more complicated process with extensive training, and that not all of them will qualify or meet the conditions of the MFI.
- Delays have occurred in the development and roll-out of the FinanceCoach for which exact reasons are unknown. Too few AUXFIN staff is available for implementing this Project activity.
- The high appreciation of the AUXFIN programme by the provincial and communal authorities relates to the wide coverage of the rural population, the easy and effective access to vouchers and fertilizers for smallholders.
- One is led to conclude that Project outcomes 7, 8 and 9 are rather motivated by UMVA Platform's technological offer instead of by the needs of rural clients or the strategies and targets of the MFIs.
- While they acknowledge that the UMVA Platform is important for them and should persist, G50 leaders and members have no concerns about the financial implications of the UMVA Platform and extension services provided. There is no regard of financial sustainability of the system. Instead, they count on continued, if not expanded support from AUXFIN.
- While autonomy and self-reliance of the G50 is pursued and stated among the Project goals, it is too early to find genuinely positive indications to these. AUXFIN has faced many unexpected barriers in working with and through the G50.

Financial sustainability and operational autonomy of the Burundian UMVA Platform have hardly been addressed in the Project. The evaluator did not have access to financial statements of the AUXFIN Burundi company in which Project finances are incorporated. Some time ago, EKN invited AUXFIN to draft a 'Transition Paper' towards autonomy; by mid-August, this paper is still being drafted. Apart from finance, unclear areas that still need to be addressed include the ownership of the UMVA applications and off-line e-coaches, ownership of the big data being collected, privacy concerns, and cost coverage by users, partners and/or clients. It would be good to anticipate international standards and upcoming legislation and regulations in these domains.

The report proposes 6 recommendations to EKN as a donor, and 17 to AUXFIN for current Project execution. The recommendations relate to a stricter planning of the Project's LogFrame and interventions, to strengthening AUXFIN's capacity in Project implementation, on more flexibility in

operations and in member and group registration, on upgrading the AgriCoach as per the demand of the farmers, on handing out own tablets to all G50s and on collecting better statistics for monitoring and evaluation. AUXFIN is also advised to start afresh with consultations of whether and how MFIs can access and make use of the UMVA Platform, and which individual needs and wishes can be addressed by AUXFIN.

In addition, four key recommendations relate to sustainability of the UMVA Platform and G50 concept:

1. EKN and AUXFIN are recommended to set up a study on the issues of ownership of the UMVA platform and its applications including protection of privacy and use of big data.
2. To analyze and validate the financial projections of the distinct functions of AUXFIN Burundi and the UMVA Platform, and to evaluate the road to financial sustainability. This may require external financial audit expertise.
3. The cost and income structure of the UMVA Platform and its applications needs to be worked out with side-conditions of feasibility and competitiveness with existing FSP and digital platforms (a coherence issue).
4. Thereafter to focus on the core objective of the digital highway, develop an exit strategy for the development and training functions, and to set out for a financially self-sufficient UMVA Platform in Burundi financed by contributions from the users and beneficiaries of the Platform.

# 1. Introduction to mid-term evaluation

## 1.1 Context of the evaluation

The mission of AUXFIN is 'Financial and Social inclusion for All' which is realized by:

1. Building networks of connected smallholder farmers (Social Capital),
2. Providing these networks with targeted solutions via the UMVA platform, and
3. Operating these networks as a business (Sustainability).

AUXFIN delivers financial, value chain and community development solutions to all. Including vulnerable populations, refugees, smallholder farmers, micro entrepreneurs, with low literacy and numeracy skills, limited access to the internet, no- or low access to electricity, and limited experience with mobile and other technologies.

The Terms of Reference of the mid-term evaluation offer a more limited mission statement:

"AUXFIN aims to deliver financial solutions that are accessible to all, including vulnerable populations with low literacy and numeracy skills, limited access to internet, no- or low access to electricity, and limited experience with mobile and other technologies".

Since 2013 AUXFIN was active in Burundi by developing G50 groups and connecting them to the UMVA platform. AUXFIN Burundi was established in 2016. In 2019 EKN and AUXFIN signed a contribution agreement to expand the activities of AUXFIN Burundi. In November 2019, the project 'G50/UMVA expansion' undertook the expansion of G50 groups and the development of new solutions for the UMVA platform. In October 2020, this contract was expanded with the 'Amendment G50/UMVA expansion'. In November 2021, the 'Second Amendment G50/UMVA expansion' was signed but this is outside the scope of the mid-term evaluation. In this document these projects (officially EKN's Activity No. 40000339) are referred to as the 'Project'.

The Intermediate External Evaluation is tasked to figure out the progress of the activities carried out by AUXFIN Burundi under these contracts, as well as related activities, and to identify any needed adjustments, preferably before the end of the contract at the end of 2023.

The mission of AUXFIN being "Delivering financial solutions that are accessible to all" it is tried to be realized by the delivery, at very low prices, of basic elementary banking functions such as registration, savings, loans, and payments, thus enabling financial and social inclusion. However, recognizing that some vulnerable participants may require more assistance to complete a transaction, trained agents and digital coaches are foreseen in the UMVA platform.

In Burundi, AUXFIN builds value networks of people organized in groups around a tablet and assisted by trained agents to make sure the technologies are well understood and used by the groups. These networks are developed through the so-called 'G50 approach'.

AUXFIN'S financial and value chain solutions are hosted in the UMVA platform, or Universal Method of Value Access. The solutions of its community activation program (CAP) are organized around 6 thematic pillars: 1 finance, 2 work and income, 3 health, 4 governance, 5 social and no. 6 education.

## 1.2 Objectives and execution of the evaluation

The purpose of the mid-term evaluation is fourfold:

- Evaluate the overall appreciation by G50 members, local authorities, and input suppliers (fertilizer and seeds) of AUXFIN, the G50 approach and UMVA platform.
- Establish the level of achievement of activities and outputs by AUXFIN Burundi under the EKN contracts.
- Make recommendations how activities can be improved and identify any needed adjustments.

- Propose what actions need to be taken to sustain the project's achievements at the end of the project after financing by EKN.

Evaluations subjects were formulated with reference to the six OECD criteria for evaluating interventions: relevance, coherence, effectiveness, efficiency, impact, sustainability.

The evaluations is meant to be an *independent* exercise carried out *externally* to AUXFIN and EKN. The evaluation was commissioned to a single evaluator, Frank Bakx, an expatriate expert in agricultural finance who is well versed in the Burundian agricultural and finance sectors. Tasks of the consultant-evaluator and deliverables have been detailed in the Terms of Reference (appended under Annex 1).

As part of the home-based preparatory phase (March -April 2022), the evaluator developed a methodological proposal that was presented to AUXFIN (Annex 8). This proposal suggested reduction of the scope and geographical coverage of the field data collection owing to the limitations set by time schedules and budget. AUXFIN formally accepted these adjustments at the start of the field work<sup>1</sup>.

Data collection (with field visits, surveys, interviews, etc.) and analysis phase (analysis of the data collected) took place in the first half of May followed by three debriefing sessions (internally with AUXFIN, with EKN and with project partners) on 16 and 17 May. The list of persons met is in Annex 2. Contents of the debriefing sessions were limited to findings and conclusions of the documentary review, interviews with AUXFIN staff, Project partners and beneficiaries (mainly G50s), small questionnaire to G50s. The presentation held at the debriefing sessions is found in Annex no. 7.

I am grateful for the assistance that AUXFIN staff and management granted in logistics (transport, translation, appointments). Without the help of Jacques and Inez the field work could not have been executed in such smooth way. The country-wide fuel shortage did not affect the data collection work in the field.

### 1.3 Evaluation report outline

The evaluation report starts with an outline of the evaluation methodology (chapter 2) which is followed by a description of AUXFIN Burundi's approach to financial inclusion and social activation focusing on the G50s (chapter 3) and its Project partners (chapter 4). Chapter 5 analyses the outputs and outcomes of the Project while chapter 6 explores the G50 concept and operationalization in more detail. It ends with the appreciation of the G50 leaders as collected through localized interviews.

Next follow the findings and conclusions by the evaluator, first in chapter 7 on the G50s, then on the Project proper (chapter 8). Pressing sustainability issues are highlighted in the last but one chapter. Finally, chapter 10 presents several recommendations both short term (i.e., implementable before Project termination) and more strategic to the Netherland Embassy and AUXFIN management.

---

<sup>1</sup> The evaluator could not assess whether his Methodological Proposal have been shared with the Netherlands Embassy (EKN) and, if so, what their reaction has been.

## 2. Methodological approach to the mid-term evaluation

### 2.1 Adjustments in the evaluation scope

After initial documentary review at home base, the evaluator drafted a Methodology Proposal (Annex 8) that addressed the evaluation subjects, but also narrowed them down in view of the limited time and resources.

Digitization of VSLA's was discarded, while the development (*not* deployment) of the Health and Nutrition Coaches was not analysed. Instead of covering four Provinces with field interviews with G50's and local stakeholders, only three would be visited with the exclusion of Makamba Province as AUXFIN started here only recently.

The Proposal as presented in Annex 8 was reviewed and agreed upon by AUXFIN before the onset of the field work. Some more adjustments were applied after the first meeting with the Bujumbura Embassy staff: more emphasis on opinions and appreciation of local authorities, plus an analysis of the relationship of G50 with the Sangwe cooperative.

A further limitation in the scope of the evaluation is that the subject of 'Coherence' is hardly touched upon. Some observations are given in relation to the services offered by DPEAE (input supply, extension services). However, due to time constraints and the ToR not having detailed other 'institutional' users of the AUXFIN Coaches, such users not been subject to the mid-term evaluation.

### 2.2 Interview methodology of G50

The Methodology Proposal states that in each of the three Provinces four (4) G50 groups were to be visited for interviews. The selection of the groups was done at random from the UMVA database. Side condition was that the travel distance should not be prohibitive and that there would be both champion groups<sup>2</sup> and regular groups in the set. Hence two more G50 were selected in each Province as a reserve. Only one group in Cibitoke was exchanged because of travel distance.

Among the 18 groups it turned out that one selected G50 (Cibitoke) had merged with another group, which was then replaced for the interview. A group in Gitega had to be dropped as it ceased existence because of internal problems; it was replaced by a reserve G50.

