

全世界農業及び保健分野におけるイノベーティブな  
金融包摂アプローチに係る研究

ガーナ現地調査報告書

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国際協力機構(JICA)

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写真

	
<p>Savelugu 市内 Kanshegu コミュニティ農家グループの集会場</p>	<p>農家グループで共同購入した耕うん機</p>
	
<p>コミュニティ内の共同井戸</p>	<p>世帯調査実施の前にコミュニティの長老へ説明し許可を得る</p>
	
<p>非農業所得源としてレンタル業用のトライシクル</p>	<p>Kanshegu コミュニティ内の典型的な多世帯住居の一角</p>



コミュニティ内のモバイルマネー・エージェントの看板



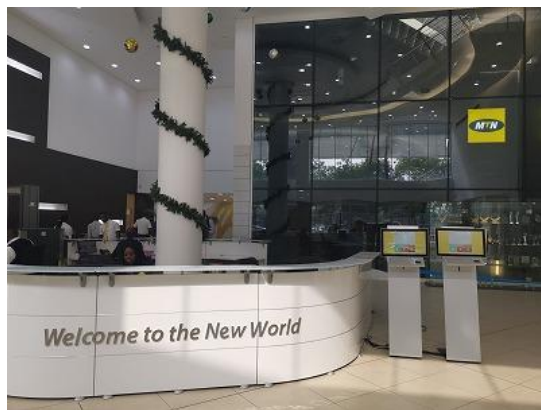
個別農家インタビューの様子（妻は出産したばかりで入院中）



自己流で営農記録と家計簿をつけている農家世帯主



マイクロ保険企業 BIMA が提供する電話医療相談サービスの広告

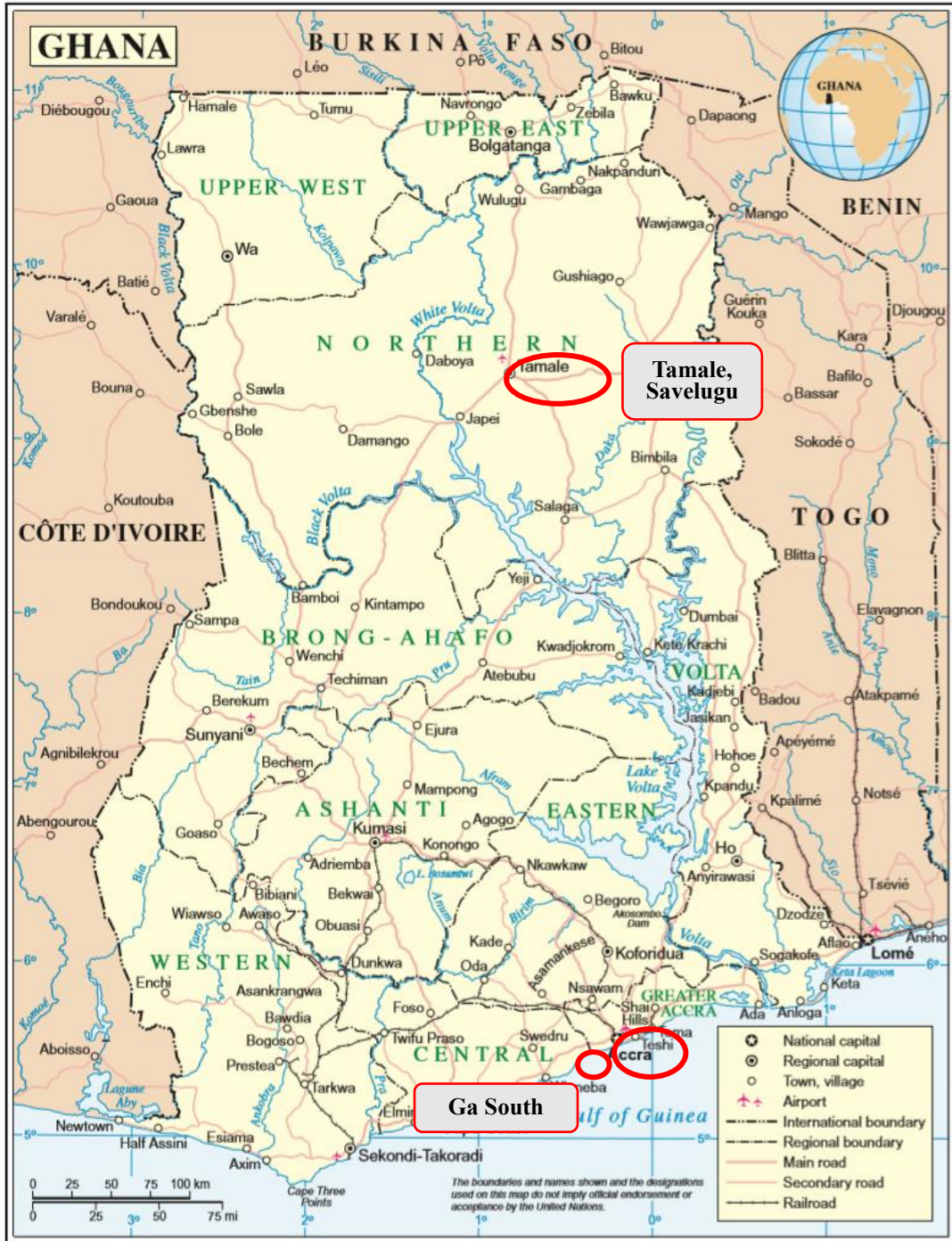


大手 MNO の受付  
訪問者は名前、電話番号、年齢層を備え付けのコンピューターに入力



簡易携帯で操作できる金融サービス番号を押して利用口座を選ぶ場面（スマートフォンの画面のデモ）

地図



Map No. 4186 Rev. 3 UNITED NATIONS  
February 2006

Department of Peacekeeping Operations  
Cartographic Section

(出所 : <https://www.un.org/Depts/Cartographic/map/profile/ghana.pdf>)

## 略語表

略語	英語	和文
CGAP	Consultative Group to Assist the Poor	世銀貧困層支援諮問機関
DFI	Digital Financial Inclusion	デジタル金融包摂
DFS	Digital Financial Service	デジタル金融サービス
DFSP	Digital Finance Service Providers	デジタル金融サービス提供機関
DMI	Digital Money Issuer	デジタルマネー発行社
EMI	Electronic Money Issuer	電子マネー発行社
FSPs	Financial Service Providers	金融サービス提供機関
FVC	Food Value Chain	フードバリューチェーン
JICA	Japan International Cooperation Agency	国際協力機構
MFI	Micro Finance Institution	マイクロファイナンス機関
MNO	Mobile Network Operators	モバイル通信会社
NGO	Non-Governmental Organizations	非政府組織
NHIS	National Health Insurance Service	国民健康保険
ROSCA	Rotating Savings and Credit Association	ローテーション貯蓄信用組合
SHEP	Smallholder Horticulture Empowerment & Promotion	小規模農家向け市場志向型農業振興
SILC	Saving and Internal Lending Communities	預金および内部融資コミュニティ
USAID	United States Agency for International Development	米国国際開発庁
VSLA	Village Saving and Loan Association	村貯蓄融資グループ

## 第1章 ガーナ現地調査の目的、方法、日程

### 1.1 調査の目的

本研究の全体の目的は、金融包摂アプローチが JICA の農業および保健・医療セクターの課題解決に貢献する可能性と、そのアプローチを両セクターの事業へ組み込む手法を提示することである。その過程では、上記、2つのセクターにおける裨益者となる、貧困層を含む農家世帯の視点に立ち、課題を再把握・理解することが求められる。本研究の調査結果は、JICA 案件計画時に利用可能な金融包摂視点の組み込みにかかる検討事項・調査手法を、ガイドラインとして取りまとめる。

本報告書は、上記研究の現地調査対象国の1つである、ガーナにおいて実施した調査結果をまとめたものである。

### 1.2 調査の方法、調査項目と成果品

ガーナにおける現地調査の主たる目的と、収集・分析すべき情報は、下記の通り整理される。

#### 現地調査の目的：

ガーナの小規模農家の生計及び生活の領域における課題と関連する金融ニーズについて、具体的な証拠（エビデンス）を、農家、農業バリューチェーン関係者、医療・保健セクター関係者、金融サービス提供者、その他ステークホルダーへのヒアリングを通じて把握し、それを元に、JICA の農業・農村開発分野および／あるいは保健医療分野のプロジェクト<sup>1</sup>に金融包摂の視点を組み込むことの便益と課題を明らかにする（簡易の生活・生計に関する金融ニーズ）。

小規模農家が抱える農業分野及び保健・医療分野双方の金融ニーズ及び課題解決のための金融包摂視点の組み込み方、関係機関（FSP 等）との連携可能性・活動内容の検討を行う（生活・生計金融サービスニーズ・アセスメント、金融サービス・アセスメントの実施）。

#### 収集・分析すべき情報：

- 小規模農家の生産領域の現状、金融包摂の状況・関連政策等、関連情報（バリューチェーン分析<sup>2</sup>及び生産関連金融サービス・ニーズアセスメント）

<sup>1</sup> ガーナ共和国においては、特記仕様書に記載されているとおり、実施中の保健セクター2案件（母子手帳を通じた母子継続ケア改善プロジェクト、北部3州におけるライフコースアプローチに基づく地域保健医療サービス強化プロジェクト）の受益者を調査対象とすることが想定されていたが、その後の貴機構関係者との協議の結果、既存の特定プロジェクトの枠を除き、小規模農家を調査対象とすることになった。

<sup>2</sup> インセプションレポートでは、「バリューチェーンアセスメント」を調査の項目として含めていたが、現地調査の時間の制約から、農家を中心とした調査にシフトし、他のバリューチェーン関係者との面談は限定的に実施した。

- 小規模農家の保健医療分野を含む生活・生計に関連した金融サービスニーズに関する情報（生活・生計金融サービスニーズ・アセスメント）
- 連携可能な FSP のリスト化と、どのような連携が可能であるかに関する検討、情報収集（金融サービス・アセスメント）。

現地調査は、①小規模農家調査、②金融サービスの提供状況、③社会・規制環境の3つの項目について、下記に記述する方法で実施した。

#### (1) 小規模農家調査

調査対象農家は、Northern 州の Savelugu 市および Greater Accra 州の Ga South 市内のコミュニティから選ばれた。かかる選定にあたっては、以下の点を考慮した。

- ① 農家へのアクセスポイントとして、JICA の課題別研修で、ガーナから SHEP 研修に参加した農業普及員を窓口とする。
- ② 上記の農業普及員の活動実施、または、管轄地域であるコミュニティ内の小規模農家とする。

個別世帯を訪問し、栽培カレンダーと質問票に基づく家計のキャッシュフローの把握、生産、消費行動、金融ニーズ、医療保険および医療保健サービスの利用状況の把握を行った。インタビューには、原則として、世帯主である夫婦両者に同席してもらった。

調査結果は議事録として記録すると共に、2つの調査地域で特徴的なペルソナ<sup>3</sup>（詳細は添付資料2）としてまとめた。ペルソナの作成にあたっては、栽培カレンダーにまとめた地域の主たる作物の販売価格および各種コストおよびそれらが発生する時期を参照し、あわせて個別世帯調査において聴取した生計手段および生活コストの調査結果を反映した。

#### (2) 金融サービスの提供状況

小規模農家を対象とした金融サービスの提供状況を調査するため、金融関連のサービスを提供する機関（FSPs）およびドナー関係者を訪問し、個別面談を実施した。調査対象地は、首都 Accra および、世帯調査を実施した近隣地域である。

#### (3) 社会・規制環境

上記の個別面談調査、現地 JICA 事務所関係者、および本件の現地アドバイザー（CGAP ガーナコンサルタント Ms. Rosebud Buruku）との協議等を通して、関連する地域の生産を取

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<sup>3</sup> ペルソナとは、（金融）商品に対して特定の行動・態度を示す消費者のプロフィールであり、商品の開発・デザインを行う際のインスピレーションを喚起する。ペルソナはインデプス・インタビューを通して構築され、共通の特徴や行動を有する複数の個人の特徴を総合して描かれる。（出所: Blog series, June 2014, CGAP）。



り巻く環境、金融の規制環境、その他ジェンダーを含む社会環境等に関する聴取を行った。

本調査の調査項目とそれらをまとめた成果品は下図のとおりまとめられる。

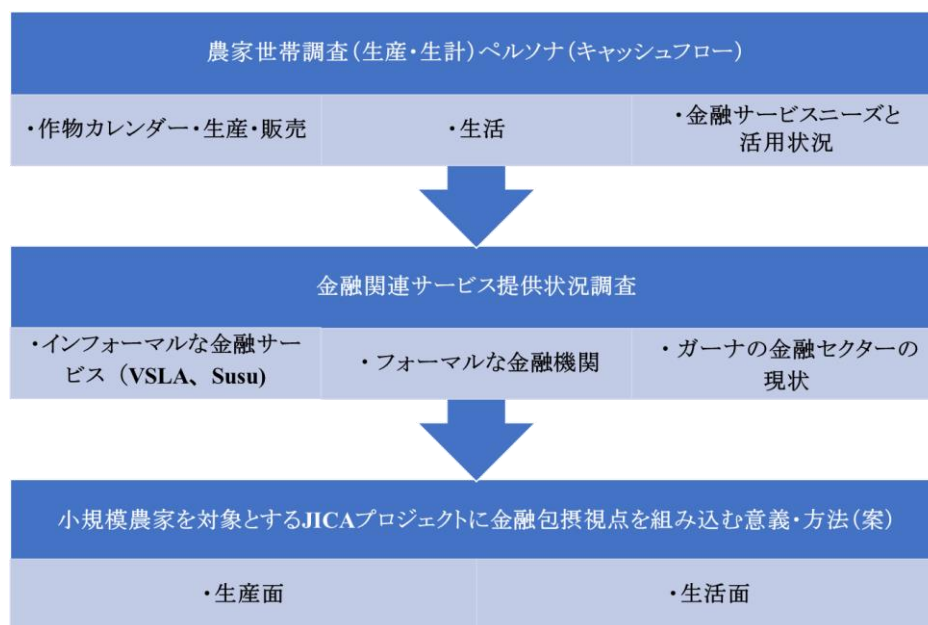


図 1 調査項目と調査の流れ

(出所：調査団作成)

なお、ガーナの現地調査の手法とプロセスにおいては、2019年12月に実施したミャンマー現地調査実施の経験をもとに、一部変更して調査工程の効率化を図った。例えば、生産に関する情報については、フォーカスグループインタビューを行わず、個別農家インタビューと、資材会社への事前インタビュー（農業資材コストの情報を収集）の実施で、情報を収集・整理することを試みた。

### 1.3 調査の日程、調査団

本調査は、2020年1月9日から1月22日にかけて実施された（現地滞在期間）。訪問先情報等を含めた調査日程の詳細については、添付資料1の現地調査日程表を参照されたい。

調査団の構成は、以下のとおり。

国際協力機構	菅原鈴香 国際協力専門員（貧困削減）
株式会社かいはつマネジメント・コンサルティング	田中博子 コンサルタント（総括/金融包摂（1）/農業） 望月貴子 コンサルタント（金融包摂（2）/保健医療）

## 第2章 現地調査結果のまとめ

### 2.1 農家世帯調査の結果

調査対象地は、前述 1.2 (1) に記載したように、現地農業普及員の協力により、Northern 州の Savelugu 地域および Greater Accra 州の Ga South 地域とした。調査対象農家の地域的特徴を下表に示す。

表 1 調査対象農家の地域的特徴の比較

	Savelugu	Ga South
農家グループまたは個人農家	農家グループに所属	個人農家
世帯構成	大家族 (1 つの家計で 10 名以上)	核家族 (女性世帯主家庭もあり)
宗教	イスラム教徒	キリスト教徒
天水または灌漑農地	主として天水農業	主として灌漑農地
主要作物	コメ、メイズ、ダイズ	野菜 (トマト、ナス、キュウリなど)

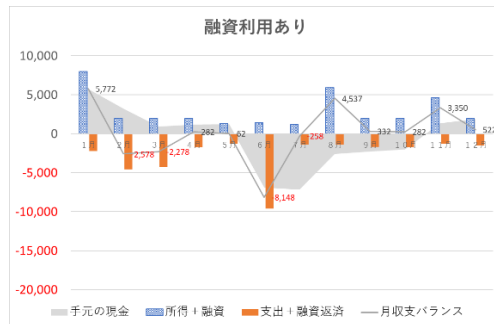
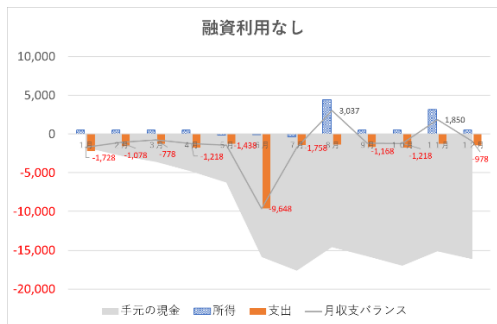
(出所：調査団作成)

各市、2～3 のコミュニティを訪問し、合計 8 世帯と面談・インタビューを行った。農家の世帯調査の結果として、以下、6 つのペルソナを組成した。(詳細は添付 2.参照)

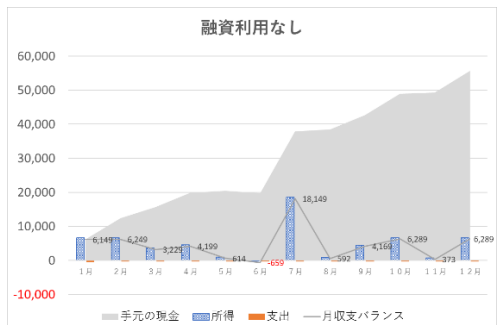
- 農家ペルソナ 1：天水農業コミュニティの兼業農家
- 農家ペルソナ 2：灌漑地域の計画的な多角栽培農家
- 農家ペルソナ 3：灌漑地域の平均的農家
- 農家ペルソナ 4：老齢の女性家長農家
- 農家ペルソナ 5：灌漑地域の比較的裕福な農家
- 農家ペルソナ 6：天水農業に従事する若夫婦兼業農家



農家ペルソナ 1：天水農業コミュニティの兼業農家



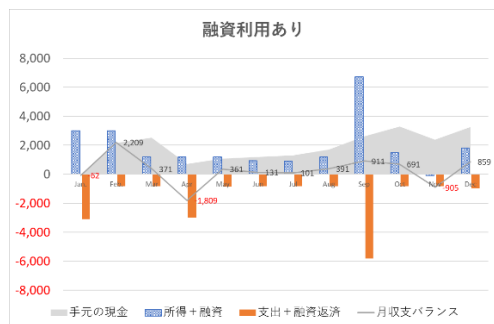
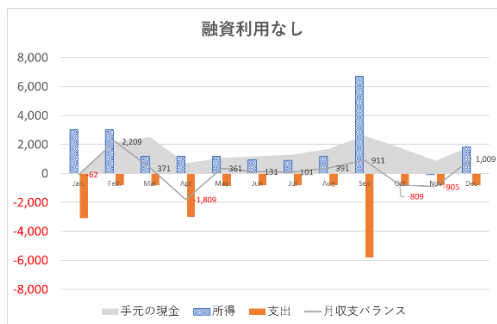
農家ペルソナ 2：灌漑地域の計画的な多角栽培農家



融資は利用していない

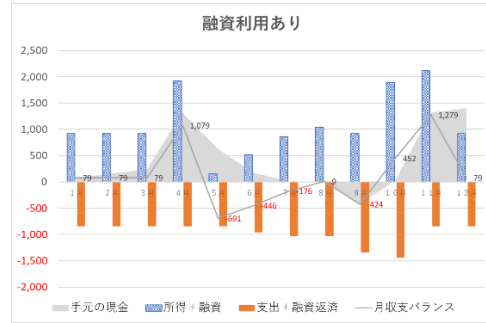
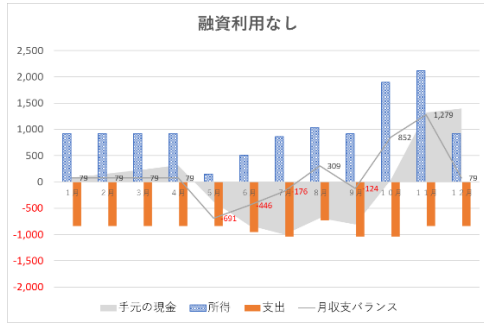


農家ペルソナ 3：灌漑地域の平均的農家

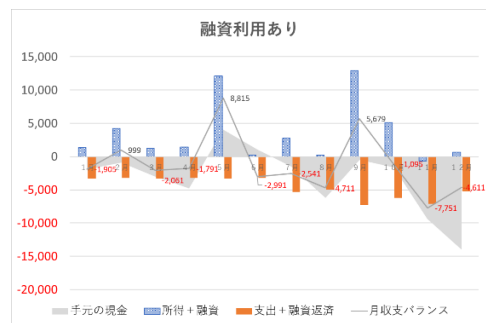
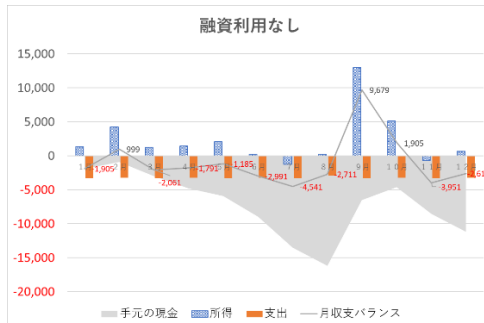




農家ペルソナ 4：老齢の女性家長農家



農家ペルソナ 5：灌漑地域の比較的裕福な農家



農家ペルソナ 6：天水農業に従事する若夫婦兼業農家

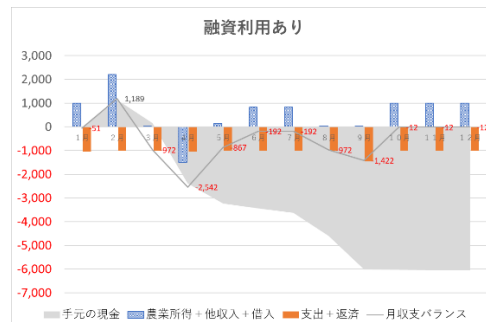
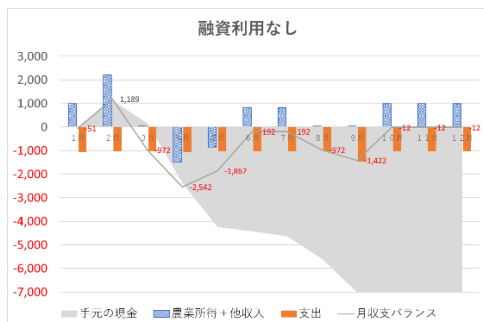


図 2 ペルソナのキャッシュフロー (出所：調査団作成)

上記の異なるセグメントの農家のニーズは、世帯の事情により異なる点もありながら、全体としては、共通の課題に基づくニーズが多い。これらの農家ペルソナの①生活領域および②生産領域に関するニーズの概観を、下記する。

## 【生活領域】

### ① 平準化ニーズ

ほとんどの世帯は、家計簿を記録する習慣がない。計画的な多角栽培農家を除いて、どのセグメントの農家も月々の家計収支は赤字の月が多く（6カ月～8カ月）、それを収穫時の収入や非農業収入で補おうとしているが、全体として月ごとの家計収支変化が大きい。さらに、ペルソナ5の行動が示すように、収入が少ない時にも支出を削減するような変化は見られない。

こうしたことから、家計の収支の平準化ニーズは大きいと言える。金融機関へ預金する世帯は少数派で、コミュニティ内の貯蓄融資組合（VSLA）または Susu エージェントをとおした預貯金や融資が主流である。VSLA や Susu スキームの預貯金は、低額（毎週 2～5GHS）を、コミュニティ内に住む VSLA 管理者や、集金に来る Susu エージェントに預けるという手軽さがある一方で、必要な時に預金を引き出せないという不便さがある<sup>4</sup>。日常的な取引については、モバイルマネーの活用が広く浸透している。モバイルマネーは、コミュニティ内にエージェントがおり、週末でもキャッシュイン・キャッシュアウトが可能となっているため、その利便性は、広く認知されており、利用加速の要因となっている模様である。

農家の家庭では、通年、冠婚葬祭費の出費があり、それに加えて、1月、4月、9月には、教育関連費の支出が集中する。さらに、農業栽培・収穫期も重複することにより、同じ時期に多くの世帯の融資ニーズが集中する傾向がある。こうしたニーズのすべてを村レベルの VSLA の貯蓄額で満たすことは極めて難しい。

### ② 生活リスク対応ニーズ（病気・事故）

すべての世帯の夫婦が、国民健康保険（NHIS）の加入対象であることを知っており、殆どの家族が加入している。ただし、同じ世帯内においても、各人の保険更新時期が異なるためタイムリーに更新していない、または、更新時期に家計に余裕がないため子供と妻、老人を優先し、男性世帯主の更新は後回しとするなど、家族の一部がシームレスな形で被保険者

<sup>4</sup> Susu や VSLA は、ガーナにおいてコミュニティ内の伝統的な相互扶助のシステムとして、インフォーマルなマイクロファイナンスの機能を果たしている。Susu は、預金クラブメンバーが集金業者（仲介者）へ預金し、メンバーの必要に応じて融資も提供するといった、ローテーション貯蓄および信用組合（ROSCA）に類似したシステムである。集金業者による預金の持ち逃げのケースも起きており、Susu システムに対する不信感が増したことから、Susu 集金業者協会の設立と業者の正式登録、Susu とフォーマルな銀行のシステム統合によるデューデリジェンスの強化が促進されている。VSLA も、ROSCA と類似しているが、コミュニティ内のメンバーで管理組織を設立し、担当者が預貯金の集金・管理をする点が Susu と異なる。

となっていないケースが複数見られた。Northern 州においては、同居していない親の医療費の面倒を見ているケースも一般的なようである。

医療保健サービスの利用においては、妊産婦健診のサービスについては概ね満足である意見が聞かれた。その他の利用時においては、医療サービスの質（スタッフの態度・対応の悪さ、待ち時間が長い、必要な検査をするための整備が整っていない）についての不満や、NHIS の還付対象・手続きをよく理解していないことに起因する不安や請求金額に関する誤解が生じるといった問題が見受けられた。Savelugu においては、NHIS が使える公立の総合病院は1つしかなかったが、診療・治療分野、検査の幅がより広い私立病院も NHIS のカバーの対象となる見通しであり、今後問題は部分的に解消される可能性がある。

また、ペルソナ1やペルソナ4にみられるように、通常の保険がきく医療施設での治療効果が望めず、薬草などの伝統的治療の活用も強く残っている。伝統的治療機関へは複数回通うことがあり、その受診は保険対象とはならないため、これらのサービスの活用にかかる医療費は家計の負担となる。下図が示すように、NHIS 指定の医療機関での受診であっても NHIS でカバーされない治療や薬代、保健医療サービスの利用にあたって発生する関連コスト（交通費、労働機会の損失による収入減など）いずれも私費負担となる。農家は、そうした費用について、手元の資金（預貯金、資産の売り払い）や借金（親族、VSLA 等）で工面しなければならず、それは、家計を圧迫したり、農業や事業に使うための資金が不足したりするリスクが生じる。このため、預貯金推進につながるようなサービスや、NHIS の補完的な役割を担うマイクロ医療保険などの金融商品へのニーズがある。

小規模農家の医療保健サービスのニーズおよび利用にかかるコストと金融サービス

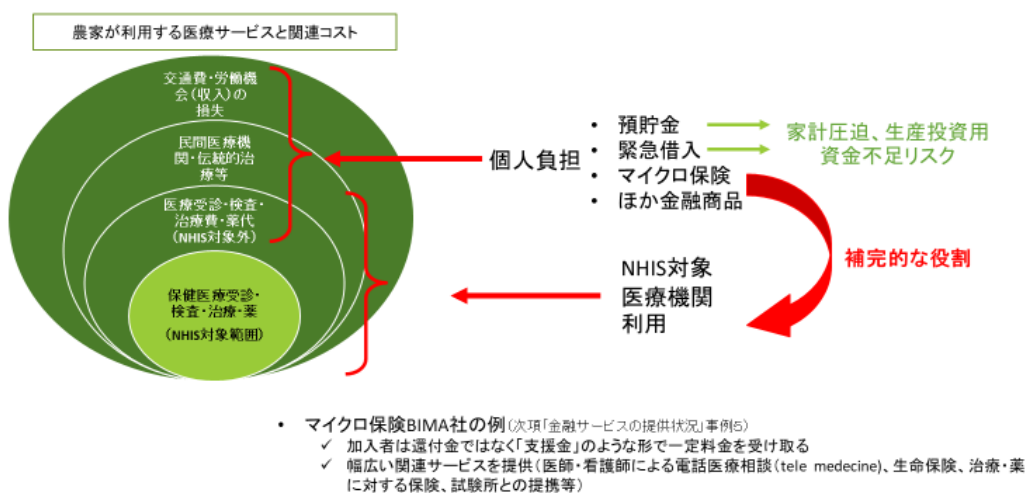


図 3 農家が利用する医療サービスと関連コスト

(出所：調査団作成)

### ③ 生活投資ニーズ

いずれのペルソナも長期的に穀物・豆類、野菜の生産・販売を中心とした生計から何等かの形で多角化するニーズを持っており、その一環として子供の将来のための教育資金需要は大きいと言える。とりわけ、子供が高等教育機関へ進む場合には、ペルソナ 3 のように、教育費工面のために VSLA からの融資を充て、そのために経済活動への元手がなくなり、結果として収入が得られないという状況に陥るリスクが生じる。

#### 【生産領域】

##### ① 農業生産

表 1 調査対象農家の地域の特徴の比較 に示した通り、農家の組織化が進んでいる地域の農家は、グループでの肥料・農薬・農機などの投入財を共同購入している。農機の購入においては、一部ドナーが負担した残額についても VSLA では対応しきれておらず、農作業に活用するために必要なパーツが欠けているという不備が起きている。また、農作業の人繰りについては、親戚同士やコミュニティ内で補助し合い、人件費を抑えている（無料ではない）。農家の組織化が進んでいない地域の農家は、農業資材（種子・肥料・殺虫剤等）購入費・農業労働者雇用費用に関する資金ニーズが高い。農業労働者については、そもそも人が不足しており、抜本的な解決策を検討する必要がある。

野菜は、価格の上下が激しい換金作物であるが、中でもハイリスク、ハイリターンのトマトの栽培に取り組む農家は多い。灌漑システムを備えた耕地を利用する世帯は、それを最大に利用するために、葉物野菜やトマト、キュウリ、オクラなど、多様な作物を栽培する傾向にある。こうした作物を確実に収穫して販売するためには、適切な栽培技術を習得する必要があるのはもちろんのこと、管理（水、草取り、防虫・殺虫対策）、投入（種、苗、肥料、殺虫剤等）を欠かすことができない。通常の手元資金が潤沢でないことに加えて、価格の暴落により、投資の回収もままならない年もある。そのようなリスクに対応できる、預貯金サービス、農業融資、農業保険へのニーズがある。

##### ② 加工

栽培している穀物・豆（ピーナツ）・野菜は加工されずに、販売している。一方で、ペルソナ 3 のケースのように、妻がコメの精米加工を通年の生計手段としているが、事業資金（炭購入、機械レンタル、交通費など）が不足して活動できない状況に陥ることもある。小規模な事業資金は、（手元になれば）VSLA からの融資を活用するのが通常であるが、VSLA の融資をすでに別の用途で使っている場合には、ペルソナ 3 のケースのように、事業を中断することになる。村落部の女性が従事する加工事業には、コメ以外にもシアバターや小魚加工等があり、このような零細事業用の金融ニーズもある。

##### ③ 流通・販売（価格情報、トラックレンタル等）

年による農作物の価格の変動が大きく、ペルソナ5に代表されるように、栽培した農作物の価格が低いことにより、家計が深刻に圧迫され、複数の金融機関から融資を受けるケースがある。農家は、市場で取引される穀物・野菜・豆類の価格情報を入手して、栽培計画を練る必要がある。ペルソナ2の農家は、そうした戦略をうまく取り入れた営農を実施している。

バイヤーが買い付けに来る一部の地域では、トラック等車両購入やレンタル需要はない。一方で、ペルソナ4のケースのように、生産者自身または女性が近隣の市場へ販売に赴く農家は、既存の交通手段を利用しており、交通費がかさむ。農家グループとして組織されていなくとも、コミュニティ内の生産者同志が知り合いであったり、ソーシャルネットワークが確立されていたりする地域においては、共同出荷などの策を検討する必要がある。

#### ④ 乾季対策（作物多様化、生計多角化投資ニーズ）

Northern州では、干ばつや、それに関連した自然発生的火事のリスクがかなり高く、作物に被害が出る可能性が高いため、農家は不安を抱えている。農家ペルソナ2のように灌漑農地における作物の多様化や作付け・販売時期などを工夫することにより年間を通した収入の安定化に成功している農家もいるが、このような農家は稀なケースであるといえよう。農業以外に、羊、牛、鶏などの家畜を保有している世帯も多くみられる。とりわけ、鶏の飼育は一般的であるが、売買の頻度は1年に1回程度と、換金に多く利用しているわけではない。

そのため、農業生産と家畜の保有（とりわけ大型の家畜）のように水に影響されない、非農業ビジネスによる収入源の確保が必要である。例として、トライシクルのレンタル・ビジネス、飲料水の販売（小分けパッケージ商品）、不動産賃貸等を行っている世帯もあるが、ペルソナ1のようにトライシクルの購入資金の一部を親戚から借金するなど、事業の開始・拡充における資金需要がある。

## 2.2 金融サービスの提供の傾向

本研究のインテリムレポートに示した通り、ガーナにおける金融包摂の進展状況は、サブサハラ諸国の平均を上回っており、全世界の低中所得諸国平均と比較しても引けを取らない。これは、38.9%という高いモバイルマネー口座保有率に拠るものであり、ガーナの金融包摂の進展にDFSが大きく貢献していることが推測される。

モバイルマネー代理店の数は、2012年の6,000から2017年にはその25倍の150,000まで大幅に増加している<sup>5</sup>。かかる状況に関しては、本調査で訪問した北部及び南部の2つの地域においても、コミュニティ内からのアクセスの利便性が高く、農家世帯によるモバイルマネー口座の利用が浸透していることを確認できた。モバイルマネーのサービスは、スマートフォンではなく、簡易携帯電話による利用が一般的である。

<sup>5</sup> World Bank (June 2019) 4<sup>th</sup> Ghana Economic Update Enhancing Financial Inclusion



ガーナの金融セクターのプレーヤーの中で、小規模農家の金融包摂と関連性がある FSPs を図 4 金融セクターのプレーヤーと構造 に示す。現在、主要な FSPs は、ガーナ中央銀行の Special Deposit-Taking Act 930 (2016)により規制されている FSPs (赤点線枠内) や、MNO (通信ネットワーク事業者) 関連の EMI (電子マネー発行社) および DMI (デジタルマネー発行社)、規制対象となっていないインフォーマルな Susu および VSLA である。Tier 1 および Tier 2 の FSPs は、商業銀行(Universal Bank)と同様の金融サービスを提供することができ、Tier 3, Tier 4 へ向かうほどサービスの幅が制限される。政府の指針として、インフォーマルな VSLA をフォーマルな金融システムと結合することと、キャッシュレスを推進していくことを通じて、さらなる金融包摂の促進を図っている。

FSPs においては、近年、金融システムへの信頼が低下した背景の下、顧客の保持・獲得のために、顧客視点に立った価値に基づいた商品開発に積極的な姿勢を見せている<sup>6</sup>。かかる傾向は、金融包摂の促進を支援する開発パートナーと連携することにより、イノベティブな商品・サービスの開発を促進させている。具体的には、生計・生活改善や営農強化に資する情報の提供、医療サービスを付帯した保険商品など、多様な商品が組成されており、さらに、個々の商品・サービスをバンドルするオプションを提供するなど、小規模農家の要望 (ニーズ、アフォーダビリティの観点から) に適合することが出来る。以下、Box1~6 において、本現地調査期間中に聞き取りを行った事例を紹介する。

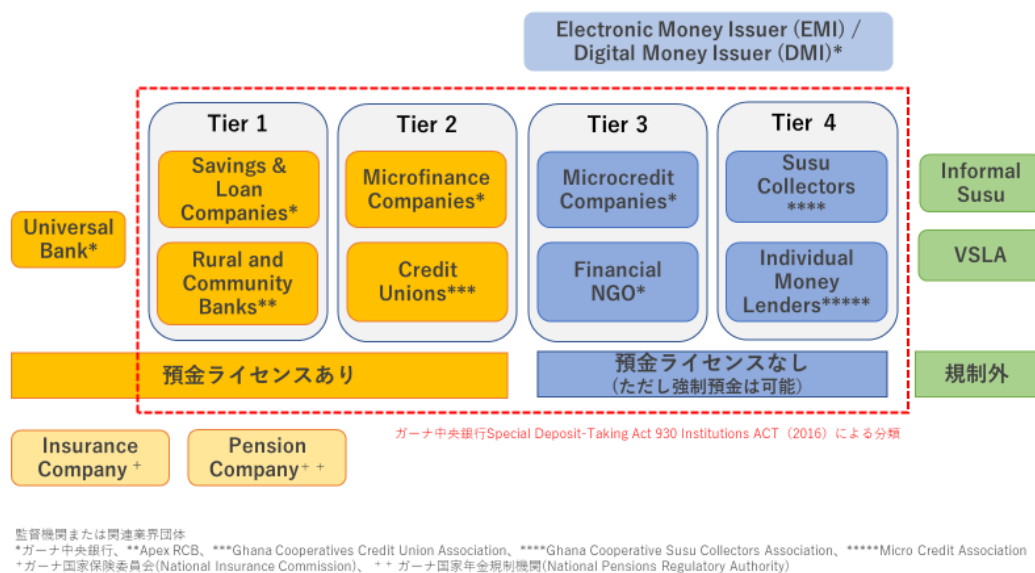


図 4 金融セクターのプレーヤーと構造

(出所：ガーナ中央銀行、現地金融包摂アドバイザー情報などを元に調査団作成)

<sup>6</sup> 一部の FSPs (主にマイクロファイナンス機関) の資産の流動性の問題が取り上げられたことにより、大勢の利用者が口座から預金を引き出す事態が広がり、多くの金融機関が経営困難に陥った。

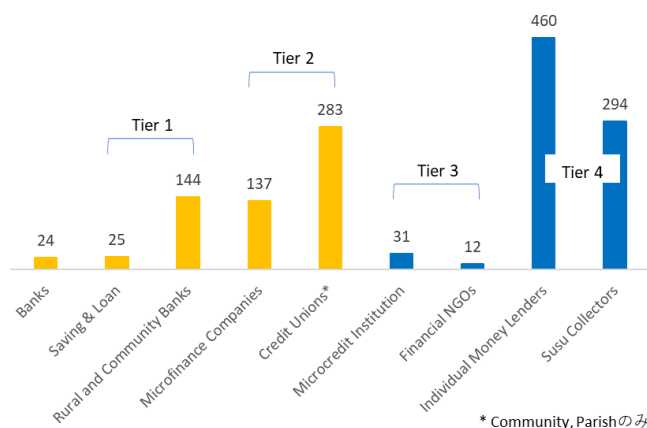


図 5 金融サービス提供者数 (2019)

(出所：ガーナ中央銀行、ガーナ Cooperative Credit Union Association データを元に調査団作成)

### Box 1 Catholic Relief Service (CRS) の SILC

#### 【概要】

Saving and Internal Lending Communities (SILC)は、コミュニティ内の女性を対象とした、グループ預金・小規模融資のスキームである。8~12カ月を1サイクルと定め、グループ内におかれた管理者の下、メンバーは預金および借入をすることができる。サイクル完了時に、預金残高と配当をメンバーで分け合う。CRSは、農業分野や保健衛生分野のプロジェクト活動に、SILC手法を取り組むことにより、裨益者の分野別研修への参加意欲を高めている。

#### 【支援の内容】

- ・グループ預金・小規模融資スキームのルールや運営、ベネフィットについての金融教育の実施。
- ・コミュニティ内に金融教育を支援する Private Service Provider (PSP)の育成・配置。

#### 【インパクト】

- ・SILCメンバーが、SILCのプラットフォームを通じて、コミュニティ内の生計・生活改善のイニシアチブ（例えば簡易トイレの設置）に取り組めるようになり、同時に、(保健・衛生)関連の知識の増加や行動変容につながった。
- ・SILCメンバーが、PSPのサービスを利用し、持続的に金融知識および利用能力の向上に取り組むことができるようになった。
- ・SILCメンバーの間、ひいてはコミュニティ内の社会ネットワークが強化された。
- ・SILC手法の有効性が実証されたことにより、フォーマルセクターの金融サービス提供機関との連携の可能性がでてきた。

(出所：現地調査議事録、 <https://www.crs.org/our-work-overseas/where-we-work/ghana>)

## Box 2 People's Pension Trust

### 【概要】

People's Pension Trust は、2014年に創業、2017年に企業登録した、個人年金商品を提供する企業である。小規模農家を含むインフォーマルセクターの人々が老後資金を貯蓄し、自らの手で「年金」を形成することにより、尊厳のある老後を迎えることが可能になる。現在の顧客数は、4.5万人規模で、その6割は都市部の顧客である。一部の地域には、支店を持つが、多くはモバイルキオスクを介した営業を行っている。

### 【サービスの内容】

積立年金の貯蓄スキーム。顧客は、子供の教育費や不測の出費発生時の補充といった金融ニーズを持つことを事前調査で確認している。そのため、2カ月間の預金期間後には、いつでもどのような目的のためでも引き出し可能とするものである。引き出し申請後3日以内にデイスパースされる。預金額はその時々顧客の財務状況に応じて柔軟に決めることができ、一定額でなくてもよい。

### 【その他】

上記の通り引き出し可能額は預金額50%ではあるが、実際には総預金額の15%程度しか引き出されていないことがわかっている。オランダの Wageningen 大学や CGAP などと連携し、インフォーマルセクター顧客の貯蓄行動などについて調査を実施している。

(出所：現地調査議事録、<https://www.peoplespensiontrust.com>)

## Box 3 USAID の FINGAP

### 【概要】

ガーナ北部州のコメ、メイズ、大豆バリューチェーンの競争力向上を目的として、金融サービス促進支援を含む包括的支援を実施した5か年のプロジェクト。FSP に対するグラント提供の他に、バリューチェーン関係者に対してビジネスアドバイザーサービスを提供する。

### 【支援の内容】

- ・金融サービス提供機関に対して、グラントを提供し、小規模農家を含むバリューチェーン関係者へのイノベティブな金融サービス提供を促進した。
- ・一例として、CARD Financial NGO は、2015年に USAID から6万 USD のグラントを受領し、新たな投入財クレジットモデル (Crop Cashless Financing Service : CCFS)を開発、農家に対して1.5百万 USD 相当の投入財クレジットを提供した。
- ・Success for People (Microfinance Company) の行員の能力強化と、クライアント向けに譲許的ローンを提供した。

### 【インパクト】

- ・FinGAP は2015年時点で40百万ドルの新たな民間融資と投入を創出し、小規模農家を含む80の小規模バリューチェーン関係者の資金需要に対応した。
- ・5年間で120,000の小規模農家の金融ニーズに対応する見込み。

(出所：現地調査議事録、<http://www.carana.com/projects/subsaharanafrika/919-financing-ghanaian-agriculture-project-fingap>)

#### Box 4 Esoko Ltd.によるイノベティブな農家向けサービス

##### 【概要】

Esoko は、モバイルネットワークと IT 技術を活用した農村コミュニティのエンパワメントをミッションとして 2008 年に設立された社会企業である。金融機関、保険会社、通信会社、開発パートナーなど、各種のパートナー組織との連携をつうじて、商品やサービスとバンドリングした農業情報サービスを約百万人の小規模農家に提供。その他に農家・農村に関連したリサーチ・サービスを提供する。