Since AUXFIN has been able to collect many data from the G50 farmers, it was decided not to conduct a random survey with a pre-established questionnaire among the entire membership of G50s. Instead, interviews were held with open questions re the composition of G50, activities, highlights, results an impact on crop yield, nutrition status, income, financial inclusion, social inclusion and general appreciation of the tablet and its functionality. At request of EKN the subject of the relationship with the Sangwe cooperative was added.

The interview subjects are in Annex 4.

Three G50 representatives were invited for the interviews by local AUXFIN staff. In most cases the president and one or two other leaders plus a member presented themselves to the evaluation team. The typical gender composition was two male and one female; anyway, female group leaders

---

<sup>2</sup> The term 'champion' is somewhat confusing. AUXFIN predefines 'champion groups' after a short start-up period when they are to receive their own tablet instead of sharing it with two other G50s. They are expected to remain closer, more active and to show better performance. They may serve as an example to neighbouring G50 groups, but it is not systematically checked whether they deserve their label and stand out to other groups.

are a minority. Group leaders are typically younger, better educated and more digital literate than the average G50 member.

The interviews took between 1 and 1.5 hours and were held at the regular meeting place of the G50. Other members did not attend or listen in.

The chosen interview methodology will have resulted in biases in the respondents' answers. It is hardly avoidable. A leader bias may occur since the typical G50 group leader is more modern and outward looking than his average G50 member. Next, the unavoidable presence of AUXFIN staff (for introduction and translation) will also lead to a bias; there was no budget to engage independent translators or enumerators.

The data of the 12 interviewed groups are resumed in Annex 4. Owing to the open G50 interview schedule (Annex 3), a detailed representation of all their answers on use and appreciation is not possible.

### 2.3 Jeanne chatbot for weekly questions

Opportunity was taken of the weekly questions sent out by the Jeanne Chatbot to sound out the transactions of the G50 and members with input suppliers and offtakers of their produce. The aim is to gauge the relative importance of the UMVA platform for economic relationships with market operators.

The questionnaire is appended in Annex 5 (in French language). It was conducted in week 18 and yielded 2,930 unique G50s responses.

### 2.4 Interviews with local authorities

The choice of provincial and communal authorities was done by AUXFIN staff, often based on ease of planning.

The local authorities interviewed include:

- At Provincial level : Chef de Cabinet, Cibitoke, Gouverneur, Gitega and Chef de l'Antenne Provinciale Planification et Suivi, Karusi.
- At Commune level: the Administrators of Nyabikere, Bugenyuzi (Karusi), Bugendana (Gitega) and Buganda (Cibitoke)
- At each G50 the 'Chef de Colline' or his representative were present. While not directly interviewed, they often interfered in the interviews by completing information or adding arguments<sup>3</sup>.

### 2.5 Other interviews

Only a few input suppliers were interviewed. Initially it was not clear to the evaluator that there are few autonomous sources of farm inputs in the Project: fertilizers are distributed for the account and risk of PNSEB/FOMI, while improved (hybrid) seeds are ordered and delivered by CoProSeBu accredited seed multipliers. The AUXFIN Project does not partner with other agro-chemical dealers or agri-equipment suppliers.

FOMI delivers fertilizers directly, i.e., not through independent retail agro-dealers. In addition, farmers have not been able to order seeds from CoProSeBu for the last 1.5 years. Burundian improved seeds production and distribution is currently being reorganized with external support.

---

<sup>3</sup> Such interruptions are seen as positive. It made clear that the relationship of the G50 leaders with the Chef de Colline was cordial and communication open.

Therefore, the evaluation of the AUXFIN's seed supply function is less relevant now. Yet the evaluator met representatives of PNSEB, CoProSeBu and IFDC.

Finally, partners of EKN and the AUXFIN UMVA Platform were contacted to validate data, information and opinions collected in the field or at AUXFIN consultations. Relevant findings and conclusions are presented in chapter 8.

### 3. AUXFIN and its roles in Burundi

AUXFIN presents itself as a social company dedicated to promoting financial and social inclusion for all by creating a network consisting of users and solutions, aiming to facilitate access to key services, knowledge, and markets. The concept social company can mean many things, but for AUXFIN it mostly means that it aims at maximizing impact and generate employment in the countries of operation, rather than maximizing profit, while at the same time seeking to achieve sustainability. Thereto, AUXFIN presents itself as the builder (and manager) of the Burundi digital highway through which its partners make their services, knowledge, and markets accessible to a wide group of beneficiaries or clients. Although AUXFIN started off in Burundi as a financial consultant focusing on payments and remittances, the UMVA BANK platform is the core of its current activities in the country.

The combination of profit and not-for-profit components and the mix of commercial and development goals complicates a clear evaluative view. That is why, merely for analytical purposes, the evaluator wishes to distinguish four roles of AUXFIN in Burundi<sup>4</sup>.

We can distinguish four roles or functions:

1. Development agent: G50 concept with community development orientation, community activation, social inclusion, conflict management, etc.
2. Software (private) company: creation and maintenance of Integrated transaction and payment platform(s) under collective action.
3. Fintech (private) company: transaction and payment facilitation through UMVA Bank, N'iCash in cooperation with MUTEC and other financial service providers (mainly MFIs).
4. Training institute and think tank: content development for online and off-line training and extension modules – often in collaboration with international and local NGOs.

#### 3.1 AUXFIN's 6-pillar approach to rural development:

At the onset of its Burundi programme AUXFIN defined six pillars for community activation and digitalization. These pillars have evolved in different ways.

##### Pillar 1: Governance

A LegalCoach application is under development and will be tested in Makamba Province soon. Users (G50 members, VSLAs cooperatives, etc.) find in the application a series of instructional videos and testimonials that allow them to be better informed in legal matters, like land disputes, civil law matters.

Subjects in this application are legal and judicial structures in the country, their purpose (for community conflicts), access options, conflict resolution within the community.

In the past AUXFIN and ZOA worked on an application for the digitalization of land certification to aid in land conflict management.

This pillar and its applications are not part of the mid-term evaluation. The evaluator did not have time to include in his schedule a trip to Makamba.

---

<sup>4</sup> The four roles are purely meant for the purpose of this intermediate evaluation. There is no implied value judgement on the for-profit and not-for profit components of AUXFIN as a social company.



### Pillar 2: Health

The Health and Nutrition Coaches are in this category as well as the Sexual and Reproductive Health training module. Although on the planning board for some time, the Covid 19 pandemic triggered the deployment of the HealthCoach application.

### Pillar 3: Education

Originally adult literacy, schooling of girls and distance learning were part of the Education pillar. AUXFIN did not develop specific tools or projects under the Education pillar. Yet other coaches typically hold an educational module.

### Pillar 4: Social

This pillar refers to social cohesion, community solidarity, mutual help, and conflict resolution. AUXFIN's community activation approach works through G50s as open and voluntary regrouping of 50 households living in the same community. First, farming households are registered in the UMVA Client database. The G50s are registered in the UMVA Reg App and conduct business in the UMVA G50 App (or UMVA Local).

One of the aims of the G50 approach is 'social inclusion': social cohesion, mutual help, solidarity, peaceful conflict resolution.

### Pillar 5: Finance

A FinanceCoach comprising the three components Education, My Finances, Services has been designed. It is being introduced on pilot base with 30 G50s in 6 communes (Gitega, Karusi, Cibitoke, Makamba). But the last module of Services is not yet deployed.

AUXFIN staff (mainly IT experts) in The Netherlands, Nepal and Burundi designed the FinanceCoach (Academy and personal Financial Planner). An early version was tested with G50s. Under the PADFIR project of Cordaid/ICCO has contributed to the contents of the education tool. PADFIR staff contributed to the refining of the content considering the requirements and needs of the MFI clientele.

### Pillar 6: Work & Income:

The pillar focuses on the agricultural (crop) sector while young entrepreneurs were included in a later stage.

The first digital entry was the collective ordering and payments of fertilizers under the voucher system. The electronic AgriCoach was developed with support from the Dutch G4AW programme.

The two segments are further dealt with in chapter 5.

## 3.2 Youth Entrepreneurs

EKN organized a series of 'Exchange Evenings' for young entrepreneurs before the Covid 19 pandemic after which it invited/commissioned AUXFIN the development of a tool for support to and services among this target group. EKN supports (or has supported in the past) various NGOs that work with MSMES and individual entrepreneurs. The AUXFIN solution would reach out to these and other young entrepreneurs.

A website for young entrepreneurs was set up thereto ([www.yeb-bi.com](http://www.yeb-bi.com)). It is an online tool. Since most young entrepreneurs are not (regularly) online, and the website does not offer much content, it is hardly used. Data of no. of unique visitors are not available since the Google Analytics plug-in has not installed.

Last year development of a separate UMVA platform for young entrepreneurs started by AUXFIN. The offline tool an educational and planning tool (YEB coach: 'Let's improve skills'). The platform also offers a fundraising tool: young entrepreneurs propose their projects while potential investors and/or donors can fund them – either by grants or loans- through a PayPal facility.

The offline YEB coach incorporates the Academy of the online platform, a section on Financial Planning (under development), a section with testimonials and success stories of youngsters, and a section 'Services' that serves a reference point for the YE ('Let's do business').

Content for the YEB coach is/will be provided by the Platform partners like Jimbere (magazine), Kazecom (communication enterprise), BBIN, SPARK (both in training, incubating and some other services to young entrepreneurs). Recently AUXFIN initiated contacts with AfDB (African Development Bank) to mobilize or jointly develop contents for the YEB Coach<sup>5</sup>.

---

<sup>5</sup> The evaluator considers 'joint development' of contents for the YEB coach as a confirmation of AUXFIN's role at a training institute or think tank for 'development' of young entrepreneurs.

## 4. Transaction Partners attached to the UMVA Platform:

AUXFIN Burundi collaborates with different partners, many of them with projects financed by the Netherlands bilateral cooperation programme.

### 4.1 World Food Programme - WFP

WFP aims to increase its local sourcing of essential food stuffs for food aid and other programmes. The target is to buy at least 50% from local smallholders.

Initially it was difficult for WFP to trace whether the payments indeed reached the farmers and no commissions etc. were deducted midway. On instigation of EKN, WFP partnered with AUXFIN to facilitate orders and payments through the UMVA Platform (June 2020).

The collaboration with AUXFIN relates to the local sourcing programme of WFP for school meals in five Provinces Kirundo, Bubanza, Muyinga, Cibitoke and Bujumbura Rural. WFP can only transact with legal entities; therefore, G50 cannot deal directly with WFP but need to pass through licensed cooperatives. AUXFIN has registered 102 Cooperatives with 7297 members in 5 provinces (end 2021). To date, it has not yet organized purchases at the G50. The Project component has planned two phases, the first of which consists of digitizing the collection and payment process via the cooperatives. The second phase consists of connecting the WFP purchases to the G50. This step is not yet done.

WFP has been buying maize, beans and rice for its school feeding programme. WFP's local partners are limited to agricultural cooperatives; yet only few among the 3,000 registered cooperatives qualify as they are weak and in infant stage.

GoB now ordered that all purchases pass through the newly created state-controlled company (and majority state-owned) at a uniform price.

WFP concludes contracts with the cooperatives stating a same price for member and non-member collections. The contract can be a term contract or a direct one. The term contract is concluded with the coop halfway the cropping season and includes a reference price for a standard quality of produce. This allows the farmer or cooperative to request a local loan. Direct contract refers to stocks already in a warehouse and for which WFP issues a tender.

AUXFIN registers the cooperatives in its app of UMVA Platform, gives them a tablet and offers training in the collection and payment process.

### 4.2 PNSEB – FOMI

PNSEB is the national programme of the Ministry of Agriculture that is charged with the regulation and management of the fertilizer subsidies to small farmers under a voucher system. Fertilizers are no longer imported, now that a GoB controlled factory has been established (FOMI). FOMI is the privileged national organo-mineral fertilizer manufacturer that imports mineral raw materials but collects its organic materials domestically. It is also responsible for fertilizer distribution to zone-level where farmers directly collect their orders so that these reduce travel time and distances.

The voucher entitles a farmer to order fertilizers at a personal maximum of 23 bags (of 25kg). In practice G50 farmers order far less fertilizers as they have small landholdings. All crops qualify for the subsidized fertilizer under the voucher system.

Without vouchers, fertilizers are hard to get through legal channels. Market availability and costs are impediments. Fraud, side-selling and pilferage of subsidized fertilizers are controlled to some extent by orders through the UMVA Platform. But illegal trading at the colline level is still difficult to check.

Next to N'iCash and MUTEK, PNSEB works with three other financial partners: the commercial La Poste, the network of financial cooperatives under Fenacobu and the mobile money platform of LumiCash. La Poste handles around half of all transactions.

The UMVA Platform is built to handle collective orders and payments which in itself offers a competitive advantage. None of the other FIs accept collective fertilizers orders. Apart from AUXFIN, the development organization Tubura has been accredited by MinAgri to regroup orders of small farmers and distribute the FOMI fertilizers thus enabling farmers to save on time and money in ordering and receiving fertilizer at delivery.



Hidden by AUXFIN as confidentiality clauses with partners are applicable.

#### 4.3 COPROSEBU

CoProSeBu or 'Collectif des Producteurs de Semences du Burundi' is an association of 370 multipliers<sup>6</sup> of improved seeds of seven crops (maize, beans, Irish potatoes, rice, soyabean, sweet potatoes and cassava). These crops are by and large the priority crops of GoB. CoProSeBu coordinates improved seed distribution and strongly promotes that all seed orders pass through them. The collective launches seed tenders among its members or places direct order to them. Large organizations like FAO and World Vision who distribute free seeds to the beneficiaries in their programmes are equally considered to pass through CoProSeBu.

Seed prices are fixed by MinAgri every season in relation to the production costs. In practice, the prices have not been adjusted for the last four years.

Seed clients place their orders before the multiplication season with a 10% down-payment. 90% of the order is paid at delivery. CoProSeBu countersigns the contract of the multiplier with the client as a sign of the reliability of the seed supplier. Seed delivery is in marked bags and at the producer's door/farm gate.

The seeds are certified by the national seed certification authority ONCCS<sup>7</sup>. If ONCCS rejects certification of a certain lot, CoProSeBu will aid in redirecting the client's order to another multiplier.

Except for rice seeds, demand for certified seeds exceeds by far the supply. The 2021 production volumes of certified seeds through CoProSeBu are 200 MT of maize, 700MT of beans and 3,000 MT of Irish potatoes. The 2021 orders through AUXFIN amounted to 19.9 MT of maize, mostly for Gitega Province, so a share of 10% of the national maize seed production. No beans and potatoes seeds were sold through AUXFIN in that year.

CoProSeBu's financial position is weak. It now receives funding by IFDC under the PSSD project. In addition, each member contributes a monthly membership fee of BIF 10,000.

---

<sup>6</sup> Somewhat confusing the wording 'producers' is used in Burundi for seed multiplication companies, associations, or individual entrepreneurs.

<sup>7</sup> Except for cassava and sweet potato where no certification process exists in the country.

#### 4.4 IFDC - PSSD

The PSSD is a Netherlands funded market systems project that supports private seed producers in improving and enlarging their businesses, selling directly to smallholders. It is implemented by KIT and IFDC for improved seeds (mainly maize, Irish potatoes and beans) for higher production and incomes of 178.000 farmers in Burundi. First generation seed is originated from ISABU that selects well-performing seeds from the subregion, tests and certifies them. Under the cooperation agreement the whole selection and certification process is shortened to 2 from 3 years.

IFDC supports seed multiplication by private businesses that sell seeds directly to farmers in closed bags. To avoid mismatch in supply and demand, farmers pre-order the seed at a 10% prepayment (deposited in a bank account of the supplier). IFDC intervention includes support to the multipliers' marketing efforts (mobile sales at farm gate, radio advertisements, demonstration fields ('animation des journées champêtres')).

So far, IFDC works with 78 certified multipliers. The target of 178,000 unique farmers buying the improved seeds has been surpassed.

Disadvantages and delays in pre-ordering occurred. Bank branches are not at farmers' doorstep. Travel distances and transport costs are relatively high in relation to the farmers' seeds order. So far, IFDC monitors the seed distribution through hand-written reports of the multipliers. Reliability of information was not assured, and sometimes not understandable. Collective seed ordering through cooperatives has been tried.

IFDC, CoProSeBu and AUXFIN consider having found a solution in transacting business with the G50 through the UMVA platform. This intends to facilitate smallholders in ordering and settling the payments through their UMVA account (as per the model of PNSEB fertilizer orders). CoProSeBu and IFDC will avail of an independent and easily accessible monitoring tool of seed multiplication, payments, and sales with more efficient service to the farmers. The collective seed orders through AUXFIN/UMVA will generate a commission [REDACTED]

[REDACTED]  
[REDACTED]  
[REDACTED]  
Hidden by AUXFIN as confidentiality clauses with partners are applicable.

#### 4.5 MUTEK – N'iCash

Since the start of the UMVA platform, the MFI MUTEK has been acting as its depository bank for the payment platform N'iCash. Thereto BRB granted to MUTEK a license as an Electronic Payment Provider.

From its start, AUXFIN has been targeting several MFIs for digital payments with their clients. As MUTEK was the first and only MFI interested in partnering with AUXFIN [REDACTED]

[REDACTED] N'iCash became associated with MUTEK. On instigation of BRB, a new company was set up to which the BRB license and payment application N'iCash has now been transferred. [REDACTED]

[REDACTED] The joint venture is managed entirely by AUXFIN which receives the bulk of the commission payments (and other revenues?). Yet, the image of exclusive cooperation with MUTEK has not yet been broken among other FSPs: they consider MUTEK, and therefore N'iCash, as benefitting from preferential treatment.

#### 4.6 Role of and Partnership with other Financial Service Providers

For some time, AUXFIN intends to associate other FSPs to the UMVA payment platform. This would be of interest to the G50 members and others in areas where MUTEC is not represented (with a branch since MUTEC has no agency network).

Discussions have been going on for two years. AUXFIN signed a MoU with 6 MFIs by mid-2021 followed by Implementation Plans. These are: CECM, Twitezimbere, UCODE, CORILAC and COSPEC. Another MFI (WISE) joined later.

#### 4.7 BBIN

BBIN (the acronym of Burundi Business Incubator) is a non-profit organization for the promotion of entrepreneurship and the acquisition of business capabilities of existing and new SMEs in Burundi. It offers business incubation support, training courses, networking opportunities and Business Planning support. BBIN cooperate with various donor agencies, e.g., with FAO on the AYA Platform (African Youth Agripreneurs). It has a focus on young entrepreneurs and start-up businesses.

BBIN cites as most pressing challenges for young entrepreneurs a) their access to finance, b) access to markets and marketing of their products and services, and c) their managerial, technical, and business capabilities. It was part of some finance initiatives for start-ups in the past (Village Community Bank, Interbank) but these were not successful. Apart from trainers, it is capable to find more experienced mentors to step up and support starting entrepreneurs.

BBIN deployed a consultant to help AUXFIN in the content of its online platform for YEB. It considers such platform a suitable tool for connecting young entrepreneurs to investors or clients.

#### 4.8 BIJE, Gitega

The state-owned bank BIJE (Banque d'Investissement pour les Jeunes) has two windows, one commercial and one for Young Entrepreneurs (up to 40 years of age). These entrepreneurs are eligible for loans at concessional interest rate of 7% if they are organized in a cooperative or enterprise. The bank states that it is easy to find qualifying young clients. In the first year of its existence, it has built a loan portfolio of BIF 1.5 billion (EUR 750,000.-).

BIJE offers limited training in financial education and credit use to the youngsters. It has shown interest in cooperation with AUXFIN for example. in the FinanceCoach.

## 5. Assessment of the 9 outputs and outcomes of the project's Log Frame

### 5.1 Activation of G50s with UMVA services

Outcome 1 concerns not just the activation of 3,911 G50s, but the outcome refers too to these 'groups use the services offered by the UMVA platform'.

The final evaluation report of AgriCoach dated January 2022 states that the G50 network was scaled to eight Provinces (Bubanza, Bujumbura Rural, Cankuzo, Cibitoke, Kirundi, Makamba, Muyinga and Rumonge). The 2022 AgriCoach final evaluation report states that 8,141 G50s were using the AgriCoach by the end of the year, and thus reaching over 400,000 households.