##### 【サービス内容】

・「農業情報サービス（①作物市場価格情報、②栽培アドバイザリーサービス、③天候情報、左記②と③を合わせた「Climate Smart Agriculture」サービス」の提供。フィーチャーフォンを通じた SMS、ボイスメッセージサービスの他に、コールセンターサービスを提供。

・パートナーとの連携事例①Vodafone: Farmer Club サービスの顧客である小規模農家に上記「農業情報サービス」をパッケージの一部として格安に提供。また、Club メンバー間のコミュニケーションが無料となる。農家は 0.5 USD/month でサービスにアクセス可能プロジェクト期間（4年間）については、Vodafone が差額を負担する。

・パートナーとの連携事例②GSMA: 上記「農業情報サービス」のサブスクリイバー小規模農家に栄養情報をパッケージの一部として提供。

(出所：現地調査議事録、 [www.esoko.com](http://www.esoko.com))

#### Box 5 BIMA によるマス・マーケット向け医療保険とサービス

##### 【概要】

BIMA はスウェーデンの FinTech 企業が保険会社 Alliance と事業連携し、マイクロ保険と医療保健サービスを提供している。ガーナにおいては、Tigo と提携し、同社の顧客やサービス拠点を活用して事業展開してきた。BIMA の保険加入者数は現在約 2 百万人規模であり、中核となる顧客層は、基本的には都市を中心としたインフォーマルセクターの事業従事者である。BIMA は、貧困層に特化することではなく、あくまでもマス・マーケットを対象としている。それにより、黒字運営の達成の可能性を高め、また、顧客間で中間所得層と低所得層の「相互補助 (cross sub-sidization)」が生じるメリットもある。BIMA の保険活用が可能な医療機関は民間医療機関である。NHIA の保険加入者が BIMA 保険にも加入している場合も多く、NHIS に対し補完的な役割を果たしている。

##### 【サービスの内容】

- ・ 医療サービス利用、生命保険、治療・薬に対する保険等
- ・ 医師や看護婦による電話医療相談 (tele medicine) サービス
- ・ サービス料の支払い方法は、携帯電話のエアタイムからモバイルマネーへ移行中

マイクロ保険は加入者に対するいわば「支援金」のような形で一定料金が支払われる仕組みであり、医療機関側へのリインバースメントではないため、医療機関側の医療行為の種別、医療行為にかかった費用とはリンクしていない仕組みである。(つまり、NHIA が直面しているような医療機関側へのリインバースメントのタイミングの遅れ等に関連した課題もマイクロ保険の仕組みでは生じない。)

(出所：現地調査議事録、 <https://www.bima.com.gh>)

## Box 6 FISFAP Ghana 金融包摂主流化促進プロジェクト

### 【概要】

小規模農家のための金融包摂プロジェクト (Financial Inclusion for Smallholder Farmers: FISFAP) は、MasterCard 基金と AGRA (Alliance for Green Revolution in Africa: AGRA) により、2015 年からケニア、ガーナ、タンザニアで開始された。ガーナにおいては、村落部におけるモバイル決済の促進およびエージェントのネットワーク化、農業投入財購入と倉庫証券を使った融資へのアクセスのモデル構築が重点となっている。そのため、FISFAP は、金融サービスを低所得層に提供する金融機関 3 社、農家とアグリビジネスをつなぐシステムを構築するテクノロジー企業 2 社をパートナーに迎えた。AGRA 自身が担う活動としては、通信やエージェントを使ったアウトリーチのモデルについての能力強化を実施し、小規模農家向けのサービスの市場展開を推し進めている。

### 【金融包摂モデル】

FISFAP を通じて連携する異なるパートナーの間で、村落部で営業するエージェントを共有することにより、効率的かつ効果的な村落部へのサービスの浸透を図っている。エージェントを共有することにより、エージェント向けの様々な能力研修を、効率的に実施することが出来る。一方で、エージェントは、複数のサービスプロバイダーの業務を兼任することにより、コミッションの増額を期待することができ、やる気も向上すると思われる。このように、サービスプロバイダー側の環境整備・強化が行われた。

### 【インパクト】

2017 年に実施された評価によると、FISFAP は、ガーナにおける裨益対象者の 68% に便益をもたらした。ターゲットに達しなかった理由は、地理的に広範であったことが要因とされている。裨益者は、FISFAP パートナー企業が提供する農業機械化やほか資材へのアクセス改善のサービスを利用することで、生産性の向上、ひいては収入向上の効果を得ている。

### 【JICA プロジェクトへの示唆】

- FISFAP は、パートナー企業が本来持つ、いかに効率的に新規顧客を開拓し、利益を上げるかという原動力を考慮したデザインになっている。そのため、企業間で相互に win-win となる戦略的な連携が生まれ、小規模農家のニーズに応えるイノベティブなサービスの開発・提供につながっている。
- 小規模農家セグメント、とりわけデジタル化が浸透しておらず、エージェント利用にも馴染みが少ない地域においてリーチアウトするためには、能力強化のコンポーネントが非常に重要である。
- FISFAP は、プロジェクトの対象農家すべてにリーチアウトすることができなかった。対象とする規模を慎重に設定する必要がある。
- また、小規模農家が、新たに提供されるようになった金融・非金融（デジタル・非デジタル）サービスを実際に利用するためのアプローチについても、検討する余地がある。

(出所：現地調査議事録、現地金融包摂アドバイザー)

## 第3章 小規模農家を対象とした JICA プロジェクトに金融包摂の視点を組み込む意義・方法（案）

### 3.1 JICA プロジェクトに金融包摂を組み込む意義

小規模農家を裨益者とする JICA の農業及び保健セクター案件に、金融包摂の視点を組み込むことにより、案件の効果の発現と持続性の担保および増大につながることを期待できる。以下、主な意義及び考察を記述する。

- ① お金の問題は、小規模農家の重要関心事項である。 よって、農業技術・営農研修または、（基本的には女性を対象とした）母子保健・栄養摂取研修などの機会に、「お金」のテーマを組み込むことにより、研修参加への関心を高めることができる（事例 Box 1 Catholic Relief Service (CRS) の SILC）。
- ② お金の問題は全ての案件活動に関連する。 小規模農家世帯の参加者が、上記した研修で習得した知識や技術を実際に活用するにあたっては、「お金」が必要になる。よって、「お金」の側面についても支援を組み込むことにより、活動実行（行動変容）の可能性の向上が期待できる。
- ③ 小規模農家の家計状況のトータルな把握と対応策を検討する。 基本的に、小規模農家世帯は、生活費用と生産費用を同一の財布から工面する<sup>7</sup>。家計状況をトータルに把握することで、案件活動内容に関連した課題に対する世帯レベルでの対応策の実行方法を検討し、実行に移す可能性が高まり、ひいては、支援活動の効果の発現性向上につながる。
- ④ マーケットベースによる効果の持続性を図る。 農業バリューチェーン関係者（民間）が提供する、小規模農家の営農、生計向上・生活改善に資するサービスへのアクセスを後押しする。それにより、案件終了後も、支援効果の持続性が期待できる。（事例 Box 3 USAID の FINGAP）
- ⑤ モバイルマネーをエントリーとした多様なサービスへのアクセス・活用促進。 ガーナのようにデジタルエコシステムの整備が進んでいる国においては、携帯電話の利用を通じてアクセスが可能で、且つ小規模農家世帯にとってもアフォードブル

<sup>7</sup> 夫婦で異なる収入源を持つ世帯においては、妻の収入の一部を世帯の財布（プール）に入れずに管理するケースもあるが、その用途はいずれも生活費用（生活用品の購入、自分用の携帯電話のチャージ等）または生産費用（零細事業の仕入費等）に充てる。

なサービスの開発が活発になっている。かかるサービスへのアクセスや活用を促進することにより、案件支援効果の幅が増大する可能性が生まれる。(事例 Box 6)

### 3.2 JICA プロジェクトに金融包摂を組み込む方法

上記の意義をふまえて、小規模農家を対象とした JICA 案件への金融包摂視点の組み込み方のオプションを図 6 に示す。基本的には、金融サービスを利用する側であるデマンドサイド（農家）、および金融サービス提供側であるサプライサイド両者に同時並行的に働きかけていくことが肝要である。

図 6 金融包摂の視点を組み込む活動オプション

	デマンドサイド (小規模農家への働きかけ)	お見合いフォーラム	サプライサイド (FSP、サービス提供会社との連携、協働)	
生産 (農業・非農業)	農業案件への金融教育、金融サービス情報提供活動の組み込み		共通	農業VCファイナンス試行
	<ul style="list-style-type: none"> <li>✓ 普及員の研修コンテンツへの組み込み</li> <li>✓ FSPと連携した金融教育セミナーの実施(有益サービスの紹介含む)</li> <li>✓ FSPとのマッチング機会の提供</li> </ul>		<ul style="list-style-type: none"> <li>(1) 潜在的顧客群の紹介、タッチポイント提供</li> <li>(3) 資材会社(+FSP)との協働</li> <li>(4) 機材会社(+FSP)との協働</li> <li>(5) 流通業者、貯蔵会社(+FSPs)との協働 cf warehouse receipt</li> </ul>	
生活	保健案件への金融教育、金融情報提供活動の組み込み			生活金融関連
	<ul style="list-style-type: none"> <li>✓ 保健医療スタッフの研修コンテンツへの組み込み</li> <li>✓ 母子保健、栄養促進活動でのコストや資金繰り手立て情報の提供(SILC)</li> <li>(例) 出産・育児にかかる費用やその準備/栄養価の高い食事コストとそのやり繰り</li> <li>✓ FSPとの連携による有益金融サービス(預金)紹介セミナー実施</li> </ul>		<ul style="list-style-type: none"> <li>(2) 商品開発、サービス改善 USAID FinGAP</li> <li>(6) 村のインフォーマルVSLA やSusuのフォーマル金融への橋渡し</li> <li>(7) 医師や看護婦による電話医療相談(tele medicine)サービス活用(BIMA)</li> <li>(8) 小農含む大衆、及び医療機関スタッフへのNHISの正しい知識普及・定着活動 → 不透明、不適切な医療費請求阻止によるNHIS, 医療機関への不信感の払しょく</li> </ul>	

(出所：調査団作成)

#### 3.2.1 デマンドサイドへの働きかけ（農家を対象とした活動）

JICA 案件におけるデマンドサイド側への働きかけは、サプライサイド側への働きかけに比しより容易に取り組める。重要なのは、農家が自身の家計状況を把握し、また必要に応じて適切な金融サービスを活用できるよう、彼/女らの金融リタラシーや、場合によってはデジタルリタラシー強化を図ることである。そのため、農業案件や保健案件の活動に金融教育や金融サービス情報提供活動を組み込むことが考えられる。農業の案件では、農業サイクルおよび家計のキャッシュフローの関係で、例えば、種子や肥料の購入のためにいつまでにどの程度の資金調達が必要であるか、またそのためにいつから準備をしなければならないか、それを容易にする金融サービス（インプット調達向け預金、農業ローン、在庫担保ローン等）にはどのようなものがあるかなどの指導や情報提供を営農指導と共に行っていくことが考えられる。また保健案件でも、例えば、

妊娠、出産、乳児育児、栄養強化等につき、具体的な活動を実施するためにいつ、いくら必要であるかを検討し、そうした資金準備のための預貯金サービスやマイクロ保険等の紹介を行うことも可能であろう。こうした活動を促進するため、金融教育側面を農業普及員や保健師の研修マニュアルに含める、あるいは FSP とともに金融サービス紹介セミナーを実施するなど一案であろう。

### 3.2.2. サプライサイド（金融機関及び他のバリューチェーン関係者を対象とした活動）

金融包摂視点を組み込むためのサービス提供者側への働きかけはデマンドサイド側への働きかけより少しハードルは高くなるが、活動オプションとしては以下が考えられる。

#### ① 個別 FSP との共同による活動オプション（図 6（1）及び（2））

まず考えられるのは、優良 FSP への JICA 案件の受益者の紹介を通じ、FSP の既存サービスが彼／女らに提供されるよう促進することである。記述の通りガーナでは小農向けのイノベティブな金融サービスが開発されつつあるが、未だ広範には普及していない。JICA 案件が小農の農業生産向上や健康促進を図る場合、案件の受益者は、FSP にとっては潜在的優良顧客となる可能性が高い。よって、JICA 案件が FSP に対し、こうした受益者へのタッチポイントを提供することが考えられる。また、既存サービスに限界がある場合には、個別 FSP と連携・協働し、USAID の FINGAP プログラムが行ってきたように、顧客中心主義に基づき小農の生産領域、生活領域の金融ニーズを満たす新商品やサービスを開発することも考えられる。

#### ② FSP 以外のバリューチェーンアクターも巻き込んだ生産領域の活動オプション（図 6（3）～（6））

JICA 案件を通じた小農の金融ニーズへの対応には、FSP に加え、資材会社、機材会社、流通・貯蔵会社、ディストリビューター等との連携による商品・サービス開発、試行も考えられる。例えば、農家による時機を得た資材の投入に向けた目的限定型の預金サービスを資材会社とつなげる形で FSP に提供してもらい、一定額がたまった段階でその預金が資材会社に振り込まれ、必要資材が資材会社から直接農家に届くような仕組みを共同開発することや、機材会社との連携による機材リースサービス、あるいは、流通・倉庫会社と組み、収穫後の穀物を倉庫に保管することで農家が穀物価格の変動を見て売り時を決められるようにすると同時に、穀物在庫を担保として融資を受けることを可能とするような商品の開発・提供などが考えられる。

#### ③ FSP 以外のアクターを巻き込んだ生活領域の活動オプション（図 6（6）～（8））

すでにみた通り、ガーナでは病気や事故対応、教育費捻出のため Susu や VSLA などインフォーマル金融が広く利用されているが、現金管理の重責や持ち逃げ、借りたい時に必要な額が借りられない、取引情報が公式記録とならないなどの問題もある。よって、こうしたインフォーマル



金融をフォーマル金融につなげる役割を JICA が担うことも可能である。連携先としては e-susu サービスを提供し始めている RCB や、VSLA のデジタル化を図っているフィンテック、あるいは NHIS ではカバーされない部分への対応を可能とするマイクロ保険提供会社（例：BIMA）などがある。また、BIMA の医師や看護師による電話相談サービスに対する需要は高いが、こうした会社と連携し、健康増進のために医師や看護師が流すべきメッセージ内容につき、検討・精査することも考えられる。さらに、NHIS に加入している者の中にも、医療機関での医療費請求のあり方に疑問を持つものも多く、それが公共医療や NHIS に対する不信感にもつながっていると思われる。よって、小農を含む大衆や医療スタッフ向けに NHIS の正しい知識をわかりやすく伝えるような活動を保健案件の中で行うことも意義があると思われる。

#### ④ 広範なプラットフォーム活用による活動オプション（図 6 (9)）

最後に、多くの民間企業と連携し、小農の生産、生活両領域において、金融・非金融サービスの提供の広範なプラットフォーム構築を図っている ESOKO のような企業との連携が考えられる。記述の通り、ESOKO は農産物価格や天候、農業アドバイスをモバイルネットワークを介して音声で小農向けに安価に提供する会社である。しかしそれに加え、マイクロファイナンス機関、銀行、保険会社、通信会社、研究所、ドナー機関等様々な機関と連携し、小農向けに預金、融資、保険、保健栄養教育情報等をバンドリングサービスとして広範に提供している（今後も増える予定）。JICA 案件ではこうした機関と連携し、そのプラットフォームを通じて、例えば農業案件であれば、普及・強化したい農業技術や営農情報、また保健案件であれば、保健や栄養関連の情報やアドバイスを携帯も活用して提供することで、案件のより効率的、効果的、持続的な実施が可能になると考えられる。また案件受益者はこうしたプラットフォームにつながることで、案件外の活動についても生産、生活領域を問わず、自身が必要とするサービスを取捨選択しながら活用し、生活改善、生計向上を図っていくことが可能になるとと思われる。

添付資料 1 現地調査日程

日付		場所	活動・訪問先
1月8日	水	-	移動
1月9日	木	Accra	12:05 アクラ着
			16:00 JICA ガーナ事務所打合せ 19:00 ローカルアシスタント打合せ
1月10日	金	Northern 州 Savelugu	9:30 ローカルアシスタント Tamale 移動 - 農業普及員との打ち合わせ、農業資材情報収集
		Accra	9:00 国家健康保険機構 (NHIA), 保健省訪問 12:00 ローカルコンサルタント打合せ
			14:00 AGRA 16:30 BIMA
1月11日	土	Northern 州 Savelugu	(ローカルアシスタント) 地域 FSP s のサーチ
		Accra	(日本人調査団) ホテルにて作業
1月12日	日	Northern 州 Savelugu	9:30 Tamale へ移動
			11:00 ローカルアシスタント打合せ 16:00 農業普及員・普及員/通訳との打ち合わせ
1月13日	月	Northern 州 Savelugu	8:30: Kanshegu コミュニティ農家調査
			14:00: Savelugu 市庁舎表敬訪問 15:30 Kanshegu コミュニティ農家調査
1月14日	火	Northern 州 Savelugu	Libga コミュニティ農家調査 Zarzi コミュニティ農家調査
1月15日	水	Northern 州 Tamale, Savelugu	9:00 CARD 10:00 ADB 14:30 Catholic Relief Service
		Accra	17:30 Accra へ移動
1月16日	木	Accra	9:00 Apex 11:00 Fidelity
			16:00 People's Pension Trust
1月17日	金	Greater Accra Ga South	8:00 Ga South 市庁舎訪問、農業資材会社情報収集インタビュー 農家インタビュー (2世帯) 14:00 Ga South Rural Bank

1月18日	土	Greater Accra Ga South	農家インタビュー（4世帯）
1月19日	日	Accra	ホテルにて作業
			調査団打合せ
1月20日	月	Accra	9:30 Success for the People
			11:30 Emergent Payments Ghana Ltd. 15:30 現地コンサルタントとの打ち合わせ
1月21日	火	Accra	10:00 MTN 11:30 現地コンサルタントとの打ち合わせ 14:00 Esoko
1月22日	水	Accra	8:30 JICA ガーナ事務所報告
			報告書準備、出国
1月23日 ～24日		-	移動

# 農家ペルソナ1 : 天水農業コミュニティの兼業農家



# 農家ペルソナ記入欄

## 【世帯構成・資産】

同じ敷地に16人が居住。30代の夫婦、子供5人、母親、弟3人および兄の子供5人。加えて、別の敷地に住む父親世帯(父親、兄弟他8人)8人を養うため、ひとつの家で計24名の世帯構成となる。

資産: 12エーカーの土地、バイクトラック2台、自転車3台、ヤギ、ヒツジ、ホロホロ鳥、鶏などの家畜

## 【生活手段・収入】

農業に関しては天水農業によるコメ(3エーカー)、ピーナツ(6エーカー)、メイズ(3エーカー)の栽培を行っているが、メイズは自家消費用であり、コメとピーナツを販売している。2年前から農家グループに参加して、肥料・農薬などの投入財共同購入や、時々共同販売を行っている。グループで対応した方が投入財の購入価格が低い。昨年の農産物からの収入は4,500 GHSであった。

しかし、その他の収入、トライシクルビジネス(年間約18,000GHS))が世帯収入の約7割を占める。1台目の古いトライシクルは賃料収入が月400GHS程度だがもう一台の最近購入したトライシクルは1日の収入60GHSである。このトライシクル(13000GHS)

は親せきから6000GHS借金(無利子)して購入した。その他、妻の雑貨店からの収入が1200 GHS/年あった。これらを合わせた家計の昨年の総収入額は約28,500 GHS(約54万円)であった。

## 【生活費・家計支出】

下記のような支出があった。

食費: 290 GHS/月

父の家庭の家計支援: 120 GHS/月

電気: 60 GHS/月

携帯代金: 48 GHS/月

教育費: 200 GHS/月

冠婚葬祭(特に10月-3月): 170 GHS(年)

医療費: 3,600 GHS/年(父親の治療費・薬代、通常の医療費)

保険料: 760 GHS/年(健康保険、車両保険)

ガソリン代 450 GHS/月

屋根修繕費: 8,000 GHS/年

年間合計: 26,500 GHS(約51万1450円)

家族は健康保険に加入しているが、それでも世帯の人数が多いので、国民健康保険でカバーされな医薬品費や治療費(レントゲンなど)が月平均で150GHS程度かかる。父親が3年前に脳梗塞を患って体が思うように動かない状態である。病院など通常の保険がきく医療施設での治療ではもう効果がないので、効果があるという話を人づてに聞くと、保険が効かない伝統的なヒーラーなど

に診てもらっている。このような治療費は隔月に一回くらいの頻度で治療費と薬代を含めて300GHSかかっている。一か所試してみても、効果がないとまた次のヒーラーを探す、というようなことをしている状況である。

### 【金融サービス利用状況】

家計簿や生産の帳簿はつけていない。妻は教育を受けておらず(学校に通ったことがない)、帳簿のつけ方は知らない。しかし、小さな雑貨店を営んでいるため、帳簿のつけ方を学ぶことができれば関心がある。

銀行口座は持っていないが、MTNのモバイルマネーを利用している。支出の後に残ったお金があれば、村のエージェントに行ってモバイルマネーに入れる。現金を家に置くのは危険なのでしない。

上記の通り、トライシクルの購入資金の一部を親戚から借りたが、3カ月で返済予定である。定期的にお金を借りなければならぬようなことはあまりないが、いずれにしても金融機関から融資を受けることは考えない。

妻が村の貯蓄融資組合(VSLA)に加入している。毎週2から5GHSを預金している。貯蓄融資組合への預金は簡単におろすことはできないが、組合に加入していれば1000GHS程度の金額の融資を受けることができる(100GHSに対し3カ月毎に10GHSの利子がかかる)。

### 【悩みや将来の希望】

父親の医療費や父親世帯の家計支援はかなりの負担となっている。また、健康保険に加入していても、幼い子供の人数も多い大家族のため、保険ではカバーされない医療費が年間を通してかなりかかる。

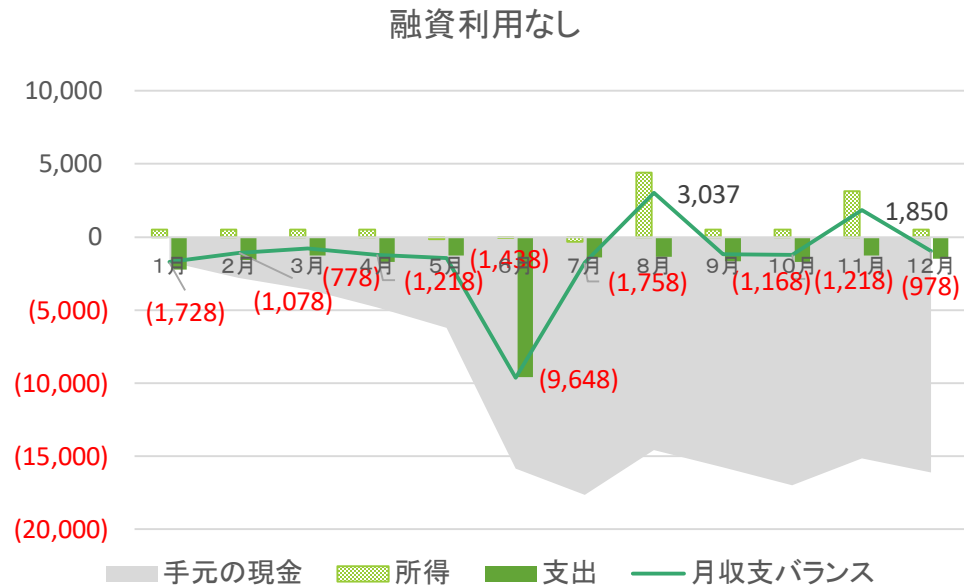
その他に支出が大きいのは子供の教育費であるが、子供たちには是非教育を受けさせたい。

最近干ばつや、それに関連した自然発生的火事(ブッシュファイア)のリスクがかなり高く、作物に被害が出る可能性が高くなっているのが不安である。

農家グループには満足している。投入財の共同購入や共同農地の耕作だけでなく、現在所有している古い方のトライシクルも農家グループを通して安価に購入することができた。

その他将来の希望としては、家の改築などをしていきたいと考えている。

# ペルソナ仮想キャッシュフロー（1月～12月）



収入源は天水農業のコメとピーナツ(合計7エーカー)の売上と古いトライシクルの賃貸料が主体となる。このため家計の支出に対して収入の絶対額が低く、また基本的に収入の多くが8月と11月に発生する。月々の収支も累積の手持ち現金もマイナスの月が続く。



親戚からお金を借りて新しいトライシクルを購入し、トライシクル・ビジネスの収入が発生した。このため、年間を通した収入がある。屋根の修繕費や借入金返済のために月々の収支および累積手持ち現金が一時的に赤字になるが、年間の収支は黒字となる。

## 農家ペルソナ2：灌漑地域の計画的な多角栽培農家





# 農家ペルソナ記入欄

## 【世帯構成・資産】

大人8名、子供24名、合計36名の一族が同じコンパウンドに住んでいる。家長夫妻と子供7名、家長の父親夫妻、兄2名およびそれぞれの妻と子供たち(12名)、弟1名およびその妻と2人の子供、独身の弟2名、家長の父親の孫、養子4名。

資産は、自宅および19エーカーの農地(内1エーカーは政府保有の灌漑農地)、ヒツジ7頭、牛3頭、鶏50羽などの家畜、モーターバイク1台、自転車1台、通常の携帯電話1台などを所有。妻はヒツジ3頭、通常の携帯電話を1台所有している。

## 【生活手段・収入】

このコミュニティの近くにはダムがあり、1世帯につき1エーカー(この農家では弟世帯も1エーカーを耕作しているため合計2エーカー)の灌漑農地を耕作できる。このため、乾季に野菜栽培ができる。天水農業でメイズを10エーカー、大豆を5エーカー、灌漑農地2エーカーでは、ペパー、なす、トマト、葉物野菜などを栽培している。家長は基本的にほぼフルタイムで農業に従事している。特に野菜は価格の上下が激しいので、価格に気を付けて販売する。

例えば葉物野菜は通年の栽培が可能ではあるが、この農家は価格が最も高い11月から2月までしか栽培しない。また、ペパーは生では販売せず、乾燥させてから価格の良い4月に売る、などの工夫をしている。

妻は他の女性たちと一緒に近所の野菜農家の作物を集荷してTamaleのマーケットで販売するビジネスを行っており、毎日500GHS分の野菜を市場に持ち込み、1日30GHSから120GHSの収益を得ている。

昨年の農作物売上からの収益は37,800GHS、妻の収入が21,600GHS、総収入は約60,000GHS(約117万5千円)であった。

## 【生活費・家計支出】

食費： 90 GHS/月  
電気： 10 GHS/月  
携帯代金： 48 GHS/月  
教育費： 250 GHS/月  
冠婚葬祭： 360 GHS(年)  
医療費： 100 GHS/年(通常の医療費)  
保険料： 260 GHS/年(健康保険)  
ガソリン代 80 GHS/月  
被服費 25/月  
年間合計： 4,360 GHS(約8万5000円)

## 受益者ペルソナ記入欄

上記は家長夫妻および子供7名から構成される「核家族」の家計。食費や光熱費などの共通費目は各「小家族」が負担しあっているが、他の費目は各「小家族」毎の別会計となっている。食事は当番制になっているので、夫婦は週に2回食事の用意およびその費用を負担するだけで良い。

預金は夫名義の商業銀行口座に行っているが、通帳は妻が保管している。また、小額の取引にはモバイルマネーを活用している。

以前に一度農業保険(天候インデックス保険)のオファーがあり、試したことがあったが、天候の測定地が村からは遠く離れた場所であったために役に立たなかった。

### 【金融サービス利用状況】

この農家の家庭では夫と妻が一定の独立したお財布を持っている。妻が野菜販売から得た収入については「妻のお財布」に入れている。

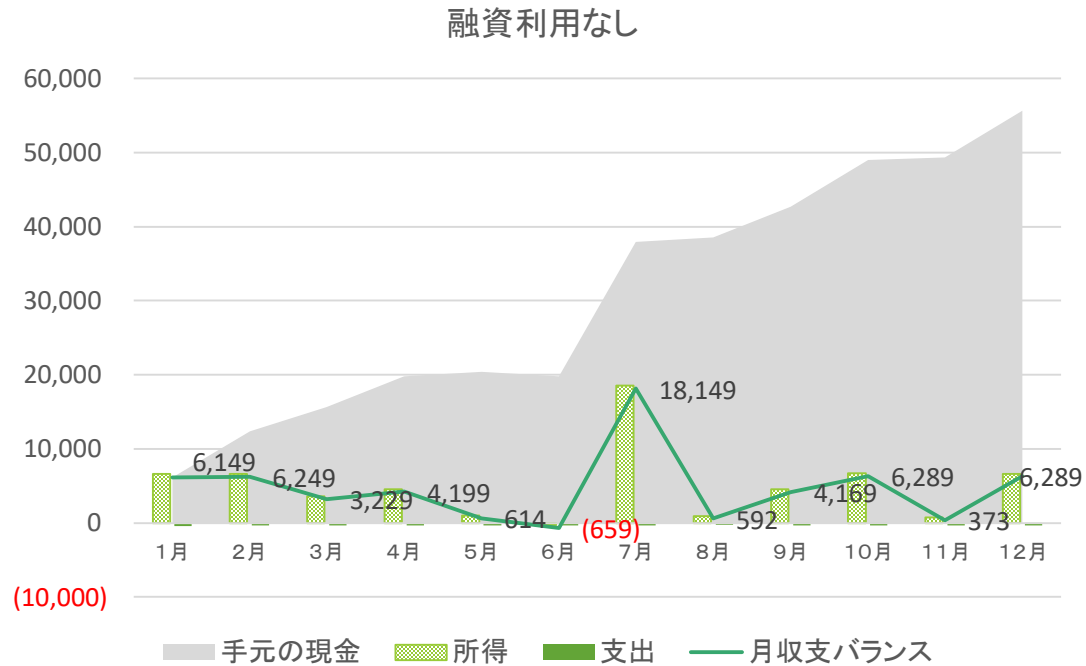
妻は村の貯蓄融資組合(VSLA、メンバー30名)に参加しており、毎週集会があり、最低2GHSの預金を行っている。夫がグループの記録係を務めており、預金額はメンバー各人のパスブックにスタンプを押して記録されている。VSLAのお金は箱に入れてカギがかけられ(カギは3つある)メンバーの内4名のいずれかの家に保管されている。箱を保管する人とは別のメンバーがカギを持っており、他のメンバーは誰もそれが誰であるかを知らない仕組みになっている。

### 【悩みや将来の目標】

農家は高校(12年間の教育)を終了しており、英語も堪能である。高校を卒業している農家はコミュニティの中にはそれほどいない。Attai Baseという31名の農家から構成されるコミュニティグループに所属しており、コミュニティ内での平和や、衛生向上のための活動などを行うと共に、4エーカーの共有地を協働で耕し、そこから得た収益をコミュニティのイベント(葬儀、結婚式など)に活用している。今後もこのような農家グループの活動に積極的に取り組む意向である。

また、新しく彼の「核家族」用の家を建てて、現在のコンパウンドから引っ越したいと考えている。

## ペルソナ仮想キャッシュフロー（1月～12月）



栽培する作物の種類が多様化、市場価格を考慮した野菜栽培・販売戦略の実施により、年間を通して収入がある。また、妻の収入が世帯収入の約4割の貢献をしている。さらに、複数の半独立家計世帯の集合住宅で暮らすことにより、収入に比較して固定支出が極めて低い。このため月々の収支が年間を通して黒字であり、累積の手元現金が増加しているため、預金ができる。

融資は活用していない。

## 農家ペルソナ3：灌漑地域の平均的農家



# 農家ペルソナ記入欄

## 【世帯構成・資産】

夫と二人の妻、子供11名。長男は昨年末に高等教育機関に入学して家を出たため、現在同居しているのは13名であるが、もちろんこの息子も家計に含まれる。この村では二人の妻がいて同居している家庭が珍しくはない。

農家は自宅、バイク1台、自転車1台、通常の携帯電話3台、ヒツジ10頭、50羽以上の鶏を飼っている。

## 【生活手段・収入】

4エーカーの天水農地で耕作を行っている。コメが2エーカー、メイズが1エーカー、大豆が1エーカーであり、灌漑農地0.5エーカーで葉物野菜を作っている。また、去年は若干距離の離れたところにある6エーカーの土地を新たに借地した。この土地ではコメを作っているが、去年は異常気象でコメの収穫は非常に悪かった。

通常妻はコメの加工販売業に従事している。しかし、昨年末子供の教育費工面のためにVSLAからお金を借りたため、現在同事業に必要な資金が手元になく、追加の融資はVSLAから受けることができないのでこの事業を中断せざるを得ない状況となっている。

事業の継続のためには1回の加工につき10袋分のコメを買って、それを加工・乾燥するための炭、曳くための機械レンタル、販売するための交通手段にかかる費用などの1600GHS程度のお金が必要である。このお金が工面できれば、週に300GHS、月1200GHSの収入を得ることができるようになる。去年は10月以降妻の収入がない。それでも9月までの収入で、妻のコメ加工業収入が家計の総収入の5割(10000GHS)を占めた。

農業からの収入も約10000GHSであったため、家計の総収入額は約20000GHSであった。

## 【生活費・家計支出】

食費： 400 GHS/月  
電気： 20 GHS/月  
携帯代金： 120 GHS/月  
教育費： 9,440 GHS/(年) (長男の高等教育学費を含む)  
冠婚葬祭： 300 GHS(年)  
医療費： 0 GHS/年  
保険料： 1,250 GHS/年 (健康保険、車両保険)  
ガソリン代 150 GHS/月  
年間合計： 19,300 GHS (約37万8000円)

## 受益者ペルソナ記入欄

### 【金融サービス利用状況】

昨年10月に長男が自宅からは通学できない距離にある町の高等教育機関に入学したため、学費や生活費をねん出するために妻が参加している貯蓄融資組合(VSLA)から1500GHSの融資を受けた。VSLAの融資の利息は3カ月毎に10%であるため、3カ月毎に150GHSの利子を支払っている。子供の教育費のためにVSLAから融資を受けたのは2度目である。以前息子が高校に入学した時もVSLAから融資を受けたことがある。

銀行口座は持っていない。日常的な取引についてはモバイルマネーを活用している。預金や、送金の受け取り、また、健康保険の更新にもモバイルマネーを活用している。エージェントが村の中にあるので現金の出し入れには困らない。

家計簿はつけていない。

### 【悩みや将来の目標】

自分たちはほとんど教育を受けていないので、とにかく子供たちには教育を受けさせたい。教育を受ければ親が養育した価値を理解できるようになり、老後に親の面倒をみてくれるようになると思う。

そのために今は少し無理をしても子供たちを高等教育機関に通わせている。

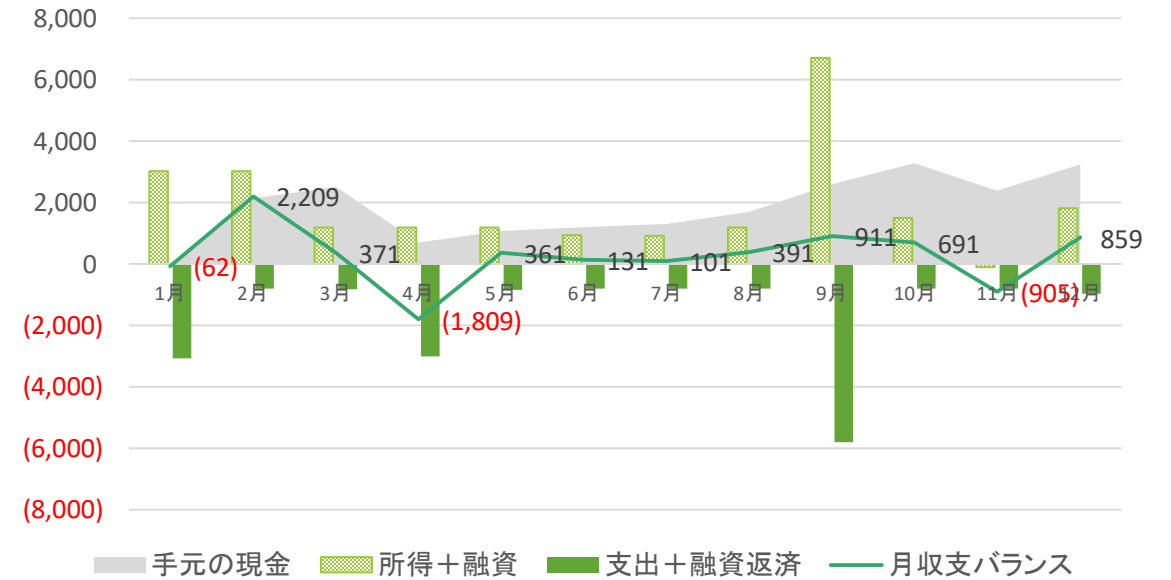
去年は気象異常でコメに被害が出て、新たに借地した農地のコメの収益がほとんどでなかった。このような気象異常(洪水、干ばつ、害虫被害)などが続くのは不安である。

# ペルソナ仮想キャッシュフロー（1月～12月）

## 融資利用なし



## 融資利用あり



1月、4月、9月の学期始めに子供の学費の出費が集中する。9月からは、長男が高等教育のために寮生活を始めたため、学費に加えてその関連費分が増加した。

教育関連費の出費増加に伴い、9月にVSLAで1500セディを調達。これにより、手元の現金を少し増やし、11月のコメ及び大豆の収穫、12月の葉物野菜の栽培開始に備えることができる。

## 農家ペルソナ4 : 老齡の女性家長農家





# 農家ペルソナ記入欄

## 【世帯構成・資産】

60代の未亡人が世帯主である。成人した子供たち5人はすでにコミュニティを出て独立している。息子の一人の妻が病気で他界し、息子にとっては片親での育児が困難になったため、母親(未亡人)が彼の4人の子供(つまり孫)を養育している。

資産: 自宅、4エーカーの土地、鶏10羽。

## 【生活手段・収入】

農業に関しては天水農業による野菜栽培・販売、および飲料水販売業で自ら若干の所得を得ている。昨年はトマトの価格が非常に低かったために農業からの収入がほとんどなかった。トマトは高値の時は1バスケット100GHSで売れることもあるが、昨年の価格は最低水準の20GHSであった。

4人のこどもを預けている息子から子供の養育費および生活費全般の支援を得ており、これが総所得(12,090 GHS(約23万6800円))の9割にあたる。息子は食費等の生活費以外の子供の教育費も支払っている。住居と農地の場所が離れており、農作業をするために交通費がかかることに加え、収穫作物を農地へ買いつけに来る業者がいないことから、自力で地元の市場へ販売するためにも交通費がかさんでいる。

## 【生活費・家計支出】

食費: 450 GHS/月  
電気: 20 GHS/月  
携帯代金: 16 GHS/月  
教育費: 310 GHS/月  
冠婚葬祭(協会に毎週献金): 45 GHS/月  
医療費: 920 GHS/年(通常医療費、薬草医治療費・薬)  
保険料: 0 GHS/年(健康保険、車両保険)  
年間合計: 10,700 GHS(約20万9600円)

国民健康保険(NHIS)がすでに期限切れになったままだが、まだ息子にその話をしていない。保険でカバーされない保健医療サービスも利用している。昨年は足のけがをしたのがきっかけで、結局伝統的な薬草を扱う医師にかかることになり、糖尿病治療も行った。そのため医療費が920GHSかかったが、子供たちがこの医療費を支援してくれた。

治療費は隔月に一回くらいの頻度で治療費と薬代を含めて300GHSかかっている。一か所試してみても、効果がないとまた次のヒーラーを探す、というようなことをしている状況である。

#### 【金融サービス利用状況】

家計簿や生産の帳簿はつけていない。

子供を預かっている息子以外にも、独立した娘が時々仕送りをしてくれるので、その送金を受け取るためにモバイルマネーを利用している。家から歩いてすぐのところも含めてエージェントが村に3か所あるのですぐに現金の引き出しができる。現金の引き出しに問題があったことはない。

その他に、村の貯蓄融資組合(VSLA)に加入している。毎週2GHSから5GHSを預金している。貯蓄融資組合への預金は簡単におろすことはできないが、組合に加入していれば1000GHS程度の金額の融資を受けることができる。通常毎年農期のはじめ(4月か5月)に投入財を購入するために1000GHSを借りる。通常は利子を払うが、去年は病気をしたことなどもあり、家計が大変だったので、VSLAの管理者が無利子にしてくれた。

村にはSusuもあり、かなり多くの人々が村の外から毎週集金に来るSusuのエージェントにお金を預けているようだ。最近Rural Bankもこのようなサービスをはじめたと聞いている。

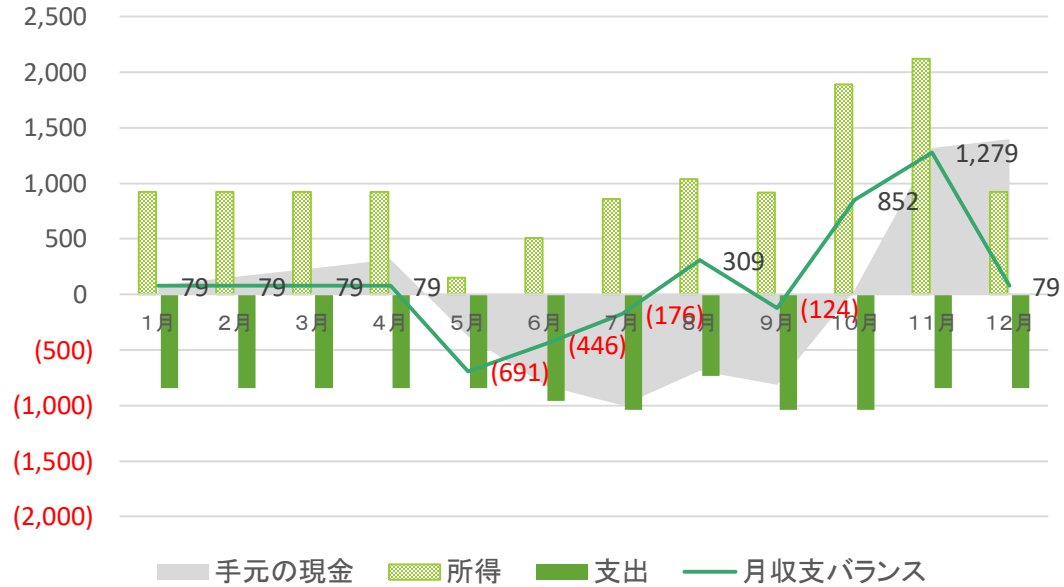
#### 【悩みや将来の希望】

孫たちが無事学校を卒業してくれればそれで良いと思っている。特に将来の希望などはない。

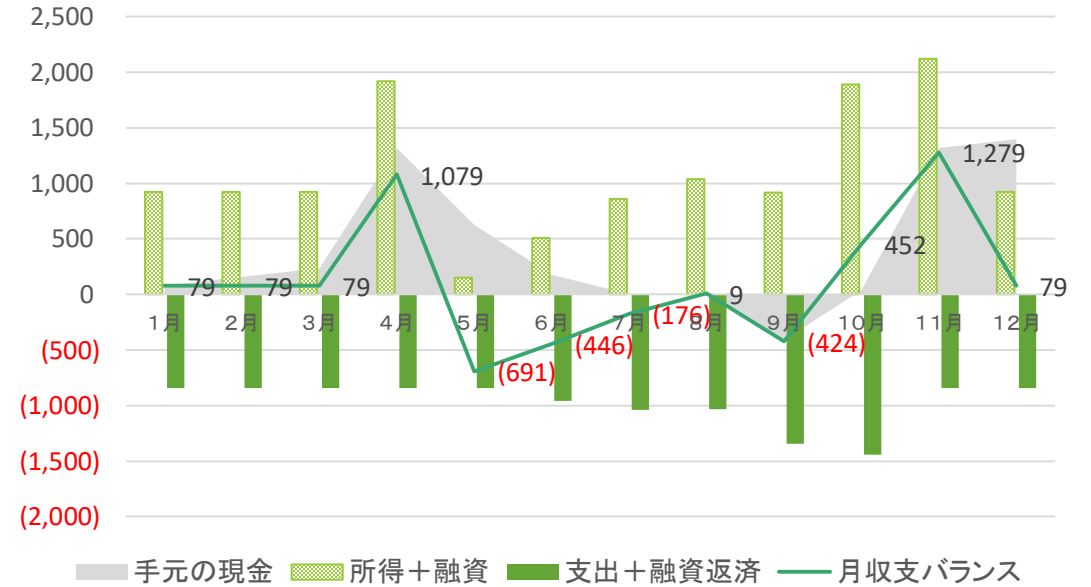
Ga South地域では、最近の建設ラッシュの影響から、農業に影響が出ている。例えば、農地の除草などの作業に必要な労働者の不足が深刻化している。また、土砂の収集車が農地の近くまで迫ってきており、自分たちの農地への影響を懸念している。

# ペルソナ仮想キャッシュフロー（1月～12月）

## 融資利用なし



## 融資利用あり



収入源は主として息子の支援のため、収入の絶対額は低いものの比較的安定しているが、昨年は天水農業の主力野菜のトマトの価格が低かったこともあり、月々の収支も累積の手持ち現金もマイナスの月が半年以上ある。

VSLAから1000GHSを借りて投入財を購入したことにより、投入財購入費用がかさむ5月に融資が入金し、農業収入がほとんどなかった昨年でも累積の手持ち現金がマイナスになる月は限定的ですんだ。

## 農家ペルソナ5：灌漑地域の比較的裕福な農家



# 農家ペルソナ記入欄

## 【世帯構成・資産】

夫婦と子供6名(夫婦の子供が4名(1名は成人)、養子が3名)、その他に住み込みの農業労働者が3名、合計12名が同じコンパウンドに住んでいる。

資産は、自宅が2軒、賃貸用物件12軒、自転車6台、ヒツジ6頭、鶏30羽、スマートフォン5台。

農家は賃貸用物件を12軒所有しており、一軒当たり月々120GHSの収入があるので、この収入が毎月1440GHSある。

これらをあわせた去年の総収入は27,670 GHS(約54万2千円)であった。

## 【生活手段・収入】

このコミュニティは政府保有の灌漑農地があり、農家1軒につき最大1.5ヘクタールまでの農地を借りて耕作することができる。この農家では1.5ヘクタールを借りており、年間2000GHSの「メンテナンス料金」(水、電気代などすべての費用込みの料金)を支払って耕作をしている。主力作物はトマト、オクラ、その他にペパー、キュウリなどを栽培することもある。去年はトマトもオクラも価格が極めて低く、農業収入が低かったが、住み込みの農業労働者には収穫時に通常の水準のボーナスを支払った。トマトは一人2000GHS、オクラは一人1000GHSの収穫ボーナス。

## 【生活費・家計支出】

食費、電気代、教育費、雑費等： 3000 GHS/月  
携帯代金： 48 GHS/月  
冠婚葬祭： 2,000GHS(年)  
保険料・医療費： 76 GHS/月(健康保険、その他医療費)  
年間合計： 38,800 GHS(約76万円)

夫が妻に毎日100GHSを生活費(食費、電気代、雑費などを含む)を手渡している。ほぼ毎日肉などの動物性たんぱく質が食事内容に含まれている。

住み込みの農業労働者を含め、全員が国民健康保険に加入している。

## 受益者ペルソナ記入欄

### 【金融サービス利用状況】

モバイルマネーも活用はしているが、農家が最も頻繁に活用しているのはGa 農業銀行(RCB)である。毎週自ら支店に出向いて、預金や、融資の申請・返済などの手続きを行っている。

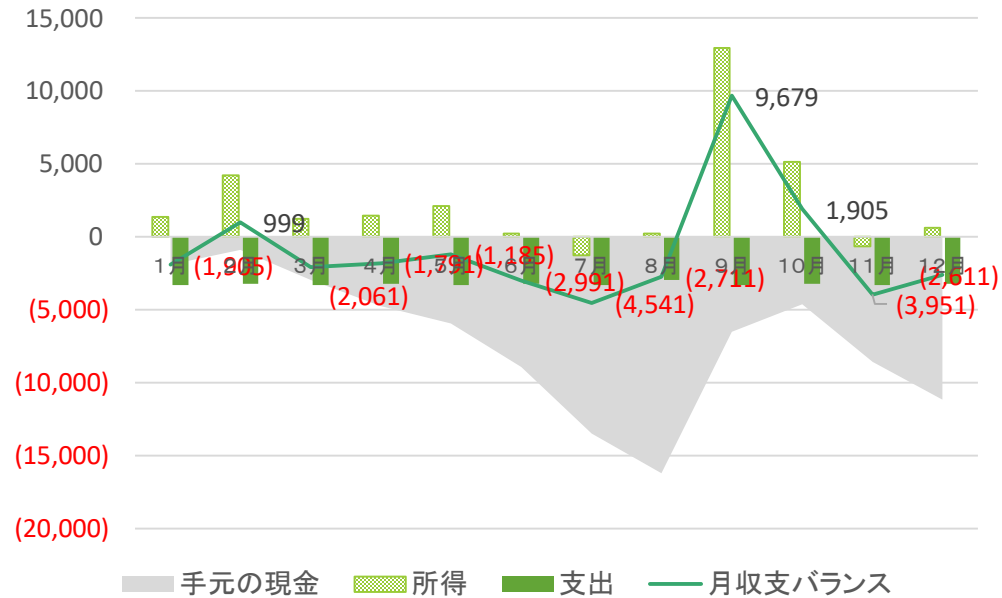
去年は農作物の価格が低くてキャッシュフローに問題があったので、同農業銀行から3回に渡り融資を受けた。1回目は通常の融資10000GHS、2回目と3回目は同銀行のマイクロファイナンス部門から合計6000GHSの融資を受けた。利率は年利40%である。

### 【悩みや将来の目標】

収入を向上させるためには非農業の事業を開始する必要があると思っている。近隣地域は建設ブームである。長男が土地の測量等を行う事業に従事しているため、彼の手も借りて何とか建築関係の事業をはじめることができたら良いと思っている。

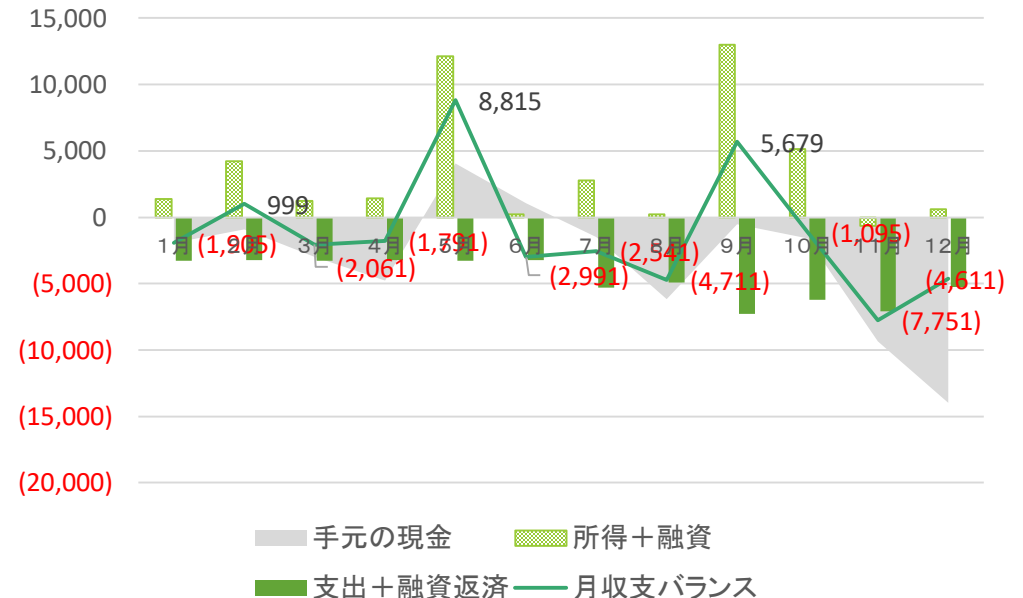
# ペルソナ仮想キャッシュフロー (1月~12月)

## 融資利用なし



昨年は農作物の価格がトマトもオクラも最低水準だったために農業収入が極めて低かった。農家は4人の子供たちの他に3人の養子を養い、また、3名の住み込み労働者を抱えるなど固定費比率が高い家計構造である。家賃収入など非農業収入もあるが、昨年の農業収入水準では、月々の収支、手元現金共にほぼ通年で赤字。

## 融資利用あり



昨年は農業銀行から3回に渡り合計16000GHSの融資を受けた。これにより累積の手元現金の赤字幅はかなり軽減され、黒字となる月もできた。しかし通年ではやはり赤字。おそらく過去の貯金を取り崩すことにより対応しているものと推測される。

## 農家ペルソナ6：天水農業に従事する若夫婦兼業農家





# 農家ペルソナ記入欄

## 【世帯構成・資産】

20代夫婦の世帯で、7人家族。  
夫、妻、子供3人(8歳、6歳、3歳)に加え、親戚の子供二人(10歳、4歳)を同居させ、養っている。

資産: ヤギ3頭とガラ系の携帯2台(夫と妻)。2.5エーカーの農地はお父さんの土地で、地代は払っていない。また漁用のカヌーは父親のもの。

## 【生活手段・収入】

天水農業でオクラ(1エーカー)と、唐辛子(1エーカー)、トマト(0.5エーカー)を栽培して収入を得ている。唐辛子は乾燥させて貯蔵し、価格の動きを見つつ高値の時期の2月に売っている。トマトは、価格変動が激しく、いい時は150GHS/ basket(50kg)の値がつくが、悪いときは10GHC/basket まで下がる。また、投入コストも手間暇もかかり、価格が低いと全くペイしない。そうした事情もあり、去年はトマトは作らなかった。

夫と妻二人で農作業を行うが、売るのは主に妻がしている。種子や資材は個人業者から買っており、共同購入はしていない。また、作物を売るのも個人単位。トマトと唐辛子は外から買い付けに来るが、唐辛子は、交通費をかけて自分で売りに行っている。

昨年のオクラ、唐辛子生産からの農業所得は335GHSであった。トマトを作った場合の所得は、トマトの価格に大きく左右され、安値の時にはトマト栽培が大きく赤字になるため、それに引っ張られて総 農業所得も、40GHSとなり、トマトが高値の時の総農業所得4240GHSから激減する。

野菜栽培以外に、夫は10月～2月にグループでカヌー漁に従事し、去年は4800GHSの漁業所得があった。また機会があれば建設労働者として働き、去年は7回ほど仕事を請け負い280GHS稼いだ。妻も飲料水パックの小売りをしているが利益は少なく、去年の利益は192GHSであった。

これらを合わせると、去年の総所得は5607GHSであった。

## 【生活費・家計支出】

家賃: 30GHS/月  
電気: 15 GHS/月  
携帯代金: 40 GHS/月  
食費: 600GHS/月  
教育費: 530 GHS/年  
冠婚葬祭: 250 GHS/年  
教会献金: 80GHS/月  
医療費: 400GHS/年  
衣服: 300GHS/年  
日用品等: 167GHS/月  
化粧品: 120GHS/年  
美容院: 10GHS/月

薪は、畑の近くからとってくるので、買っていない。また、教育費は公立の学校は無料だが、子供2人が私立の学校に行っているため授業料を払う必要がある。また妻は月に2回美容院に行き、年に4回美容クリームを購入している。

現在、世帯の誰もNHISにも、その他の保険に加入していない。去年は子供が病気になり、その治療費に400GHSかかってしまった。

#### 【金融サービス利用状況】

家計簿や生産の帳簿はつけていないが、帳簿づけの研修とかあれば受けてみたい。

銀行口座はもっていないが、夫はモバイルマネー口座を持っており、ほぼ毎日のように使っている。主に友人、知人とお金のやり取りに使っている。

近所にはSusuやVSLAを行っている人もいるが、信頼できるとは思えず、利用する気はない。お金が必要な時は、親戚や知人から借りる。去年は1,000GHSを家計のやりくりと農業のために5月に借り、少しずつ返済している。利子はない。

農業を続けたいので、自分たちのような小農向けの安いローンがあれば助かると思っている。

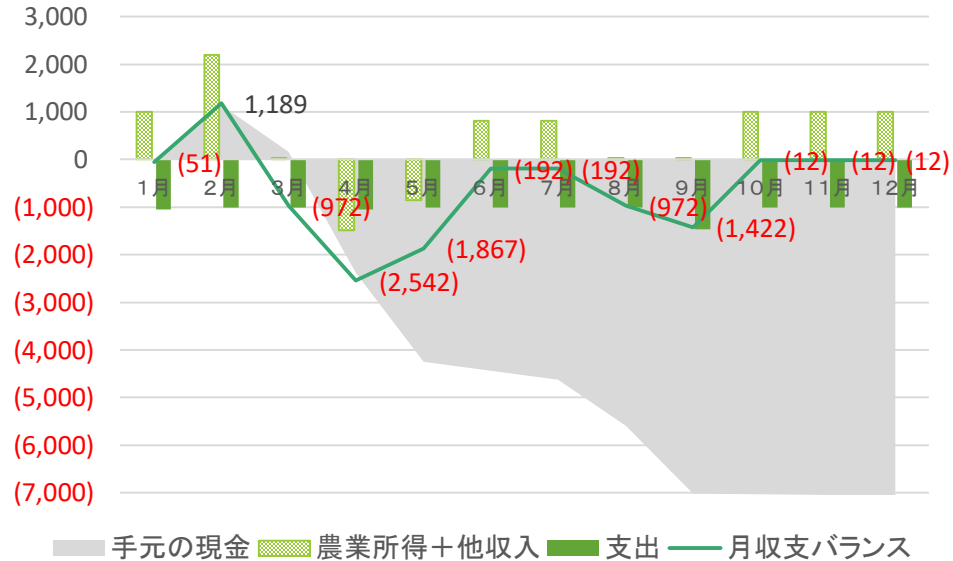
#### 【悩みや将来の希望】

夫は、農業を続けていきたいと思っている。しかし、そのための資金繰りが大きな課題。農業を続けていくためにも、副業をし、必要な金を捻出しなければと思っている。副業としてやりたいのは、タクシー業。自身が運転手になるのではなく、運転手への車やバイクの貸し出しやタクシー業の運営をすることで、利益を得たいと思っている。また、今は借家だが、家も建てたいと思っているが、具体的な貯蓄や資金繰り計画などはない。

妻は、今行っている水の小売り販売からの利益が非常に少なく、家計の足しになっていないことが一番の心配事項。できれば、小さな雑貨屋を開きたいと思っているが、そのために貯金をしたりはしていない。

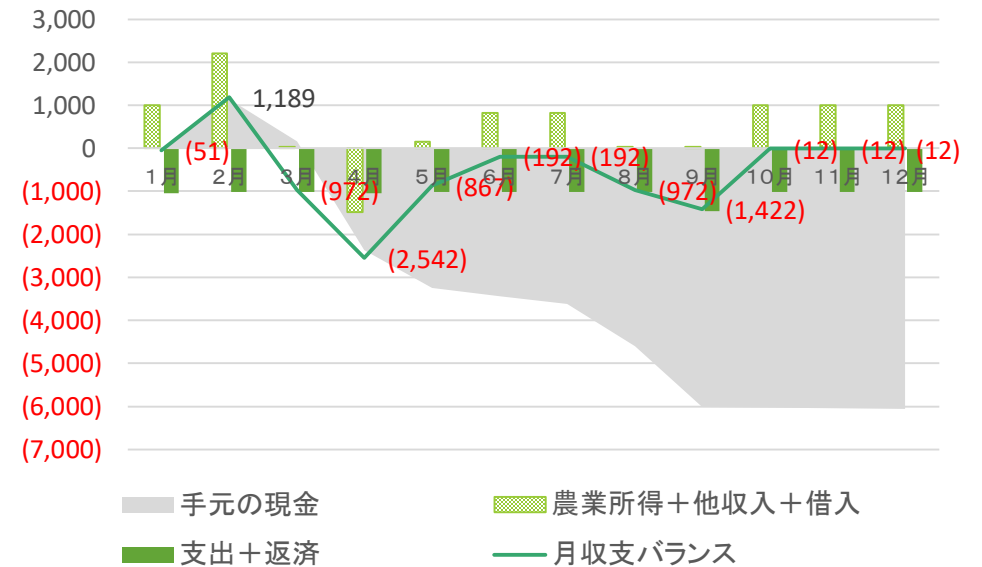
# ペルソナ仮想キャッシュフロー（1月～12月）シナリオ①トマト生産なし(昨年の例)

融資利用なし



少しまとまった収入があるのは、乾燥唐辛子を売る2月、オクラを売る6、7月、そして手漕ぎ漁を行う10月～1月。しかし、2月を除き、毎月の家計収支は赤字であり、赤字額が膨らんでいく。

融資利用あり

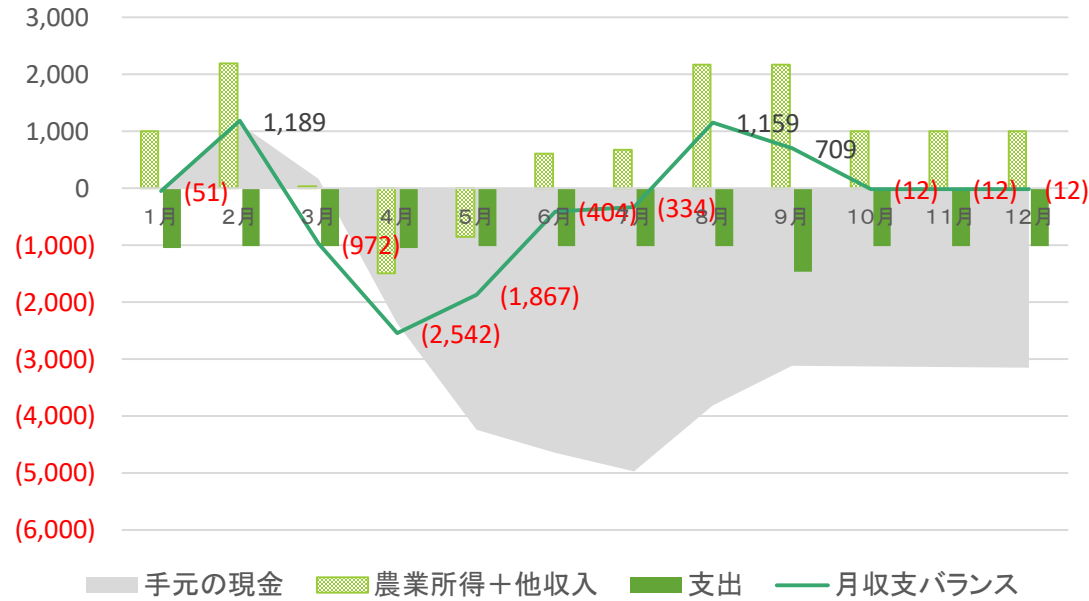


知人からの借り入れ(5月)でその月の収支は少し改善するが、それでも赤字。借り入れを行った分が、所得の伸びにつながらず、生計状況は通年赤字のまま、改善されない。

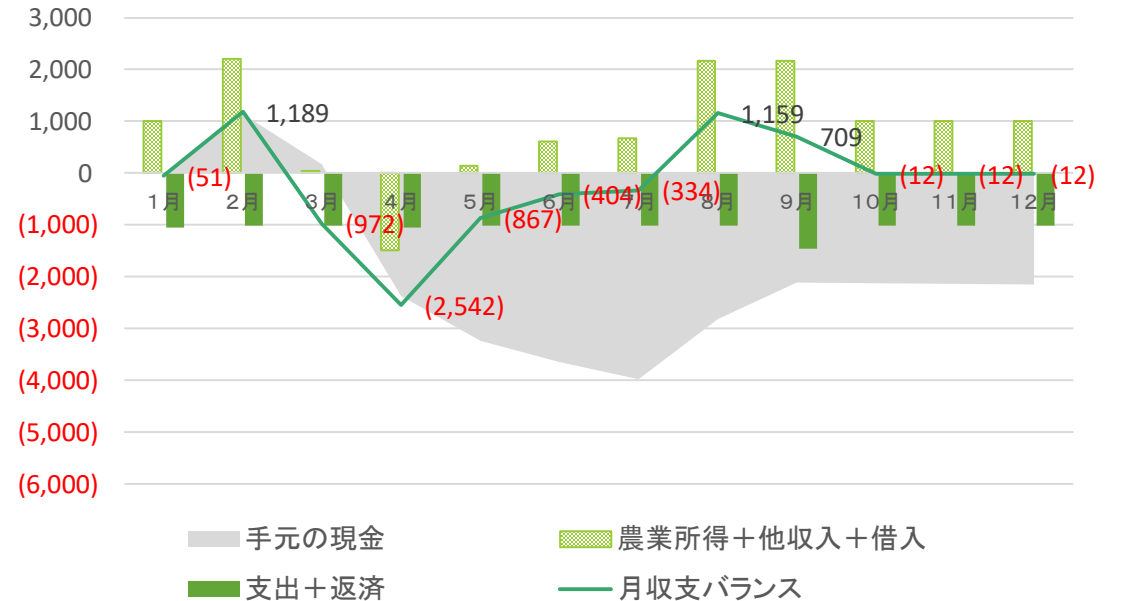
トマト生産あり、なしの場合、またありの場合、トマトの売値が高値、安値でトマト所得は、それぞれ335GHS、4240GHS、0GHSと大きく変動する。また総所得も、5607GHS、9512GHS、5312GHSと変動。よってここからの3スライドでこの3つのシナリオのキャッシュフローを示す。

# ペルソナ仮想キャッシュフロー（1月～12月）シナリオ② トマト生産あり+トマト高値

融資(借入)なし



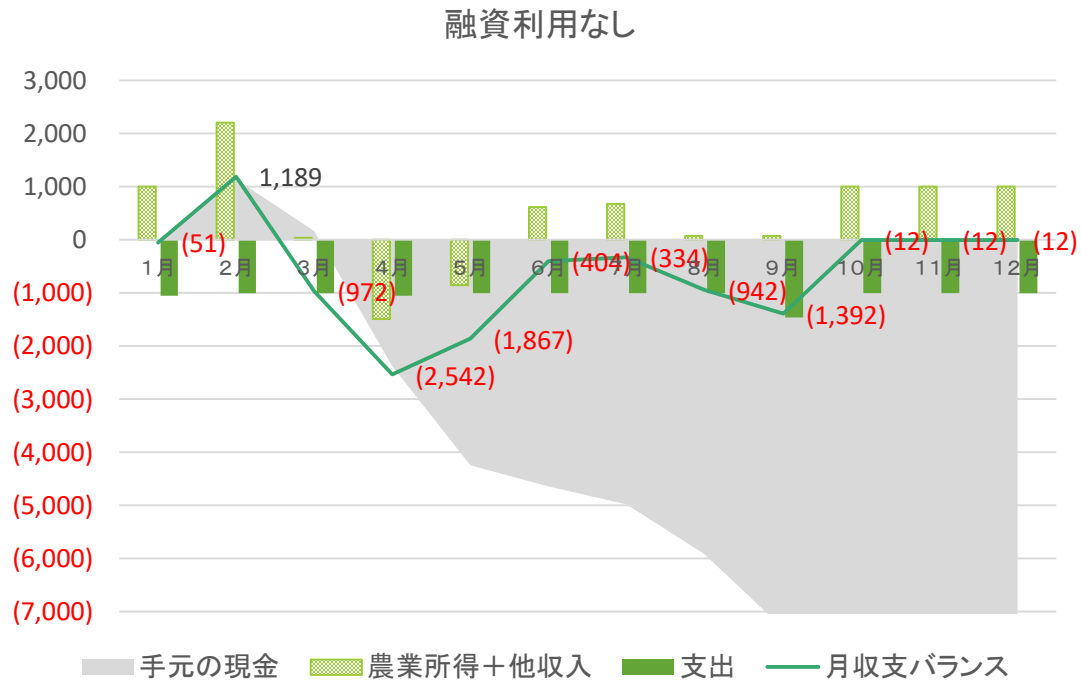
融資(借入)あり



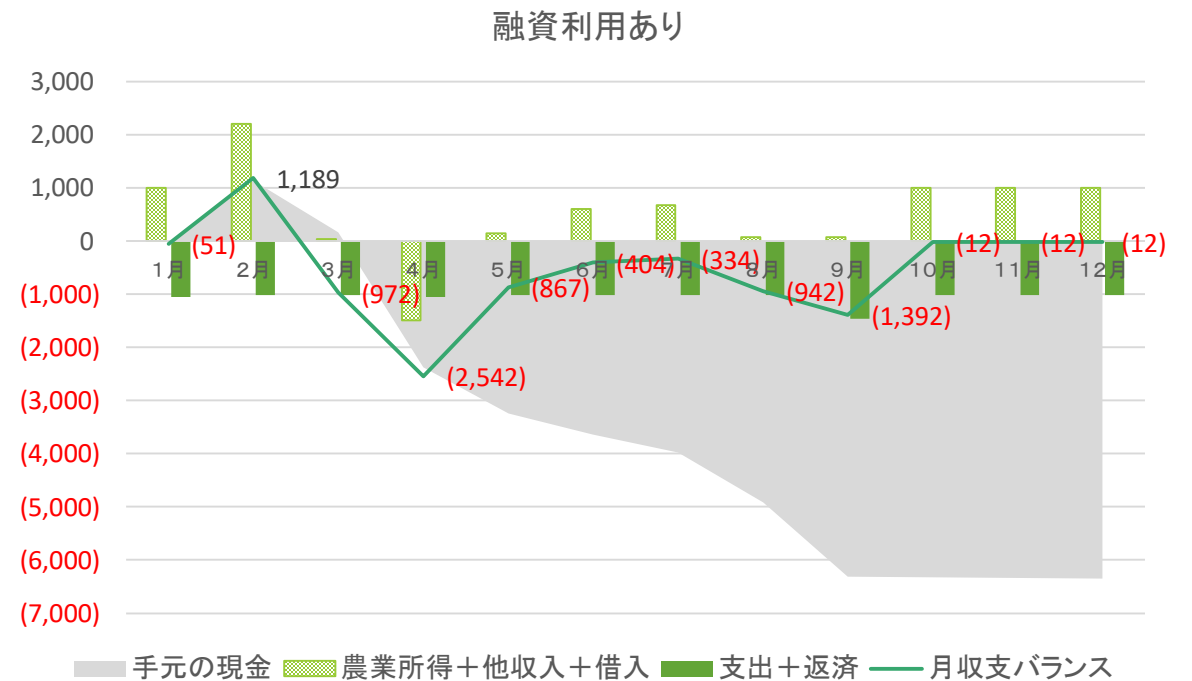
去年は行わなかったもののトマト生産も行い、高値で売れる年は、8月、9月にもまとまったお金が入ってくる。そのため、家計収支が2月のみならず、8月、9月が黒字に転じ、10月から1月もとんとの状況となる。しかし、通年では赤字幅は減少するものの手持ち資金はマイナス。

借り入れた月（5月）の家計収支は、少し改善するが、それでも赤。通年での家計収支の改善には至らない。

# ペルソナ仮想キャッシュフロー（1月～12月）シナリオ③ トマト生産あり+トマト安値



トマト栽培を行っても家計収支は改善されない。6, 7月にトマト生産関連出費があるが、8, 9月の収穫時にそれをカバーする値で売れないため、家計収支はトマト生産を行わない時と同じか、少し悪化。



5月に借入れを行うことで、その月の家計は少し改善(ただしまだ赤)。しかし、通年の家計改善にはつながらない。

NAME of the INTERVIEWEE: Daniel Otoo

Community - Bortianor

Categories	Sub Categoris	Questions	Answer
<b>1. Basic information on the household</b>			
	Family member	Who are the member of the family? (member and age)	1 farmer, 1 wife, 4 children, 3 other foster children, 3 farm workers
		How many family members live in this household? (i.e. those who share the household budget)	1 farmer (55 years), 1 wife (55 years), 4 children (35 years is oldest and 17 years youngest), 3 other foster children and 3 farm workers
		Is there any family member who live and work outside this home? If so, do they contribute to the household budget (send money home)?	2 oldest children are married (eldest son live outside the house), 2nd one he gives him money from time to time and sometimes 1st child gives the farmer money
	Tangible asset (excluding monetary/financial)	Own home (no rent) <input type="checkbox"/> , agricultural machinery <input type="checkbox"/> (if checked, specify what machinery _____) Chicken (poultry or egg) <input type="checkbox"/> , aquaculture <input type="checkbox"/> , motor bicycle <input type="checkbox"/> , truck/vehicle <input type="checkbox"/> , cow <input type="checkbox"/> , piglet <input type="checkbox"/> smart phone <input type="checkbox"/> (if checked, specify how many and who uses the phone _____) feature phone <input type="checkbox"/> (if checked, specify how many and who uses the phone _____)	2 houses, and 12 other houses he rents out, 5 smartphones, 1 feature phone, 6 bicycles, 30 chickens, 5 sheep
<b>2. Sources of income</b>			
		How do you make your living? What are the sources of your household income? Please tell us what they are and amount for each month.	
	Agriculture-related income	Regular income (associated with crop sales)	Main source of income - tomatoes and okro
		Other agriculture-related income (caual labourer, machinery rent, etc.)	.
	Non-Agriculture income	Regular income (non-farming income)	No
		Irregular income (any other income including receipt of remittance from family)	
		Who is the administrator of the household budget?	Both husband and wife manage the budget
		Does he/she record the income and expenditure?	No, but records farm expenses and income
		IF YES, what is his/her motivation of bookkeeping?	.
		IF NO, why not? How does he/she manage the budget?	No time to do it
<b>3. Household expenditures</b>			
		Use [4.Household cash flow] sheet. Ask the "regular" and "irregular/unexpected" expenditures of the past 12 months.	

<p><b>4. Usage of health care service</b></p> <p>Usage status</p> <p>Cost and payment</p>	<p>When any one of your family becomes sick, where do you go to seek for help?</p> <p>Are you (your family) enrolled in the government health insurance system (NHIA)?</p> <p><i>IF YES (enrolled), what benefits do you find in the government insurance? List top three benefits.</i></p> <p>Do you find any inconvenience with the government insurance? If you do, what are they?</p> <p><i>IF NO (not enrolled), why are you not enrolled? (e.g. not qualified, don't know how to enrol, difficult to enrol (cost, etc.), not interested)</i></p> <p>Do you have regular health care-related expenditures (premium for health care service, medical services, medicine, etc.)?</p> <p>When you use health care service what cost(s) incur? (premium for the insurance, pay-as-you-go service fee, transportation, etc.)</p> <p>How do you pay for the fee? (e.g. using savings, borrow money, etc.)</p> <p>What payment method do you use? (cash, digital payment, etc.)</p>	<p>Aplaku government hospital, All-faith clinic</p> <p>NHIS - all have it</p> <p>.</p> <p>Yes</p> <p>.</p> <p>No</p> <p>GHC 60 per visit of costs not covered by NHIS</p> <p>Cash</p> <p>Cash</p>
<p><b>5. Usage of financial services</b></p>	<p>Do you have a bank account? (If owning more than 1 account, start with the main account)</p> <p>How often do you use the account?</p> <p>For what purposes do you use this account? (saving, remittance, etc.)</p> <p>Are you using any loan from the financial institution? (If YES, use "Calendar (Financial)")</p> <p>What type of financial products and services you use? (of which financial service provider(s)?)</p> <p>How do you assess their services?</p> <p>Are you borrowing money from your family, friends, someone from the village, or any other (informal) money lenders? (If YES, use "Calendar (Financial)")</p> <p>Do you (or other family members) use the phone for financial transactions? What do you think about conducting financial transactions over the phone?</p> <p>Do you have any insurance for your agriculture crop? If you do, who is the provider?</p> <p>Do you have life insurance? If you do, who is the provider?</p> <p>Do you have any health insurance? If you do, who is the provider?(e.g. insurance company, bundling product offered by mobile service provider, etc.)</p>	<p>Ga Rural, AirtelTigo Mobile Money</p> <p>Once a week</p> <p>Loans, savings</p> <p>Yes - Ga Rural Bank a total GHC 10,000 loan</p> <p>Savings and loans</p> <p>Physically for the bank, a lot of mobile money agents in Bortianor</p> <p>No</p> <p>For receiving money</p> <p>No</p> <p>No</p> <p>Yes government insurance - NHIS</p>
<p><b>6. Worries/concerns in life and aspirations for the future</b></p>	<p>Do you have any worries/concerns in life? What are they?</p> <p>What are your aspirations for the future?</p>	<p>N/A</p> <p>Own a tractor, agricultural machinery, kids would finish school even school outside the country, his income would increase - once he raises capital, he will go into construction, will start with selling building materials and go from there</p>

NAME of the INTERVIEWEE: \_\_Iddrisu Ziblim\_\_

	QUESTION	ANSWER	
General question	Do you have your own agricultural land? If you do, what is the total size?	YES / NO	No (government acquired land)
	Do you cultivate for your own consumption? If so, what are they?	Size: YES / NO (Crops)	1.5 hectares (3.75 acres) No Tomatoes, Okro, Pepper
	What <b>cash crops</b> do you cultivate?	.	Tomatoes, Okro, Pepper
	Which one is the most important one (cash crop)?	.	Tomatoes
	Do you <b>cultivate individually? Or as a group?</b>	.	Individually
	Do you <b>sell the products individually? Or collectively?</b>	.	Individually
	What do women and men do at each stage of value chain: production, post-harvest processing & storage, distribution & sales?		
		<b>Men</b>	<b>Women</b>
	<b>Production</b>	All other farming activities	Transplanting, Harvesting
	<b>Post harvest</b>	All other farming activities	Drying
	<b>Distribution and sales</b>	Distribution and sales	Sales

	QUESTION	ANSWER	
Crop 1:	Crop name: ___Green leafy vegetables_____		
Production period	What is the land size you use for this crop? (specific size, or portion allocated out of the total land size answered above)	.	3.75 acres
	Which months of the year do you produce this crop? Is this one production cycle? If not how many cycles are there during these	.	June (land prep), July (transplant) to October, 1 cycle
Inputs / unit	How many times can you harvest in each production cycle?	.	Once
	Which month(s) do you harvest?	.	September and October
	What are the inputs and their costs (materials and labor) required to produce? And at which point of the production cycle do you use	.	See production calendar
	From whom do you purchase seeds/seedling/fertilizers/pesticides?	.	Doesn't buy seeds, picks from good ones and uses for the next season (sea breeze doesn't work for hybrid seeds), buys inputs from Tuba
	To whom do you sell your product?	.	Buyers come from Agboglobshie, Kumasi, Obuasi to his farm, his wife also sends to Agboglobshie
Sales	Do you sell your product right after you harvest? if not, when do you sell?	.	Yes
	What was the sales price/unit most recently? Was it a good price?	.	See production calendar
	Who are the buyers of your products?	.	Open Market
	Do your buyer come to your farm to purchase your products?	.	Yes
	Do you sell your products by yourself? If so, where?	.	No - but his brother's family in Accra sells some
	If you sell your products by yourself, what are the associated costs (transportation, rent-a-space, etc.) and how much are they?	.	N/A
	Is there any other costs associated with sales of your products?	.	N/A
	Value chain challenges	What are your main challenges for you to <b>produce and sell this product?</b> (production related issues) (storage/processing related issues) (delivery/sales related issues) (gender related issues)	.



	QUESTION	ANSWER
Crop 2:	Crop name: _____Rice_____	
Production period	What is the land size you use for this crop? (specific size, or portion allocated out of the total land size answered above)	1 acre
Inputs / unit	Which months of the year do you produce this crop? Is this one production cycle? If not how many cycles are there during these	November to March, 1 cycle
	How many times can you harvest in each production cycle?	16 times a month
	Which month(s) do you harvest?	February and March
	What are the inputs and their costs (materials and labor) required to produce? And at which point of the production cycle do you use	See production calendar
	From whom do you purchase seeds/seedling/fertilizers/pesticides?	Doesn't buy seeds, picks from good ones and uses for the next season (sea breeze doesn't work for hybrid seeds), buys inputs from Tuba
Sales	To whom do you sell your product?	Buyers come to farm
	Do you sell your product right after you harvest? If not, when do you sell?	Yes
	What was the sales price/unit most recently? Was it a good price?	See production calendar
	Who are the buyers of your products?	Buyers come to farm
	Do your buyer come to your farm to purchase your products?	Yes
	Do you sell your products by yourself? If so, where?	No
	If you sell your products by yourself, what are the associated costs (transportation, rent-a-space, etc.) and how much are they?	N/A
	Is there any other costs associated with sales of your products?	N/A
Value chain challenges	What are your main challenges for you to <u>produce and sell this product</u> ?	N/A
	(production related issues)	
	(storage/procesing related issues)	
	(delivery/sales related issues)	
	(gender related issues)	

	QUESTION	ANSWER
Crop 3:	Crop name: _____Soybeans_____	
Production period	What is the land size you use for this crop? (specific size, or portion allocated out of the total land size answered above)	
Inputs / unit	Which months of the year do you produce this crop? Is this one production cycle? If not how many cycles are there during these	
	How many times can you harvest in each production cycle?	
	Which month(s) do you harvest?	
	What are the inputs and their costs (materials and labor) required to produce? And at which point of the production cycle do you use	
	From whom do you purchase seeds/seedling/fertilizers/pesticides?	
Sales	To whom do you sell your product?	
	Do you sell your product right after you harvest? If not, when do you sell?	
	What was the sales price/unit most recently? Was it a good price?	
	Who are the buyers of your products?	
	Do your buyer come to your farm to purchase your products?	
	Do you sell your products by yourself? If so, where?	
	If you sell your products by yourself, what are the associated costs (transportation, rent-a-space, etc.) and how much are they?	
	Is there any other costs associated with sales of your products?	
Value chain challenges	What are your main challenges for you to <u>produce and sell this product</u> ?	
	(production related issues)	
	(storage/procesing related issues)	
	(delivery/sales related issues)	
	(gender related issues)	

BASIC INFORMATION

<b>CROP 1</b>	<b>(Tomato)</b>				
Production Area:	3.7 acre	Sales Unit:	basket		
Yield per Production Unit:	32 box/acre	Unit Price:	(lowest): 250 cedis/box		
			(highest): 600 cedis/box	3 baskets = 1 box	
			(average): 250 cedis/box	1 box = 90 kg	

DETAILED INFORMATION

		Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
								Production		Harvesting	Harvesting			
2.471 acres	<b>Expenses - PRODUCTION</b>													
	Rent (land maintenance cost)		-								1250			
	Machine Rent (land prep.)							300	300					
	Labor (planting)								500					
	Fertilizers (Natural)													
	Labor Cost (transplant)													
	Labor Cost (weeding)									500	500			
	Labor (general labour who live at home)							720	720	720	720	6,720		
	Labor Cost (fertilizer)													
	Fertilizers (Chemical)								670					
	Pesticide								110					
	Fundicide								70					
	This is the biggest challenge													
	Machine Rent (Harvesting)													
	Labor (harvesting)													
other (Weedicide)														
other (seeds)							-	-			1200	1200		
other (sacks)														
Labor (planting by broadcasting)														
<b>Expenses - SALES</b>														
Transportation											300	300		
Labour														
Other cost (specify)														
<b>Total Expense</b>								1,200	2,690	1,220	2,220	9,470	-	16,800
<b>Sales</b>											13750	13750	-	27,500
<b>(REVENUE - EXPENSES)=Income</b>								(1,200)	(2,690)	(1,220)	11,530	4,280	-	10,700

BASIC INFORMATION

<b>CROP 2</b>	<b>(Pepper)</b>
Production Area: acres	Sales Unit:
Yield per Production Unit: sacks/acre	Unit Price: (lowest): 60 cedis/sack
	(highest): 130 cedis/sack
	(average): 10 cedis/sack
	Harvest once every 8 times

DETAILED INFORMATION

	Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
									Production	Harvesting	Harvesting	
<b>Expenses - PRODUCTION</b>												
Rent (land)		-										
Machine Rent (land prep.)												
Labor (land preparation)												
Fertilizers (Natural)												
Labor Cost (transplant)												
Labor Cost (weeding)												
Labor Cost (fertilizer)												
Fertilizers (Chemical)												
Pesticide												
This is the biggest challenge												
Machine Rent (Harvesting)												
Labor (harvesting)												
other (Weedicide)												
other (seeds)												
other (sacks)												
Labor (planting by broadcasting)												
<b>Expenses - SALES</b>												
Transportation												
Labour												
Other cost (specify)												
<b>Total Expense</b>		-	-	-	-	-	-	-	-	-	-	-
<b>Sales</b>												-
<b>(REVENUE - EXPENSES)=Income</b>												-

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BASIC INFORMATION

<b>CROP 1</b>	Okra	Production Area:	3.7 acre	Sales Unit:	0 piece	Rent land 2500 for entire land
		Yield per Production Unit:		Unit Price:	(lowest): 0 piece	
					(highest): 1 piece	
					(average): 0.5 piece	

DETAILED INFORMATION

	Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
		Harvesting - Season 1											
		Harvesting - Season 2											
<b>Expenses - PRODUCTION</b>													
Rent (land maintenance total 2500)		-									1,250		
Machine Rent (land prep.)											120	120	
Labor (land preparation and planting)		250										250	250
Fertilizers (Natural)													
Labor Cost (transplant)													
Labor Cost (weeding)												250	
Labor Cost (fertilizer)													
Labor (general labour who reside in his ho		360	360	3,360								360	360
Fertilizers (Chemical)												530	
Pesticide		110										55	55
Fungicide												35	35
Machine Rent (Harvesting)													
Labor (harvesting)			1,600	1,600									
other (Weedicide)													
other (Pesticide)													
other (seeds)												500	
other (fungicide)													
Labor (planting by broadcasting)													
<b>Expenses - SALES</b>													
Transportation													
Labour													
Other cost (specify)													
<b>Total Expense</b>		720	1,960	4,960	-	-	-	-	-	-	1,250	2,100	820
<b>Sales</b>			4,750	4,750									
<b>(REVENUE - EXPENSES)=Income</b>		(720)	2,790	(210)	-	-	-	-	-	-	(1,250)	(2,100)	(820)

<b>(REVENUE - EXPENSES)=Income</b>	-	-	-	-	-	-	-	-	-	-	-	-	-
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<b>TOTAL AGRICULTURAL INCOME</b>	(720)	2,790	(210)	-	-	(1,200)	(2,690)	(1,220)	11,530	3,030	(2,100)	(820)	8,390
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The objective of this sheet is to understand the in-and-out of CASH on the MONTHLY basis.