The number of registered groups and G50 members as per mid May 2022 is shown in table 1:

Province	# G50 groups	# G50 members	Average per group
BUBANZA	1334	61038	45,76
BUJUMBURA RURAL	1101	53461	48,56
CIBITOKÉ	1530	73551	48,07
GITEGA	2603	165008	63,39
KARUSI	934	40610	43,48
KAYANZA	790	34544	43,73
KIRUNDO	593	24956	42,08
MAKAMBA	1139	49020	43,04
MUYINGA	626	33882	54,12
RUMONGE	553	15777	28,53
<b>Grand Total</b>	<b>11.203</b>	<b>551.847</b>	<b>49,26</b>

Mobile network coverage is reasonable in Burundi, but not easily accessible in remote areas. The majority of the G50s depend on the weekly meetings with the key activator for updating their tablet with UMVA bank data and f.ex. weather forecasts updates. This limits the effectiveness of such time-bound messages.

User statistics are collected when accessing/opening the Health and Nutrition Coaches, while such cookies will shortly be installed in the FinanceCoach. The actual consultations of the themes of the Coaches are not registered.

The older AgriCoach does not register who, where and when a user accesses the application. A proxy for the use of the tablet can be found in the synchronization of the offline G50 tablet with that of the activator at the weekly meeting. The synchronization is needed to upload the latest weather forecasts in the AgriCoach. UMVA data show 8,033 installations of unique G50 group IDs from 1<sup>st</sup> September 2020 up to 15<sup>th</sup> May 2022.

The weather synchronization frequency varies over time and are not unequivocal. In 2022A, it peaked at start of rainy season with 31,000 synchronization per month and reduced towards the dry season. In the 2022B season, with 10% more installed tablets and AgriCoaches, the number of synchronizations peaked at 7,200 per month. It is difficult to explain the discrepancy. By way of a rough average, we may conclude that the G50 consult the updated weather data between 1 to 5 times per month. This frequency seems to decrease with the longevity of the G50.

AUXFIN figures out the number of *active* G50 groups under Outcome no. 1 by the number of active G50s buying PNSEB fertilizer. In the seasons 2022A and 2022B (i.e., the most recent cropping seasons), a total of 4,777 unique G50 groups (and 57,065 farmers) in the 7 provinces of the EKN contract geographical scope purchased fertilizers through the payments App. The evaluator finds this a reliable indicator. The outcome result has surpassed its target by 22.1%.

Based on the same datasheet an amount of BIF 2.8 billion (2.774.282.500) was 'saved' in season 2022A and a similar sum (BIF 2.760.871.000) in season 2022B. These amounts stand for advance deposits made in UMVA Bank that are sometimes used by the G50 for short loans to group members. The actual savings are larger since many G50 make savings for group loans that are not recorded in the UMVA Bank's group account.

### Impact on crop productivity

The mid-term evaluation has not been able to assess the impact of the AUXFIN support and services on farm production and productivity independently. However, AUXFIN has conducted over 400 measurements in G50 member fields (with control groups) in 2020 and 2021. The G50 farmers realized a 35% higher maize yield over that of the control group (in 2021A season) and a more than double beans yield (110% in season 2021A and 127% in 2021B). In the same surveys significant improvements in farm income and food security among the G50 members were recorded. Improvements were both quantitative (more meals eaten per day) and qualitative (more varied diet with vegetables and animal products).

## 5.2 WFP local grains sourcing

Outcomes 2 and 3 relate to the WFP programme of local sourcing: "Local farmers in Gitega, Cibitoke, Bubanza, Bujumbura Rural, Kirundo and Muyinga have an increased production and supply schools against fair market prices, thus having an improved household economy" and "WFP sources food from local farmers instead of importing it from foreign companies, respectively".

AUXFIN registers the cooperatives in its UMVA app, gives them a tablet and offers training in the collection and payment process. The company registered 102 cooperatives in the 5 provinces (end 2021), more than half of them in Kirundo. 20 cooperatives have so far been trained and are considered 'technically operational' on the Platform.

Last year (2021) showed a quite difficult maize market in Burundi. Prices fluctuated heavily and varied often. This resulted in heavy competition from private traders who vied the high-quality maize destined to WFP and regularly overbid the PM reference price. In Muyinga Province aflatoxin in maize was another issue. In the end WFP only bought beans through the UMVA Platform in direct contracts: 151 tonnes for BIF 165.9 M.

Many difficulties have arisen in the partnership with WFP. AUXFIN complains about the high due diligence standards and procurement and transacting requirements of WFP that FSP cannot meet. There are (or have been) some issues with interbank transactions. Remittance of these funds from WFP's bank account at Interbank to MUTEC's bank account (Ecobank or Interbank) were delayed since WFP initially required a SWIFT code for direct transfers to a financial partner<sup>8</sup>. It was a one-time incident as the opening of a new bank account by MUTEC solved the issue. With the advent of N'iCash should be finally resolved.

---

<sup>8</sup> MUTEC does not have a SWIFT code as it does not participate in the Burundi national payment platform (it is not permitted as an MFI).



WFP complains about MUTEK being the sole banking partner of UMVA. Its supply cooperatives are scattered in the country while the MUTEK branch network is limited. Cooperatives prefer to transact with an MFI or bank in their immediate surroundings. So far, only 30- 35 of WFP accredited coops have an account with MUTEK, and thus can benefit from the UMVA Platform.

According to the Project's LogFrame, Outcome no 2 of WFP local sourcing is that local farmers in the six Provinces increase their production, and thus an improved household economy. No indicators for outcome measurement or monitoring have been set. AUXFIN's 2021 progress report does not make any reference to increased production by WFP farmers. Anyway, the causal relationship between sales to WFP and cereal production and household economy is hard to prove without an in-depth survey among the smallholder beneficiaries.

Phase 2 of the WFP cooperation has not yet started. So, AUXFIN supported farmers have not yet been offered the opportunity for local schools' supply. WFP is buying bulk from its cooperatives. It has not yet opened the facility of farmers supplying to other buyers<sup>9</sup>. WFP's is reserved because schools lack the competence in procurement by local tendering since they are used to food stuff delivery by the GoB. AUXFIN hopes that procurement standards and requirements will be relaxed if schools can freely deal with the maize and beans farmers and transactions take place without intermediation of WFP.

### 5.3 Health and Nutrition Coach and Services

Outcome 4 aims at 100,000 farmers using the HealthCoach and the same being ready for upscaling to all G50s. Outcome 11 (not being part of the mid-term evaluation) deals with the NutritionCoach. As AUXFIN decided to integrate these two Coaches into an extended HealthCoach, nutrition will all the same be dealt with in the report.

The introduction of the HealthCoach was triggered early 2020 by the Covid19 pandemic. The design is similar to the AgriCoach with weather forecast and information on major diseases in four windows: general information, awareness raising, disease prevention and diagnostics and treatment. The HealthCoach aims to deal with the 10 most common diseases in Burundi. So far, the Covid19 and malaria subjects have been completed while work on yellow fever and Ascaris (intestinal roundworms) is ongoing. An added window in the HealthCoach for referential medical services is planned; this will include a mapping of the GoB clinical services and facilities and those of partners in the health sector.

A cooperation agreement has been reached with the social company 'Healthy Entrepreneurs' and its network of Community Health Workers under which HealthCoach users will have easy access to the products of Healthy Entrepreneurs.

At the end of 2021 over 2,000 G50 reported to make regular use of the HealthCoach application with an estimated outreach to over 100,000 households. The initial target has therefore been reached.

AUXFIN partners with UNICEF in the design of the NutritionCoach that focus on the production of short (1 minute) videos on nutrition education for improved health of children, nursing mothers and elderly people. In addition, growth of babies and small children are monitored and recorded.

Since January 2022, the NutritionCoach is piloted in 33 G50s in 11 provinces. AUXFIN questioned the G50s on their use of the NutritionCoach in week 14 and 15 of 2022. In the first week 81.8% of 1228

---

<sup>9</sup> At the time of this evaluation, a WFP consultant is working on the arrangements and procedures for direct marketing to schools by cooperatives (or G50s). This will be on competitive (tender) basis.

groups responded positively; in the second week all 725 responses were positive (100%). Breastfeeding (alone) and breastfeeding plus complementary feeding were cited as by far the most consulted subjects of the Coach.

This year 2022 the newer NutritionCoach and the coach of Sexual and Reproductive Health (SRH) will be integrated in the HealthCoach.

The incorporation of the SRH 'coach' was triggered by a JEANNE survey on Sexual & Reproductive Health & Rights at end 2021. The survey aimed to supply baseline information for the SRHR project of EKN.

AUXFIN measures the actual use of the HealthCoach and NutritionCoach indirectly i.e., through field reports of the activators. The field staff reports that in 10 Provinces 7,524 have access to the three coaches (among a total of 11,447 G50 groups) as at 1<sup>st</sup> May 2022<sup>10</sup>.

Overall, it appears that around 52% of the G50s do make use of the Nutrition and HealthCoaches. However, the range of utilization is quite broad: while some Communes report up to 100%, the Health and NutritionCoaches are hardly used in other Communes (Makamba, Bujumbura Rural). High figures are frequent in Gitega and Karusi being created late 2019. Active support by the key activator is apparently a crucial factor in the use of these Coaches.

#### 5.4 YEB Platform

Outcome 5 concerns the YEB: "20,000 young entrepreneurs in Bujumbura and the provinces join the platform and participate actively". The YEB outputs and indicators are formulated in broad terms without much specification. Three outputs relate to the creation of UMVA YEB Bank and YEB website, the registration of young entrepreneurs and the creation of G50s young entrepreneurs.

The purpose was to activate the rural youth engaged in micro and small enterprises of any kind. However, it soon appeared that few small and micro-entrepreneurs (male and female) are active on the online platform where they can offer their products. Consequently, the website content ([www.yeb-bi.com](http://www.yeb-bi.com)) is now transferred to an offline environment, while youth will be equipped with a tablet.

A total of 309 entrepreneurs have now been registered in the UMVA Youth Platform with access to N'iCash and the UMVA YEB Bank. These are all from the Nuku-campaign. No new registrations are made these days.

The target of 20,000 young entrepreneurs is by far not reached. No initiatives have been taken in organizing the young entrepreneurs in G50s. Anyway, such regrouping seems complicated as the youth live and work at larger distances from each other. Any common bond – as with farming households in the same ecological zone - is loose or absent. There is a larger variety in business sectors, business sizes and personal capabilities and competences than among crop smallholders. Business services cannot be standardized to the extent of those for crop cultivation. Anyway, relevant YEB services have not been mapped and developed on the UMVA tool yet.

---

<sup>10</sup> The number of 7,524 is less than the number of G50s using the AgriCoach as reported in the earlier section. The sources are different viz. automated synchronization reporting for AgriCoach, and field data collected in this section.