NAME of the INTERVIEWEE: \_\_\_\_\_

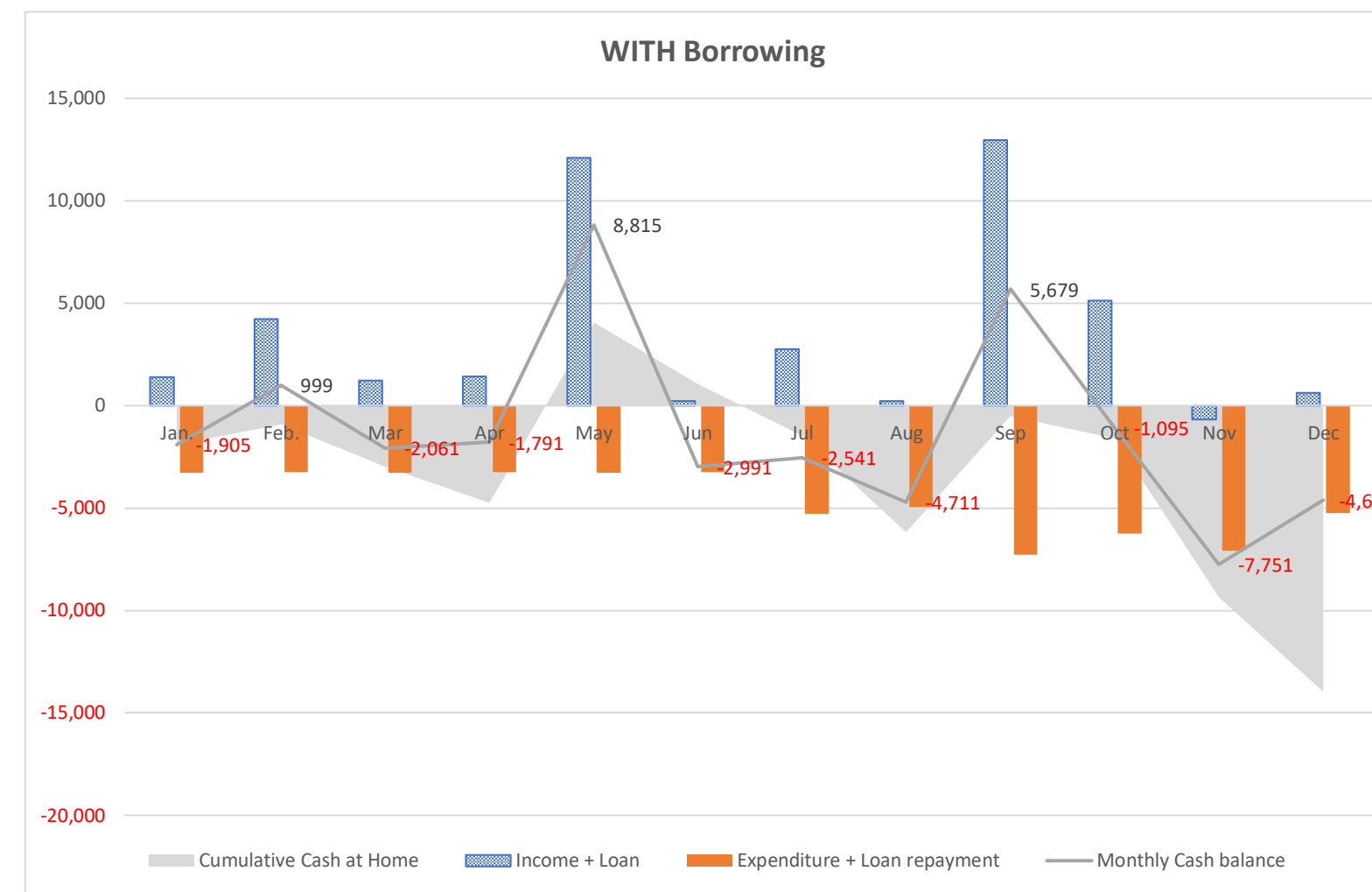
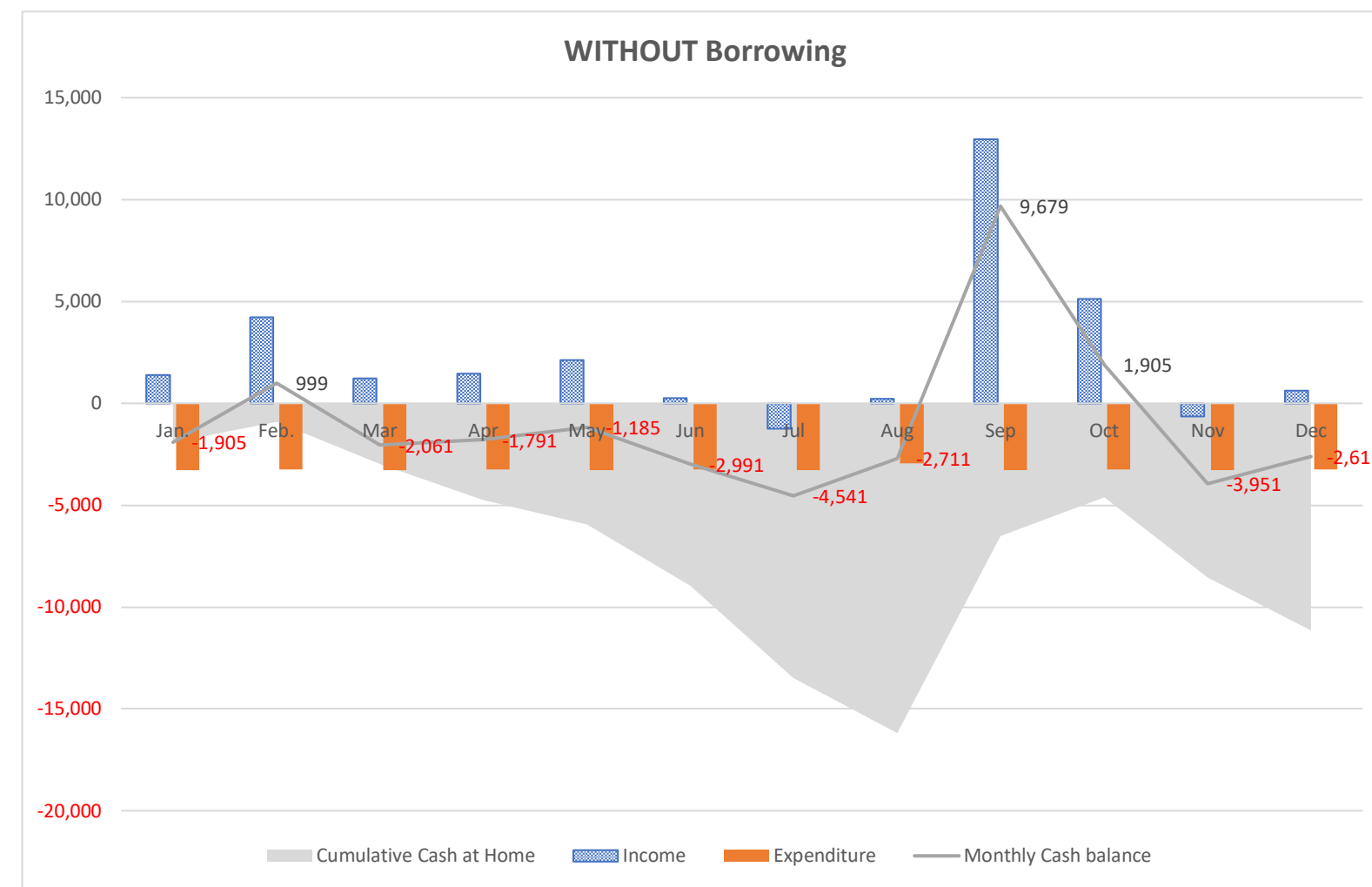
		MONTH	Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Income	Agriculture income		-720	2,790	-210	0	0	-1,200	-2,690	-1,220	11,530	3,030	-2,100	-820
	Surveyor Son's contribution		667	0	0	0	667	0	0	0	0	667	0	0
	House rental (12 houses)		1,440	1,440	1,440	1,440	1,440	1,440	1,440	1,440	1,440	1,440	1,440	1,440
	<b>TOTAL HOUSEHOLD INCOME</b>		1,387	4,230	1,230	1,440	2,107	240	-1,250	220	12,970	5,137	-660	620
Expenditures	House -> no rent													
	Electricity		0	0	0	0	0	0	0	0	0	0	0	0
	Fuel for vehicle													
	Communication		48	48	48	48	48	48	48	48	48	48	48	48
	Food (including other household expenditures)		2,617	2,617	2,617	2,617	2,617	2,617	2,617	2,617	2,617	2,617	2,617	2,617
	Education		300	300	300	300	300	300	300	300	300	300	300	300
	Children daily allowance/support for children		83	83	83	83	83	83	83	83	83	83	83	83
	Health (insurance premium and non insured expenditure)		76	16	76	16	76	16	76	16	76	16	76	16
	Social events (festival, wedding, etc.)		167	167	167	167	167	167	167	167	167	167	167	167
	<b>TOTAL (Monthly)</b>		3,291	3,231	3,291	3,231	3,291	3,231	3,291	2,931	3,291	3,231	3,291	3,231
<b>TOTAL (Yearly)</b>													38,835	
Unexpected or irregular expenses	other item (please specify)													
	other item (please specify)													
	<b>TOTAL (Monthly)</b>		0	0	0	0	0	0	0	0	0	0	0	0
	<b>TOTAL (Yearly)</b>													0
			other items may include: purchase of animal, house repair, etc.											
<b>TOTAL Expenditure</b>		-3,291	-3,231	-3,291	-3,231	-3,291	-3,231	-3,291	-2,931	-3,291	-3,231	-3,291	-3,231	
LOAN Usage	Borrowing 1 Rural Bank					10,000								
	Borrowing 2 Rural bank Micro finance							4,000					2,000	
	Borrowing 3													
	<b>TOTAL Borrowing</b>		0	0	0	0	10,000	0	4,000	0	0	0	0	0
	Repayment 1 Rural bank								2,000	2,000	2,000	2,000	2,000	2,000
	Repayment 2 Rural bank micro finance										2,000	1,000	1,800	
Repayment 3														
<b>TOTAL Repayment</b>		0	0	0	0	0	0	2,000	2,000	4,000	3,000	3,800	2,000	

**WITHOUT LOAN (Borrowing)**

	Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Income	1,387	4,230	1,230	1,440	2,107	240	-1,250	220	12,970	5,137	-660	620
Expenditure	-3,291	-3,231	-3,291	-3,231	-3,291	-3,231	-3,291	-2,931	-3,291	-3,231	-3,291	-3,231
Monthly Cash balance	-1,905	999	-2,061	-1,791	-1,185	-2,991	-4,541	-2,711	9,679	1,905	-3,951	-2,611
Cumulative Cash at Home	-1,905	-906	-2,967	-4,758	-5,943	-8,934	-13,475	-16,187	-6,508	-4,603	-8,554	-11,165

**WITH LOAN (Borrowing)**

	Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Income + Loan	1,387	4,230	1,230	1,440	12,107	240	2,750	220	12,970	5,137	-660	620
Expenditure + Loan repayment	-3,291	-3,231	-3,291	-3,231	-3,291	-3,231	-5,291	-4,931	-7,291	-6,231	-7,091	-5,231
Monthly Cash balance	-1,905	999	-2,061	-1,791	8,815	-2,991	-2,541	-4,711	5,679	-1,095	-7,751	-4,611
Cumulative Cash at Home	-1,905	-906	-2,967	-4,758	4,057	1,066	-1,475	-6,187	-508	-1,603	-9,354	-13,965



NAME of the INTERVIEWEE: \_\_\_\_\_ Fuseini Abdul Mumin Souchi \_\_\_\_\_

Community - Libga

Categories	Sub Categoris	Questions	Answer
<b>1. Basic information on the household</b>			
	Family member	Who are the member of the family? (member and age)	Farmer has finished Senior High School - is in an organization called Attai Base (a farmer-based group of 31 people - only for men, that does the following activities - promote peace, work on sanitation issues - e.g., cleaning around the borehole, and work farming land - e.g., find 4 acres and find it and use it for joint needs like funerals, weddings etc, also linking with other groups in the area 1 wife 5 children (16 years - he is in Senior High School to 2 years of age in range)
		How many family members live in this household? (i.e. those who share the household budget)	36 people live in this house (24 children and 8 adults), Head of household's father and his wife, 2 senior brothers and wives and their children (12 children), 1 younger brother with his wife and 2 children, 2 younger brothers who are not married, headof household's father also has a grandson, and 4 foster children  - 3 children in High School
		Is there any family member who live and work outside this home? If so, do they contribute to the household budget (send money home)?	Main wife works by farming but also buying vegetables from fellow farmers and selling in Tamale, takes GHC 500 worth of product to the market a day, she makes about GHC 120 a day profit (bra, ayoyo, aleefi, tomatoes, lettuce, cucumber, any vegetables that is available) - she goes in the company of other women, on a bad day she can make GHC 30-40 cedis  December, January, February, March - she earns GHC 120 a day Rest of the months - she earns GHC 30 a day
	Tangible asset (excluding monetary/financial)	Own home (no rent) <input type="checkbox"/> , agricultural machinery <input type="checkbox"/> (if checked, specify what machinery _____) Chicken (poultry or egg) <input type="checkbox"/> , aquaculture <input type="checkbox"/> , motor bicycle <input type="checkbox"/> , truck/vehicle <input type="checkbox"/> , cow <input type="checkbox"/> , piglet <input type="checkbox"/> smart phone <input type="checkbox"/> (if checked, specify how many and who uses the phone _____) feature phone <input type="checkbox"/> (if checked, specify how many and who uses the phone _____)	Farmer owns 7 sheep, 3 cattle, 1 feature phone, 50 chickens, 1 bicycle, 1 motorbike Wife owns a feature phone, owns 3 sheep
<b>2. Sources of income</b>			
	Agriculture-related income	How do you make your living? What are the sources of your household income? Please tell us what they are and amount for each month.  Regular income (associated with crop sales)  Other agriculture-related income (caual labourer, machinery rent, etc.)	. .
	Non-Agriculture income	Regular income (non-farming income)  Irregular income (any other income including receipt of remittance from family)	Farming .
		Who is the administrator of the household budget?	Both - man is in control of his finances and she is in control of her finances (she keeps money from her vegetable sales and farming), she is part of a VSLA, they meet once a week and you contribute what you can, you can't below GHC 2 per week, its is kept in each member's passbook, the head of the household (farmer) is the recordkeeper - one stamp is equal to GHC 2 of contributions. The money is kept in a box and it has 3 keys (each key is with different members - so one person can't open) and the box is kept by a 4th person. VSLA (name is Adakabia) they are 30 people.
		Does he/she record the income and expenditure? IF YES, what is his/her motivation of bookkeeping? IF NO, why not? How does he/she manage the budget?	No . They contribute for cooking and utilities (electricity) but take care of their own health-related expenditures
<b>3. Household expenditures</b>			
		Use [4.Household cash flow] sheet. Ask the "regular" and "irregular/unexpected" expenditures of the past 12 months.	

<p><b>4. Usage of health care service</b></p> <p>Usage status</p> <p>When any one of your family becomes sick, where do you go to seek for help?</p> <p>Are you (your family) enrolled in the government health insurance system (NHIA)?</p> <p style="text-align: center;"><i>IF YES (enrolled), what benefits do you find in the government insurance? List top three benefits.</i></p> <p>Do you find any inconvenience with the government insurance? If you do, what are they?</p> <p><i>IF NO (not enrolled), why are you not enrolled? (e.g. not qualified, don't know how to enrol, difficult to enrol (cost, etc.), not interested)</i></p> <p>Cost and payment</p> <p>Do you have regular health care-related expenditures (premium for health care service, medical services, medicine, etc.)?</p> <p>When you use health care service what cost(s) incur? (premium for the insurance, pay-as-you-go service fee, transportation, etc.)</p> <p>How do you pay for the fee? (e.g. using savings, borrow money, etc.)</p> <p>What payment method do you use? (cash, digital payment, etc.)</p>	<p>· Savelugu Hospital, Capsa Scientific Hospital (private)</p> <p>Yes everyone has NHIS</p> <p>·</p> <p>· She thinks it is good but sometimes they do things she is not happy with, long waiting times, neglect. However, you do get good care (attention) when you are pregnant (pregnant women has a dedicated section - antenatal care so get the support needed)</p> <p>·</p> <p>No - everyone in family is healthy</p> <p>Sometimes not all services are covered like technicians (lab tests, x-rays), sometimes technicians don't tell them the truth/lie about costs required - don't give receipts when asked</p> <p>Cash</p> <p>Cash</p>	<p>· Savelugu Hospital, Capsa Scientific Hospital (private)</p> <p>Yes everyone has NHIS</p> <p>·</p> <p>· She thinks it is good but sometimes they do things she is not happy with, long waiting times, neglect. However, you do get good care (attention) when you are pregnant (pregnant women has a dedicated section - antenatal care so get the support needed)</p> <p>·</p> <p>No - everyone in family is healthy</p> <p>Sometimes not all services are covered like technicians (lab tests, x-rays), sometimes technicians don't tell them the truth/lie about costs required - don't give receipts when asked</p> <p>Cash</p> <p>Cash</p>
<p><b>5. Usage of financial services</b></p> <p>Do you have a bank account? (If owning more than 1 account, start with the main account)</p> <p>How often do you use the account?</p> <p>For what purposes do you use this account? (saving, remittance, etc.)</p> <p>Are you using any loan from the financial institution? (If YES, use "Calendar (Financial)")</p> <p>What type of financial products and services you use? (of which financial service provider(s)?)</p> <p>How do you assess their services?</p> <p>Are you borrowing money from your family, friends, someone from the village, or any other (informal) money lenders? (If YES, use "Calendar (Financial)")</p> <p>Do you (or other family members) use the phone for financial transactions? What do you think about conducting financial transactions over the phone?</p> <p>Do you have any insurance for your agriculture crop? If you do, who is the provider?</p> <p>Do you have life insurance? If you do, who is the provider?</p> <p>Do you have any health insurance? If you do, who is the provider?(e.g. insurance company, bundling product offered by mobile service provider, etc.)</p>	<p>Agricultural Development Bank, also uses Vodafone Cash (mobile money), wife doesn't have a bank account but keeps the passbook</p> <p>Uses mobile money for short-term expenses</p> <p>Uses ADB for savings</p> <p>No</p> <p>Savings account</p> <p>Going there physically</p> <p>No</p> <p>For mobile money transactions</p> <p>Tried once - it didn't work, they registered them for drought insurance and left and never came back</p> <p>No</p> <p>Yes government insurance</p>	<p>Agricultural Development Bank, also uses Vodafone Cash (mobile money), wife doesn't have a bank account but keeps the passbook</p> <p>Uses mobile money for short-term expenses</p> <p>Uses ADB for savings</p> <p>No</p> <p>Savings account</p> <p>Going there physically</p> <p>No</p> <p>For mobile money transactions</p> <p>Tried once - it didn't work, they registered them for drought insurance and left and never came back</p> <p>No</p> <p>Yes government insurance</p>
<p><b>6. Worries/concerns in life and aspirations for the future</b></p> <p>Do you have any worries/concerns in life? What are they?</p> <p>What are your aspirations for the future?</p>	<p>N/A</p> <p>Saving GHC 7,000 to build a house at the roadside, has been working on it about 3 years (7,000 is what is left to go), also to pay for 5 kids to go to University</p>	<p>N/A</p> <p>Saving GHC 7,000 to build a house at the roadside, has been working on it about 3 years (7,000 is what is left to go), also to pay for 5 kids to go to University</p>



NAME of the INTERVIEWEE: \_\_\_\_\_ Fuseini Abdul Mumin Souchi \_\_\_\_\_

	QUESTION	ANSWER													
General question	Do you have your own agricultural land? If you do, what is the total size?	YES / NO	Yes												
		Size:	19 acres (1 acre is irrigated, 18 rain-fed) 10 acres for maize 5 acres for soyabean 2 acres for vegetables (pepper/eggplant or tomato/pepper) Can do rice with leftover acres - up to 2 acres 1 acre for green leafy vegetables												
	Do you cultivate for your own consumption? If so, what are they?	YES / NO	Yes												
		(Crops)	Maize (contribute about 10 bags of what he makes), Rice (all for consumption)												
	What <b>cash crops</b> do you cultivate?		Soyabeans, maize (can make about 70 bags), Tomatoes, pepper, garden eggs (eggplant), green leafy vegetables (bra, ayoyo, aleefi)												
	Which one is the most important one (cash crop)?		Soybeans												
	Do you <b>cultivate individually? Or as a group?</b>		Mostly individual, group farm is used to support social impact activities in the community												
	Do you <b>sell the products individually? Or collectively?</b>		Individually												
	What do women and men do at each stage of value chain: production, post-harvest processing & storage, distribution & sales?	<table border="1"> <thead> <tr> <th></th> <th>Men</th> <th>Women</th> </tr> </thead> <tbody> <tr> <td><b>Production</b></td> <td>Spraying, other farming activities</td> <td>Harvesting</td> </tr> <tr> <td><b>Post harvest</b></td> <td>Drying</td> <td>Drying</td> </tr> <tr> <td><b>Distribution and sales</b></td> <td>Sales</td> <td>Vegetable sales</td> </tr> </tbody> </table>			Men	Women	<b>Production</b>	Spraying, other farming activities	Harvesting	<b>Post harvest</b>	Drying	Drying	<b>Distribution and sales</b>	Sales	Vegetable sales
	Men	Women													
<b>Production</b>	Spraying, other farming activities	Harvesting													
<b>Post harvest</b>	Drying	Drying													
<b>Distribution and sales</b>	Sales	Vegetable sales													

	QUESTION	ANSWER	
Crop 1:	Crop name: _____ Soyabeans _____		
Production period	What is the land size you use for this crop? (specific size, or portion allocated out of the total land size answered above)	5 acres	
Inputs / unit	Which months of the year do you produce this crop? Is this one production cycle? If not how many cycles are there during these months?	June-October, 1 cycle	
	How many times can you harvest in each production cycle?	Once	
	Which month(s) do you harvest?	November	
	What are the inputs and their costs (materials and labor) required to produce? And at which point of the production cycle do you use them?	See production calendar	
	From whom do you purchase seeds/seedling/fertilizers/pesticides?	Input supplier in the community	
	Sales	To whom do you sell your product?	Market
Do you sell your product right after you harvest? If not, when do you sell?		Yes	
What was the sales price/unit most recently? Was it a good price?		See production calendar	
Who are the buyers of your products?		Buyer comes to farm	
Do your buyer come to your farm to purchase your products?		Yes	
Do you sell your products by yourself? If so, where?		N/A	
If you sell your products by yourself, what are the associated costs (transportation, rent-a-space, etc.) and how much are they?		N/A	
Is there any other costs associated with sales of your products?		N/A	
Value chain challenges	What are your main challenges for you to <b>produce and sell this product?</b>	N/A	
	(production related issues)		
	(storage/processing related issues)		
	(delivery/sales related issues)		
	(gender related issues)		

	QUESTION	ANSWER
Crop 2:	Crop name: _____ Tomatoes and Peppers _____	
Production period	What is the land size you use for this crop? (specific size, or portion allocated out of the total land size answered above)	1 acre each (2 acres total)
Inputs / unit	Which months of the year do you produce this crop? Is this one production cycle? If not how many cycles are there during these months?	Tomato - April to June, 1 cycle
	How many times can you harvest in each production cycle?	5 times for tomato for irrigated (then 1 minor for rainfed), 3 times for pepper (maximum 4 but minor yield)
	Which month(s) do you harvest?	Tomato - Harvest in July Pepper - Harvest in September
	What are the inputs and their costs (materials and labor) required to produce? And at which point of the production cycle do you use them?	See production calendars
	From whom do you purchase seeds/seedling/fertilizers/pesticides?	Input dealer comes to the community
	Sales	To whom do you sell your product?
Do you sell your product right after you harvest? If not, when do you sell?		Tomatoes are sold immediately, peppers are dried and sold in April in order to get a better price
What was the sales price/unit most recently? Was it a good price?		See production calendar
Who are the buyers of your products?		Buyer comes to farm
Do your buyer come to your farm to purchase your products?		Buyer comes to farm
Do you sell your products by yourself? If so, where?		N/A
If you sell your products by yourself, what are the associated costs (transportation, rent-a-space, etc.) and how much are they?		N/A
Is there any other costs associated with sales of your products?		N/A
Value chain challenges	What are your main challenges for you to <u>produce and sell this product</u> ? (production related issues)	Pests - white flies especially on pepper
	(storage/processing related issues)	
	(delivery/sales related issues)	
	(gender related issues)	

	QUESTION	ANSWER
Crop 3:	Crop name: _____ Green leafy vegetables _____	
Production period	What is the land size you use for this crop? (specific size, or portion allocated out of the total land size answered above)	0.5 acres
Inputs / unit	Which months of the year do you produce this crop? Is this one production cycle? If not how many cycles are there during these months?	December-February, 1 cycle
	How many times can you harvest in each production cycle?	6 times
	Which month(s) do you harvest?	every 12 days from December to February
	What are the inputs and their costs (materials and labor) required to produce? And at which point of the production cycle do you use them?	No labour costs except for harvesting, fertilizer, cost of preparing the land and seeds (see production calendar)
	From whom do you purchase seeds/seedling/fertilizers/pesticides?	Input supplier in the community
Sales	To whom do you sell your product?	Buyer comes
	Do you sell your product right after you harvest? If not, when do you sell?	Yes
	What was the sales price/unit most recently? Was it a good price?	Very good GHC 50 per basket, expects it to go up to GHC 70
	Who are the buyers of your products?	Buyer from the market
	Do your buyer come to your farm to purchase your products?	Yes
	Do you sell your products by yourself? If so, where?	Yes
	If you sell your products by yourself, what are the associated costs (transportation, rent-a-space, etc.) and how much are they?	None
Is there any other costs associated with sales of your products?	No	
Value chain challenges	What are your main challenges for you to <u>produce and sell this product</u> ? (production related issues)	Drought
	(storage/processing related issues)	
	(delivery/sales related issues)	
	(gender related issues)	

BASIC INFORMATION

<b>CROP 1 (Green leafy vegetables)</b>	
Production Area: 1 acre	Sales Unit: Harvest once every 12 days
Yield per Production Unit: 22 baskets	Unit Price: (lowest): 10 cedis/basket (highest): 70 cedis/basket (average): 40 cedis/basket
During the rainy season (from March can harvest once every 6 days)	

DETAILED INFORMATION

		Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
		Production											Production	
		Highest price	Highest price										Highest price	
<b>Expenses - PRODUCTION</b>	Rent (land)	-												
	Machine Rent (land prep.)													
	Labor (land preparation)													
	Fertilizers (Natural)													
	Labor Cost (transplant)													
	Labor Cost (weeding)													
	Labor Cost (fertilizer)													
	Fertilizers (Chemical)													
	Labor (pesticide)													
This is the biggest challenge	Machine Rent (Harvesting)		60	60									60	
	Labor (harvesting)													
	other (Weedicide)													
	other (seeds)													
	other (sacks)													
	Labor (planting by broadcasting)													
<b>Expenses - SALES</b>	Transportation													
	Labour													
	Other cost (specify)													
<b>Total Expense</b>		60		60									60	180
<b>Sales</b>		3,080		3,080									3,080	9,240
<b>(REVENUE - EXPENSES)=Income</b>		3,020		3,020									3,020	9,060

BASIC INFORMATION

<b>CROP 2 (PEPPER)</b>	
Production Area: 1 acre	Sales Unit: Pepper
Yield per Production Unit: 25 bags/acre of pepper (legon 18 variety) - harvest 3 times but 25	Unit Price: (lowest): 80 cedis/bag (highest): 500 cedis/bag (average): 140 cedis/bag

DETAILED INFORMATION

		Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
						Nurse	Transplant			Harvesting	Drying			
<b>Expenses - PRODUCTION</b>	Rent (land)													
	Machine Rent (land prep.)													
	Labor (land preparation)													
	Fertilizers (Natural)													
	Labor Cost (transplant)													
	Labor Cost (weeding)								70					
	Labor Cost (fertilizer)													
	Fertilizers (Chemical)								70					
	Labor (pesticide)									10				
	Machine Rent (Harvesting)													
	Labor (harvesting)													
	other (Pesticide)													
	other (sacks)													
	other (seeds)						15							
	Labor (planting)													
<b>Expenses - SALES</b>	Transportation													
	Labour													
	Other cost (specify)													
<b>Total Expense</b>							15		140	17				172
<b>Sales</b>						3,750								3,750
<b>(REVENUE - EXPENSES)=Income</b>						3,750	(15)		(140)	(17)				3,578

**BASIC INFORMATION**  
**CROP 3** (TOMATO)  
 Production Area: 1 acres  
 Yield per Production Unit: 20 basins/tomatoes - we harvest 5 times = 100 basins  
 Sales Unit: 1 basin  
 Unit Price: (lowest): 15 cedis/basins  
 (highest): 200 cedis/basins  
 (average): 120 cedis/basins

**DETAILED INFORMATION**

	Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
<b>Expenses - PRODUCTION</b>													
Rent (land)													
Machine Rent (land prep.)													
Labor (land preparation)													
Fertilizers (Natural)													
Labor Cost (transplant)													
Labor Cost (weeding)								70					
Labor Cost (fertilizer)								140					
Fertilizers (Chemical)													
Labor (pesticide)								10					
Machine Rent (Harvesting)													
Labor (harvesting)								40					
other (fertilizer)								7					
other (labor and cost of sticking)						200.0		200					
other (seeds)					120								
Labor (planting)													
<b>Expenses - SALES</b>													
Transportation													
Labour													
Other cost (specify)													
<b>Total Expense</b>					120	200	427	40					787
<b>Sales</b>								20,000					
<b>(REVENUE - EXPENSES)=Income</b>					(120)	(200)	(427)	19,960					19,213

**BASIC INFORMATION**  
**CROP 4** (SOYBEANS)  
 Production Area: 3 acres  
 Yield per Production Unit: 6 bags per acre  
 Sales Unit: "bags" (1 bag = 109 Kg)  
 Unit Price: (lowest): 80 cedis/bag  
 (highest): 200 cedis/bag  
 (average): 120 cedis/bag

**DETAILED INFORMATION**

	Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
<b>Expenses - PRODUCTION</b>													
Rent (land)													
Machine Rent (land prep.)													
Labor (land preparation)													
Fertilizers (Natural)													
Labor Cost (transplant)													
Labor Cost (weeding)													
Labor Cost (fertilizer)													
Fertilizers (Chemical)													
Labor (pesticide)													
Machine Rent (Harvesting)													
Labor (harvesting)													
other (weedicide)													
other (sacks)												108	
other (seeds)								135					
Labor (planting)													
<b>Expenses - SALES</b>													
Transportation													
Labour													
Other cost (specify)													
<b>Total Expense</b>								135				108	243
<b>Sales</b>										3600			
<b>(REVENUE - EXPENSES)=Income</b>								(135)		3,600		(108)	3,357

BASIC INFORMATION

<b>CROP 5 (MAIZE)</b>	
Production Area: 10 acres	Sales Unit: "bags" (1 bag is 100kg)
Yield per Production Unit: 8 bags/acre	Unit Price: (lowest): 70 cedis/bag
	(highest): 120 cedis/bag
	(average): 100 cedis/bag

DETAILED INFORMATION

		Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
<b>Expenses - PRODUCTION</b>														
	Rent (land)													
	Machine Rent (land prep.)						700							
	Labor (land preparation)													
	Fertilizers (Natural)													
	Labor Cost (transplant)													
	Labor Cost (weeding)													
	Labor Cost (fertilizer)													
	Fertilizers (Chemical)								2,200					
	Labor (pesticide)													
	Machine Rent (Harvesting)													
	Labor (harvesting)													
	other (weedicide)													
	other (sacks)											48		
	other (seeds)													
	Labor (planting)													
	Transportation													
	Labour													
	Other cost (specify)													
<b>Total Expense</b>								925	2,200				48	3,173
<b>Sales</b>												5,760		
<b>(REVENUE - EXPENSES)=Income</b>								(925)	(2,200)			5,760	(48)	2,587
<b>TOTAL AGRICULTURAL INCOME</b>		3,020		3,020		3,630	(215)	(1,487)	17,620	(17)	3,600	5,760	(156)	37,795

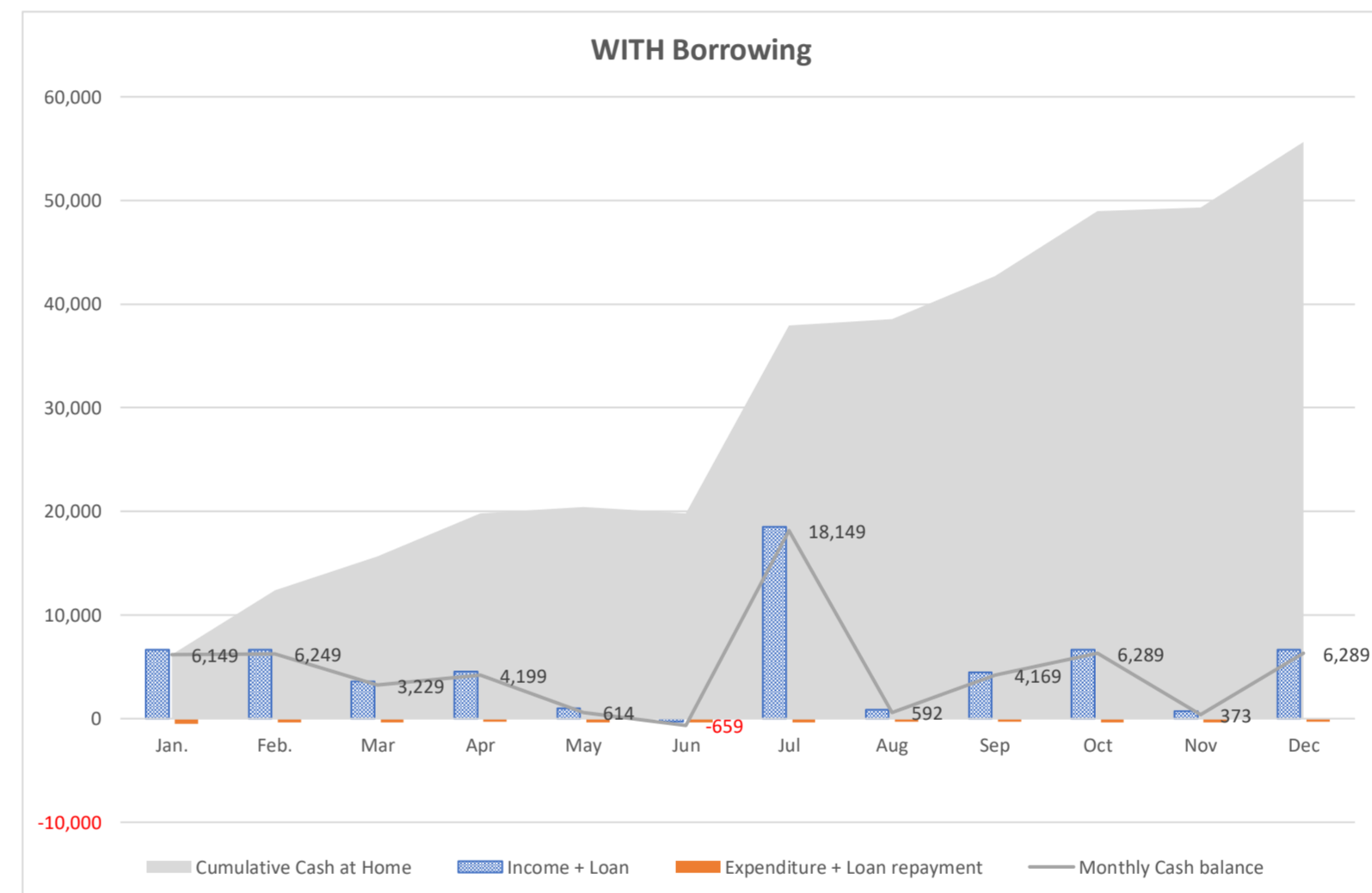
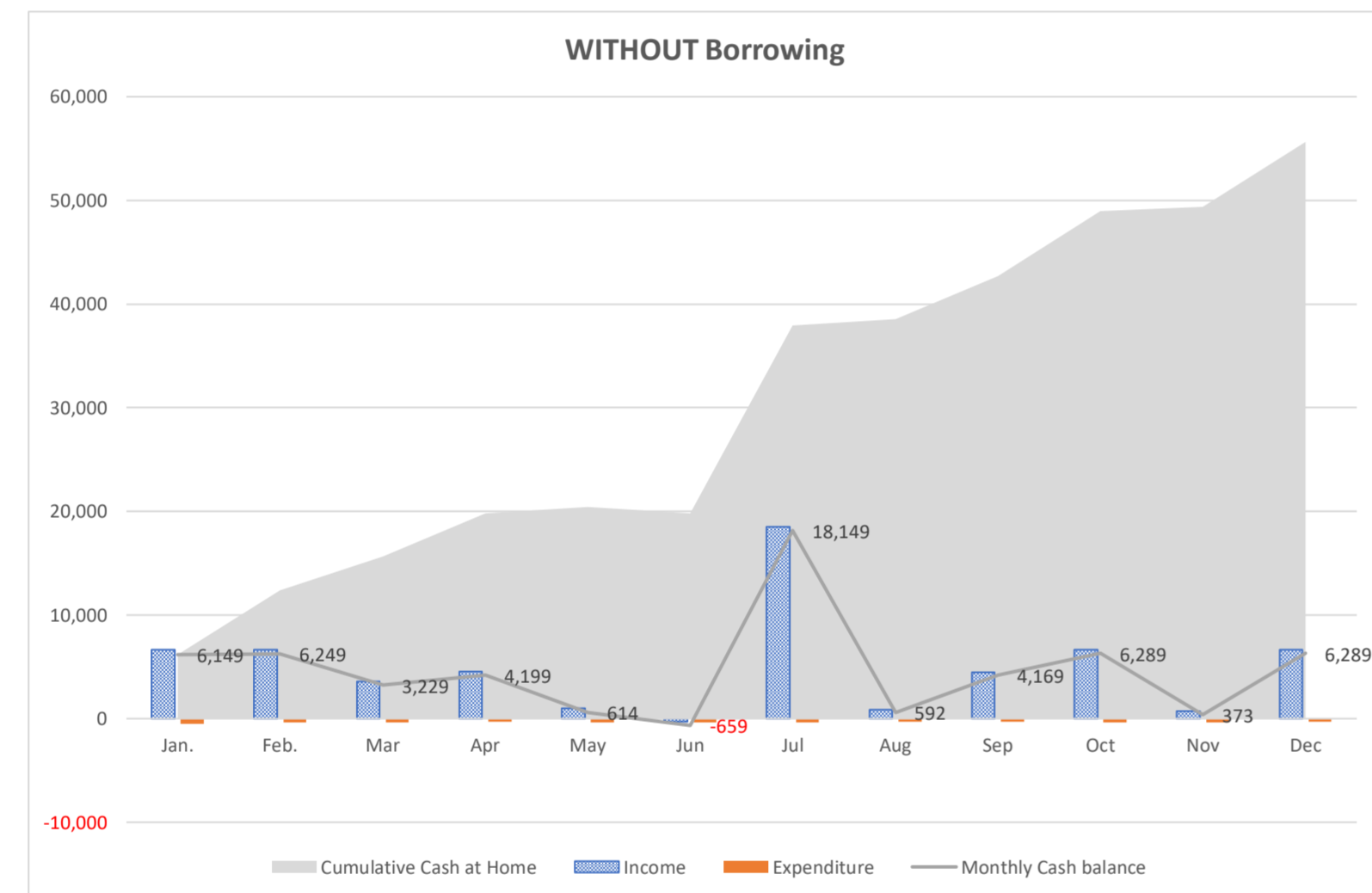


**WITHOUT LOAN (Borrowing)**

	Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Income	6,620	6,620	3,600	4,530	985	-287	18,520	883	4,500	6,660	744	6,620
Expenditure	-472	-372	-372	-332	-372	-372	-372	-292	-332	-372	-372	-332
Monthly Cash balance	6,149	6,249	3,229	4,199	614	-659	18,149	592	4,169	6,289	373	6,289
Cumulative Cash at Home	6,149	12,397	15,626	19,824	20,438	19,779	37,928	38,519	42,688	48,976	49,349	55,637

**WITH LOAN (Borrowing)**

	Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Income + Loan	6,620	6,620	3,600	4,530	985	-287	18,520	883	4,500	6,660	744	6,620
Expenditure + Loan repayment	-472	-372	-372	-332	-372	-372	-372	-292	-332	-372	-372	-332
Monthly Cash balance	6,149	6,249	3,229	4,199	614	-659	18,149	592	4,169	6,289	373	6,289
Cumulative Cash at Home	6,149	12,397	15,626	19,824	20,438	19,779	37,928	38,519	42,688	48,976	49,349	55,637



NAME of the INTERVIEWEE:

Ms.

Community - Domeabra

Categories	Sub Categoris	Questions	Answer
<b>1. Basic information on the household</b>			
	Family member	Who are the member of the family? (member and age)	Widower (60) 5 children (40, 36, 30, 24, 18) (2 are married)
		How many family members live in this household? (i.e. those who share the household budget)	• Herself 4 children + 1 spouse 2 grandchildren 1 son living outside
	Tangible asset (excluding monetary/financial)	Is there any family member who live and work outside this home? If so, do they contribute to the household budget (send money home)? Own home (no rent) <input type="checkbox"/> . agricultural machinery <input type="checkbox"/> (if checked, specify what machinery _____) Chicken (poultry or egg) <input type="checkbox"/> , aquaculture <input type="checkbox"/> , motor bicycle <input type="checkbox"/> , truck/vehicle <input type="checkbox"/> , cow <input type="checkbox"/> , piglet <input type="checkbox"/> smart phone <input type="checkbox"/> (if checked, specify how many and who uses the phone _____) feature phone <input type="checkbox"/> (if checked, specify how many and who uses the phone _____)	Inherited home, and currently constructing another home 1 spraying machine (manual one called "kaf kaf") no vehicle no livestock (used to have local chicken but stolen) 3 children have smart phones, 1 child and herself have feature phones.
<b>2. Sources of income</b>			
		How do you make your living? What are the sources of your household income? Please tell us what they are and amount for each month.	
	Agriculture-related income	Regular income (associated with crop sales)	Farming (herself) Child 1. commercial driver Child 2. petty trading Child 3. hair dresser Child 4. self-employed (home décor and pastry making) Child 5. works construction firm (live outside the house)
		Other agriculture-related income (caual labourer, machinery rent, etc.)	•
	Non-Agriculture income	Regular income (non-farming income)	1. Sell chacoal 2. Sell sachet water
		Irregular income (any other income including receipt of remittance from family)	
		Who is the administrator of the household budget?	Herself
		Does he/she record the income and expenditure?	No
		IF YES, what is his/her motivation of bookkeeping?	
		IF NO, why not? How does he/she manage the budget?	
<b>3. Household expenditures</b>			
		Use [4. Household cash flow] sheet. Ask the "regular" and "irregular/unexpected" expenditures of the past 12 months.	



<p><b>4. Usage of health care service</b></p> <p>Usage status</p> <p>Cost and payment</p>	<p>When any one of your family becomes sick, where do you go to seek for help?</p> <p>Are you (your family) enrolled in the government health insurance system (NHIA)?</p> <p><i>IF YES (enrolled), what benefits do you find in the government insurance? List top three benefits.</i></p> <p>Do you find any inconvenience with the government insurance? If you do, what are they?</p> <p><i>IF NO (not enrolled), why are you not enrolled? (e.g. not qualified, don't know how to enrol, difficult to enrol (cost. etc.). not interested )</i></p> <p>Do you have regular health care-related expenditures (premium for health care service, medical services, medicine. etc.)?</p> <p>When you use health care service what cost(s) incur? (premium for the insurance, pay-as-you-go service fee, transportation, etc.)</p> <p>How do you pay for the fee? (e.g. using savings, borrow money, etc.)</p> <p>What payment method do you use? (cash, digital payment, etc.)</p>	<p>Nearby hospital covered by NHIS.</p> <p>Rarely use medical service. Some times use traditional herb medicine.</p> <p>Herself - Yes. 8 Cedis/year (premium)</p> <p>up to 18 yr = 8cedis, then 30 cedis, above 50 = 8 cds</p>
<p><b>5. Usage of financial services</b></p>	<p>Do you have a bank account? <i>(If owning more than 1 account, start with the main account)</i></p> <p><i>If not, will you be interested in using any?</i></p> <p>How often do you use the account?</p> <p>For what purposes do you use this account? (saving, remittance, etc.)</p> <p>Are you using any loan from the financial institution? (If YES, use "Calendar (Financial)")</p> <p>What type of financial products and services you use? (of which financial service provider(s)?)</p> <p>How do you assess their services?</p> <p>Are you borrowing money from your family, friends, someone from the village, or any other (informal) money lenders? (If YES, use "Calendar (Financial)")</p> <p>Do you (or other family members) use the phone for financial transactions? What do you think about conducting financial transactions over the phone?</p> <p>Do you have any insurance for your agriculture crop? If you do, who is the provider?</p> <p>Do you have life insurance? If you do, who is the provider?</p> <p>Do you have any health insurance? If you do, who is the provider?(e.g. insurance company, bundling product offered by mobile service provider. etc.)</p>	<p>No bank account nor mobile money account.</p> <p>Yes. To receive remittance.</p> <p>Sousou.</p> <p>Sousou provides important sum of money. No interest added. Using for you're her house construction.</p>
<p><b>6. Worries/concerns in life and aspirations for the future</b></p>	<p>Do you have any worries/concerns in life? What are they?</p> <p>What are your aspirations for the future?</p>	<p>Sand mining for construction.Estate development.</p> <p>Farm land may become scarce. Land tenure security.</p> <p>Expand her farming activities.</p>

NAME of the INTERVIEWEE: \_\_\_\_\_Abukare Yakubu\_\_\_\_\_

	QUESTION	ANSWER	
General question	Do you have your own agricultural land? If you do, what is the total size?	YES / NO	
		Size:	
	Do you cultivate for your own consumption? If so, what are they?	YES / NO	
		(Crops)	
	What <b>cash crops</b> do you cultivate?	.	
	Which one is the most important one (cash crop)?	.	
	Do you <b>cultivate individually? Or as a group?</b>	.	
	Do you <b>sell the products individually? Or collectively?</b>	.	
	What do women and men do at each stage of value chain: production, post-harvest processing & storage, distribution & sales?		
		<b>Men</b>	<b>Women</b>
	<b>Production</b>	All farming activities	Planting, fertilizer application, harvesting
	<b>Post harvest</b>		
	<b>Distribution and sales</b>	Sales	Sales

	QUESTION	ANSWER	
Crop 1:	Crop name: _____Soyabeans_____		
Production period	What is the land size you use for this crop? (specific size, or portion allocated out of the total land size answered above)	.	
Inputs / unit	Which months of the year do you produce this crop? Is this one production cycle? If not how many cycles are there during these months?	.	
	How many times can you harvest in each production cycle?	.	
	Which month(s) do you harvest?	.	
	What are the inputs and their costs (materials and labor) required to produce? And at which point of the production cycle do you use them?	.	
	From whom do you purchase seeds/seedling/fertilizers/pesticides?	.	
Sales	To whom do you sell your product?	.	
	Do you sell your product right after you harvest? If not, when do you sell?	.	
	What was the sales price/unit most recently? Was it a good price?	.	
	Who are the buyers of your products?	.	
	Do your buyer come to your farm to purchase your products?	.	
	Do you sell your products by yourself? If so, where?	.	
	If you sell your products by yourself, what are the associated costs (transportation, rent-a-space, etc.) and how much are they?	.	
	Is there any other costs associated with sales of your products?	.	
Value chain challenges	What are your main challenges for you to <u>produce and sell this product</u> ?		
	(production related issues)	. weather fluctuation affects the yields, pests and insects control. Farm land is far and needs to use bike taxi (Okada- 2~3 cedis). Laborer scarcity.	
	(storage/processing related issues)	.	
	(delivery/sales related issues)	. No aggregator comes to the community. Farmer needs to bring the harvest to the middlemen to the market.	
	(gender related issues)	.	

	QUESTION	ANSWER
Crop 2:	Crop name: _____ Tomatoes and Peppers _____	
Production period	What is the land size you use for this crop? (specific size, or portion allocated out of the total land size answered above)	.
Inputs / unit	Which months of the year do you produce this crop? Is this one production cycle? If not how many cycles are there during these months?	.
	How many times can you harvest in each production cycle?	.
	Which month(s) do you harvest?	.
	What are the inputs and their costs (materials and labor) required to produce? And at which point of the production cycle do you use them?	.
	From whom do you purchase seeds/seedling/fertilizers/pesticides?	.
Sales	To whom do you sell your product?	.
	Do you sell your product right after you harvest? If not, when do you sell?	.
	What was the sales price/unit most recently? Was it a good price?	.
	Who are the buyers of your products?	.
	Do your buyer come to your farm to purchase your products?	.
	Do you sell your products by yourself? If so, where?	.
	If you sell your products by yourself, what are the associated costs (transportation, rent-a-space, etc.) and how much are they?	.
	Is there any other costs associated with sales of your products?	.
Value chain challenges	What are your main challenges for you to <u>produce and sell this product</u> ? (production related issues)	.
	(storage/processing related issues)	.
	(delivery/sales related issues)	.
	(gender related issues)	.

	QUESTION	ANSWER
Crop 3:	Crop name: _____ Okra _____	
Production period	What is the land size you use for this crop? (specific size, or portion allocated out of the total land size answered above)	.
Inputs / unit	Which months of the year do you produce this crop? Is this one production cycle? If not how many cycles are there during these months?	.
	How many times can you harvest in each production cycle?	.
	Which month(s) do you harvest?	.
	What are the inputs and their costs (materials and labor) required to produce? And at which point of the production cycle do you use them?	.
	From whom do you purchase seeds/seedling/fertilizers/pesticides?	.
Sales	To whom do you sell your product?	.
	Do you sell your product right after you harvest? If not, when do you sell?	.
	What was the sales price/unit most recently? Was it a good price?	.
	Who are the buyers of your products?	.
	Do your buyer come to your farm to purchase your products?	.
	Do you sell your products by yourself? If so, where?	.
	If you sell your products by yourself, what are the associated costs (transportation, rent-a-space, etc.) and how much are they?	.
	Is there any other costs associated with sales of your products?	.
Value chain challenges	What are your main challenges for you to <u>produce and sell this product</u> ? (production related issues)	.
	(storage/processing related issues)	.
	(delivery/sales related issues)	.
	(gender related issues)	.

BASIC INFORMATION

<b>CROP 1</b>	<b>(Pepper)</b>
Production Area:	4 acres
Yield per Production Unit:	10-16 bags/acre of pepper (legon 18 variety and local one) - harve
Sales Unit:	Pepper
Unit Price:	(lowest): 70 cedis/bag (highest): cedis/bag (average): 100 cedis/bag
	Oct. August-Sept.

3 months harves, each week 10 bags

TOTAL 5 acres

DETAILED INFORMATION

	Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
			Production					Harvest(sell for 3 months)						
<b>Expenses - PRODUCTION</b>														
Rent (land)		200												
Machine Rent (land prep.)				300										
Labor (land preparation)														
Fertilizers					225								not subsidized price 120 MPK, 110 Uriam	
Labor Cost (transplant)				160										
Labor Cost (weeding)							90	90						
Labor Cost (fertilizer)				120										
Liquid fertilizer						=		200						
Labor (insecticide)							40							
Machine Rent (Harvesting)														
Labor (harvesting)									400	400	400			
Insecticide							80							
other (sacks)														
other (seeds)				120										
Labor (planting)														
<b>Expenses - SALES</b>														
Transportation									320	320	320		8 cedis / bag	
Labour														
Other cost (specify)														
<b>Total Expense</b>		200	-	400	525	-	210	290	720	720	720	-	-	3,785
<b>Sales</b>									4,000	4,000	4,000			12,000
<b>(REVENUE - EXPENSES)=Income</b>		(200)	-	(400)	(525)	-	(210)	(290)	3,280	3,280	3,280	-	-	8,215

BASIC INFORMATION

<b>CROP 2</b>	<b>(TOMATO)</b>
Production Area:	1 acre
Yield per Production Unit:	20 basins/tomatoes - we harvest 5 times = 100 basins
Sales Unit:	1 basin
Unit Price:	(lowest): 15 cedis/basins (highest): 200 cedis/basins (average): 120 cedis/basins

DETAILED INFORMATION

	Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
				Nurse	Transplant		Harvesting							
<b>Expenses - PRODUCTION</b>														
Rent (land)														
Machine Rent (land prep.)							30							
Labor (land preparation)							40							
Fertilizers (Natural)														
Labor Cost (transplant)														
Labor Cost (weeding)									180					
Labor Cost (fertilizer)														
Fertilizers (Chemical)							70							
Labor (pesticide)														
Machine Rent (Harvesting)														
Labor (harvesting)										50				
other (fertilizer)														
other (labor and cost of sticking)														
other (seeds)														
Labor (planting)														
<b>Expenses - SALES</b>														
Transportation										125				
Labour														
Other cost (specify)														
<b>Total Expense</b>		-	-	-	-	-	140	-	180	175	-	-	-	495
<b>Sales</b>								12,000						
<b>(REVENUE - EXPENSES)=Income</b>		-	-	-	-	-	(140)	12,000	(180)	(175)	-	-	-	11,505

BASIC INFORMATION

<b>CROP 6</b>	<b>(MAIZE)</b>	Production Area: 10 acres	Sales Unit: "bags" (1 bag is 100kg)
		Yield per Production Unit: 8 bags/acre	Unit Price: (lowest): 70 cedis/bag
			(highest): 120 cedis/bag
			(average): 100 cedis/bag

DETAILED INFORMATION

	Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
<b>Expenses - PRODUCTION</b>													
Rent (land)													
Machine Rent (land prep.)													
Labor (land preparation)													
Fertilizers (Natural)													
Labor Cost (transplant)													
Labor Cost (weeding)													
Labor Cost (fertilizer)													
Fertilizers (Chemical)													
Labor (pesticide)													
Machine Rent (Harvesting)													
Labor (harvesting)													
other (weedicide)													
other (sacks)													
other (seeds)													
Labor (planting)													
<b>Expenses - SALES</b>													
Transportation													
Labour													
Other cost (specify)													
<b>Total Expense</b>													
<b>Sales</b>											5760		
<b>(REVENUE - EXPENSES)=Income</b>											5,760		5,760
<b>TOTAL AGRICULTURAL INCOME</b>		(200)		(400)	(525)		(350)	11,710	3,100	3,105	3,280		19,720

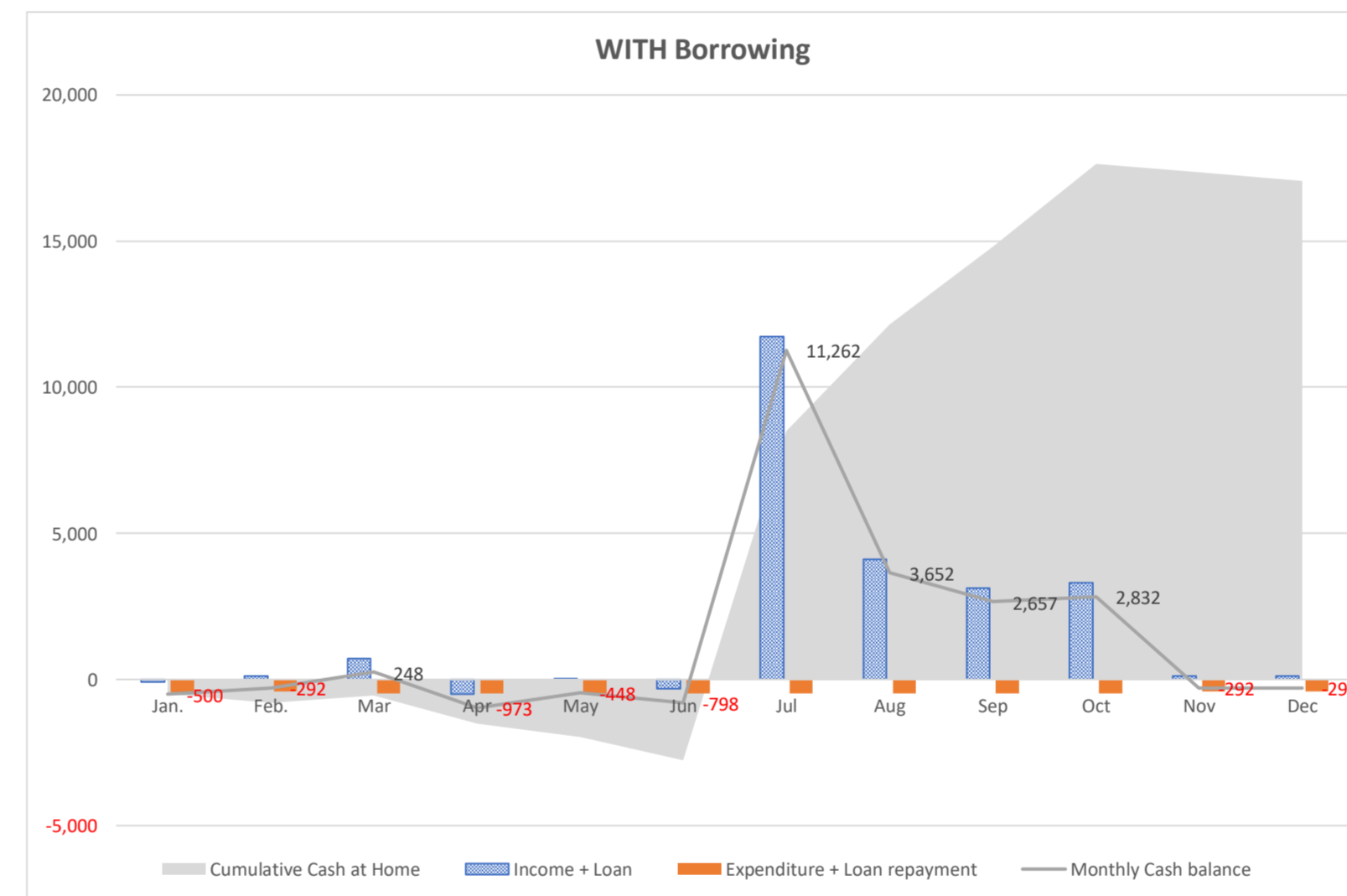
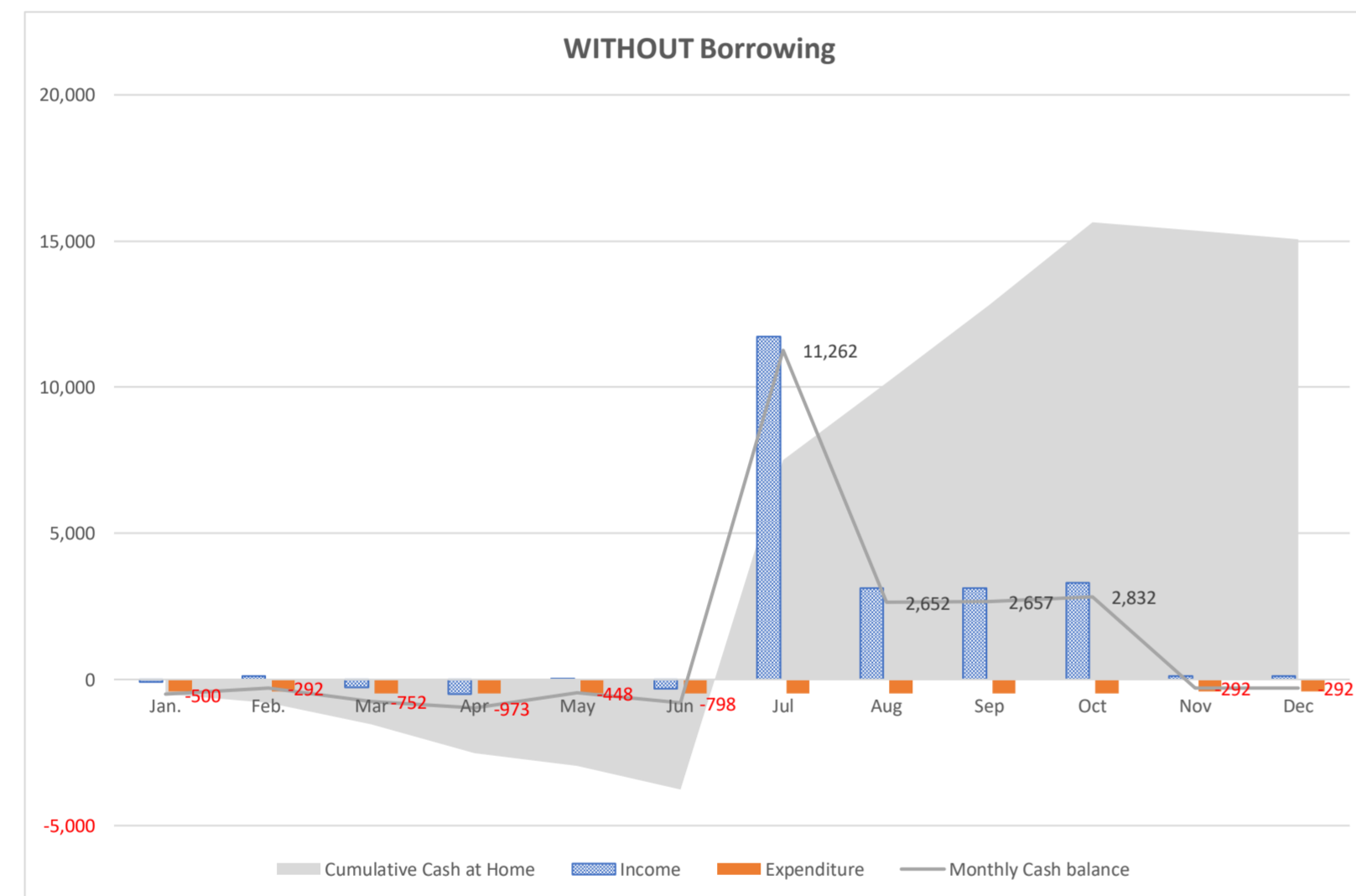


**WITHOUT LOAN (Borrowing)**

	Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Income		-80	120	-280	-501	24	-326	11,734	3,124	3,129	3,304	120	120
Expenditure		-420	-412	-472	-472	-472	-472	-472	-472	-472	-472	-412	-412
Monthly Cash balance		-500	-292	-752	-973	-448	-798	11,262	2,652	2,657	2,832	-292	-292
Cumulative Cash at Home		-500	-792	-1,544	-2,517	-2,965	-3,763	7,499	10,151	12,808	15,640	15,348	15,056

**WITH LOAN (Borrowing)**

	Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Income + Loan		-80	120	720	-501	24	-326	11,734	4,124	3,129	3,304	120	120
Expenditure + Loan repayment		-420	-412	-472	-472	-472	-472	-472	-472	-472	-472	-412	-412
Monthly Cash balance		-500	-292	248	-973	-448	-798	11,262	3,652	2,657	2,832	-292	-292
Cumulative Cash at Home		-500	-792	-544	-1,517	-1,965	-2,763	8,499	12,151	14,808	17,640	17,348	17,056



NAME of the INTERVIEWEE: \_\_Georgina Lateley\_\_

Community - Domeabra

Categories	Sub Categoris	Questions	Answer
<b>1. Basic information on the household</b>			
	Family member	Who are the member of the family? (member and age)	1 farmer (female - 62 years old), with 4 grandchildren (10 years, 7 years, 6 years, 4 years)
		How many family members live in this household? (i.e. those who share the household budget)	5 years
		Is there any family member who live and work outside this home? If so, do they contribute to the household budget (send money home)?	1 husband (separated), 5 grown up children who doesn't live here
	Tangible asset (excluding monetary/financial)	Own home (no rent) <input type="checkbox"/> , agricultural machinery <input type="checkbox"/> (if checked, specify what machinery _____) Chicken (poultry or egg) <input type="checkbox"/> , aquaculture <input type="checkbox"/> , motor bicycle <input type="checkbox"/> , truck/vehicle <input type="checkbox"/> , cow <input type="checkbox"/> , piglet <input type="checkbox"/> smart phone <input type="checkbox"/> (if checked, specify how many and who uses the phone _____) feature phone <input type="checkbox"/> (if checked, specify how many and who uses the phone _____)	Owns house with her husband, 1 feature phone, 10 chickens
<b>2. Sources of income</b>			
		How do you make your living? What are the sources of your household income? Please tell us what they are and amount for each month.	
	Agriculture-related income	Regular income (associated with crop sales)	
		Other agriculture-related income (caual labourer, machinery rent, etc.)	.
	Non-Agriculture income	Regular income (non-farming income)	Yes
		Irregular income (any other income including receipt of remittance from family)	June to October, sells water from polytank - makes GHC 20 a week from selling the water
		Who is the administrator of the household budget?	Head of household (the farmer)
		Does he/she record the income and expenditure?	No
		IF YES, what is his/her motivation of bookkeeping?	.
		IF NO, why not? How does he/she manage the budget?	Keeps track of expenses in her head
<b>3. Household expenditures</b>			
		Use [4.Household cash flow] sheet. Ask the "regular" and "irregular/unexpected" expenditures of the past 12 months.	



<p><b>4. Usage of health care service</b></p> <p>Usage status</p> <p>Cost and payment</p>	<p>When any one of your family becomes sick, where do you go to seek for help?</p> <p>Are you (your family) enrolled in the government health insurance system (NHIA)?</p> <p style="text-align: center;"><i>IF YES (enrolled), what benefits do you find in the government insurance? List top three benefits.</i></p> <p>Do you find any inconvenience with the government insurance? If you do, what are they?</p> <p><i>IF NO (not enrolled), why are you not enrolled? (e.g. not qualified, don't know how to enrol, difficult to enrol (cost, etc.), not interested )</i></p> <p>Do you have regular health care-related expenditures (premium for health care service, medical services, medicine, etc.)?</p> <p>When you use health care service what cost(s) incur? (premium for the insurance, pay-as-you-go service fee, transportation, etc.)</p> <p>How do you pay for the fee? (e.g. using savings, borrow money, etc.)</p> <p>What payment method do you use? (cash, digital payment, etc.)</p>	<p>Richard private clinic (serious ailment), Kasoa government hospital (not serious), also uses herbal clinic</p> <p>NHIS - all have it but its expired for one year now, doesn't have the money to renew it</p> <p>.</p> <p>At Kasoa government hospital, long waiting times and health personnel have no patience</p> <p>.</p> <p>No</p> <p>Would incur cost of GHC 2.50 of transport one-way, blood tests of GHC 5</p> <p>Cash</p> <p>Cash</p>
<p><b>5. Usage of financial services</b></p>	<p>Do you have a bank account? (If owning more than 1 account, start with the main account)</p> <p>How often do you use the account?</p> <p>For what purposes do you use this account? (saving, remittance, etc.)</p> <p>Are you using any loan from the financial institution? (If YES, use "Calendar (Financial)")</p> <p>What type of financial products and services you use? (of which financial service provider(s)?)</p> <p>How do you assess their services?</p> <p>Are you borrowing money from your family, friends, someone from the village, or any other (informal) money lenders? (If YES, use "Calendar (Financial)")</p> <p>Do you (or other family members) use the phone for financial transactions? What do you think about conducting financial transactions over the phone?</p> <p>Do you have any insurance for your agriculture crop? If you do, who is the provider?</p> <p>Do you have life insurance? If you do, who is the provider?</p> <p>Do you have any health insurance? If you do, who is the provider?(e.g. insurance company, bundling product offered by mobile service provider, etc.)</p>	<p>AirtelTigo Money (mobile money)</p> <p>About twice a month</p> <p>Receiving money from her daughter</p> <p>No</p> <p>In VSLA - Adakabra</p> <p>VSLA meets every Sunday, minimum GHC2, there's mobile money agent in the community</p> <p>No</p> <p>For mobile money transactions</p> <p>No</p> <p>No</p> <p>Yes government insurance - NHIS</p>
<p><b>6. Worries/concerns in life and aspirations for the future</b></p>	<p>Do you have any worries/concerns in life? What are they?</p> <p>What are your aspirations for the future?</p>	<p>Worried about who would look after the children if she should pass away suddenly</p> <p>That her grandkids would grow up and get jobs</p>

NAME of the INTERVIEWEE: \_\_Iddrisu Ziblim\_\_\_\_\_

Community - Domeabra

	QUESTION	ANSWER
General question	<p>Do you have your own agricultural land? If you do, what is the total size?</p> <p>Do you cultivate for your own consumption? If so, what are they?</p> <p>What <b>cash crops</b> do you cultivate?</p> <p>Which one is the most important one (cash crop)?</p> <p>Do you <b>cultivate individually? Or as a group?</b></p> <p>Do you <b>sell the products individually? Or collectively?</b></p> <p>What do women and men do at each stage of value chain: production, post-harvest processing &amp; storage, distribution &amp; sales?</p>	<p>1 farmer (female - 62 years old), with 4 grandchildren (10 years, 7 years, 6 years, 4 years)</p> <p>.</p> <p>5 years</p> <p>1 husband (separated), 5 grown up children who doesn't live here</p> <p>Owens house with her husband, 1 feature phone, 10 chickens</p> <p>.</p> <p>Yes</p> <p>June to October, sells water from polytank - makes GHC 20 a week from selling the water</p> <p>Head of household (the farmer)</p> <p>No</p> <p>.</p> <p><b>Production</b> Keeps track of expenses in her head</p> <p><b>Post harvest</b></p> <p><b>Distribution and sales</b></p> <p>Richard private clinic (serious ailment), Kasoa government hospital (not serious), also uses herbal clinic</p> <p>NHIS - all have it but its expired for one year now, doesn't have the money to renew it</p>

	QUESTION	ANSWER
Crop 1:	Crop name: ____Green leafy vegetables_____	At Kasoa government hospital, long waiting times and health personnel have no patience
Production period	What is the land size you use for this crop? (specific size, or portion allocated out of the total land size answered above)	.
Inputs / unit	Which months of the year do you produce this crop? Is this one production cycle? If not how many cycles are there during these months?	No
	How many times can you harvest in each production cycle?	Would incur cost of GHC 2.50 of transport one-way, blood tests of GHC 5
	Which month(s) do you harvest?	Cash
Sales	What are the inputs and their costs (materials and labor) required to produce? And at which point of the production cycle do you use them?	Cash
	From whom do you purchase seeds/seedling/fertilizers/pesticides?	Cash
	To whom do you sell your product?	Airtel/Tigo Money (mobile money)
	Do you sell your product right after you harvest? If not, when do you sell?	About twice a month
	What was the sales price/unit most recently? Was it a good price?	Receiving money from her daughter
	Who are the buyers of your products?	No
	Do your buyer come to your farm to purchase your products?	In VSLA - Adakabra
	Do you sell your products by yourself? If so, where?	VSLA meets every Sunday, minimum GHC2, there's mobile money agent in the community
	If you sell your products by yourself, what are the associated costs (transportation, rent-a-space, etc.) and how much are they?	No
Is there any other costs associated with sales of your products?	No	
Value chain challenges	What are your main challenges for you to <u>produce and sell this product?</u>	For mobile money transactions
	(production related issues)	No
	(storage/processing related issues)	No
	(delivery/sales related issues)	Yes government insurance - NHIS
	(gender related issues)	Worried about who would look after the children if she should pass away suddenly
		That her grandkids would grow up and get jobs

	QUESTION	ANSWER
Crop 2:	Crop name: _____ Rice _____	
Production period	What is the land size you use for this crop? (specific size, or portion allocated out of the total land size answered above)	
Inputs / unit	Which months of the year do you produce this crop? Is this one production cycle? If not how many cycles are there during these months?  How many times can you harvest in each production cycle?  Which month(s) do you harvest?  What are the inputs and their costs (materials and labor) required to produce? And at which point of the production cycle do you use them?  From whom do you purchase seeds/seedling/fertilizers/pesticides?	
Sales	To whom do you sell your product?  Do you sell your product right after you harvest? If not, when do you sell?  What was the sales price/unit most recently? Was it a good price?  Who are the buyers of your products?  Do your buyer come to your farm to purchase your products?  Do you sell your products by yourself? If so, where?  If you sell your products by yourself, what are the associated costs (transportation, rent-a-space, etc.) and how much are they?  Is there any other costs associated with sales of your products?	
Value chain challenges	What are your main challenges for you to <u>produce and sell this product</u> ?  (production related issues)  (storage/processing related issues)  (delivery/sales related issues)  (gender related issues)	

	QUESTION	ANSWER
Crop 3:	Crop name: _____ Soybeans _____	
Production period	What is the land size you use for this crop? (specific size, or portion allocated out of the total land size answered above)	
Inputs / unit	Which months of the year do you produce this crop? Is this one production cycle? If not how many cycles are there during these months?  How many times can you harvest in each production cycle?  Which month(s) do you harvest?  What are the inputs and their costs (materials and labor) required to produce? And at which point of the production cycle do you use them?  From whom do you purchase seeds/seedling/fertilizers/pesticides?	
Sales	To whom do you sell your product?  Do you sell your product right after you harvest? If not, when do you sell?  What was the sales price/unit most recently? Was it a good price?  Who are the buyers of your products?  Do your buyer come to your farm to purchase your products?  Do you sell your products by yourself? If so, where?  If you sell your products by yourself, what are the associated costs (transportation, rent-a-space, etc.) and how much are they?  Is there any other costs associated with sales of your products?	
Value chain challenges	What are your main challenges for you to <u>produce and sell this product</u> ?  (production related issues) (storage/processing related issues) (delivery/sales related issues) (gender related issues)	



The objective of this sheet is to understand the in-and-out of CASH on the MONTHLY basis.

NAME of the INTERVIEWEE: \_\_\_\_\_

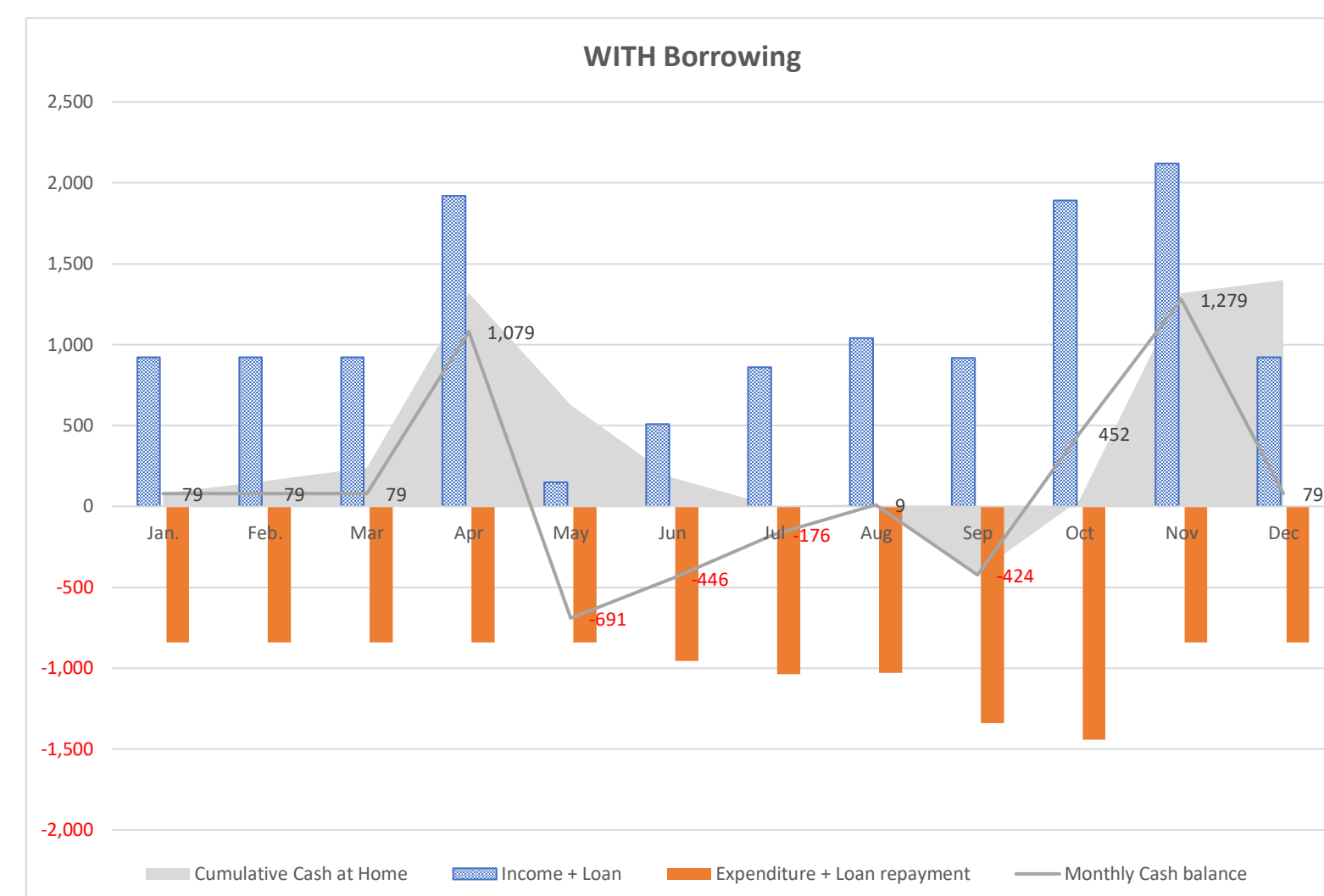
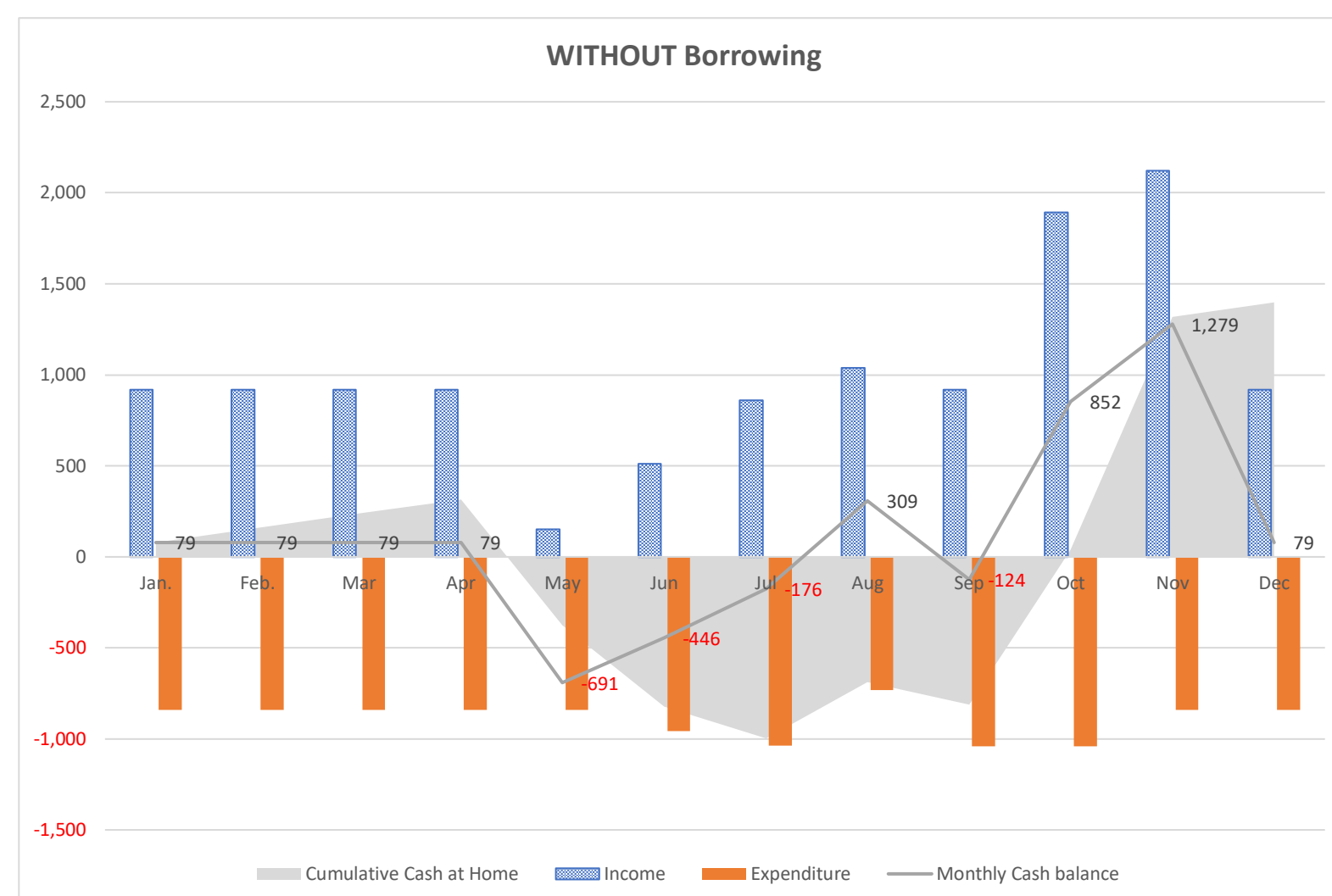
MONTH		Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Income	Agriculture income	0	0	0	0	-770	-330	-180	0	-123	853	1,200	0
	water sales (poli tank)	80	80	80	80	80	80	80	80	80	80	80	80
	Support from children	840	840	840	840	840	840	840	1,040	1,040	1,040	1,040	840
	<b>TOTAL HOUSEHOLD INCOME</b>	920	920	920	920	150	510	860	1,040	918	1,893	2,120	920
Expenditures	House -> no rent												
	Electricity	20	20	20	20	20	20	20	20	20	20	20	20
	Fuel for vehicle												
	Communication	16	16	16	16	16	16	16	16	16	16	16	16
	Food	450	450	450	450	450	450	450	450	450	450	450	450
	Education												
	Children daily allowance	310	310	310	310	310	310	310	310	310	310	310	310
	Health (insurance premium and non insured expenditure)							120	200	200	200	200	
Social events (festival, wedding, etc.)	45	45	45	45	45	40	40	45	45	45	45	45	
	<b>TOTAL (Monthly)</b>	841	841	841	841	841	956	1,036	731	1,041	1,041	841	841
	<b>TOTAL (Yearly)</b>												10,692
Unexpected or irregular expenses	other item (please specify)												
	other item (please specify)												
	<b>TOTAL (Monthly)</b>	0	0	0	0	0	0	0	0	0	0	0	0
	<b>TOTAL (Yearly)</b>												0
	other items may include: purchase of animal, house repair, etc.												
	<b>TOTAL Expenditure</b>	-841	-841	-841	-841	-841	-956	-1,036	-731	-1,041	-1,041	-841	-841
LOAN Usage	VSLA				1,000								
	VSLA												
	Borrowing 3												
	<b>TOTAL Borrowing</b>	0	0	0	1,000	0	0	0	0	0	0	0	0
	Repayment 1								300	300	400		
Repayment 2													
Repayment 3													
	<b>TOTAL Repayment</b>	0	0	0	0	0	0	0	300	300	400	0	0

**WITHOUT LOAN (Borrowing)**

	Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Income	920	920	920	920	920	150	510	860	1,040	918	1,893	2,120	920
Expenditure	-841	-841	-841	-841	-841	-841	-956	-1,036	-731	-1,041	-1,041	-841	-841
Monthly Cash balance	79	79	79	79	79	-691	-446	-176	309	-124	852	1,279	79
Cumulative Cash at Home	79	158	237	316	-375	-821	-997	-688	-812	40	1,319	1,398	

**WITH LOAN (Borrowing)**

	Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Income + Loan	920	920	920	1,920	150	510	860	1,040	918	1,893	2,120	920	
Expenditure + Loan repayment	-841	-841	-841	-841	-841	-841	-956	-1,036	-1,031	-1,341	-1,441	-841	-841
Monthly Cash balance	79	79	79	1,079	-691	-446	-176	9	-424	452	1,279	79	
Cumulative Cash at Home	79	158	237	1,316	625	179	3	12	-412	40	1,319	1,398	



NAME of the INTERVIEWEE: Daniel Otoo

Community - Libga

Categories	Sub Categoris	Questions	Answer
<b>1. Basic information on the household</b>			
	Family member	Who are the member of the family? (member and age)	1 farmer (didn't finish Senior High School), 2 wives, has 11 children 1 in an tertiary institution, 1 in high school, 6 in primary school, 1 too young for school
		How many family members live in this household? (i.e. those who share the household budget)	13 people in this house
		Is there any family member who live and work outside this home? If so, do they contribute to the household budget (send money home)?	1 son who is working as a teacher in Tarkwa (he is 30 years old), he has sent GHC 50 twice
	Tangible asset (excluding monetary/financial)	Own home (no rent) <input type="checkbox"/> , agricultural machinery <input type="checkbox"/> (if checked, specify what machinery _____) Chicken (poultry or egg) <input type="checkbox"/> , aquaculture <input type="checkbox"/> , motor bicycle <input type="checkbox"/> , truck/vehicle <input type="checkbox"/> , cow <input type="checkbox"/> , piglet <input type="checkbox"/> smart phone <input type="checkbox"/> (if checked, specify how many and who uses the phone _____) feature phone <input type="checkbox"/> (if checked, specify how many and who uses the phone _____)	Own home, has 1 motorbike and 1 bicycle, 3 feature phones, 10 sheep and more than 50 chicken

<b>2. Sources of income</b>			
		How do you make your living? What are the sources of your household income? Please tell us what they are and amount for each month.	
	Agriculture-related income	Regular income (associated with crop sales)	Husband is a farmer, wife is a farmer of vegetables
		Other agriculture-related income (caual labourer, machinery rent, etc.)	Wife also processes rice but she doesn't have money now so she's not doing rice (she would buy paddy rice, parboil it, dry it, mill it and sell) - she can process 10 bags at a time, would need GHC 1,000 to buy paddy rice, buy water, firewood and transportation these would cost GHC 600 and so she would need GHC 1,600 to start it up again, her profit is GHC 300 for 10 bags - so can make GHC 300 a week (GHC 1,200 for the month)
	Non-Agriculture income	Regular income (non-farming income)	Sells livestock from time to time
		Irregular income (any other income including receipt of remittance from family)	None (only agriculture)
		Who is the administrator of the household budget?	• • Both

Does he/she record the income and expenditure?

No

IF YES, what is his/her motivation of bookkeeping?

.

IF NO, why not? How does he/she manage the budget?

Every adult keeps their own wallets and then they come together to decide who should pay for each expense

### 3. Household expenditures

Use [4. Household cash flow] sheet. Ask the "regular" and "irregular/unexpected" expenditures of the past 12 months.