## 5.5 Basic Financial Services

Outcomes 6, 7, 8 and 9 relate to the access of finance for G50 groups and their members.

“All the G50 groups and the farmers have (digital) access to basic financial services.”

“G50/farmers can choose amongst various financial service providers”

“MFI gained experience with digital financial services (beyond mobile payment).”

“MFI develop additional products and services adapted to the needs of the farmers, against acceptable and better identified risks.”

The activities under these outcomes are based on a diagnostic study conducted early 2019 and the Plan of September of that year. For the FSPs the important benefit is that AUXFIN will create UMVA Bank for each MFI and train their staff. MFI can then offer UMVA accounts to their existing client base and may offer basic financial services (savings, loans, and digital payments to start with) through UMVA. They may mobilize G50s and their members as new clients as well.

The project has kicked off two years ago for a duration of 6 months. MFIs paid an orientation visit to Cankuso to see the operations of UMVA in white sorghum sales to Brarudi which helped to convince them on the feasibility of AUXFIN Platform.

So far, AUXFIN has concluded MoUs with six MFIs, after which draft Implementation Plans were formulated on which just two MFIs have commented (Corilac and CECM).

On request of the MFIs, UMVA BANK and its applications have been placed in a dedicated (local) server to be able to connect to the local MIS of the MFIs. AUXFIN also installed the USSD protocol to serve the many MFIs' clients without a smartphone<sup>11</sup>. Apart from a single week of training and installation at UCODE Ngozi (April 2022) no progress has been made on implementation of the MFI linkages to the UMVA Platform and N'iCash tool.

*Implementation* is seriously delayed even though a range of international experts work on this project. Exact reasons of the delay are difficult to trace since stakeholders state quite different reasons and communication seems to be thorny.

Two local finance experts left the company at the end of 2021, and they have not yet been replaced. Instead, AUXFIN's IT manager took over the coordination work in cumulation with his own duties. The implementation capacity of AUXFIN has not been brought up to level since. AUXFIN's capacity bottleneck is also highlighted in delays in development of the FinanceCoach.

The CEOs of COSPEC and CECM complained about the many unanswered calls and the difficulty to contact AUXFIN's senior management. CECM questions the implication of MUTEC through co-ownership of N'iCash as well as the sharing of transaction commissions generated by CECM clients/members with MUTEC. CECM proposes that its members are connected to UMVA based on their registration in its own database.

Twitezimbere, another signatory to the MoU with AUXFIN, strongly deplores the publicity of 'MUTEC's digital payment system of N'iCash' and has started negotiations with mobile money provider to offer digital payments services to its clients. N'iCash may currently be a cheaper option than EcoCash or Lumitel. Yet these two digital payment platforms may be considered as direct competitors of N'iCash.

---

<sup>11</sup> Unstructured Supplementary Service Data (USSD) is a communication protocol for mobile phones. By using USSD codes, one can access web-based services without installing a mobile application. Like SMS, USSD is a product of a time before smartphones, when GSM phones needed a way to communicate without full-blown applications.

AUXFIN's management holds a very different view. It asserts that despite several meetings and even trainings, the MFIs seem not to be ready for the deployment of the UMVA Platform. They would prefer a wait and see attitude. AUXFIN states it now has sufficiently demonstrated the advantages of the UMVA platform and expects the MFIs to take a more proactive approach.

To conclude, very little has been realised on Outcomes 6, 7, 8 and 9 of the Project. The very first output ('6 MFIs are connected to the UMVA Platform') has not been achieved. This output preconditions other Project outputs and outcomes. Only MUTEK is connected but the MFI has not started offering new products and services to G50 farmers.

## 6. A closer look at the G50 model and operations

For AUXFIN, the G50 network is key for the development of the digital highway, as it allows to organize the users efficiently and cost-effectively. In that way, inclusion is promoted. In AUXFIN's perception a network like the G50 is a pre-condition for effective digital solutions.

The present chapter analyses in more detail the findings of the documentary review, field interviews and observations on the G50 model and operations. This is followed in chapter 7 by the appreciations taken at the G50s interviews.

### 6.1 Size, composition, and registration of G50s

The early G50 were created to digitalize farmers' fertilizer orders and payments, against the need to reduce fraud and pilferage in voucher entitlement and prevent misuse of GoB fertilizer subsidies. Hence, a complete and thorough registration process of G50 members was set up. Such KYC (Know Your Customer) process is also needed in today's financial transactions avoiding money laundering and terrorism financing. Another consideration is that Burundi does not have a singly, unique registration model for personal or household identity; double registration (with the risk of double fertilizer orders) should be avoided. The strict registration process and detailed data collection is made standard for all registrations in the UMVA Platform.

Registration of new G50 and members is the responsibility of the help desk team based in Bujumbura. New members can be registered directly by the Key Activators after endorsement by the FP and master activator, but in practice this hardly happens<sup>12</sup>.

AUXFIN typically conducts new member entries at fixed dates, i.e., timely before the PNSEB fertilizer orders are due to take place.

By mid May 2022, 551,847 members in 11,203 G50s have been registered in ten Provinces<sup>13</sup>. This shows a remarkably high average of 49.26 members per G50. Yet this average group size is an overestimate because new registrations are currently ongoing in Gitega Province where statistics indicate the average group size of 63 households. When the Gitega figures are excluded, the average G50 group size decreases to an average of 45.

Both in theory and in practice G50s count a maximum of 50 households. The UMVA registration App does not allow registering a larger number of members per G50.

Many G50s have started off with a lower number of households, especially in the older Provinces. They grew quickly to the maximum membership. Yet, many said that there is a waiting list varying from a few to 20 households. Reasons for newcomers to join are mainly economic: the applicants see the well-tended fields and the increased productivity of the crops, and they appreciate the AgriCoach instructions on Good Agricultural Practices.

Members on the waiting list are generally allowed to attend the weekly G50 meetings. They even can order fertilizers if a G50 member accepts to act as intermediary, and on condition that the household figures on the voucher entitlement registry of the Ministry of Agriculture (as verified by DPAE and the Chef de Colline).

---

<sup>12</sup> In the field, the evaluator heard complaints that it is difficult to have new members registered whether by the activator or the Bujumbura help desk

<sup>13</sup> Obviously, there are more UMVA registrations of individuals outside the G50 groups.

Hardly anybody leaves the G50. The rare cases are when a complete household migrates or a family decease without heirs<sup>14</sup>.

One G50 counting 32 registered members was found in the field. It had a waiting list of 12 households for some time. Moreover, another G50 had 15 to 20 households on the waiting list. In some cases, the waiting lists are so long that they allow the creation of new G50s. But this too, is delayed, reportedly for lack of capacity at higher levels.

The genuine reason of non-registration or a slow registration process is not known.

The 'Chef de Colline' or his representative at the 'sous-colline' is often member of a G50., as stated by many of the G50s interviewed.

## 6.2 The Key Activator (K.A.)

The activators network is positioned to ensure 1) the understanding and adoption of the digital services; 2) the inclusion of the most vulnerable people while 3) maintaining the efficiency of operations and therefore a lasting impact of AUXFIN's services.

The key activator is the linking pin between AUXFIN and the G50. He originates from the zone where he is deployed. He has completed 10 to 13 years of education (or nearly so). About 1/3 of the roster are female.

After a few short training sessions, the key activator is supposed to engage with up to 20 G50s so that s/he attends four meetings per day and 20 per week. Most of them, however, has been assigned a somewhat reduced number of G50s. The K.A. is paid a modest salary and reaches out on bicycle or on foot to his G50.

The function of the K.A. is to train, assist and monitor the G50s and their members, both in handling the tablet with the platform functionality, G50 data, coaches and weekly chatbot questions. He carries the tables from the one to the other G50. His support to ordering and paying for seeds and fertilizers of the G50 members is essential to the success of these services. The K.A. also has a cashier function: s/he handles small sums of cash between AUXFIN and the G50 or for depositing in a Coopec or bank account.

Once the G50 is mature, the activator can dedicate less efforts to guiding and coaching the G50 and focus more on the agency role in facilitating transactions and services. Once the N'iCash tool is fully operation (and cash withdrawals have been enabled), the key activator will be formally appointed as an agent of UMVA Bank.

Each Commune has a Master Activator overseeing the Super Activators who guide the K.A. at zonal level. The Provincial level is headed by the Focal Point (Point Focal). Activators can work from a modest office space with meeting room at provincial level and in some Communes. At the end of 2021 AUXFIN employed 13 Focal Points, 46 Master Activators, 114 Super Activators and 507 Key Activators.

---

<sup>14</sup> In case the parents come to die, the children normally take over their position in the G50.

### 6.3 G50 and the Sangwe Cooperative

A few years ago, GoB launched a strategy of establishing new cooperatives at the colline level. Objective is the promotion of rural development by local investments or support to individual projects. GoB granted a start capital to all Sangwe Cooperatives. As a matter of policy, all households should adhere and a fixed weekly savings amount.

In the areas visited, Sangwe cooperatives had engaged into the loaning of goats or piglets to the members. G50 members also participated and benefitted.

The relationship of the G50 with their local Sangwe Cooperative is very mixed. In some areas all G50 members have joined the Sangwe Cooperative and diligently contribute at the weekly meetings. Others say that there is no common bond since the Sangwe Cooperative is for big projects beyond their reach.

In a few interviews we heard that the tablet is taken to the Sangwe meetings and the AgriCoach shared. Sometimes the extension officer of MinAgri too uses the information in the AgriCoach. Obviously, that is when the relationship is cordial and especially if leadership is shared.

### 6.4 Appreciations and other views collected from G50s

The present chapter presents the findings that the evaluation mission collected in May 2022. First, the short chatbot questionnaire is dealt with. Thereafter the outcomes of the open interviews with selected G50 are discussed details of which are found in annex 4.

#### 6.4.1 Jeanne Chatbot results

The questionnaire on the type of UMVA Platform services that the G50s used was replied by 2,930 G50s, being a fairly high response rate with 36.5% of the 8,033 installed G50s.

G50s were asked whether their members bought fertilizers and seeds through the UMVA platform and whether they delivered grains to WFP. Next, they were interrogated on their appreciation of these markets.

##### 1. PNSEB fertilizers

Over 88% of the 2,930 G50s ordered and received fertilizers in the 2022B season. 96% of the G50s were satisfied or very satisfied with the fertilizer supplies. Not a surprising outcome when 94% of the respondents confirm that the fertilizers will increase their yield.