4. Usage of health care service		
Usage status	<p>When any one of your family becomes sick, where do you go to seek for help?</p> <p>Are you (your family) enrolled in the government health insurance system (NHIA)?</p> <p><i>IF YES (enrolled), what benefits do you find in the government insurance? List top three benefits.</i></p> <p>Do you find any inconvenience with the government insurance? If you do, what are they?</p> <p><i>IF NO (not enrolled), why are you not enrolled? (e.g. not qualified, don't know how to enrol, difficult to enrol (cost, etc.), not interested )</i></p>	<p>Savelugu Hospital</p> <p>They all have national health insurance, but 1 of the wives' has expired she doesn't have money to renew yet so will renew</p> <p>.</p> <p>No, but sometimes you have to pay for things not covered by NHIS</p> <p>.</p>
Cost and payment	<p>Do you have regular health care-related expenditures (premium for health care service, medical services, medicine, etc.)?</p> <p>When you use health care service what cost(s) incur? (premium for the insurance, pay-as-you-go service fee, transportation, etc.)</p> <p>How do you pay for the fee? (e.g. using savings, borrow money, etc.)</p> <p>What payment method do you use? (cash, digital payment, etc.)</p>	<p>No</p> <p>Sometimes has to pay GHC 20 a month in medicines (1 wife) etc that are not covered by health insurance</p> <p>Cash</p> <p>Cash</p>

5. Usage of financial services	<p>Do you have a bank account? (If owning more than 1 account, start with the main account)</p> <p>How often do you use the account?</p> <p>For what purposes do you use this account? (saving, remittance, etc.)</p> <p>Are you using any loan from the financial institution? (If YES, use "Calendar (Financial)")</p> <p>What type of financial products and services you use? (of which financial service provider(s)?)</p> <p>How do you assess their services?</p> <p>Are you borrowing money from your family, friends, someone from the village, or any other (informal) money lenders? (If YES, use "Calendar (Financial)")</p> <p>Do you (or other family members) use the phone for financial transactions? What do you think about conducting financial transactions over the phone?</p> <p>Do you have any insurance for your agriculture crop? If you do, who is the provider?</p> <p>Do you have life insurance? If you do, who is the provider?</p> <p>Do you have any health insurance? If you do, who is the provider?(e.g. insurance company, bundling product offered by mobile service provider. etc.)</p>	<p>Husband and wife both use MTN mobile money</p> <p>Daily for transactions</p> <p>Husband uses mobile money, wife also uses mobile money she deposits her money (savings, getting money from others - remittances from her son in Tarkwa)</p> <p>No</p> <p>MTN mobile money</p> <p>Through the phone, and there is an agent in the community</p> <p>Borrowed GHC 1,500 from Adakabra for school fees - every 3 months, have to pay GHC 150 of interest (10 percent of what you borrow) - the wife is a member of VSLA (not the husband), this is the second time they borrowed from the VSLA, they also used to borrow for secondary school (because it was not free), they would hope to pay by the end of February (the third month)</p> <p>Borrowed from another VSLA (GHC 1,000 to pay for agricultural inputs) - the husband is a member of another one.</p> <p>Yes, for savings and remittances, and for renewing health insurance</p> <p>No</p> <p>No</p> <p>NHIS</p>
6. Worries/concerns in life and aspirations for the future	<p>Do you have any worries/concerns in life? What are they?</p> <p>What are your aspirations for the future?</p>	<p>N/A</p> <p>Educate children because he understands the benefit of schooling so they can be financial independence and also contribute to the family</p>

NAME of the INTERVIEWEE: \_\_Iddrisu Ziblim\_\_

	QUESTION	ANSWER												
General question	Do you have your own agricultural land? If you do, what is the total size?	YES / NO	Yes											
		Size:	4 acres - 3.7 acres of irrigated, government agricultural land. Tomato, okra and peppers.											
	Do you cultivate for your own consumption? If so, what are they?	YES / NO	Yes - eat all the maize, eat some of soyabeans and sell 60% and rice we sell some about 60% and eat some, green leafy vegetables (ayoyo, bra) - consumes some and sells some											
		(Crops)	Maize, Soybeans, Rice											
	What <b>cash crops</b> do you cultivate?		Soybeans, Rice, Green leafy vegetables (ayoyo, bra)											
	Which one is the most important one (cash crop)?		Soybeans											
	Do you <b>cultivate individually? Or as a group?</b>		Both - is part of a farmer group that also does 4 acres											
	Do you <b>sell the products individually? Or collectively?</b>		Both											
	What do women and men do at each stage of value chain: production, post-harvest processing & storage, distribution & sales?													
			<table border="1"> <thead> <tr> <th></th> <th>Men</th> <th>Women</th> </tr> </thead> <tbody> <tr> <td><b>Production</b></td> <td>All farming activities</td> <td>All farming activities</td> </tr> <tr> <td><b>Post harvest</b></td> <td>All post-harvest activities</td> <td>All post-harvest activities</td> </tr> <tr> <td><b>Distribution and sales</b></td> <td>All sales activities</td> <td>All sales activities</td> </tr> </tbody> </table>		Men	Women	<b>Production</b>	All farming activities	All farming activities	<b>Post harvest</b>	All post-harvest activities	All post-harvest activities	<b>Distribution and sales</b>	All sales activities
	Men	Women												
<b>Production</b>	All farming activities	All farming activities												
<b>Post harvest</b>	All post-harvest activities	All post-harvest activities												
<b>Distribution and sales</b>	All sales activities	All sales activities												

	QUESTION	ANSWER
Crop 1:	Crop name: __Green leafy vegetables__	
Production period	What is the land size you use for this crop? (specific size, or portion allocated out of the total land size answered above)	0.5 acres
Inputs / unit	Which months of the year do you produce this crop? Is this one production cycle? If not how many cycles are there during these months?	See production calendar
	How many times can you harvest in each production cycle?	See production calendar
	Which month(s) do you harvest?	See production calendar
	What are the inputs and their costs (materials and labor) required to produce? And at which point of the production cycle do you use them?	See production calendar
	From whom do you purchase seeds/seedling/fertilizers/pesticides?	Buys seed from the market
	Sales	To whom do you sell your product?
Do you sell your product right after you harvest? If not, when do you sell?		Yes
What was the sales price/unit most recently? Was it a good price?		See production calendar
Who are the buyers of your products?		Buyers from market
Do your buyer come to your farm to purchase your products?		Yes
Do you sell your products by yourself? If so, where?		N/A
If you sell your products by yourself, what are the associated costs (transportation, rent-a-space, etc.) and how much are they?		N/A
Is there any other costs associated with sales of your products?		N/A
Value chain challenges	What are your main challenges for you to <b>produce and sell this product?</b>	N/A
	(production related issues)	
	(storage/procesing related issues)	
	(delivery/sales related issues)	
	(gender related issues)	

	QUESTION	ANSWER
Crop 2:	Crop name: _____Rice_____	
Production period	What is the land size you use for this crop? (specific size, or portion allocated out of the total land size answered above)	2 acres of his own land, and 6 acres of borrowed/cropped land in another village
Inputs / unit	Which months of the year do you produce this crop? Is this one production cycle? If not how many cycles are there during these months?	June to October, 1 cycle
	How many times can you harvest in each production cycle?	See production calendar
	Which month(s) do you harvest?	
	What are the inputs and their costs (materials and labor) required to produce? And at which point of the production cycle do you use them?	
	From whom do you purchase seeds/seedling/fertilizers/pesticides?	
Sales	To whom do you sell your product?	
	Do you sell your product right after you harvest? If not, when do you sell?	
	What was the sales price/unit most recently? Was it a good price?	
	Who are the buyers of your products?	
	Do your buyer come to your farm to purchase your products?	
	Do you sell your products by yourself? If so, where?	
	If you sell your products by yourself, what are the associated costs (transportation, rent-a-space, etc.) and how much are they?	
	Is there any other costs associated with sales of your products?	
Value chain challenges	What are your main challenges for you to <u>produce and sell this product</u> ?	
	(production related issues)	Agricultural land is limited, they have to look land to crop, how to maximize land (additional land to farm) - e.g., Sakple about 50 kms
	(storage/procesing related issues)	
	(delivery/sales related issues)	
	(gender related issues)	

	QUESTION	ANSWER
Crop 3:	Crop name: _____Soybeans_____	
Production period	What is the land size you use for this crop? (specific size, or portion allocated out of the total land size answered above)	1 acres
Inputs / unit	Which months of the year do you produce this crop? Is this one production cycle? If not how many cycles are there during these months?	June-October, 1 cycle
	How many times can you harvest in each production cycle?	
	Which month(s) do you harvest?	
	What are the inputs and their costs (materials and labor) required to produce? And at which point of the production cycle do you use them?	
	From whom do you purchase seeds/seedling/fertilizers/pesticides?	
Sales	To whom do you sell your product?	
	Do you sell your product right after you harvest? If not, when do you sell?	
	What was the sales price/unit most recently? Was it a good price?	
	Who are the buyers of your products?	
	Do your buyer come to your farm to purchase your products?	
	Do you sell your products by yourself? If so, where?	
	If you sell your products by yourself, what are the associated costs (transportation, rent-a-space, etc.) and how much are they?	
	Is there any other costs associated with sales of your products?	
Value chain challenges	What are your main challenges for you to <u>produce and sell this product</u> ?	
	(production related issues)	
	(storage/procesing related issues)	
	(delivery/sales related issues)	
	(gender related issues)	

BASIC INFORMATION

<b>CROP 1</b>	<b>(Tomato)</b>				
Production Area:	1.0	acre	Sales Unit:	basket	
Yield per Production Unit:	8	baskets/acre	Unit Price:	(lowest):	ced30is/basket
		max 20 basket		(highest):	125 cedis/basket
				(average):	90 cedis/basket
					3 baskets = 1 box
					1 box = 90 kg

DETAILED INFORMATION

		Jan.	Feb.	Mar.	Apr.	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
								Production	Harvesting	Harvesting	Harvesting	Harvesting		
2.471 acres	<b>Expenses - PRODUCTION</b>													
	Rent (land maintenance cost)		-				0							
	Machine Rent (land prep.)													
	Labor (planting)							200	200					
	Fertilizers (Natural)													
	Labor Cost (transplant)													
	Labor Cost (weeding)													
	Labor Cost (fertilizer)								210					
	Fertilizers (Chemical)									670				
	Pesticide									85				
	Fundicide													
	Machine Rent (Harvesting)													
	Labor (harvesting)													
	other (Weedicide)													
	other (seeds)							-	-					
other (sacks)														
Labor (planting by broadcasting)														
<b>Expenses - SALES</b>														
Transportation											256	256		
Labour														
Other cost (specify)														
<b>Total Expense</b>								410	955	-	256	256	-	1,877
<b>Sales</b>									1,920	1,920	1,920	1,920		7,680
<b>(REVENUE - EXPENSES)=Income</b>								(410)	965	1,920	1,664	1,664	-	5,803

BASIC INFORMATION

<b>CROP 2</b>	<b>(Water melon)</b>				
Production Area:	2		Sales Unit:	Harvest once every 8 times	
Yield per Production Unit:	200	pieces/acre	Unit Price:	(lowest):	4 per piece
				(highest):	8 per piece
				(average):	5 per piece

DETAILED INFORMATION

		Jan.	Feb.	Mar.	Apr.	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
								Harvesting	Harvesting					
This is the biggest challenge	<b>Expenses - PRODUCTION</b>													
	Rent (land)		-											
	Machine Rent (land prep.)													
	Labor (land preparation)							200						
	Fertilizers (Natural)							75						
	Labor Cost (transplant)													
	Labor Cost (weeding)													
	Labor Cost (fertilizer)													
	Fertilizers (Chemical)													
	Pesticide								85.0					
	Machine Rent (Harvesting)													
	Labor (harvesting)													
	other (Weedicide)								420	420				
	other (seeds)							85						
	other (sacks)													
Labor (planting by broadcasting)														
<b>Expenses - SALES</b>														
Transportation														
Labour														
Other cost (specify)														
<b>Total Expense</b>								360	85					1,285
<b>Sales</b>									600	600				1,200
<b>(REVENUE - EXPENSES)=Income</b>								(360)	(85)	180	180			(85)

The objective of this sheet is to understand the in-and-out of CASH on the MONTHLY basis.

NAME of the INTERVIEWEE: \_\_\_\_\_

		MONTH	Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Income	Agriculture income		0	0	0	-360	-85	-230	1,145	1,920	1,664	1,664	0	0
	Tenants		400	400	400	400	400	400	400	400	400	400	400	400
	<b>TOTAL HOUSEHOLD INCOME</b>		400	400	400	40	315	170	1,545	2,320	2,064	2,064	400	400
Expenditures	House -> no rent													
	Electricity		50	50	50	50	50	50	50	50	50	50	50	50
	Fuel for vehicle													
	Communication		60	60	60	60	60	60	60	60	60	60	60	60
	Food		250	250	250	250	250	250	250	250	250	250	250	250
	support for parents		300		300		300		300		300		300	
	Children daily allowance/support for children		0											
	Health (insurance premium and non insured expenditure)													
	Social events (festival, wedding, etc.)		200	200	200	200	200	200	200	200	200	200	200	200
	<b>TOTAL (Monthly)</b>		860	560	860	560	860	560	860	560	860	560	860	560
<b>TOTAL (Yearly)</b>														8,520
Unexpected or irregular expenses	other item (please specify)													
	other item (please specify)													
	<b>TOTAL (Monthly)</b>		0	0	0	0	0	0	0	0	0	0	0	0
<b>TOTAL (Yearly)</b>														0
<b>TOTAL Expenditure</b>			-860	-560	-860	-560	-860	-560	-860	-560	-860	-560	-860	-560
LOAN Usage	Borrowing 1													
	Borrowing 2													
	Borrowing 3													
	<b>TOTAL Borrowing</b>		0	0	0	0	0	0	0	0	0	0	0	0
	Repayment 1													
	Repayment 2													
Repayment 3														
<b>TOTAL Repayment</b>		0	0	0	0	0	0	0	0	0	0	0	0	

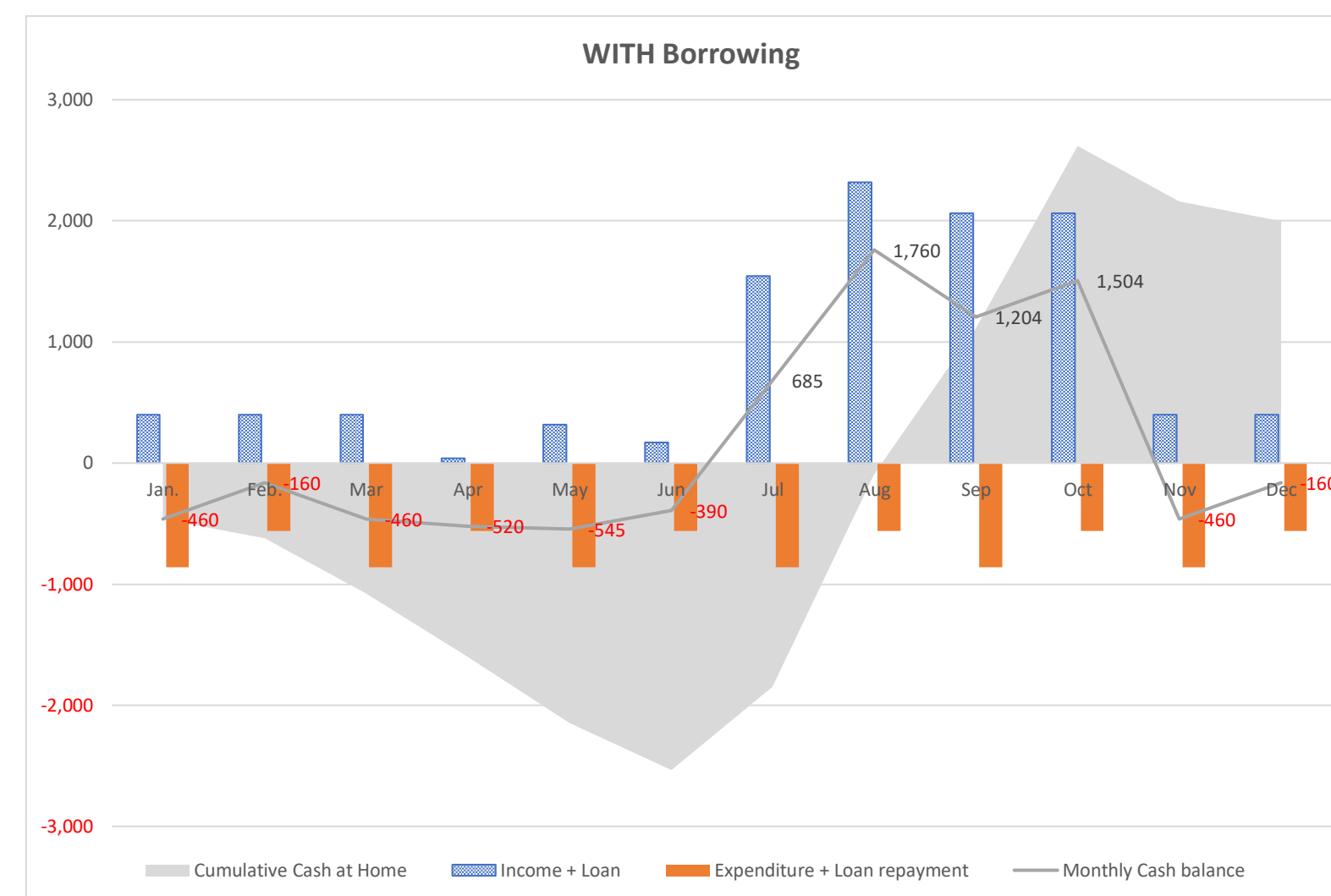
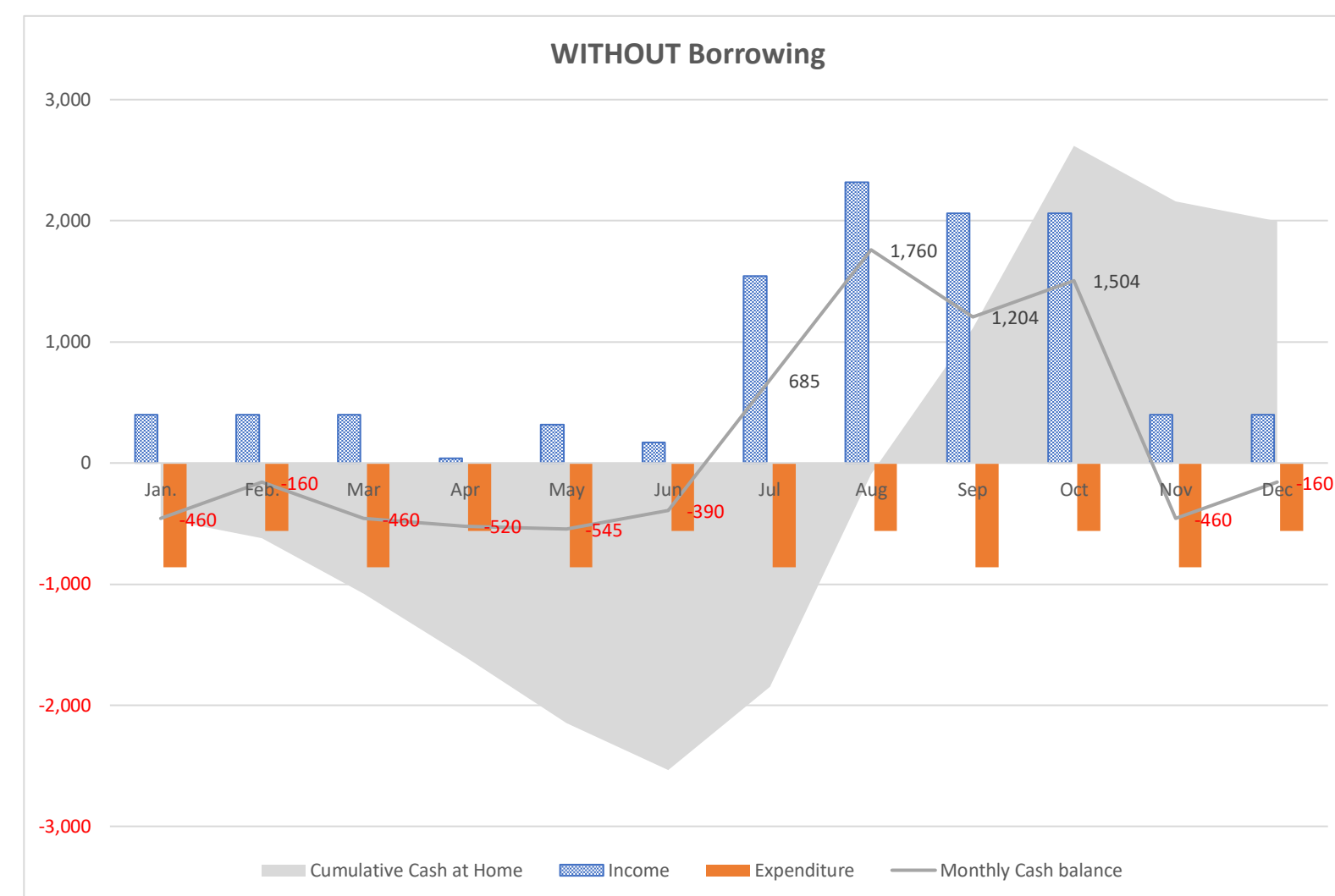
other items may include: purchase of animal, house repair, etc.

**WITHOUT LOAN (Borrowing)**

	Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Income		400	400	400	40	315	170	1,545	2,320	2,064	2,064	400	400
Expenditure		-860	-560	-860	-560	-860	-560	-860	-560	-860	-560	-860	-560
Monthly Cash balance		-460	-160	-460	-520	-545	-390	685	1,760	1,204	1,504	-460	-160
Cumulative Cash at Home		-460	-620	-1,080	-1,600	-2,145	-2,535	-1,850	-90	1,114	2,618	2,158	1,998

**WITH LOAN (Borrowing)**

	Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Income + Loan		400	400	400	40	315	170	1,545	2,320	2,064	2,064	400	400
Expenditure + Loan repayment		-860	-560	-860	-560	-860	-560	-860	-560	-860	-560	-860	-560
Monthly Cash balance		-460	-160	-460	-520	-545	-390	685	1,760	1,204	1,504	-460	-160
Cumulative Cash at Home		-460	-620	-1,080	-1,600	-2,145	-2,535	-1,850	-90	1,114	2,618	2,158	1,998



NAME of the INTERVIEWEE:

Categories	Sub Categoris	Questions	Answer
<b>1. Basic information on the household</b>			
	Family member	Who are the member of the family? (member and age)	Husband 28 yrs. Wife 27 yrs 3 children (8yrs, 6yrs, 3yrs)
		How many family members live in this household? (i.e. those who share the household budget)	2 children (10 yrs, 4 yrs)
		Is there any family member who live and work outside this home?	
		If so, do they contribute to the household budget (send money home)?	
	Tangible asset (excluding monetary/financial)	Own home (no rent) <input type="checkbox"/> . agricultural machinery <input type="checkbox"/> (if checked, specify what machinery _____)	Rent house Rain-fed
		Chicken (poultry or egg) <input type="checkbox"/> , aquaculture <input type="checkbox"/> , motor bicycle <input type="checkbox"/> , truck/vehicle <input type="checkbox"/> , cow <input type="checkbox"/> , piglet <input type="checkbox"/>	Goat (3)
		smart phone <input type="checkbox"/> (if checked, specify how many and who uses the phone _____)	Family-owned canoe (father owns)
		feature phone <input type="checkbox"/> (if checked, specify how many and who uses the phone _____)	2 feature phones
<b>2. Sources of income</b>			
		How do you make your living? What are the sources of your household income? Please tell us what they are and amount for each month.	
	Agriculture-related income	Regular income (associated with crop sales)	Husband: Farming, fishing Wife: sells pure water
		Other agriculture-related income (caual labourer, machinery rent, etc.)	
	Non-Agriculture income	Regular income (non-farming income)	
		Irregular income (any other income including receipt of remittance from family)	
		Who is the administrator of the household budget?	
		Does he/she record the income and expenditure?	
		IF YES, what is his/her motivation of bookkeeping?	
		IF NO, why not? How does he/she manage the budget?	
<b>3. Household expenditures</b>			
		Use [4.Household cash flow] sheet. Ask the "regular" and "irregular/unexpected" expenditures of the past 12 months.	



<p><b>4. Usage of health care service</b></p> <p>Usage status</p> <p>Cost and payment</p>	<p>When any one of your family becomes sick, where do you go to seek for help? Are you (your family) enrolled in the government health insurance system (NHIA)?</p> <p><i>IF YES (enrolled), what benefits do you find in the government insurance? List top three benefits.</i></p> <p>Do you find any inconvenience with the government insurance? If you do, what are they?</p> <p><i>IF NO (not enrolled), why are you not enrolled? (e.g. not qualified, don't know how to enrol, difficult to enrol (cost. etc.). not interested )</i></p> <p>Do you have regular health care-related expenditures (premium for health care service, medical services, medicine. etc.)?</p> <p>When you use health care service what cost(s) incur? (premium for the insurance, pay-as-you-go service fee, transportation, etc.)</p> <p>How do you pay for the fee? (e.g. using savings, borrow money, etc.)</p> <p>What payment method do you use? (cash, digital payment, etc.)</p>	
<p><b>5. Usage of financial services</b></p>	<p>Do you have a bank account? <i>(If owning more than 1 account, start with the main account)</i></p> <p><i>If not, will you be interested in using any?</i></p> <p>How often do you use the account?</p> <p>For what purposes do you use this account? (saving, remittance, etc.)</p> <p>Are you using any loan from the financial institution? (If YES, use "Calendar (Financial)")</p> <p>What type of financial products and services you use? (of which financial service provider(s)?)</p> <p>How do you assess their services?</p> <p>Are you borrowing money from your family, friends, someone from the village, or any other (informal) money lenders? (If YES, use "Calendar (Financial)")</p> <p>Do you (or other family members) use the phone for financial transactions? What do you think about conducting financial transactions over the phone?</p> <p>Do you have any insurance for your agriculture crop? If you do, who is the provider?</p> <p>Do you have life insurance? If you do, who is the provider?</p> <p>Do you have any health insurance? If you do, who is the provider?(e.g. insurance company, bundling product offered by mobile service provider. etc.)</p>	<p>No bank account. Husband uses mobile money. Use everyday. Money transfer. Network problem.</p> <p>Everyday Money transfer among friends.</p> <p>n.a.</p> <p>Yes from friends</p>
<p><b>6. Worries/concerns in life and aspirations for the future</b></p>	<p>Do you have any worries/concerns in life? What are they?</p> <p>What are your aspirations for the future?</p>	<p>Wife: Water selling business is not very profitable; not enough to support household budget. Husband: Lack of money for farming Wife: Open a kiosk to support the household economy. Husband: Construct a home, Commercial taxi business</p>

NAME of the INTERVIEWEE: \_\_\_\_\_

	QUESTION	ANSWER											
General question	Do you have your own agricultural land? If you do, what is the total size?	Father's land (no rent fee) 2.4 acres											
	Do you cultivate for your own consumption? If so, what are they?	YES / NO											
	What <b>cash crops</b> do you cultivate?	Tomato, Okra, Pepper (Pepper is the most important)											
	Which one is the most important one (cash crop)?	.											
	Do you <b>cultivate individually? Or as a group?</b>	.											
	Do you <b>sell the products individually? Or collectively?</b>	.											
	What do women and men do at each stage of value chain: production, post-harvest processing & storage, distribution & sales?	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">Men</th> <th style="text-align: center;">Women</th> </tr> </thead> <tbody> <tr> <td style="text-align: right;"><b>Production</b></td> <td></td> <td>Wife sells</td> </tr> <tr> <td style="text-align: right;"><b>Post harvest</b></td> <td></td> <td>Wife sells</td> </tr> <tr> <td style="text-align: right;"><b>Distribution and sales</b></td> <td></td> <td>Wife sells</td> </tr> </tbody> </table>		Men	Women	<b>Production</b>		Wife sells	<b>Post harvest</b>		Wife sells	<b>Distribution and sales</b>	
	Men	Women											
<b>Production</b>		Wife sells											
<b>Post harvest</b>		Wife sells											
<b>Distribution and sales</b>		Wife sells											

	QUESTION	ANSWER
Crop 1:	Crop name: _____	
Production period	What is the land size you use for this crop? (specific size, or portion allocated out of the total land size answered above)	.
Inputs / unit	Which months of the year do you produce this crop? Is this one production cycle? If not how many cycles are there during these months?	.
	How many times can you harvest in each production cycle?	.
	Which month(s) do you harvest?	.
	What are the inputs and their costs (materials and labor) required to produce? And at which point of the production cycle do you use them?	.
	From whom do you purchase seeds/seedling/fertilizers/pesticides?	.
Sales	To whom do you sell your product?	.
	Do you sell your product right after you harvest? If not, when do you sell?	.
	What was the sales price/unit most recently? Was it a good price?	.
	Who are the buyers of your products?	.
	Do your buyer come to your farm to purchase your products?	.
	Do you sell your products by yourself? If so, where?	.
	If you sell your products by yourself, what are the associated costs (transportation, rent-a-space, etc.) and how much are they?	.
	Is there any other costs associated with sales of your products?	.
Value chain challenges	What are your main challenges for you to <b>produce and sell this product?</b>	.
	(production related issues)	.
	(storage/procesing related issues)	.
	(delivery/sales related issues)	.

	QUESTION	ANSWER
Crop 2:	Crop name: _____ Tomatoes and Peppers _____	
Production period	What is the land size you use for this crop? (specific size, or portion allocated out of the total land size answered above)	.
Inputs / unit	Which months of the year do you produce this crop? Is this one production cycle? If not how many cycles are there during these months?	.
	How many times can you harvest in each production cycle?	.
	Which month(s) do you harvest?	.
	What are the inputs and their costs (materials and labor) required to produce? And at which point of the production cycle do you use them?	.
	From whom do you purchase seeds/seedling/fertilizers/pesticides?	.
Sales	To whom do you sell your product?	.
	Do you sell your product right after you harvest? If not, when do you sell?	.
	What was the sales price/unit most recently? Was it a good price?	.
	Who are the buyers of your products?	.
	Do your buyer come to your farm to purchase your products?	.
	Do you sell your products by yourself? If so, where?	.
	If you sell your products by yourself, what are the associated costs (transportation, rent-a-space, etc.) and how much are they?	.
	Is there any other costs associated with sales of your products?	.
Value chain challenges	What are your main challenges for you to <u>produce and sell this product</u> ? (production related issues)	.
	(storage/processing related issues)	.
	(delivery/sales related issues)	.
	(gender related issues)	.
	QUESTION	ANSWER
Crop 3:	Crop name: _____ Okra _____	
Production period	What is the land size you use for this crop? (specific size, or portion allocated out of the total land size answered above)	.
Inputs / unit	Which months of the year do you produce this crop? Is this one production cycle? If not how many cycles are there during these months?	.
	How many times can you harvest in each production cycle?	.
	Which month(s) do you harvest?	.
	What are the inputs and their costs (materials and labor) required to produce? And at which point of the production cycle do you use them?	.
	From whom do you purchase seeds/seedling/fertilizers/pesticides?	.
Sales	To whom do you sell your product?	.
	Do you sell your product right after you harvest? If not, when do you sell?	.
	What was the sales price/unit most recently? Was it a good price?	.
	Who are the buyers of your products?	.
	Do your buyer come to your farm to purchase your products?	.
	Do you sell your products by yourself? If so, where?	.
	If you sell your products by yourself, what are the associated costs (transportation, rent-a-space, etc.) and how much are they?	.
	Is there any other costs associated with sales of your products?	.
Value chain challenges	What are your main challenges for you to <u>produce and sell this product</u> ? (production related issues)	.
	(storage/processing related issues)	.
	(delivery/sales related issues)	.
	(gender related issues)	.

2.5 acres (total)		Tomato	0.5 acre													
		Okra	1 acre													
		Pepper	1 acre													
BASIC INFORMATION	CROP 1	(TOMATO)														
				Production Area:	0.5	Sales Unit:	basket (50 KG)									2019年
				Yield per Production Unit:	3 ~ 7 baskets	Unit Price:	(lowest): 10									
						(highest):	150									
						(average):		calculate with Good price								
DETAILED INFORMATION																
		Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
Expenses - PRODUCTION							Production		Harvest(sell for 2weeks, 3 times harvest a week)							
(隣人のデータ適用)	Machine Rent (land prep.)															
	Labor (land preparation)															
	Fertilizers															
	Pesticide															
	Labor Cost (weeding)															
	Labor Cost (fertilizer)															
	Liquid fertilizer															
	Labor (insecticide)															
	Machine Rent (Harvesting)															
	Labor (harvesting)															
	Insecticide															
	other (sacks)															
	other (seeds)															
	Labor (planting)															
Expenses - SALES	Transportation															
	Labour															
	Other cost (specify)															
<b>Total Expense</b>		-	-	-	-	-	-	-	-	-	-	-	-	-		
<b>Sales</b>																
<b>(REVENUE - EXPENSES)=Income</b>																
BASIC INFORMATION	CROP 2	(PEPPER)														
				Production Area:	1 acre	Sales Unit:	1 sac	4 sacs of fresh pepper yields 1 dried pepper								
				Yield per Production Unit:	1.5 sac(dried) (usually 6-7 sacs)	Unit Price:	(lowest):									
						(highest):										
						(average):	800									
DETAILED INFORMATION																
		Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
Expenses - PRODUCTION			Sales (good price)			Production	Production	Production	Harvest	Harvest	Harvest	Harvest				
	Rent (land)															
	Machine Rent (land prep.) Tractor					240										
	Labor (land preparation)															
	Fertilizers					255										
	Labor Cost (transplant)															
	Labor Cost (weeding)						240	240								
	Labor Cost (fertilizer)															
	Fertilizers (Chemical)															
	Labor (pesticide)															
	Machine Rent (Harvesting)															
	Labor (harvesting)															
	other (fertilizer)															
	other (labor and cost of sticking)															
	other (seeds)					400.0										
	Labor (planting)															
Expenses - SALES	Transportation															
	Labour															
	Other cost (specify)															
<b>Total Expense</b>		-		-	-	895	240	240	-	-	-	-	-	1,375		
<b>Sales</b>				1200										1,200		
<b>(REVENUE - EXPENSES)=Income</b>				1,200		(895)	(240)	(240)						(175)		

## BASIC INFORMATION

<b>CROP 3</b> _____ <b>(OKRA)</b>	Production Area: 1 acre	Sales Unit: basket	harvest every 3 days	2 baskets/harvest (20-22 kg)
	Yield per Production Unit: 40 baskets 40	Unit Price: (lowest): (highest): (average): 40-45 cedis		

## DETAILED INFORMATION

	Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
					Production	Harvest & Sales							
<b>Expenses - PRODUCTION</b>													
Fertilizer					1070								
Weedcide					160								
Pesticide					80								
Seeds					180								
Fungacide					40								
<b>Expenses - SALES</b>													
Transportation													
Labour													
Other cost (specify)													
<b>Total Expense</b>					1,530								<b>1,530</b>
<b>Sales</b>							1,020	1,020					<b>2,040</b>
<b>(REVENUE - EXPENSES)=Income</b>					(1,530)		1,020	1,020					<b>510</b>
<b>TOTAL AGRICULTURAL INCOME</b>			1,200		(1,530)	(895)	780	780					<b>335</b>

2.5 acres (total)	Tomato	0.5 acre														
	Okra	1 acre														
	Pepper	1 acre														
BASIC INFORMATION	<b>CROP 1 (TOMATO)</b>															
	Production Area: 0.5		Sales Unit: basket (50 KG)													
	Yield per Production Unit: 3 ~ 7 baskets		Unit Price: (lowest): 10		2019年											
			(highest): 150													
			(average):		calculate with Good price											
DETAILED INFORMATION																
			Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
								Production		Harvest(sell for 2weeks, 3 times harvest a week)						
<b>Expenses - PRODUCTION</b>																
(隣人のデータ適用)	Machine Rent (land prep.)							100	100							
	Labor (land preparation)															
	Fertilizers								113							
	Pesticide									43						
	Labor Cost (weeding)															
	Labor Cost (fertilizer)															
	Liquid fertilizer															
	Labor (insecticide)															
	Machine Rent (Harvesting)															
	Labor (harvesting)															
	Insecticide															
	other (sacks)															
	other (seeds)															
	Labor (planting)															
<b>Expenses - SALES</b>	Transportation										120	120				
	Labour															
	Other cost (specify)															
	<b>Total Expense</b>		-	-	-	-	-	-	213	143	120	120	-	-	-	595
	<b>Sales</b>										150	150				300
	<b>(REVENUE - EXPENSES)=Income</b>		-	-	-	-	-	-	(213)	(143)	30	30	-	-	-	(295)
BASIC INFORMATION	<b>CROP 2 (PEPPER)</b>															
	Production Area: 1 acre		Sales Unit: 1 sac			4 sacs of fresh pepper yields 1 dried pepper										
	Yield per Production Unit: 1.5 sac(dried) (usually 6-7 sacs)		Unit Price: (lowest):													
			(highest):													
			(average): 800													
DETAILED INFORMATION																
			Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
				Sales (good price)			Production	Production	Production	Harvest	Harvest	Harvest	Harvest			
<b>Expenses - PRODUCTION</b>																
	Rent (land)															
	Machine Rent (land prep.) Tractor						240									
	Labor (land preparation)															
	Fertilizers						255									
	Labor Cost (transplant)															
	Labor Cost (weeding)							240	240							
	Labor Cost (fertilizer)															
	Fertilizers (Chemical)															
	Labor (pesticide)															
	Machine Rent (Harvesting)															
	Labor (harvesting)															
	other (fertilizer)															
	other (labor and cost of sticking)															
	other (seeds)						400.0									
	Labor (planting)															
<b>Expenses - SALES</b>	Transportation															
	Labour															
	Other cost (specify)															
	<b>Total Expense</b>		-	-	-	-	895	240	240	-	-	-	-	-	-	1,375
	<b>Sales</b>				1,200											1,200
	<b>(REVENUE - EXPENSES)=Income</b>		-	-	1,200	-	-	(895)	(240)	(240)	-	-	-	-	-	(175)

## BASIC INFORMATION

<b>CROP 3</b> _____ <b>(OKRA)</b>	Production Area: 1 acre	Sales Unit: basket	harvest every 3 days	2 baskets/harvest (20-22 kg)
	Yield per Production Unit: 40 baskets	Unit Price: (lowest):		
	40	(highest):		
		(average): 40-45 cedis		

## DETAILED INFORMATION

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	
					Production	Harvest & Sales							
<b>Expenses - PRODUCTION</b>													
Fertilizer					1070								
Weedcide					160								
Pesticide					80								
Seeds					180								
Fungicide					40								
<b>Expenses - SALES</b>													
Transportation													
Labour													
Other cost (specify)													
<b>Total Expense</b>					1,530								1,530
<b>Sales</b>							1,020	1,020					2,040
<b>(REVENUE - EXPENSES)=Income</b>					(1,530)		1,020	1,020					510
<b>TOTAL AGRICULTURAL INCOME</b>			1,200		(1,530)	(895)	568	638	30	30			40

2.5 acres (total)

Tomato 0.5 acre  
Okra 1 acre  
Pepper 1 acre

BASIC INFORMATION

<b>CROP 1</b>	<b>(TOMATO)</b>
Production Area:	0.5
Yield per Production Unit:	3 ~ 7 baskets
Sales Unit:	basket (50 KG)
Unit Price:	(lowest): 10 (highest): 150 (average):
	2019年

calculate with Good price

DETAILED INFORMATION

		Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
<b>Expenses - PRODUCTION</b>							Production		Harvest(sell for 2weeks, 3 times harvest a week)						
(隣人のデータ適用)	Machine Rent (land prep.)						100	100							
	Labor (land preparation)														
	Fertilizers							113							
	Pesticide								43						
	Labor Cost (weeding)														
	Labor Cost (fertilizer)														
	Liquid fertilizer														
	Labor (insecticide)														
	Machine Rent (Harvesting)														
	Labor (harvesting)														
	Insecticide														
	other (sacks)														
	other (seeds)														
	Labor (planting)														
<b>Expenses - SALES</b>	Transportation									120	120				
	Labour														
	Other cost (specify)														
<b>Total Expense</b>			-	-	-	-		213	143	120	120	-	-	-	595
<b>Sales</b>										2,250	2,250				4,500
<b>(REVENUE - EXPENSES)=Income</b>			-	-	-	-		(213)	(143)	2,130	2,130	-	-	-	3,905

BASIC INFORMATION

<b>CROP 2</b>	<b>(PEPPER)</b>
Production Area:	1 acre
Yield per Production Unit:	1.5 sac(dried) (usually 6-7 sacs)
Sales Unit:	1 sac
Unit Price:	(lowest): (highest): (average): 800
	4 sacs of fresh pepper yields 1 dried pepper

DETAILED INFORMATION

		Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
<b>Expenses - PRODUCTION</b>			Sales (good price)			Production	Production	Production	Harvest	Harvest	Harvest	Harvest		
	Rent (land)													
	Machine Rent (land prep.) Tractor					240								
	Labor (land preparation)													
	Fertilizers					255								
	Labor Cost (transplant)													
	Labor Cost (weeding)						240	240						
	Labor Cost (fertilizer)													
	Fertilizers (Chemical)													
	Labor (pesticide)													
	Machine Rent (Harvesting)													
	Labor (harvesting)													
	other (fertilizer)													
	other (labor and cost of sticking)													
	other (seeds)						400.0							
	Labor (planting)													
<b>Expenses - SALES</b>	Transportation													
	Labour													
	Other cost (specify)													
<b>Total Expense</b>			-	-	-	895	240	240	-	-	-	-	-	1,375
<b>Sales</b>				1,200										1,200
<b>(REVENUE - EXPENSES)=Income</b>			-	1,200	-	(895)	(240)	(240)	-	-	-	-	-	(175)



## BASIC INFORMATION

CROP 3 \_\_\_\_\_ (OKRA)

Production Area: 1 acre  
Yield per Production Unit: 40 baskets

40

Sales Unit: basket

Unit Price: (lowest):

(highest):

(average): 40-45 cedis

harvest every 3 days

2 baskets/harvest (20-22 kg)

## DETAILED INFORMATION

		Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
						Production	Harvest & Sales							
Expenses - PRODUCTION	Fertilizer					1070								
	Weedcide					160								
	Pesticide					80								
	Seeds					180								
	Fungacide					40								
Expenses - SALES	Transportation													
	Labour													
	Other cost (specify)													
Total Expense					1,530								1,530	
Sales							1,020	1,020					2,040	
<b>(REVENUE - EXPENSES)=Income</b>						(1,530)		1,020	1,020					510
<b>TOTAL AGRICULTURAL INCOME</b>				1,200		(1,530)	(895)	568	638	2,130	2,130			4,240

The objective of this sheet is to understand the in-and-out of CASH on the MONTHLY basis.

NAME of the INTERVIEWEE: \_\_\_\_\_

		MONTH	Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	合計
Income	Husband: Farm income		0	1,200	0	-1,530	-895	780	780	0	0	0	0	0	335
	Husband: Fishing income		960	960									960	960	4,800
	Wife: Water selling		16	16	16	16	16	16	16	16	16	16	16	16	192
	Husband: Construction		23	23	23	23	23	23	23	23	23	23	23	23	280
															0
															0
TOTAL HOUSEHOLD INCOME			999	2,199	39	-1,491	-856	819	819	39	39	999	999	999	5,607
Income generated with loan	Clothing and shoes		25	25	25	25	25	25	25	25	25	25	25	25	300
	Household items		167	167	167	167	167	167	167	167	167	167	167	167	2,000
	Soap														0
	Education (uniform, books, stationary)		40			40						450			530
	Home Rent		30	30	30	30	30	30	30	30	30	30	30	30	360
	Cooking fuel (cooking)		0	0	0	0	0	0	0	0	0	0	0	0	0
Expenditures	Electricity		15	15	15	15	15	15	15	15	15	15	15	15	180
	Transportation (to go to the farm)														0
	Communication (mobile phone)		40	40	40	40	40	40	40	40	40	40	40	40	480
	Food		600	600	600	600	600	600	600	600	600	600	600	600	7,200
	Health														0
	Social events (funeral, wedding, naming ceremony, etc.)		21	21	21	21	21	21	21	21	21	21	21	21	250
	Church contribution		80	80	80	80	80	80	80	80	80	80	80	80	960
	TOTAL (Monthly)		1,018	978	978	1,018	978	978	978	978	1,428	978	978	978	12,260
	TOTAL (Yearly)														12,260
	Unexpected or irregular expenses	Health		33	33	33	33	33	33	33	33	33	33	33	33
TOTAL (Monthly)			33	33	33	33	33	33	33	33	33	33	33	33	33
TOTAL (Yearly)															400
<b>TOTAL Expenditure</b>			<b>-1,051</b>	<b>-1,011</b>	<b>-1,011</b>	<b>-1,051</b>	<b>-1,011</b>	<b>-1,011</b>	<b>-1,011</b>	<b>-1,011</b>	<b>-1,461</b>	<b>-1,011</b>	<b>-1,011</b>	<b>-1,011</b>	<b>-12,660</b>
LOAN Usage	Loans from family and friends						1,000								
	TOTAL Borrowing		0	0	0	0	1,000	0					0	0	0
	Repayment (無利子)														
	TOTAL Repayment		0	0	0	0	0	0	0	0	0	0	0	0	0

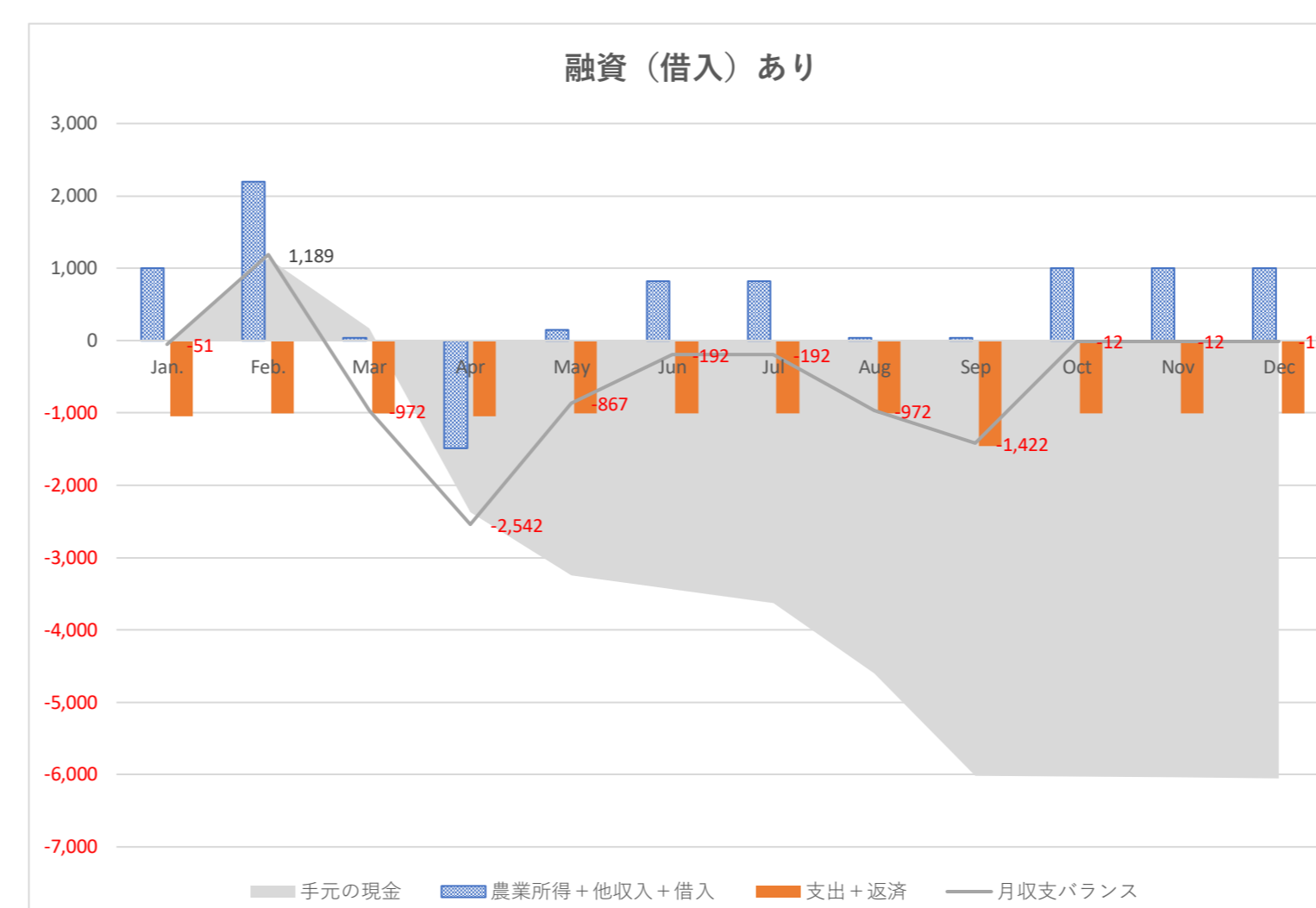
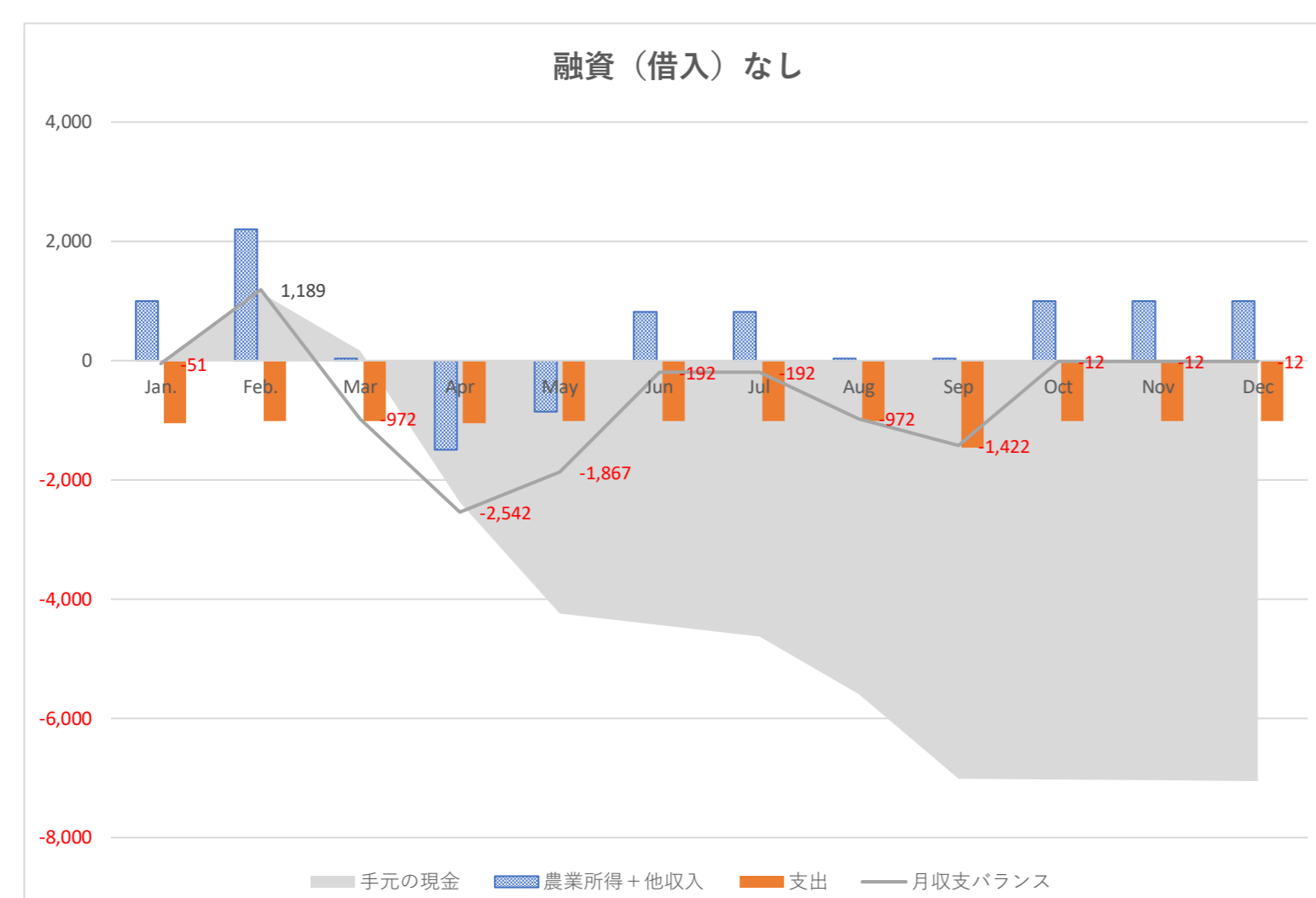
返済中とのことであったが、金額が不確かなため、この計算表では暫定的に返済し始めているシナリオに設定している。

WITHOUT LOAN (Borrowing)

	Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
農業所得 + 他収入		999	2,199	39	-1,491	-856	819	819	39	39	999	999	999	5,607
支出		-1,051	-1,011	-1,011	-1,051	-1,011	-1,011	-1,011	-1,011	-1,461	-1,011	-1,011	-1,011	-12,660
月収支バランス		-51	1,189	-972	-2,542	-1,867	-192	-192	-972	-1,422	-12	-12	-12	
手元の現金		-51	1,137	166	-2,376	-4,243	-4,434	-4,626	-5,597	-7,019	-7,030	-7,042	-7,053	

WITH LOAN (Borrowing)

	Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
農業所得 + 他収入 + 借入		999	2,199	39	-1,491	144	819	819	39	39	999	999	999	6,607
支出 + 返済		-1,051	-1,011	-1,011	-1,051	-1,011	-1,011	-1,011	-1,011	-1,461	-1,011	-1,011	-1,011	-12,660
月収支バランス		-51	1,189	-972	-2,542	-867	-192	-192	-972	-1,422	-12	-12	-12	
手元の現金		-51	1,137	166	-2,376	-3,243	-3,434	-3,626	-4,597	-6,019	-6,030	-6,042	-6,053	



The objective of this sheet is to understand the in-and-out of CASH on the MONTHLY basis.

NAME of the INTERVIEWEE: \_\_\_\_\_

MONTH	Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	合計		
Income	Husband: Farm income	0	1,200	0	-1,530	-895	568	638	30	30	0	0	0	40	
	Husband: Fishing income	960	960								960	960	960	4,800	
	Wife: Water selling	16	16	16	16	16	16	16	16	16	16	16	16	192	
	Husband: Construction	23	23	23	23	23	23	23	23	23	23	23	23	280	
														0	
													0		
TOTAL HOUSEHOLD INCOME		999	2,199	39	-1,491	-856	607	677	69	69	999	999	999	5,312	
Income generated with loan	Clothing and shoes	25	25	25	25	25	25	25	25	25	25	25	25	300	
	Household items	167	167	167	167	167	167	167	167	167	167	167	167	2,000	
	Soap													0	
	Education (uniform, books, stationary)	40				40					450			530	
	Home Rent	30	30	30	30	30	30	30	30	30	30	30	30	360	
	Cooking fuel (cooking)	0	0	0	0	0	0	0	0	0	0	0	0	0	
Expenditures	Electricity	15	15	15	15	15	15	15	15	15	15	15	15	180	
	Transportation (to go to the farm)													0	
	Communication (mobile phone)	40	40	40	40	40	40	40	40	40	40	40	40	480	
	Food	600	600	600	600	600	600	600	600	600	600	600	600	7,200	
	Health													0	
	Social events (funeral, wedding, naming ceremony, etc.)	21	21	21	21	21	21	21	21	21	21	21	21	250	
	Church contribution	80	80	80	80	80	80	80	80	80	80	80	80	960	
	TOTAL (Monthly)	1,018	978	978	1,018	978	978	978	978	978	1,428	978	978	978	12,260
	TOTAL (Yearly)														12,260
Unexpected or irregular expenses	Health	33	33	33	33	33	33	33	33	33	33	33	33	33	
	TOTAL (Monthly)	33	33	33	33	33	33	33	33	33	33	33	33	33	
	TOTAL (Yearly)													400	
TOTAL Expenditure		-1,051	-1,011	-1,011	-1,051	-1,011	-1,011	-1,011	-1,011	-1,461	-1,011	-1,011	-1,011	-12,660	
LOAN Usage	Loans from family and friends					1,000									
	TOTAL Borrowing	0	0	0	0	1,000	0				0	0	0		
	Repayment (無利子)														
	TOTAL Repayment	0	0	0	0	0	0	0	0	0	0	0	0	0	

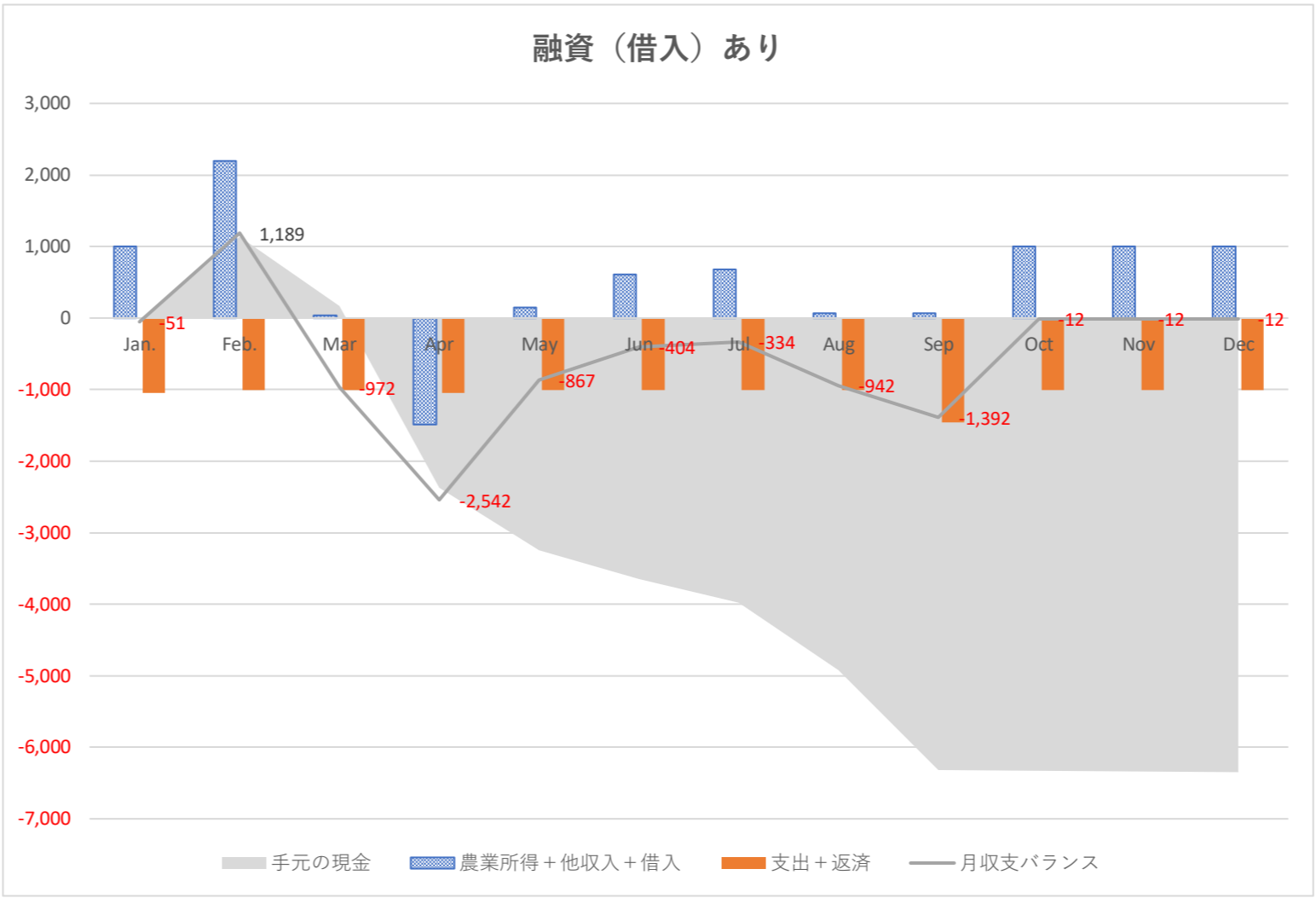
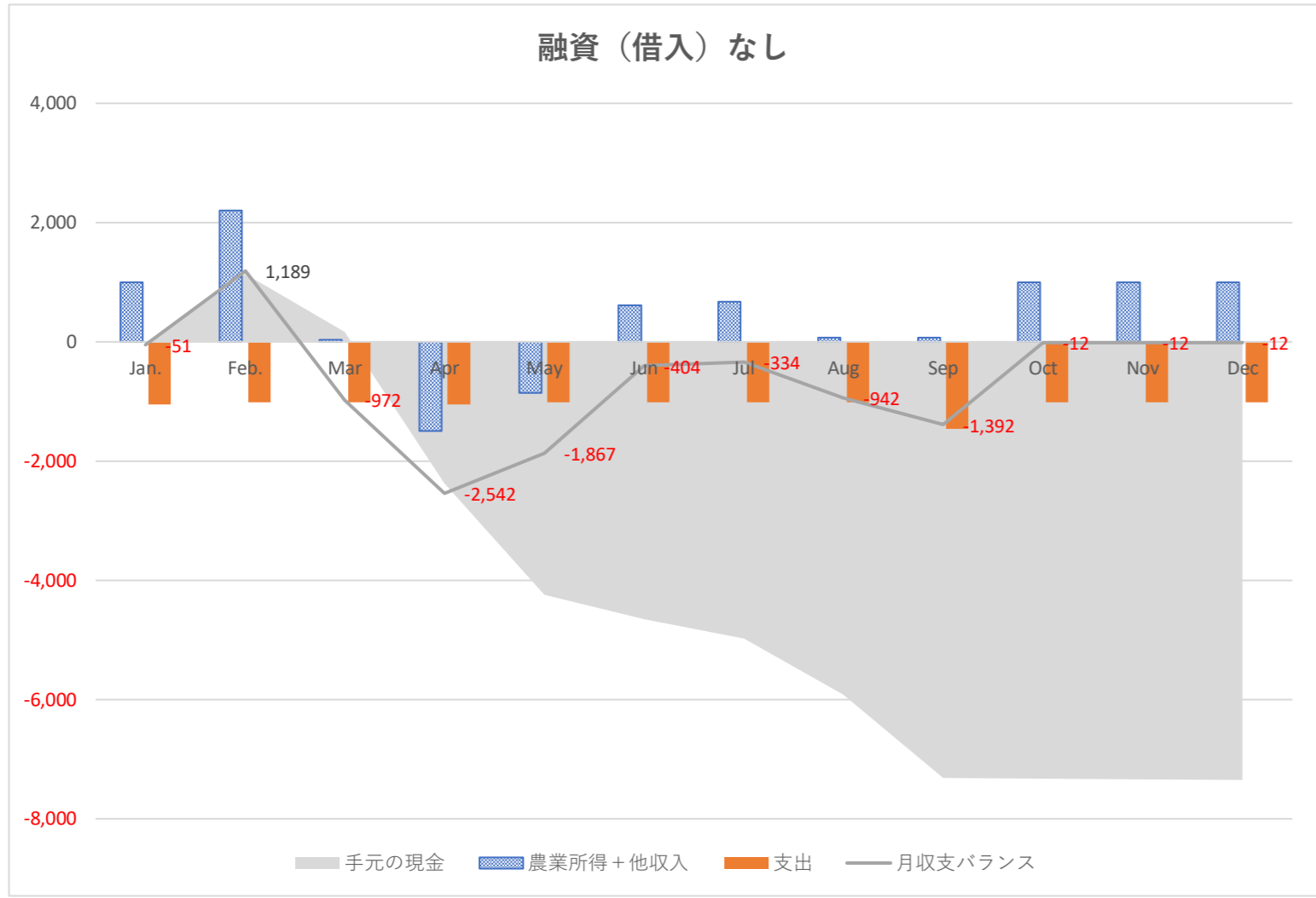
返済中のことであったが、金額が不確かなため、この計算表では暫定的に返済し始めていないシナリオに設定している。

WITHOUT LOAN (Borrowing)

	Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
農業所得 + 他収入		999	2,199	39	-1,491	-856	607	677	69	69	999	999	999	5,312
支出		-1,051	-1,011	-1,011	-1,051	-1,011	-1,011	-1,011	-1,011	-1,461	-1,011	-1,011	-1,011	-12,660
月収支バランス		-51	1,189	-972	-2,542	-1,867	-404	-334	-942	-1,392	-12	-12	-12	
手元の現金		-51	1,137	166	-2,376	-4,243	-4,647	-4,981	-5,922	-7,314	-7,325	-7,337	-7,348	

WITH LOAN (Borrowing)

	Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
農業所得 + 他収入 + 借入		999	2,199	39	-1,491	144	607	677	69	69	999	999	999	6,312
支出 + 返済		-1,051	-1,011	-1,011	-1,051	-1,011	-1,011	-1,011	-1,011	-1,461	-1,011	-1,011	-1,011	-12,660
月収支バランス		-51	1,189	-972	-2,542	-867	-404	-334	-942	-1,392	-12	-12	-12	
手元の現金		-51	1,137	166	-2,376	-3,243	-3,647	-3,981	-4,922	-6,314	-6,325	-6,337	-6,348	



The objective of this sheet is to understand the in-and-out of CASH on the MONTHLY basis.

NAME of the INTERVIEWEE: \_\_\_\_\_

		MONTH	Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	合計
Income	Husband: Farm income		0	1,200	0	-1,530	-895	568	638	2,130	2,130	0	0	0	4,240
	Husband: Fishing income		960	960								960	960	960	4,800
	Wife: Water selling		16	16	16	16	16	16	16	16	16	16	16	16	192
	Husband: Construction		23	23	23	23	23	23	23	23	23	23	23	23	280
															0
		TOTAL HOUSEHOLD INCOME	999	2,199	39	-1,491	-856	607	677	2,169	2,169	999	999	999	9,512
Income generated with loan	Clothing and shoes		25	25	25	25	25	25	25	25	25	25	25	25	300
	Household items		167	167	167	167	167	167	167	167	167	167	167	167	116
	Soap														
	Education (uniform, books, stationary)		40			40					450				530
	Home Rent		30	30	30	30	30	30	30	30	30	30	30	30	360
Expenditures	Cooking fuel (cooking)		0	0	0	0	0	0	0	0	0	0	0	0	0
	Electricity		15	15	15	15	15	15	15	15	15	15	15	15	180
	Transportation (to go to the farm)														0
	Communication (mobile phone)		40	40	40	40	40	40	40	40	40	40	40	40	480
	Food		600	600	600	600	600	600	600	600	600	600	600	600	7,200
	Health														0
	Social events (funeral, wedding, naming ceremony, etc.)		21	21	21	21	21	21	21	21	21	21	21	21	250
Church contribution		80	80	80	80	80	80	80	80	80	80	80	80	960	
		TOTAL (Monthly)	1,018	978	978	1,018	978	978	978	978	1,428	978	978	978	12,260
		TOTAL (Yearly)													12,260
Unexpected or irregular expenses	Health		33	33	33	33	33	33	33	33	33	33	33	33	33
	TOTAL (Monthly)		33	33	33	33	33	33	33	33	33	33	33	33	33
	TOTAL (Yearly)														400
<b>TOTAL Expenditure</b>			-1,051	-1,011	-1,011	-1,051	-1,011	-1,011	-1,011	-1,011	-1,461	-1,011	-1,011	-1,011	-12,660
LOAN Usage	Loans from family and friends					1,000									
	TOTAL Borrowing		0	0	0	0	1,000	0	0	0	0	0	0	0	0
	Repayment (無利子)														
TOTAL Repayment			0	0	0	0	0	0	0	0	0	0	0	0	0

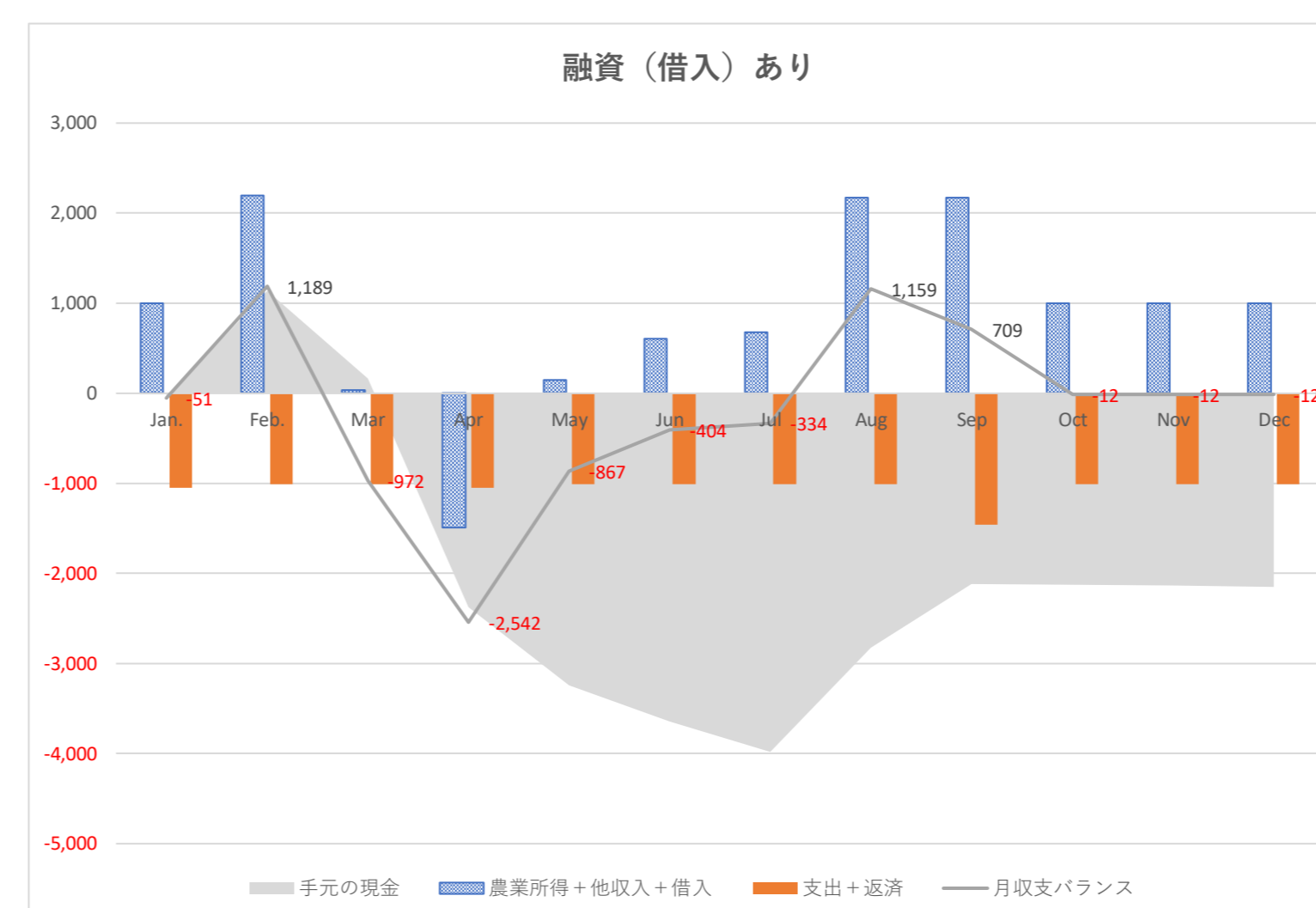
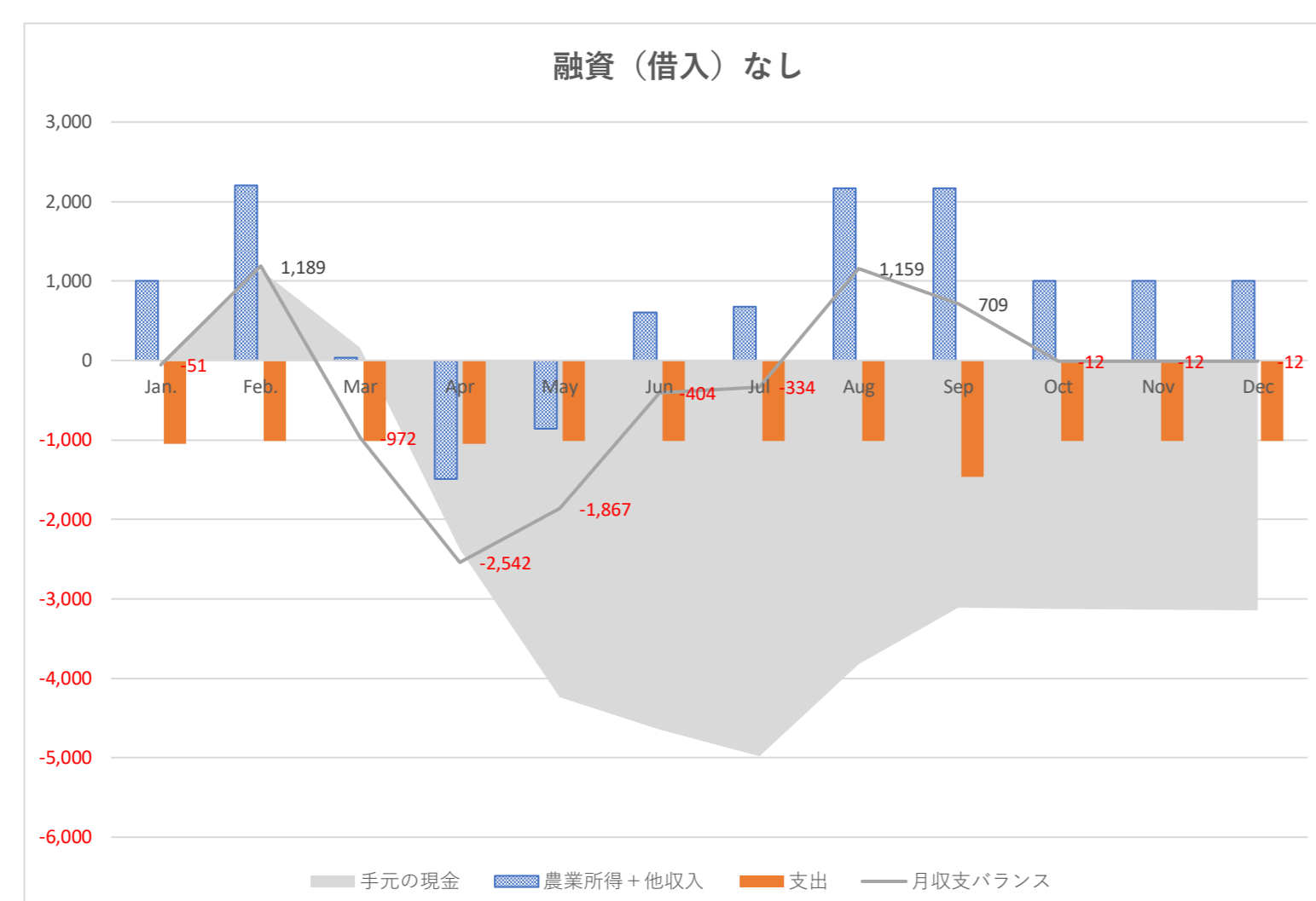
返済中とのことであったが、金額が不確かなため、この計算表では暫定的に返済し始めていないシナリオに設定している。

## WITHOUT LOAN (Borrowing)

	Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
農業所得 + 他収入		999	2,199	39	-1,491	-856	607	677	2,169	2,169	999	999	999	9,512
支出		-1,051	-1,011	-1,011	-1,051	-1,011	-1,011	-1,011	-1,011	-1,461	-1,011	-1,011	-1,011	-12,660
月収支バランス		-51	1,189	-972	-2,542	-1,867	-404	-334	1,159	709	-12	-12	-12	
手元の現金		-51	1,137	166	-2,376	-4,243	-4,647	-4,981	-3,822	-3,114	-3,125	-3,137	-3,148	

## WITH LOAN (Borrowing)

	Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
農業所得 + 他収入 + 借入		999	2,199	39	-1,491	144	607	677	2,169	2,169	999	999	999	10,512
支出 + 返済		-1,051	-1,011	-1,011	-1,051	-1,011	-1,011	-1,011	-1,011	-1,461	-1,011	-1,011	-1,011	-12,660
月収支バランス		-51	1,189	-972	-2,542	-867	-404	-334	1,159	709	-12	-12	-12	
手元の現金		-51	1,137	166	-2,376	-3,243	-3,647	-3,981	-2,822	-2,114	-2,125	-2,137	-2,148	



NAME of the INTERVIEWEE: \_\_\_\_\_ Rufai Baba

Categories	Sub Categoris	Questions	Answer
<b>1. Basic information on the household</b>			
	Family member	Who are the member of the family? (member and age)	1 husband (35 years old) 1 wife (does not know her age) with 2 children (6 years and 3 years), wife is 8 months pregnant 2 other children with ex-wife (divorced) but she lives in another house in the community Mother of head of household lives in another house in the community (he takes care of her by providing her with money - about 5 cedis a day)
		How many family members live in this household? (i.e. those who share the household budget)	• 4 family members
		Is there any family member who live and work outside this home? If so, do they contribute to the household budget (send money home)?	• No
	Tangible asset (excluding monetary/financial)	Own home (no rent) <input type="checkbox"/> , agricultural machinery <input type="checkbox"/> (if checked, specify what machinery _____) Chicken (poultry or egg) <input type="checkbox"/> , aquaculture <input type="checkbox"/> , motor bicycle <input type="checkbox"/> , truck/vehicle <input type="checkbox"/> , cow <input type="checkbox"/> , piglet <input type="checkbox"/> smart phone <input type="checkbox"/> (if checked, specify how many and who uses the phone _____) feature phone <input type="checkbox"/> (if checked, specify how many and who uses the phone _____)	• Owns home, there is a motor king (but he doesn't own it, uses it to work for someone - to sell satchet water), has a bicycle, has a feature phone - uses phone to arrange sales for satchet water also to listen to the radio and make calls, wife also has a feature phone, the family also has 2 chickens with chicks

Other

Head of household has leadership capabilities - He has been the head of an active farmer group for 20 years with 26 members, he says the qualities that make him suitable for the head of group even though he is young are that i) he has time for people ii) he is patient iii) he is able to convince people to follow him

<b>2. Sources of income</b>			
		How do you make your living? What are the sources of your household income? Please tell us what they are and amount for each month.	
	Agriculture-related income	Regular income (associated with crop sales)	Grows maize and groundnuts (peanuts)
		Other agriculture-related income (caual labourer, machinery rent, etc.)	None
	Non-Agriculture income		
		Regular income (non-farming income)	Sells satchets of water and makes about GHC 900 a month. Depends on the season, when the weather is hot can sell 200-300 satchets - February, March, April, and 100-150 when weather is cool (sells an average of 150 a day). Each satchet is GHC 2.50, if he sells a satchet, he makes GHC 0.20, and his boss makes GHC 2.30
		Irregular income (any other income including receipt of remittance from family)	None
		Who is the administrator of the household budget?	• He (farmer) decides how money should be used
		Does he/she record the income and expenditure?	• NO
		IF YES, what is his/her motivation of bookkeeping?	•
		IF NO, why not? How does he/she manage the budget?	• Ad-hoc depends on how much money is in the house at the moment

<b>3. Household expenditures</b>	Use [4. Household cash flow] sheet. Ask the "regular" and "irregular/unexpected" expenditures of the past 12 months.
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<p><b>4. Usage of health care service</b></p> <p>Usage status</p> <p>When any one of your family becomes sick, where do you go to seek for help?</p> <p>Are you (your family) enrolled in the government health insurance system (NHIS)?</p> <p><i>IF YES (enrolled), what benefits do you find in the government insurance? List top three benefits.</i></p> <p>Do you find any inconvenience with the government insurance? If you do, what are they?</p> <p><i>IF NO (not enrolled), why are you not enrolled? (e.g. not qualified, don't know how to enrol, difficult to enrol (cost, etc.). not interested )</i></p> <p>Cost and payment</p> <p>Do you have regular health care-related expenditures (premium for health care service, medical services, medicine, etc.)?</p> <p>When you use health care service what cost(s) incur? (premium for the insurance, pay-as-you-go service fee, transportation, etc.)</p> <p>How do you pay for the fee? (e.g. using savings, borrow money, etc.)</p> <p>What payment method do you use? (cash, digital payment, etc.)</p>	<p>• Savelugu Hospital</p> <p>• Yes (free because she's pregnant, if she's not pregnant and she is to renew it is GHC 25 for the year, for the children it is GHC 5 for a year, its is GHC 25 for the year), also does for the mother and the other 2 children</p> <p>• They pay for cost of consultations, service is fine, cost is acceptable</p> <p>• None, has no problem with level of care at Savelugu Hospital,</p> <p>.</p> <p>Wife currently goes every week because she is 8 months pregnant, goes to main road and boards a vehicle</p> <p>Incurs cost of of transportation and she has to pay for scans, blood tests etc - these extras usually costs about 10 cedis, but health insurance covers the cost of consultation</p> <p>Cash</p> <p>Cash</p>	
<p><b>5. Usage of financial services</b></p> <p>Do you have a bank account? <i>(If owning more than 1 account, start with the main account)</i></p> <p>How often do you use the account?</p> <p>For what purposes do you use this account? (saving, remittance, etc.)</p> <p>Are you using any loan from the financial institution? (If YES, use "Calendar (Financial)")</p> <p>What type of financial products and services you use? (of which financial service provider(s)?)</p> <p>How do you assess their services?</p> <p>Are you borrowing money from your family, friends, someone from the village, or any other (informal) money lenders? (If YES, use "Calendar (Financial)")</p> <p>Do you (or other family members) use the phone for financial transactions? What do you think about conducting financial transactions over the phone?</p> <p>Do you have any insurance for your agriculture crop? If you do, who is the provider?</p> <p>Do you have life insurance? If you do, who is the provider?</p> <p>Do you have any health insurance? If you do, who is the provider?(e.g. insurance company, bundling product offered by mobile service provider, etc.)</p>	<p>Has a bank account with ADB (Agricultural Development Bank)</p> <p>Once a month deposits the money in his account</p> <p>Savings</p> <p>No</p> <p>Savings account</p> <p>Thinks the interest rate on his bank account is small, he gets GHC2.50 a month (has about GHC 1500 in the account), he's not happy with the bank and would like to change because the interest is too small</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>NHIS (governement health insurance)</p>	
<p><b>6. Worries/concerns in life and aspirations for the future</b></p> <p>Do you have any worries/concerns in life? What are they?</p> <p>What are your aspirations for the future?</p>	<p>N/A</p> <p>After completing his house, he will buy another plot of land, build another house and rent it out so that he can spend the money from the tenant as his pension</p>	

NAME of the INTERVIEWEE: \_\_\_\_Rufai Baba\_\_\_\_\_

QUESTION		ANSWER	
General question	Do you have your own agricultural land? If you do, what is the total size?	YES / NO	No - the land belong to the family
		Size:	30 acres of family land- he farms 3 acres individually (family land) this is separate from the group farms, the group farm does rice (10 acres), group farm of maize (3-4 acres), now that the group has bought a tractor, the group would like to buy a piece of land for the group
	Do you cultivate for your own consumption? If so, what are they?	YES / NO	Yes
		(Crops)	Yes - small patch of land in his own house when it's the rainy season - okra, pepper and alfalfa (this is not the family land) and out of his family land of 3 acres he sells some of the maize and keeps some for his family (for example this year he made 6 bags of maize, sold 4 bags and kept 2 bags), for peanuts he sells half and leaves half for his household
	What <b>cash crops</b> do you cultivate?	.	2 acres for maize, 1 acre for peanuts
	Which one is the most important one (cash crop)?	.	Peanuts
	Do you <b>cultivate individually? Or as a group?</b>	.	Both - peanuts, and maize (individually) and for group does maize and rice
	Do you <b>sell the products individually? Or collectively?</b>	.	Both
	What do women and men do at each stage of value chain: production, post-harvest processing & storage, distribution & sales?		
		<b>Men</b>	<b>Women</b>
	<b>Production</b>	Land preparation, planting, weeding, application of pesticides and fertilizer, harvesting	Planting, harvesting
	<b>Post harvest</b>		Shelling, winnowing, bagging
	<b>Distribution and sales</b>	Loading, transportation, sales	Sales
Group dynamics			They finance inputs purchases from group contributions (each member pays GHC 0.50 for Tuesday meeting and GHC 0.50 for Friday meeting), also members pay penalties if they miss meetings (GHC 1), and for missing farm activities. If they are short of money, they borrow from group members - then in their sittings once they have enough to pay the person back they do, don't wait for harvest time.

QUESTION		ANSWER	
Crop 1:	Crop name: ____Maize_____		
Production period	What is the land size you use for this crop? (specific size, or portion allocated out of the total land size answered above)	.	2 acres
Inputs / unit	Which months of the year do you produce this crop? Is this one production cycle? If not how many cycles are there during these months?	.	June-October, One production cycle
	How many times can you harvest in each production cycle?	.	Once
	Which month(s) do you harvest?	.	November
	What are the inputs and their costs (materials and labor) required to produce? And at which point of the production cycle do you use them?	.	GHC 60 pesticide, GHC 46 on seeds, GHC 96 on sacks (see production calendar)
	From whom do you purchase seeds/seedling/fertilizers/pesticides?	.	The farmer group buys in bulk and sells to individual members of the group
Sales	To whom do you sell your product?	.	To the market
	Do you sell your product right after you harvest? If not, when do you sell?	.	No, keeps in his house
	What was the sales price/unit most recently? Was it a good price?	.	GHC 105 per bag (in April), yes price was good
	Who are the buyers of your products?	.	Anyone on the open market
	Do your buyer come to your farm to purchase your products?	.	No
	Do you sell your products by yourself? If so, where?	.	Tamale and Savelugu markets
	If you sell your products by yourself, what are the associated costs (transportation, rent-a-space, etc.) and how much are they?	.	No costs, stores in his house, sometimes leaves some at the farmer group warehouse to be sold with the group
	Is there any other costs associated with sales of your products?	.	N/A
Value chain challenges	What are your main challenges for you to <b>produce and sell this product?</b>	.	N/A
	(production related issues)	.	
	(storage/processing related issues)	.	
	(delivery/sales related issues)	.	
	(gender related issues)	.	

	QUESTION	ANSWER
Crop 2:	Crop name: _____Rice (group farm)_____	
Production period	What is the land size you use for this crop? (specific size, or portion allocated out of the total land size answered above)	10 acres group farm
Inputs / unit	Which months of the year do you produce this crop? Is this one production cycle? If not how many cycles are there during these months?	June-October, on production cycle
	How many times can you harvest in each production cycle?	Once
	Which month(s) do you harvest?	November
	What are the inputs and their costs (materials and labor) required to produce? And at which point of the production cycle do you use them?	See production calender
	From whom do you purchase seeds/seedling/fertilizers/pesticides?	Farming group buys in bulk
Sales	To whom do you sell your product?	Sell to Tamale market and Savelugu market
	Do you sell your product right after you harvest? If not, when do you sell?	(To be confirmed)
	What was the sales price/unit most recently? Was it a good price?	GHC 90 per bag (flooding destroyed most of their crop) got only 6 b
	Who are the buyers of your products?	Sold on open market
	Do your buyer come to your farm to purchase your products?	If quantities are a lot the buyers will come
	Do you sell your products by yourself? If so, where?	Farmer group arranges sales for the group
	If you sell your products by yourself, what are the associated costs (transportation, rent-a-space, etc.) and how much are they?	Group has its own warehouse
	Is there any other costs associated with sales of your products?	N/A
Value chain challenges	What are your main challenges for you to <u>produce and sell this product</u> ?	
	(production related issues)	Rice did not do well this year only 6 bags for all 10 acres because of flooding
	(storage/procesing related issues)	
	(delivery/sales related issues)	
	(gender related issues)	

	QUESTION	ANSWER
Crop 3:	Crop name: _____Peanuts_____	
Production period	What is the land size you use for this crop? (specific size, or portion allocated out of the total land size answered above)	1 acre
Inputs / unit	Which months of the year do you produce this crop? Is this one production cycle? If not how many cycles are there during these months?	May-August, one production cycle
	How many times can you harvest in each production cycle?	Once
	Which month(s) do you harvest?	September
	What are the inputs and their costs (materials and labor) required to produce? And at which point of the production cycle do you use them?	See production calender
	From whom do you purchase seeds/seedling/fertilizers/pesticides?	To be confirmed
Sales	To whom do you sell your product?	Open market
	Do you sell your product right after you harvest? If not, when do you sell?	Yes
	What was the sales price/unit most recently? Was it a good price?	GHC 150
	Who are the buyers of your products?	Open market
	Do your buyer come to your farm to purchase your products?	No
	Do you sell your products by yourself? If so, where?	Tamale and Savelugu market
	If you sell your products by yourself, what are the associated costs (transportation, rent-a-space, etc.) and how much are they?	Has own warehouse
	Is there any other costs associated with sales of your products?	N/A
Value chain challenges	What are your main challenges for you to <u>produce and sell this product</u> ?	
	(production related issues)	Have to harvest immediately otherwise any rainfall will ruin your crop
	(storage/procesing related issues)	
	(delivery/sales related issues)	Lack of consistency in size of peanut, pricing depends on how well-filled the peanut is
	(gender related issues)	

The objective of this sheet is to understand in which month the production costs are incurred and sales are made.