##### 2. WFP grains sales

G50 members were asked whether they have sold maize, beans, or rice to WFP through the WFP accredited cooperatives over the last season 2022A. A surprisingly high 25,6% of the 2,930 G50s answered in the affirmative of which two thirds in Gitega groups. Since WFP has recently bought very limited stocks at all, it is likely that the figure is an overstatement of the actual situation. Differences may be due to confusion of sales in earlier seasons and/or direct sales of G50 members to the cooperatives (i.e., not through UMVA),

##### 3. Maize seeds

A similar overestimate is the response on the chatbot question on seeds procured through the UMVA platform. Improved hybrid seeds were bought through CoProSeBu until the 2021B season<sup>15</sup> (= early

---

<sup>15</sup> A new national seeds multiplication and distribution system is put in place with IFDC. Hence, CoProSeBu was not involved in coordination of the improved seeds distribution in 2022A and 2022B.

2021). More than half of the G50s affirmed they had bought maize seeds (1520 yes on 2926 responses). G50s may have confounded the CoProSeBu seeds with orders they place with the local monitors of DPAE (that do not pass through the UMVA Platform, although farmers tend to register their savings in the tablet and withdraw funds to pay for the DPAE seeds orders). Whatever the source of the maize seeds, nearly all G50s that bought improved seeds state their high level of satisfaction with the seed quality (total 97,6%). 96 % of the improved seeds users said that these contributed to a larger yield.

Improved seeds are known to be much more productive. Under good cultivation practices they are cost-effective too. Hence, we inquired the *reasons* for *not* ordering maize seeds. Table 2 shows the results.

**Table 2:** Reasons for not ordering improved maize seeds:

Reason stated:	No. of responses	% of responses	Total response to question
We were not informed	790	56%	1404
We were informed too late	825	63%	1314
Maize seed is too expensive	791	60%	1314
We had already bought seeds elsewhere	875	67%	1312
We used our own seed	947	72%	1310

The answers are not mutually exclusive: both among the group members and within the farming households more than one answer may be applicable.

**6.4.2 Appreciation and other comments collected from local authorities**

The provincial and communal authorities are positive about the AUXFIN approach.

They cite the advantages of the AUXFIN approach as:

- a. Wide coverage of the intervention zones. Hence effective outreach to a large portion of the local population
- b. Quick and frequent communication and open and frank collaboration
- c. Immediate impact on the population in efficient fertilizer ordering and payments, thus avoiding crowds and queues at the local COOPEC and Post Office.
- d. Internal conflict resolution by G50 unburdens the work of the Chef de Colline and his team.

In one Province, a complaint was lodged that fertilizers arrived late or incomplete because of theft and pilferage. It is difficult to ascertain whether the blame falls on FOMI staff or transporters, on AUXFIN staff or on G50 members. Yet cases of theft and pilferage may jeopardize the image of AUXFIN as an honest and objective partner in fertilizer distribution.



## 7. Findings and Conclusions on the G50 approach

### 7.1 Tablet navigation and access to the applications and Coaches

1. In most G50s only few people master complete navigation of the tablet. This may be the reason that the group leaders are relatively young and more digitally literate.
2. Yet, UMVA transactions and payments still need help of the key activator.
3. Access to the mobile network limits full exploitation of all functionalities offered by the tablet and Coaches.
4. Group savings and loans (along the VSLA model) are practiced by many G50s. The UMVA platform does not offer a tool yet to register their transactions<sup>16</sup>. The transactions are partly registered in the members' personal UMVA accounts, partly manually in copybooks.
5. While the key activator now attends all weekly meetings, his presence can be reduced to once or twice per month without loss of efficiency and effectiveness of utilization of the tablet and its functionality. This would allow reduction of the number of key activators as well as expansion of AUXFIN's coverage of the area and increase in number of G50s.
6. When the relationship with the Sangwe Cooperative is good, the AgriCoach is often shared in the Sangwe meetings.
7. A more agile registration process of new G50 members is widely solicited. In practice, it is limited to once a year, by the time that fertilizer orders are to be made. It is unclear whether this is formal procedure or just administrative delay<sup>17</sup>.

### 7.2 Content and utilization of the tablet

1. Farmers appreciate the AgriCoach for the 9-days' weather forecast, the GAP (good agricultural practices) like soil preparation, line planting, plant distances, mixing fertilizers and (farm-made) compost.
2. While the AgriCoach offers cultural information of 43 crops, G50s use a very limited number of them: GAP in maize and beans are always followed and applied but sometimes not more than these. Next figure Irish potato, sweet potato, banana, and soybean. Strikingly, the typical cash crops like coffee are neglected<sup>18</sup>.
3. The subject 'Markets and marketing for crops' seem to be underestimated in the AgriCoach.

---

<sup>16</sup> A new application for VSLA savings and loans administration is being tested with independent VSLAs under CARE. The evaluator has not had the opportunity to assess the ability of this app. It is outside the evaluation scope.

<sup>17</sup> This observation drawn from many field interviews is denied by AUXFIN. The company confirms that registration can be done any time. But, due to the big influx of new members over the last seasons and work pressures, registration is just delayed.

<sup>18</sup> This result of our interviews appears to contradict the conclusions in the AgriCoach final evaluation report of January 2022 that states (page 19): "There is a rich variety in farmers and the way AgriCoach is used. Every person seems to favour another element & use it their own way. Most farmers used most of the information, but not all farmers". Yet this report also highlights that the time for AgriCoach at the weekly meetings is limited, and that groups prioritize what is most important for them. In this light it seems logical that AgriCoach users opt for the crops that are most critical for them, and for which they can access farm inputs. At a late stage, the evaluator was advised that the complete version of the AgriCoach was only released to the G50s in November 2021, so they may only have used it for season 2022B. In that case, one would expect the final evaluation report of January 2022 to have qualified the statement that 'most farmers used of the most information' since farmers had not had the opportunity to access 'all information' at the time of the AUXFIN survey at end 2021.

4. G50 members are anxiously awaiting the complete functionality of N'iCash with possibility to withdraw savings from their UMVA account with the Activator. It has been promised for June 2022.
5. Farmers often request AUXFIN to facilitate access to working capital loans mainly for buying agri inputs.
6. Both G50 members and GoB administration point to the need for broadening the AgriCoach crop practices to animal husbandry subjects.
7. The latter are considered important since cows and goats are sources of manure for composting.
8. G50 leaders and members have no concerns about the costs of the UMVA Platform and extension services provided. The handout-mentality prevails. While they are acquainted with the monthly fee of their UMVA account ("frais de tenue de compte mensuel" of 200 francs), there is no regard of financial sustainability of the system. Instead, they count on continued, if not expanded support from AUXFIN (GAP advice, transport for group leaders, own tablet of the G50, allowance for group leaders).

### 7.3 Impact on Work & Income

1. Farmers cite big increases in productivity of their beans and maize crops. They attribute this to the application of the correct type and dose of fertilizer and better cultural practices.
2. In respect of seeds, they cite they use less seed (quantity) when planting in holes. There is a combined effect of better seed quality and adapted agricultural practices. Hence it is difficult to ascertain whether a higher germination rate of improved seeds or improved practices of sowing/weeding are the main contributing factor to less seed use.
3. On the other hand, G50 members continue ordering improved seeds through the extension staff of DPEAE. They complain that they receive less than ordered, and sometimes a variety that is not suitable for their soil conditions.
4. Higher yields of beans and maize are used partly in home consumption, partly sold in the local market and/or shared in the community.
5. Proceeds from crop sales are applied to the purchase of fertilizers and seeds for the next season and home necessities (soap, cooking oil).
6. Many G50 members now practice kitchen gardens. They use the vegetables to enrich and vary the daily diet.
7. The nutrition status of children and pregnant women seems to have increased by the health and nutrition learnings from the respective Coaches.

### 7.4 Impact on social inclusion

1. Positive effects of G50 on social inclusion are cited.
2. Examples are given: members know each other better, responsible behaviour (alcohol use), conflicts are resolved internally, less isolated people (Batwa minorities).
3. Yet: social inclusion is difficult to measure or quantify: G50s always cite economic benefits first.

### 7.5 Other issues by G50s

1. The G50 market position and negotiating power are strengthened if they register as a cooperative society or similar legal entity. In such cases they would qualify more easily to do business with WFP directly.

2. Apart from access to credit, farmers expectations on extended support are high. At many interviews they expressed a wish for nearby storage facilities both for fertilizers and/or surplus produce for sale.
3. G50 leaders wish to be equipped with simple means of transport (vehicle or motorcycle).

## 8. Findings and conclusions on the Project

1. The LogFrame of Activity no. 4000000338 is not formulated in SMART terms; most outcomes are vaguely defined<sup>19</sup>. Furthermore, many outcomes are not logically aligned to the inputs and outputs. Finally, not all LogFrame (digital) indicators have been operationalized yet<sup>20</sup>.

The defective LogFrame is has seriously impaired the mid-term evaluation exercise<sup>21</sup>.

2. The evaluator concludes that AUXFIN Burundi assumes four roles or functions under its project of building an open digital highway in Burundi:

- a. Development agent: G50 concept with community development orientation, community activation, social inclusion, conflict management, etc.
- b. Software (private) company: creation and maintenance of Integrated transaction and payment platform(s) under collective action.
- c. Fintech (private) company: transaction and payment facilitation through UMVA Bank, N'iCash in cooperation with MUTEC and other financial service providers (mainly MFIs).
- d. Training institute and think tank: content development for online and off-line training and extension modules – often in collaboration with international and local NGOs.

In the cumulation of the four roles AUXFIN has gained a unique position in the Burundian market. In some functions like technology AUXFIN has unique selling points (USP). In others it competes with other service providers (f.ex. Inades Formation in agricultural extension and food systems)<sup>22</sup>. The roles are sometimes internally conflicting<sup>23</sup>.

AUXFIN's technology and socio-economic development functions are currently subsidized at nearly 100% by donors. Hence, the company enjoys a substantial competitive edge over potential entrants, like for example in the head-start it could make in the local markets. The integrated functions complicate analysing coherence issues, f. ex. in assessing to what extent AUXFIN's e-Coaches complement or substitute extension and information services provided by other organizations (GoB, NGOs) in a physical (non-digital) fashion; and to what extent is the UMVA Platform more accessible and more cost-effective than those of for example the telecoms.

AUXFIN is competitive in timely delivery of agricultural extension, health and nutrition advice as well as in farm inputs to Burundian smallholders. The company can easily outbid other suppliers and extension services because of its nearly 100% funding of the four functions from grants and subsidies. Financial contributions by beneficiaries are very modest. The close relationship with a commercial financial institution (MUTEC) offers added competitive advantages.

---

<sup>19</sup> For example: Outcome no. 2 on WFP local sourcing that is defined in broad and non-quantifiable terms: 'farmers ..... have an increased production....'.

<sup>20</sup> An example in case are the statistics on YEB website visits.

<sup>21</sup> AUXFIN has suggested that this mid-term evaluation should state that the conventional Logframe is not the right tool to use in such open and flexible programme. The evaluator does not consider this issue part of his mandate. The applicability of the Logframe tool may be incorporated in the final evaluation of the Project.

<sup>22</sup> The evaluator is well aware of the strong opposition of AUXFIN to this analysis. Upon extensive debate he still found it useful and decided to maintain the conclusion.

<sup>23</sup> For example, the UMVA Platform has been developed around the G50 concept. Yet, AUXFIN is referring the G50 members to WFP- registered farmer cooperatives for accessing markets for maize and beans. Next, the inclusion of other legal entities like farmers' cooperatives or VSLAs on the UMVA platform - as solicited by AUXFIN's partners – is complicated.

All this raises entrance barrier to newcomers in the field of digital services and platform transactions as new entrants will have to invest heavily to reach a market position that is both competitive and sustainable.

3. One would expect AUXFIN to create several operational departments each with dedicated managerial and technical staff. This is not the case as testified by the organigramme (annex 6). The Development wing is well represented with a Coordinator of the Activators' Network and provincial focal points. However, there is no demarcation among the other roles: the IT manager and the Project Coordinator are involved in software development, financial services development and operations and coordination with external content providers (in training, extension etc.).

Overall, AUXFIN Burundi has too limited operational capacity to execute such large project with nation-wide scope. It realised this constraint too late and has accepted extensions of the Project without being able to recruit technicians at conditions prevailing in the local labour market.

4. Among the various partnerships that AUXFIN has, only the one with WFP is explicitly formulated as intervention and outcome. AUXFIN drafts its progress reports around these Outcomes. Yet important partners that make use of UMVA tools (like PNSEB, IFDC, CoProSeBu, PADFIR, SPARK) are hardly brought up in AUXFIN's reports. The ToR of the mid-term evaluation does not include the contributions to the UMVA Platform financed through these stakeholders. More comprehensive reporting by AUXFIN is meaningful and renders monitoring by the donor simpler.

5. The use of tablets with substantive on-line and off-line access to training materials (text, pictures, and videos) in different disciplines renders *effective and efficient* the transfer of knowledge and change of behaviour (GAP, balanced diet, feeding of babies and pregnant women). In combination with intensive accompaniment and monitoring in the field, results and impact are observed (higher yields, more income, healthy children). On the other hand, the limited and unreliable mobile connectivity constrains broader application of the tablet, especially for data that are time bound (weather forecast, market prices). These now depend on weekly synchronization by the K.A.

6. The G50 approach is well appreciated by the Burundian farmers. Yet their appreciation is primarily related to the functions of training (AgriCoach and other Coaches) and platform services like ordering and payment of fertilizers and seeds. Social inclusion is improved but not considered a major effect.

7. AUXFIN services to the farmers are concentrated and delivered on the spot through the weekly meetings. The G50 concept functions well, but it cannot yet be proven that the concept as such is more effective than other formulas of regrouping low-income rural people (cooperatives, VSLA, associations). But not all G50 members need the same inputs and services, or can access them through AUXFIN's Platform (e.g., sales to WFP accredited cooperatives do not give much benefit over local informal markets).

The G50 concept is based on weekly visits by the Key Activator. It is questionable whether support and guidance by frequent physical presence is still needed after 5 – 7 years' of G50 existence even though group leaders still depend on help in transacting and making payments.

To conclude, the implementation of the G50 concept is effective in financial inclusion and social activation. Yet the model is not yet proven to be low-cost or cost-effective.

8. The G50 groups themselves question the maximum membership as testified by the fact that the weekly meetings are attended by a larger audience of neighbours who like to become full member. Now, round-about ways must be found in the ordering and payment procedures of UMVA Bank to allow qualifying non-G50 members to order and pay for their fertilizer. Creating and training an entirely new G50 may not always be an efficient solution.

9. Delays have occurred in the development and roll-out of the FinanceCoach. Exact reasons are unknown, but recruitment of qualified local experts has been a challenge right since the start of AUXFIN in Burundi. The non-replacement of two financial experts has exacerbated the implementation. Too few AUXFIN staff is now available for Project activities. This underpins the scant human resources and inadequate implementation capacity of the AUXFIN Project in a wider sense.

10. The high appreciation of the AUXFIN programme by the provincial and communal authorities relates to the wide coverage of the rural population (by the tablets), the easy and effective access to vouchers and fertilizers for smallholders and the open communication of AUXFIN head office and field staff.

11. Six MFIs have signed a MoU, and some have agreed on an Implementation Plan. The integration of other FSPs than MUTEC on the UMVA Platform is delayed; in fact, hardly any progress has been made.

Connection to the UMVA Platform may be a good entry for a FSP to a new and so far, untapped clientele. The G50 regroups smallholders who are mostly too small to be served sustainably by such FSP on an individual basis. But they may be attractive in the collective, creating scale and reducing expenses, especially when basic FSP services are standardized and digitalized.

The MFIs do not perceive immediate advantages of the UMVA N'iCash payment platform. These may not have transpired to them, or not sufficiently explained. They also state having their own digital solution. Some overtly oppose the stake of MUTEC and MUTEC's single shareholder in the ownership and revenues of N'iCash.

The connection of other FSPs (MFIs) to the UMVA Bank and N'iCash is delayed. The installation and training budget has been made available and is considered more than adequate. Non-replacement of dedicated staff has not been justified either.

Both *competition* and *privacy* issues are at stake<sup>24</sup>. None of these issues have been addressed by AUXFIN. Communication between AUXFIN and the MFIs has been stiff and thorny.

*Finally:* One is led to conclude that Project outcomes 7, 8 and 9 are rather motivated by UMVA Platform's technological offer instead of by the needs of rural clients or the strategies and targets of the MFIs. The MFIs have been associated to the project as if they included a like-minded group with identical characteristics and similar objectives, products, and services.

---

<sup>24</sup> The competition argument is aggravated by the interest shown by foreign platform lenders who approached AUXFIN for registration on the UMVA Platform and delivering small agricultural loans in Burundi.

12. On the contrary, AUXFIN can hardly be held accountable for the delays in accessing farmers to the WFP market (neighbouring schools and directly deliveries). ‘Force majeure’ is in play (volatile maize market) while WFP itself is still setting up procurement procedures. Even so, WFP strictly deals with registered entities like cooperatives and companies. It has stringent procurement standards and requirements. The fact that the G50s do not enjoy legal recognition will remain to be a constraint in the access of smallholders to the WFP generated markets.

13. G50 members have been sensitized on the upcoming introduction of the complete N’iCash functionality (allowing withdrawals). The message has spread that credit comes within easy reach then. Farmers expect easy access to credit – at least from MUTEC - which is absolutely unfounded. They are *not* aware that access to credit implies a more complicated process with extensive training, and that not all of them will qualify or meet the conditions of the MFI. AUXFIN is called upon to rectify their divulgation messages in this regard and temper the optimistic expectations of farmers.

14. While autonomy and self-reliance of the G50 is pursued and stated among the Project goals, it is too early to find genuinely positive indications to these. AUXFIN has faced many unexpected barriers in working with and through the G50. Yet it is striking that G50 members rather expect more free handouts and support from AUXFIN. The old dole-out mentality prevails in the project areas.

### Coherence issues

Coherence issues of a broad multi-services project with a range of partners and stakeholders cannot be adequately addressed in a short evaluation exercise. Substitution, crowding out and competition issues should be studied for each stakeholder at various levels.

The Terms of Reference states two specific questions:

- *How do the services offered by AUXFIN relate to other services offered in Burundi?*
- *What ‘big data’ can be potentially produced by the system and how should it be made available to interested entities?*

Some reflections on complementarity and/or substitution of AUXFIN’s interventions are given below.

AUXFIN claims that it does not own or control ‘*content*’ of the Platform applications. It asserts that the UMVA Platform is simply as technological solution for digital dissemination of information and services to a wider public. Hence, it is up to the service providers themselves - whether financial or social – to apply the Coaches to its own beneficiaries. In practice, though, AUXFIN itself also makes use of the content in its social activation and inclusion work with the G50, f.ex. in promoting a varied diet among G50 members through the NutritionCoach.

Regarding PNSEB *fertilizers* the UMVA Platform is clearly competitive and does *not* crowd out alternative ordering and payment options. G50 farmers prefer the quick and generally timely orders through the UMVA Platform.

More complex is the situation in *improved seeds* supply. AUXFIN and G50s are now handicapped by the suspension of the centralized ordering system through CoProSeBu. Seed multipliers are not individually registered in the Platform while farmers fall back on the more cumbersome manual system of seed orders through the DPEAE extension staff. From a wider impact perspective one can only applaud that the old ordering system is still in place and functioning.

Since the evaluation had to reduce the analysis of deployment of the Nutrition and Health Coaches, donors and other stakeholders in these fields were not interviewed. Yet, G50 respondents said that they readily adopted the messages on Covid-19 prevention measures, balanced diet, and child nutrition. The messages seemed to be new and revealing to the farmers. Therefore, we are inclined to consider these Coaches as complementary.

The UMVA Platform itself aims at offering a wider and easier access to *financial services* to farmers. However limited AUXFIN's digital payment system still is, competing digital platforms (including those of the telecoms) have not yet achieved such wide rural coverage. The Platform is a valuable addition to existing physical and digital payments services that smallholder farmers can access. On the other hand, Burundian MFIs assess the UMVA Platform as a threat to their own business, hence as 'substitution'. The big strides forward that AUXFIN has been able to make, would not have been possible without its formerly exclusive cooperation with MUTEC with heavy external subsidies.



## 9. Sustainability of the UMVA platform and e-Coaches

The ToR charged the evaluator to investigate financial sustainability and operational autonomy of the UMVA platform. The evaluator has only been given access to financial progress reports of the Project which is the only financial reporting of AUXFIN to EKN. The progress reports relate to budget spending; income generated by the beneficiaries or Platform users is not recognized. Nor are contributions made by other donors. As a (social) company one would expect AUXFIN to share the financial statements (profit and loss account, balance sheet, cash flow statement) of the entire business in which Project expenditure is separately justified. Such would have facilitated a financial trend analysis leading to future cost coverage.

EKN invited AUXFIN to draft a 'Transition Paper' towards autonomy. By mid-August, this paper is still under development. For these reasons, the mid-term evaluation has little documentation to analyse and offer an opinion on sustainability of AUXFIN's business model.

### 9.1 Ownership of the UMVA applications and off-line e-coaches

While the ownership of the UMVA Bank as such is not questioned it is not clear to whom belongs the ownership of the e-coaches and the new transaction apps in the platform. The funding contract between EKN and AUXFIN is silent about this. The MoUs between AUXFIN and the MFIs are not clear on the ultimate beneficiary owner(s) of the apps and the FinanceCoach that are deployed on EKN grants. While it is common practice to transfer tangible assets acquired under Dutch bilateral aid to the Government or to the end beneficiaries, no consultations have yet been held in regard of the UMVA Platform and its applications.

Apart from how ownership questions are resolved, AUXFIN's support will be required for some time to maintain and service the UMVA applications. It will be a challenge to find a financially solid and technically capable local company to assure these after-sales services.

### 9.2 Big data: ownership and privacy

AUXFIN has been building up extensive databases of people, farm business data and transactions over the past seven years.

Client data have been collected following the KYC principle (Know Your Client) that international FSP are obliged to apply. This data is shared with relevant stakeholders as far as its concerns their own business.

The question of ownership (and tradability) and security of the big databases has not yet been addressed adequately. EKN and AUXFIN express very different opinions on this matter to the evaluator. It is an issue that is best be resolved with the support of independent IT auditors and IT legal advisors. It would be good to anticipate international standards and upcoming legislation and regulations in these domains.

AUXFIN has a privacy policy based on European Law. Personal data are not shared with outsiders, but only anonymized and aggregated. It is not known to what extent the privacy policy and regulations are adhered to when transacting with stakeholders and partners. This question underlies MFIs' reluctance in joining the UMVA – N'iCash digital payment platform.

### 9.3 Financial sustainability

The evaluator did neither get insight in the financial statements of the AUXFIN company nor in the cost structure of UMVA platform and its different applications. It is not known whether a proper cost accounting system is run with the distinctive functions and services.

This complicates making conclusions on financial sustainability of the Platform. We lack insight in the actual investment costs and operating costs of the UMVA platform. All expenses are now assumed under a project budget approach.

To enable AUXFIN to install and service the platform at partner MFIs, an upfront payment of EUR 25,000 per MFI has been budgeted under the EKN Project budget without direct financial contributions from MFIs. In exchange AUXFIN committed itself to not charge a license fee to the MFIs and to invest future revenues in the installation of the platform at other FSPs, so as to expand the network<sup>25</sup>.

### 9.4 Fee-based Platform services

Transactions and payments in the UMVA platform are now basically free for all users. AUXIN just charges a subscription fee of BIF 300 per month<sup>26</sup>. Development and deployment costs are borne by international donors either directly (to AUXFIN) or through other projects.

Investments costs are relatively easy to calculate, but after-sale services, technical maintenance and updates of applications are not yet costed. In future, when Platform should be autonomously functioning without heavy donor support, users and clients should contribute to the operating and maintenance costs of the Platform. It is advisable that modalities and procedures to be developed before the closure of the current project phase.

The 3.5% PNSEB fertilizer commission is so far the only external revenue source that generated some income

This shows that full cost coverage is still far away considering the personnel costs at higher levels, the operational expenses and amortization of tablets (that have an accounting life of three years).

Hidden by AUXFIN as confidentiality clauses with AUXFIN are applicable.

### 9.5 Cost coverage of the UMVA Platform

First, sustainability of the applications development and operations is to be sought through cost coverage by the users and beneficiaries of the Platform— even though AUXFIN is positioned as a social and not-for-profit company. Scale is key to fintech sustainability. AUXFIN already offered some indications on financial sustainability of the UMVA Platform.

Operational income will be sourced from a) commissions paid by customers off-takers of produce offered by the farmers, b) suppliers who sell their (farm) inputs through the Platform, and c) monthly subscription fees for farmers and groups using the Platform (now 300 frs).

The commissions under a) and b) will not exceed 3% of the product value.

<sup>25</sup> Source: statement read in the project document. Apparently, this is not laid down in agreements with the donor. Thence, enforcement after Project closure is not clear.

<sup>26</sup> EKN complains that such Platform revenue is not reported as 'other income' in Project financial reports.

Operating expenditure comprise the following components:

- Remuneration of the KAs in relation to commission income they generate.
- Network support staff at head office and regional offices.
- Technology costs: servers, IT support, software licenses.
- Servicing and maintenance of the Platform, Coaches, and applications.
- Annual WeatherImpact license for weather information [REDACTED]

[REDACTED] Hidden by AUXFIN as confidentiality clauses with partners are applicable.

Plans of capital expenditure for geographical expansion, development of new applications have not been shared by AUXFIN. It is not sure that they have been prepared yet.

## 10. Recommendations

This chapter presents short and punctual recommendations to the Netherlands Embassy and AUXFIN. They are founded on the analyses, findings, and conclusions in the earlier chapters of the report to which reader is referred for full justification.

### 10.1 To the Embassy of The Netherlands

1. To ensure a better alignment between inputs, outputs, and outcomes in the Project's LogFrame before approving fundings.
2. To guard against charging the Project beneficiary with unrealistic outputs and outcomes. Project outputs and outcomes should be a logical result of the own direct inputs, resources, and efforts (and not on those of other partners and outsiders to the contract).
3. To require more comprehensive financial reporting from a (social) company that generates income from beneficiaries and other donors.
4. To make funds disbursement to AUXFIN dependent on achievement of goals and targets in the Project's LogFrame (performance-based), preferably with specification in the contract.
5. To carry out an audit on data ownership and data security
6. The final Project evaluation should address the subjects of **coherence** and **sustainability** as a matter of priority. There are serious subject matters of complementarity and substitution (e.g., in agricultural extension, access to farm inputs, UMVA payment platform) where AUXFIN's services are heavily subsidized while little can be concluded as yet on the sustainability of its financial inclusion and social activation model in Burundi.

### 10.2 To AUXFIN:

#### AUXFIN Burundi organisation

1. To reorganize internally aiming at more transparency by separating management and operations of the four distinctive roles of the company.
2. To strengthen the General Management team and expand the implementation capacity of the current Project.
3. To make available capacity in the finance domain at short term for the finalization of FinanceCoach.
4. To engage in more systematic collection of statistics on the use of the Coaches and other Platform services by project partners and other stakeholders.
5. To improve on progress and financial reporting by widening the analysis to current and prospective partnerships, by offering more quantitative data of the project outputs and outcomes as well as on income generated.

#### On the G50s and coaches

1. To better communicate to the G50 on sustainability requirements of the UMVA Platform and its applications, and to prepare them for contributing financially to the upkeep of the digital services of development and social inclusion.
2. To consider issuing 'own' tablets to those G50s that perform well and/or are often sharing internally or with the Sangwe cooperative.
3. To develop and introduce an animal husbandry training and extension tool under the AgriCoach aiming at best practices communication for smallholders integrating crop and livestock (manure, dairy).

4. To be more flexible in registration of new members and installation of new groups and to allow registrations of members at more frequent intervals.
5. To develop a module for accounting (at least: digital registration of transactions) of G50 members' personal savings and small loans in the UMVA Platform (similar to the VSLA digitalization project?).
6. To assess the feasibility of reducing the frequency of attendance of the weekly G50 meetings by the key activator to increase the ratio of number of G50s covered per K.A. and reduce operating expenses.
7. To consider options for direct linking the G50s to the WFP School Feeding Programme even if this might result in further formalization of the G50s.
8. To develop more comprehensive statistics collection on the use of the Platform with the different Coaches and subjects therein for easier monitoring and evaluation.

#### On linking MFIs to the UMVA Platform

1. To nominate new high-level staff with adequate powers to kick off the MFI linking project afresh.
2. To increase AUXFIN's technical and communication capacity in implementation of the IT solutions with the MFIs.
3. To discuss the needs and wishes in digitalization of each MFI separately. These may relate to e-banking for existing clients, smartphone or cellular phone integration, development of new digital financial products and services for existing and/or new clients, mobilizing clients from among the G50 or the G50 themselves. The next step is to jointly figure out whether AUXFIN (as a software company) is capable to offer relevant services, and/or whether AUXFIN (in its FSP role) can offer the UMVA Platform as a customized tool to attend to the MFI's individual objectives. It is only after mutual agreement has been reached (and funding be available) that implementation can start.
4. To promote and market N'iCash as an attractive digital payment option for MFIs to serve their clients, especially those who are far away from a branch and smallholders grouped together for savings and loans.

#### 10.3 On sustainability

5. EKN and AUXFIN to set up a study on the issues of ownership of the UMVA platform and its applications including protection of privacy and use of big data, with independent experts in these domains.
6. Upon completion of the Transition Paper: to analyse and validate the financial projections of the distinct functions of AUXFIN Burundi and the digital highway with the UMVA Platform, and to evaluate the proposed road to financial sustainability. This may require external financial audit expertise.
7. In connection, the cost and income structure of the UMVA Platform and its applications needs to be worked out with side-conditions of feasibility and competitiveness with existing FSP and digital platforms.
8. Thereafter to focus on the core objective of the digital highway, to develop an exit ('weaning off') strategy for the development and training functions and to set out for a financially self-sufficient UMVA Platform in Burundi financed by contributions from the users and beneficiaries of the Platform.

## List of Annexes

Annex 1: Terms of Reference mid-term evaluation AUXFIN

Annex 2: List of persons met

Annex 3: Subjects at G50 field interviews

Annex 4: Data on 12 G50 field interviews

Annex 5: Chatbot questionnaire to G50s

Annex 6: Organigramme AUXFIN Burundi

Annex 7: Debriefing PowerPoint presentation

Annex 8: Methodology Proposal April 2022