EXAMPLE

EXPENSES and REVENUE should be indicated, using the same unit of

<PREMISES>  
 Production area: 8 acres  
 Yield per Production Unit: 70 baskets/acre  
 Sales Unit: "basket" (1 basket =20.9kg)  
 Price per unit: (lowest) \_\_\_\_\_, (highest) 13,000/basket, (average) \_\_\_\_\_

	Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>RICE (Rainy Season)</b>				Production						Harvesting		
<b>Expenses - PRODUCTION</b>	Sales all year around											
Machine Rent				44,000								
Labor (land preparation)				10,000								
Seeds				22,000								
Fertilizers (Natural)				3,000								
Labor Cost (transplant)					60,000							
Labor Cost (weeding)								40,000				
Labor Cost (fertilizer)								15,000				
Fertilizers (Chemical)								120,000				
Labor (pesticide)								50,000				
Machine Rent (Harvesting)												
<b>Expenses - SALES</b>	Transport & Labor											
<b>Total Expense (Monthly)</b>				54,000.0	85,000.0			225,000		32,500	32,500	
<b>Total Expense (Annual)</b>												429,000
<b>Sales</b>									910,000			
<b>Profit (Sales - Expense)</b>									481,000			

MODIFY as necessary. Consider the production - sales activities and associated inputs/costs.

Indicate the sales value that the producer receives in the month(s) when the products are sold to the buyer (transaction-based). In this example, all the

Maiz, Rice, Peanut (ground nuts), Yam.  
 During rainy saeson grow alfalfa, okra

Create production calendar for each main crop

**BASIC INFORMATION**

**CROP 1** Peanut

Production Area: 1 acres      Sales Unit: "maxi bag" (1 maxi bag is 30 kg)  
 Yield per Production Unit: 6 bags (unshelled)/acre      Unit Price: (lowest): 120 cedis/bag  
 (highest): 150 cedis/bag  
 (average): 135 cedis/bag

**DETAILED INFORMATION**

	Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>Expenses - PRODUCTION</b>	Production											
Rent (land)												
Machine Rent (land prep.)												
Labor (land preparation)					70							
Fertilizers (Natural)												
Labor Cost (transplant)					40							
Labor Cost (weeding)							60					
Labor Cost (fertilizer)												
Fertilizers (Chemical)												
Labor (pesticide)												
This is the biggest challenge												
Machine Rent (Harvesting)												
Labor (harvesting)									225			
other (Weedicide)												
other (seeds)												
other (sacks)												
Labor (planting by broadcasting)												
<b>Expenses - SALES</b>	Transportation											
Labour	Labour											
Other cost (specify)	Other cost (specify)											
<b>Total Expense</b>					110	60			225			
<b>Sales</b>									900			
<b>(REVENUE - EXPENSES)=Income</b>					(110)	(60)			675			

BASIC INFORMATION		CROP 2 <u>Maize</u>												
		Production Area: 2 acres				Sales Unit: "bags" (1 bag is 100kg)				Maiz, Rice, Peanut (ground nuts), Yam.				
		Yield per Production Unit: 8 bags/acre				Unit Price: (lowest): 70 cedis/bag				1 acre for peanut (cash crop) - sale half and self-consumption half				
						(highest): 120 cedis/bag				Okra, Pepper an maize - 6 bags harvest --> 4 bag sold (last year the harvest was very bad)				
						(average): 100 cedis/bag				farmers group meet Tuesday and Friday - those who are absent pay penalty 1 cedi each time				
										Borrow - among the group member				
DETAILED INFORMATION		Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
								Production			Harvesting			
<b>Expenses - PRODUCTION</b>	Rent (land)													
	Machine Rent (land prep.)													
	Labor (land preparation)													
	Fertilizers (Natural)													
	Labor Cost (transplant)													
	Labor Cost (weeding)													
	Labor Cost (fertilizer)													
	Fertilizers (Chemical)													
	Labor (pesticide)													
	Machine Rent (Harvesting)													
	Labor (harvesting)													
	other (weedicide)													
	other (sacks)												96	
	other (seeds)							45						
	Labor (planting)													
<b>Expenses - SALES</b>	Transportation													
	Labour													
	Other cost (specify)													
<b>Total Expense</b>								45					96	141
<b>Sales</b>					480									
<b>(REVENUE - EXPENSES)=Income</b>					480		(45)						(96)	339
BASIC INFORMATION		CROP 3 <u>(name of crop)</u>												
DETAILED INFORMATION		Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
								Production			Harvesting			
<b>Expenses - PRODUCTION</b>	Rent (land)													
	Machine Rent (land prep.)													
	Labor (land preparation)													
	Fertilizers (Natural)													
	Labor Cost (transplant)													
	Labor Cost (weeding)													
	Labor Cost (fertilizer)													
	Fertilizers (Chemical)													
	Labor (pesticide)													
	Machine Rent (Harvesting)													
	Labor (harvesting)													
	other (weedicide)													
	other (sacks)													
	other (seeds)													
	Labor (planting)													
<b>Expenses - SALES</b>	Transportation													
	Labour													
	Other cost (specify)													
<b>Total Expense</b>														
<b>Sales</b>														
<b>(REVENUE - EXPENSES)=Income</b>														
<b>TOTAL AGRICULTURAL INCOME</b>					480	(110)	(105)		675			(96)		844

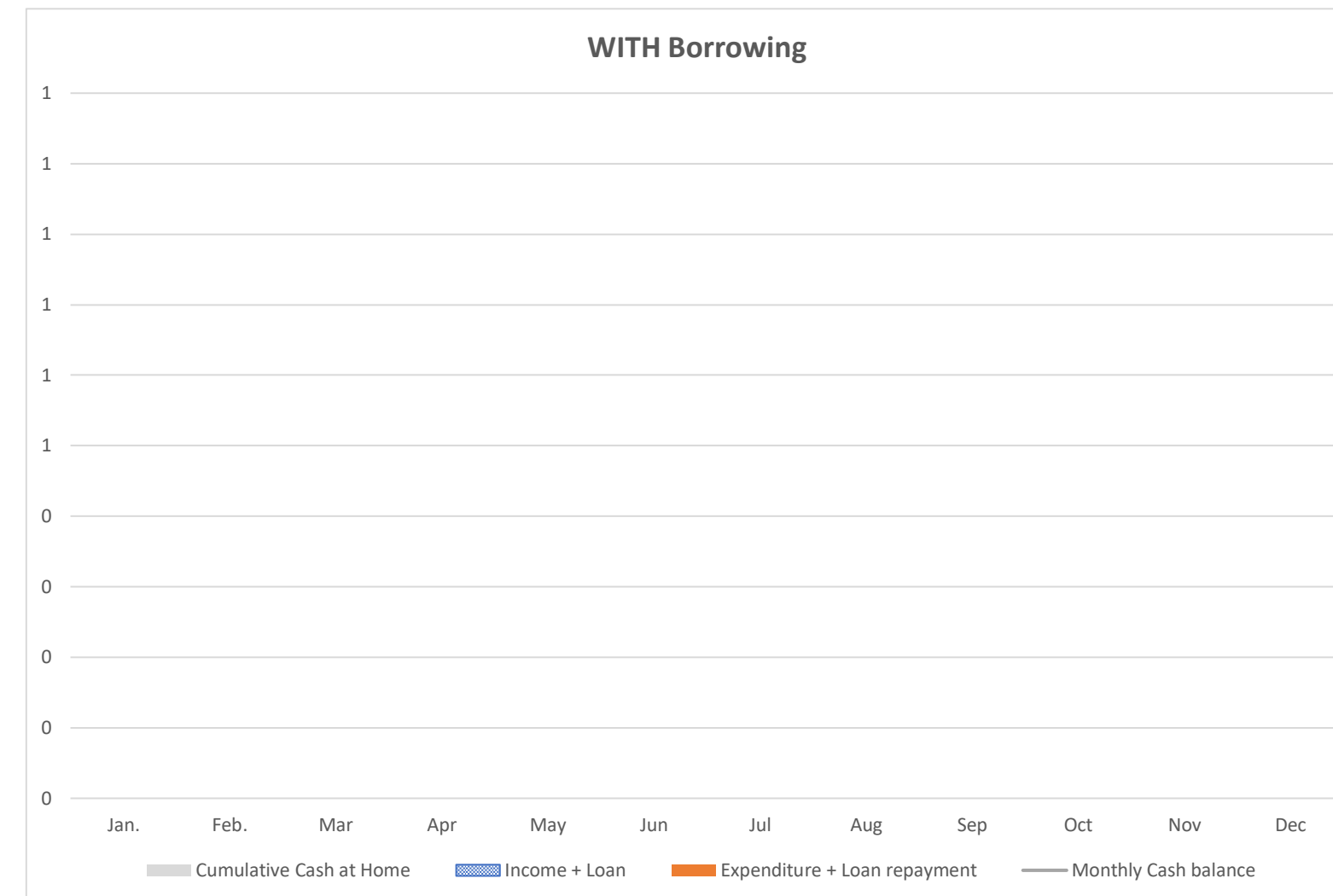
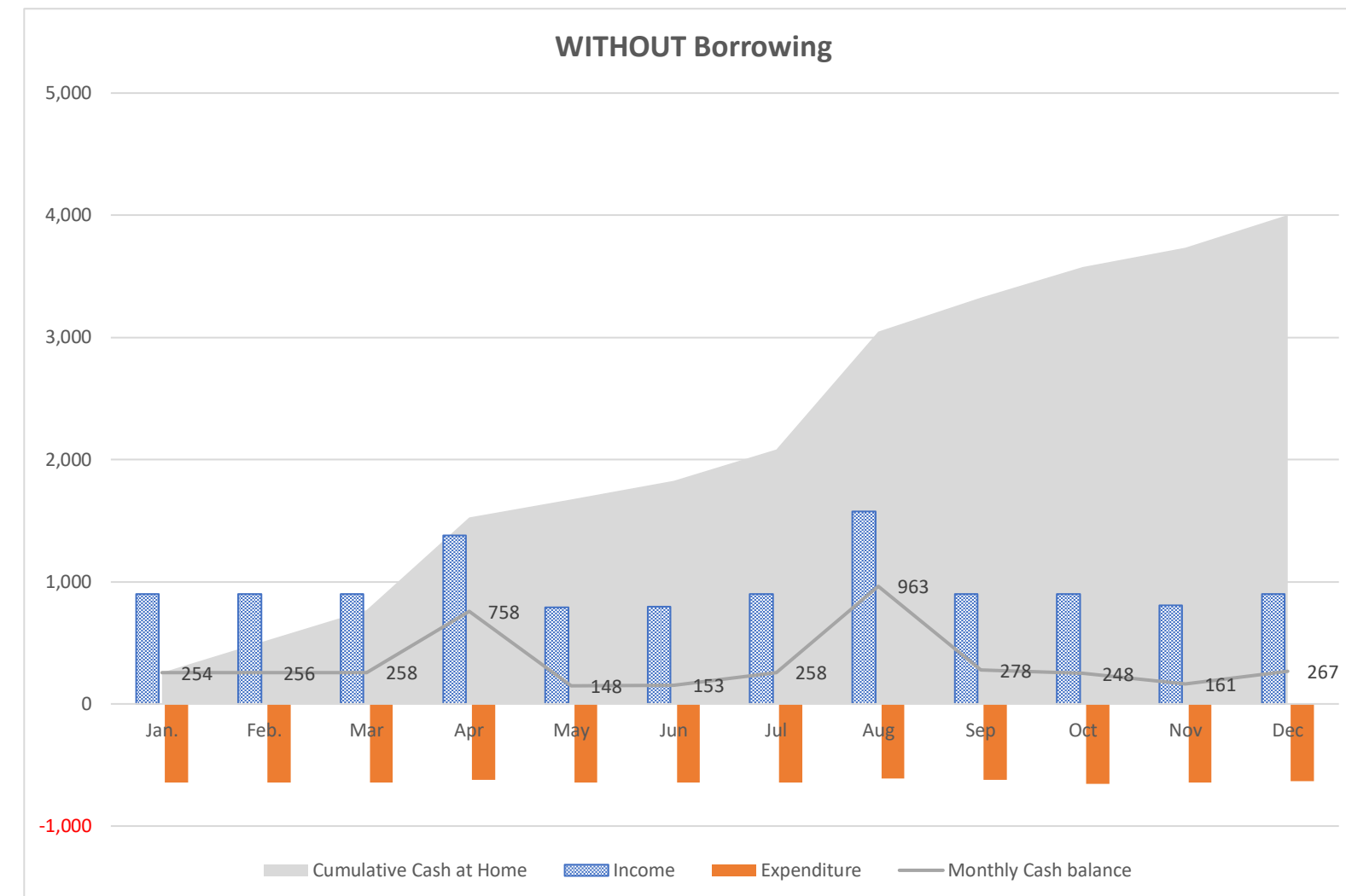


**WITHOUT LOAN (Borrowing)**

	Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Income	900	900	900	1,380	790	795	900	1,575	900	900	804	900
Expenditure	-646	-644	-642	-622	-622	-642	-642	-612	-622	-652	-643	-633
Monthly Cash balance	254	256	258	758	148	153	258	963	278	248	161	267
Cumulative Cash at Home	254	510	768	1,526	1,674	1,827	2,085	3,048	3,326	3,574	3,735	4,002

**WITH LOAN (Borrowing)**

	Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Income + Loan												
Expenditure + Loan repayment												
Monthly Cash balance												
Cumulative Cash at Home												



NAME of the INTERVIEWEE: \_\_\_\_\_ Alhassan Nourideen

Categories	Sub Categoris	Questions	Answer
<b>1. Basic information on the household</b>			
	Family member	Who are the member of the family? (member and age)	Farmer (not sure of age - about 30 years) has 1 wife (not sure age of his wife - about 25 years), and have 5 children - 14 years, 1 - 0 years, 6 years, 4 years, 2 years, his mother lives in the house (about 50 years old), his elder brother's children (5 children), and three junior brothers - 16 people live in the house
		How many family members live in this household? (i.e. those who share the household budget)	• 16 people
		Is there any family member who live and work outside this home? If so, do they contribute to the household budget (send money home)?	• 3 of them are involved in agriculture (head of household, junior brother, senior brother), wife has a store and she sells things, during the dry season he rents the motorking also the tricycle
	Tangible asset (excluding monetary/financial)	Own home (no rent) <input type="checkbox"/> , agricultural machinery <input type="checkbox"/> (if checked, specify what machinery _____) Chicken (poultry or egg) <input type="checkbox"/> , aquaculture <input type="checkbox"/> , motor bicycle <input type="checkbox"/> , truck/vehicle <input type="checkbox"/> , cow <input type="checkbox"/> , piglet <input type="checkbox"/> smart phone <input type="checkbox"/> (if checked, specify how many and who uses the phone _____) feature phone <input type="checkbox"/> (if checked, specify how many and who uses the phone _____)	• Own home, Livestock - sheep, goats, guinea fowl, chickens), Motorking, tricycle for carrying people, 3 bicycles, gets eggs from guineafowls - consume part and sell part (has sold mature ones for now so has to wait for them to grow) 2 smartphones (farmer and wife) and 1 regular phone (brother)
<b>2. Sources of income</b>			
	Agriculture-related income	How do you make your living? What are the sources of your household income? Please tell us what they are and amount for each month. Regular income (associated with crop sales) Other agriculture-related income (caual labourer, machinery rent, etc.)	From groundnuts and rice cash crops •
	Non-Agriculture income	Regular income (non-farming income) Irregular income (any other income including receipt of remittance from family) Who is the administrator of the household budget? Does he/she record the income and expenditure? IF YES, what is his/her motivation of bookkeeping? IF NO, why not? How does he/she manage the budget?	Non agricultural income is more than the agriculture • Profit of Motorking rental - GHC 400/month, Profit of Wife's shop - GHC 100/month, Profit of Tricycle - GHC 60/day • • The farmer is in charge (head of household) • No • • Wife would be interested in keeping records for the shop but is not educated, would not mind learning if she was taught
<b>3. Household expenditures</b>		Use [4. Household cash flow] sheet. Ask the "regular" and "irregular/unexpected" expenditures of the past 12 months.	



<p><b>4. Usage of health care service</b></p> <p>Usage status</p> <p>Cost and payment</p>	<p>When any one of your family becomes sick, where do you go to seek for help?</p> <p>Are you (your family) enrolled in the government health insurance system (NHIA)?</p> <p><i>IF YES (enrolled), what benefits do you find in the government insurance? List top three benefits.</i></p> <p>Do you find any inconvenience with the government insurance? If you do, what are they?</p> <p><i>IF NO (not enrolled), why are you not enrolled? ( e.g. not qualified, don't know how to enrol, difficult to enrol (cost. etc.). not interested )</i></p> <p>Do you have regular health care-related expenditures (premium for health care service, medical services, medicine, etc.)?</p> <p>When you use health care service what cost(s) incur? (premium for the insurance, pay-as-you-go service fee, transportation, etc.)</p> <p>How do you pay for the fee? (e.g. using savings, borrow money, etc.)</p> <p>What payment method do you use? (cash, digital payment, etc.)</p>	<p>· Savelugu Hospital, has been taking father to traditional healers for stroke</p> <p>Yes, 30 cedis a year for each of 6 adults and 6 cedis a year for each of 10 children</p> <p>·</p> <p>· No other options apart from Savelugu Hospital - aspects they don't like - on admission, no electricity in the wards sometimes. or water or medicines)</p> <p>·</p> <p>Take care of his father who is sick (has a stroke) - he also takes care of senior brother and father who live in family house (not in his house) - their feeding and health, and other people in the house about 8 in the house - spends about 300 cedis on health for his father, and half of his household costs on this family house (1.5 times)</p> <p>Transportation (either vehicle at main road or cost of fuel for his motorking to go to the hospital), some selected services, for medicines</p> <p>Savings</p> <p>Cash</p>
<p><b>5. Usage of financial services</b></p>	<p>Do you have a bank account? <i>(If owning more than 1 account, start with the main account)</i></p> <p>How often do you use the account?</p> <p>For what purposes do you use this account? (saving, remittance, etc.)</p> <p>Are you using any loan from the financial institution? (If YES, use "Calendar (Financial)")</p> <p>What type of financial products and services you use? (of which financial service provider(s)?)</p> <p>How do you assess their services?</p> <p>Are you borrowing money from your family, friends, someone from the village, or any other (informal) money lenders? (If YES, use "Calendar (Financial)")</p> <p>Do you (or other family members) use the phone for financial transactions? What do you think about conducting financial transactions over the phone?</p> <p>Do you have any insurance for your agriculture crop? If you do, who is the provider?</p> <p>Do you have life insurance? If you do, who is the provider?</p> <p>Do you have any health insurance? If you do, who is the provider?(e.g. insurance company, bundling product offered by mobile service provider. etc.)</p> <p>Other</p>	<p>No, uses MTN mobile money to save his money - there is one in Kanshegu</p> <p>As and when he needs to deposit or take out money</p> <p>Savings account</p> <p>No</p> <p>Mobile money agent is in the Kanshegu community</p> <p>Yes borrowed GHC 6,000 from a relative to buy Tricycle at no interest (total cost was 13,000), will be working with it and paying it off within 2 months</p> <p>Uses Mobile Money for savings</p> <p>No</p> <p>No</p> <p>NHIS (government health insurance)</p> <p>Has vehicle insurance for tricycle (400 cedis per year in January)</p>
<p><b>6. Worries/concerns in life and aspirations for the future</b></p>	<p>Do you have any worries/concerns in life? What are they?</p> <p>What are your aspirations for the future?</p>	<p>Worry is not being to harvest on time (risk of bush fires), would be nice to get a combined harvester, bought motorking from the group at a good price</p> <p>Improve the house, replace the motorking</p>

NAME of the INTERVIEWEE: Alhassan Nourideen

	QUESTION	ANSWER	
General question	Do you have your own agricultural land? If you do, what is the total size?	YES / NO	Yes
		Size:	12 acres
	Do you cultivate for your own consumption? If so, what are they?	YES / NO (Crops)	Yes - they consume all the maize, groundnuts and rice he sells
	What <b>cash crops</b> do you cultivate?		Maize (4 acres), Rice (3 acres), Groundnuts (6 acres)
	Which one is the most important one (cash crop)?		Maize
	Do you <b>cultivate individually? Or as a group?</b>		Both
	Do you <b>sell the products individually? Or collectively?</b>		For the one he grows himself, he puts in his motorking, and sells by himself, but now they are also putting individual bags with the group so they can get better prices for the group they try to sell as a group (store at a warehouse) wait for price to be good and wait for price to be good (but sometimes you are ready to sell but the group is not ready to sell)
What do women and men do at each stage of value chain: production, post-harvest processing & storage, distribution & sales?			
		<b>Men</b>	<b>Women</b>
	<b>Production</b>	Plant, weeding, harvest, thresh (similar to farmer 1)	
	<b>Post harvest</b>		Winnow, some women also thresh
	<b>Distribution and sales</b>		
Other information		Farmer group bought inputs in bulk with funds and distributed to individuals and it was better (distributor bore costs of transporting) - government subsidy so it's a fixed price	

	QUESTION	ANSWER	
Crop 1:	Crop name: <u>Maize</u>		
Production period	What is the land size you use for this crop? (specific size, or portion allocated out of the total land size answered above)	4 acres	
Inputs / unit	Which months of the year do you produce this crop? Is this one production cycle? If not how many cycles are there during these months?	June - October, 1 cycle	
	How many times can you harvest in each production cycle?	once	
	Which month(s) do you harvest?	November	
	What are the inputs and their costs (materials and labor) required to produce? And at which point of the production cycle do you use them?	See production calendar	
	From whom do you purchase seeds/seedling/fertilizers/pesticides?	Farmer group bought inputs in bulk with funds and distributed to individuals and it was better (distributor bore costs of transporting) - government subsidy so it's a fixed price	
	Sales	To whom do you sell your product?	No-one - all maize is consumed by the household
Do you sell your product right after you harvest? If not, when do you sell?		N/A	
What was the sales price/unit most recently? Was it a good price?		N/A	
Who are the buyers of your products?		N/A	
Do your buyer come to your farm to purchase your products?		N/A	
Do you sell your products by yourself? If so, where?		N/A	
If you sell your products by yourself, what are the associated costs (transportation, rent-a-space, etc.) and how much are they?		N/A	
Is there any other costs associated with sales of your products?		N/A	
Value chain challenges	What are your main challenges for you to <u>produce and sell this product?</u>	N/A	
	(production related issues)		
	(storage/processing related issues)		
	(delivery/sales related issues)		
	(gender related issues)		

	QUESTION	ANSWER
Crop 2:	Crop name: _____ Rice _____	
Production period	What is the land size you use for this crop? (specific size, or portion allocated out of the total land size answered above)	3 acres
Inputs / unit	Which months of the year do you produce this crop? Is this one production cycle? If not how many cycles are there during these months?	June - October, 1 cycle
	How many times can you harvest in each production cycle?	Once
	Which month(s) do you harvest?	November
	What are the inputs and their costs (materials and labor) required to produce? And at which point of the production cycle do you use them?	See production calender
	From whom do you purchase seeds/seedling/fertilizers/pesticides?	Farmer group buys in bulk for individuals
Sales	To whom do you sell your product?	Open market
	Do you sell your product right after you harvest? If not, when do you sell?	(To be confirmed)
	What was the sales price/unit most recently? Was it a good price?	See production calender
	Who are the buyers of your products?	Open market
	Do your buyer come to your farm to purchase your products?	No - he transports to the market
	Do you sell your products by yourself? If so, where?	Tamale and Savelugu market
	If you sell your products by yourself, what are the associated costs (transportation, rent-a-space, etc.) and how much are they?	N/A has own motorking and tricycle and storage
	Is there any other costs associated with sales of your products?	N/A
Value chain challenges	What are your main challenges for you to <u>produce and sell this product</u> ? (production related issues)	N/A
	(storage/procesing related issues)	
	(delivery/sales related issues)	
	(gender related issues)	
	QUESTION	ANSWER
Crop 3:	Crop name: _____ Groundnut (peanuts) _____	
Production period	What is the land size you use for this crop? (specific size, or portion allocated out of the total land size answered above)	6 acres
Inputs / unit	Which months of the year do you produce this crop? Is this one production cycle? If not how many cycles are there during these months?	May to August, 1 cycle
	How many times can you harvest in each production cycle?	once
	Which month(s) do you harvest?	September
	What are the inputs and their costs (materials and labor) required to produce? And at which point of the production cycle do you use them?	See production calender
	From whom do you purchase seeds/seedling/fertilizers/pesticides?	Farmer group? (TBC)
Sales	To whom do you sell your product?	Open market
	Do you sell your product right after you harvest? If not, when do you sell?	Yes - September
	What was the sales price/unit most recently? Was it a good price?	N/A
	Who are the buyers of your products?	Open market
	Do your buyer come to your farm to purchase your products?	No
	Do you sell your products by yourself? If so, where?	Tamale and Savelugu market
	If you sell your products by yourself, what are the associated costs (transportation, rent-a-space, etc.) and how much are they?	None - has own space and transportation
Is there any other costs associated with sales of your products?	N/A	
Value chain challenges	What are your main challenges for you to <u>produce and sell this product</u> ? (production related issues)	N/A
	(storage/procesing related issues)	
	(delivery/sales related issues)	
	(gender related issues)	

The objective of this sheet is to understand in which month the production costs are incurred and sales are made.

EXPENSES and REVENUE should be indicated, using the same unit of

<PREMISES>  
Production area: 8 acres  
Yield per Production Unit: 70 baskets/acre

Sales Unit: "basket" (1 basket =20.9kg)  
Price per unit: (lowest) \_\_\_\_\_, (highest) 13,000/basket, (average) \_\_\_\_\_

EXAMPLE

RICE (Rainy Season)

	Jan.	Feb.	Mar.	Apr.	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
<b>Expenses - PRODUCTION</b>	Sales all year around												
Machine Rent	44,000												
Labor (land preparation)	10,000												
Seeds	22,000												
Fertilizers (Natural)	3,000												
Labor Cost (transplant)	60,000												
Labor Cost (weeding)	60,000												
Labor Cost (fertilizer)	60,000												
Fertilizers (Chemical)	60,000												
Labor (pesticide)	60,000												
Machine Rent (Harvesting)	60,000												
<b>Expenses - SALES</b>	Transport & Labor												
<b>Total Expense (Monthly)</b>				54,000.0	85,000.0			225,000			32,500	32,500	
<b>Total Expense (Annual)</b>	429,000												
<b>Sales</b>									910,000				
<b>Profit (Sales - Expense)</b>									481,000				

**MODIFY** as necessary. Consider the production - sales activities and associated inputs/costs.

Indicate the sales value that the producer receives in the month(s) when the products are sold to the buyer (transaction-based). In this example, all the

Create production calendar for each main crop

BASIC INFORMATION		CROP 1 _____ (Peanut)												
DETAILED INFORMATION		Jan.	Feb.	Mar.	Apr.	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Production Area: 1 acres														
Yield per Production Unit: 6 bags (unshelled)/acre														
Sales Unit: "maxi bag" (1 maxi bag is 30 kg)														
Unit Price: (lowest): 120 cedis/bag														
(highest): 150 cedis/bag														
(average): 135 cedis/bag														
		Production												
		Harvesting												
<b>Expenses - PRODUCTION</b>	Rent (land)	-												
	Machine Rent (land prep.)	-												
	Labor (land preparation)	420												
	Fertilizers (Natural)	-												
	Labor Cost (transplant)	240												
	Labor Cost (weeding)	-												
	Labor Cost (fertilizer)	-												
	Fertilizers (Chemical)	-												
	Labor (pesticide)	-												
<i>This is the biggest challenge</i>	Machine Rent (Harvesting)	-												
	Labor (harvesting)	1,350												
	other (Weedicide)	-												
	other (seeds)	-												
	other (sacks)	-												
	Labor (planting by broadcasting)	-												
<b>Expenses - SALES</b>	Transportation	-												
	Labour	-												
	Other cost (specify)	-												
<b>Total Expense</b>					660	360			1,350					2,370
<b>Sales</b>										5,400				
<b>(REVENUE - EXPENSES)=Income</b>					(660)	(360)			4,050					3,030

BASIC INFORMATION		CROP 2 (MAIZE)													
		Production Area: 4 acres						Sales Unit: "bags" (1 bag is 100kg)							
		Yield per Production Unit: 8 bags/acre						Unit Price: (lowest): 70 cedis/bag (highest): 120 cedis/bag (average): 100 cedis/bag							
DETAILED INFORMATION		Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.		
<b>Expenses - PRODUCTION</b>		Production											Harvesting		
	Rent (land)														
	Machine Rent (land prep.)														
	Labor (land preparation)														
	Fertilizers (Natural)														
	Labor Cost (transplant)														
	Labor Cost (weeding)														
	Labor Cost (fertilizer)														
	Fertilizers (Chemical)														
	Labor (pesticide)														
	Machine Rent (Harvesting)														
	Labor (harvesting)														
	other (weedicide)														
	other (sacks)												192		
	other (seeds)											90			
	Labor (planting)														
<b>Expenses - SALES</b>															
	Transportation														
	Labour														
	Other cost (specify)														
<b>Total Expense</b>							90	-	-	-	-	192	-	282	
<b>Sales</b>															
<b>(REVENUE - EXPENSES)=Income</b>		-						(90)	-	-	-	-	(192)	-	(282)

BASIC INFORMATION		CROP 3 (Rice)														
		Production Area: 3 acres						Sales Unit: "maxi bag" (1 maxi bag is 84 kg)								
		Yield per Production Unit: 10 maxi bags/acre						Unit Price: (lowest): 60 cedis/bag (highest): 100 cedis/bag (average): 80 cedis/bag								
DETAILED INFORMATION		Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.			
<b>Expenses - PRODUCTION</b>		Production											Harvesting			
	Rent (land)	-														
	Machine Rent (land prep.)															
	Labor (land preparation)															
	Fertilizers (Natural)															
	Labor Cost (transplant)															
	Labor Cost (weeding)															
	Labor Cost (fertilizer)															
	Fertilizers (Chemical)												660			
	Labor (pesticide)															
	Machine Rent (Harvesting)															
	Labor (harvesting)															
	other (Weedicide)											180	135			
	other (seeds)												120			
	other (sacks)												180			
	Labor (planting by broadcasting)															
<b>Expenses - SALES</b>																
	Transportation															
	Labour															
	Other cost (specify)															
<b>Total Expense</b>							120	840	135	-	-	180	-	1,275		
<b>Sales</b>													3000			
<b>(REVENUE - EXPENSES)=Income</b>		-						(120)	(840)	(135)	-	-	2,820	-	1,725	
<b>TOTAL AGRICULTURAL INCOME</b>		-						(660)	(570)	(840)	3,915	-	-	2,628	-	4,473

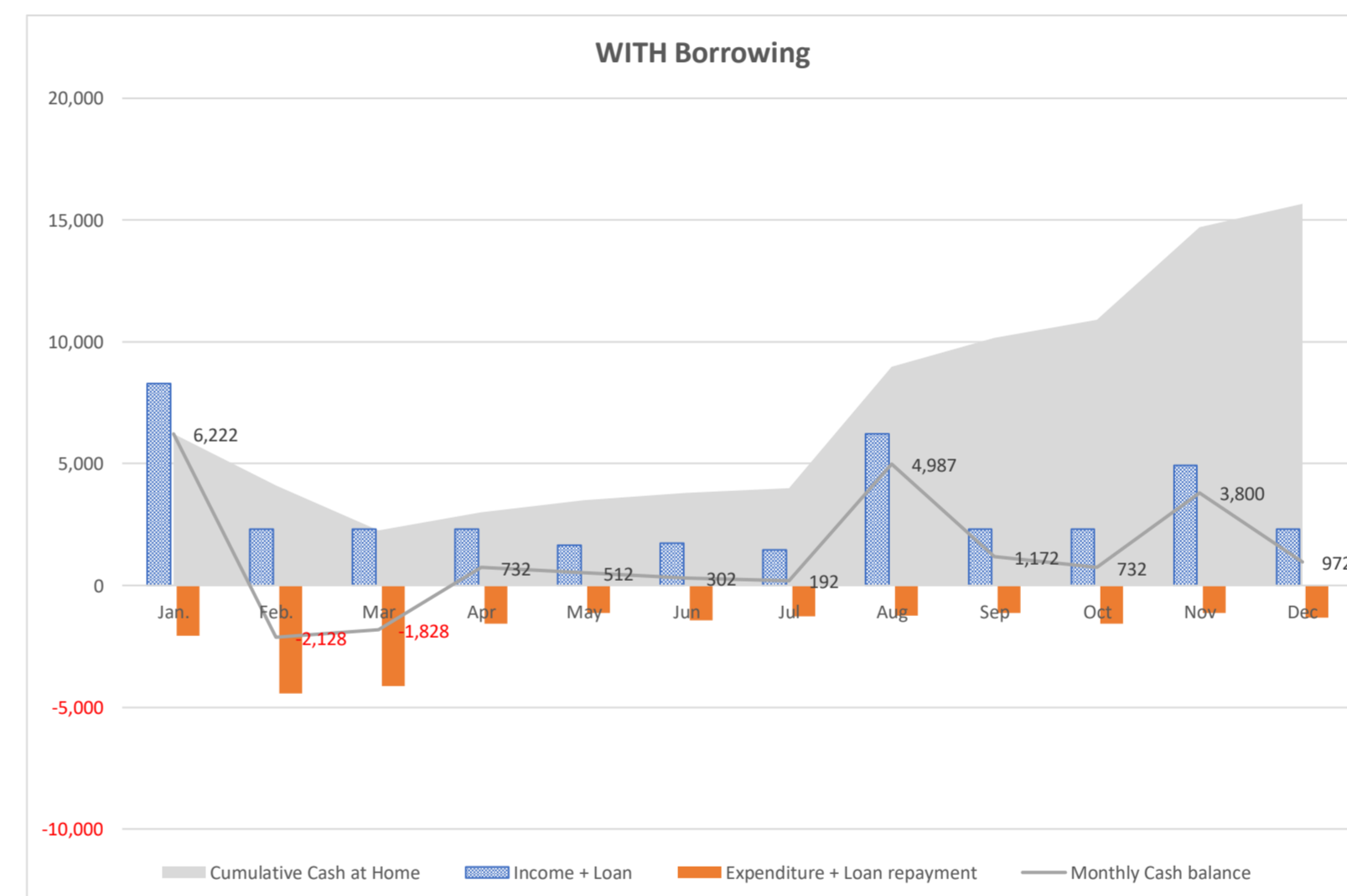
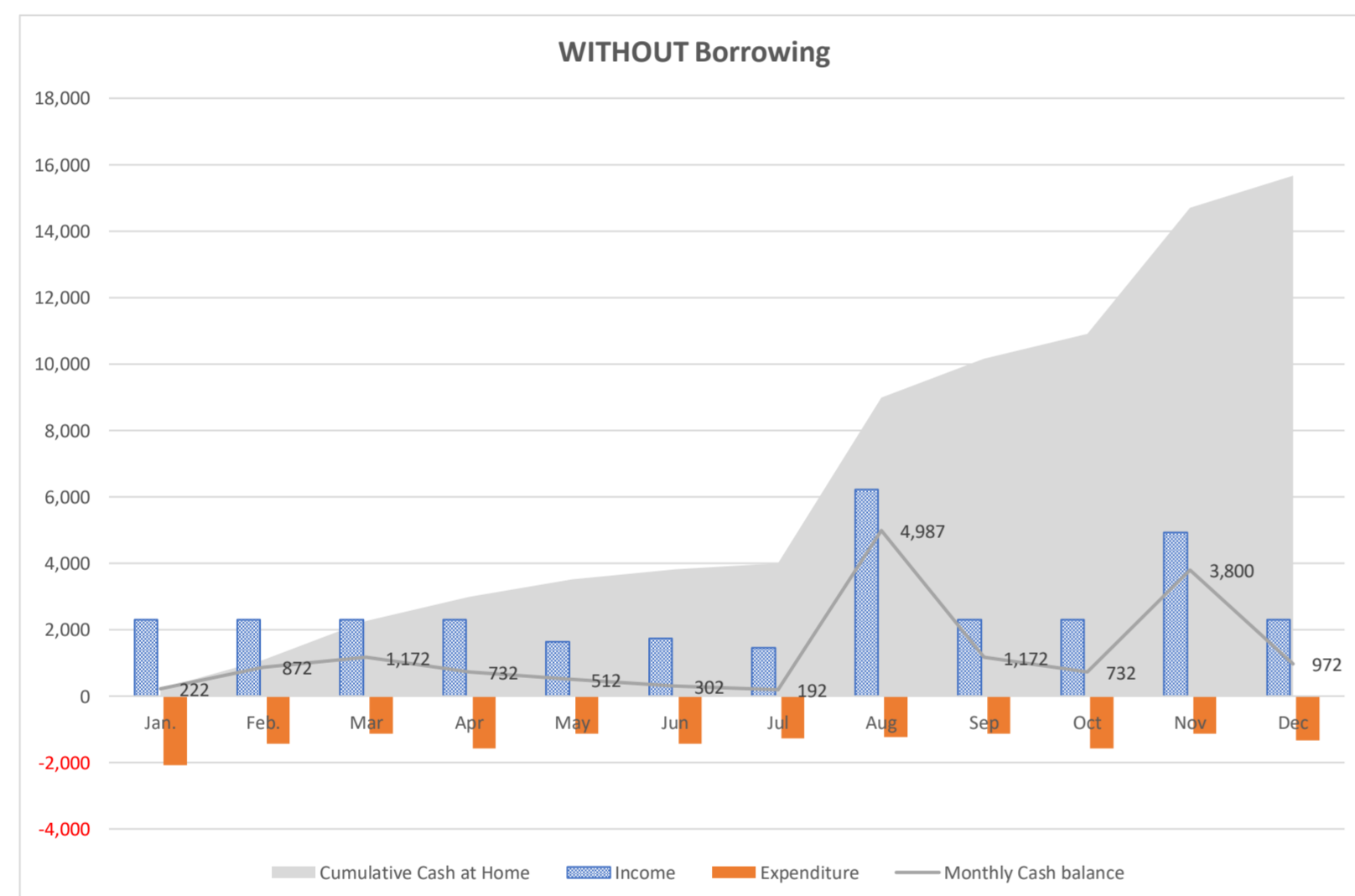


**WITHOUT LOAN (Borrowing)**

	Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Income	2,300	2,300	2,300	2,300	2,300	1,640	1,730	1,460	6,215	2,300	2,300	4,928	2,300
Expenditure	-2,078	-1,428	-1,128	-1,568	-1,128	-1,428	-1,268	-1,228	-1,128	-1,568	-1,128	-1,328	-1,328
Monthly Cash balance	222	872	1,172	732	512	302	192	4,987	1,172	732	3,800	972	
Cumulative Cash at Home	222	1,094	2,266	2,998	3,510	3,812	4,004	8,991	10,163	10,895	14,695	15,667	

**WITH LOAN (Borrowing)**

	Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Income + Loan	8,300	2,300	2,300	2,300	2,300	1,640	1,730	1,460	6,215	2,300	2,300	4,928	2,300
Expenditure + Loan repayment	-2,078	-4,428	-4,128	-1,568	-1,128	-1,428	-1,268	-1,228	-1,128	-1,568	-1,128	-1,328	-1,328
Monthly Cash balance	6,222	-2,128	-1,828	732	512	302	192	4,987	1,172	732	3,800	972	
Cumulative Cash at Home	6,222	4,094	2,266	2,998	3,510	3,812	4,004	8,991	10,163	10,895	14,695	15,667	



NAME of the INTERVIEWEE: \_\_\_\_\_ Aminu Mahama

Categories	Sub Categoris	Questions	Answer
<b>1. Basic information on the household</b>			
Family member		Who are the member of the family? (member and age)	1 farmer (45 years), 2 wives (30 years and 25 years), 9 children (20 years old is the eldest - she lives with her auntie she's a seamstress and the youngest is 1 day old)
		How many family members live in this household? (i.e. those who share the household budget)	25 people in the house in total (father - about 90 years old, another male who is the oldest male relative, mother, 2 brothers and their wives (assumed they were 2) and their children - eldest daughter was counted here but she lives with her husband elsewhere)
Tangible asset (excluding monetary/financial)		Is there any family member who live and work outside this home? If so, do they contribute to the household budget (send money home)?	20 years old is the eldest and she is married - she lives with her auntie she's a seamstress (she sends money home once in a while)
		Own home (no rent) <input type="checkbox"/> , agricultural machinery <input type="checkbox"/> (if checked, specify what machinery _____) Chicken (poultry or egg) <input type="checkbox"/> , aquaculture <input type="checkbox"/> , motor bicycle <input type="checkbox"/> , truck/vehicle <input type="checkbox"/> , cow <input type="checkbox"/> , piglet <input type="checkbox"/> smart phone <input type="checkbox"/> (if checked, specify how many and who uses the phone _____) feature phone <input type="checkbox"/> (if checked, specify how many and who uses the phone _____)	His brothers also help with farming and their wives with agricultural processing (rice and shea butter) Owns home, livestock (5 chickens - most died from a disease newcastle, 12 guinea fowls, 8 cattle, 6 sheep, 7 goats), 1 motorking, 1 motorbike, 1 bicycle) There are three regular mobile phones in the house (not feature or smartphones)
<b>2. Sources of income</b>			
Agriculture-related income		How do you make your living? What are the sources of your household income? Please tell us what they are and amount for each month.	<ul style="list-style-type: none"> <li>• Agriculture is most important source of income for his household (60% of his income)</li> <li>•</li> </ul>
		Regular income (associated with crop sales)	
Non-Agriculture income		Other agriculture-related income (caual labourer, machinery rent, etc.)	<ul style="list-style-type: none"> <li>• Uses motorking to work (e.g., deliveries) and makes GHC 30 a week</li> <li>• 2 wives do shea butter processing and send it to the market to sell GHC 120 a month - about 4 months a year</li> <li>Once a while he sells livestock - usually when the kids need money for school expenses (such as uniforms)</li> <li>• The farmer (head of household)</li> <li>• No</li> <li>•</li> <li>• Takes turns splitting costs with siblings and their wives (e.g., rotating cooking days and giving children money for school, also borrowing from each other)</li> </ul>
		Regular income (non-farming income)	
		Irregular income (any other income including receipt of remittance from family)	
		Who is the administrator of the household budget?	
		Does he/she record the income and expenditure?	
		IF YES, what is his/her motivation of bookkeeping?	
		IF NO, why not? How does he/she manage the budget?	
<b>3. Household expenditures</b>		Use [4.Household cash flow] sheet. Ask the "regular" and "irregular/unexpected" expenditures of the past 12 months.	



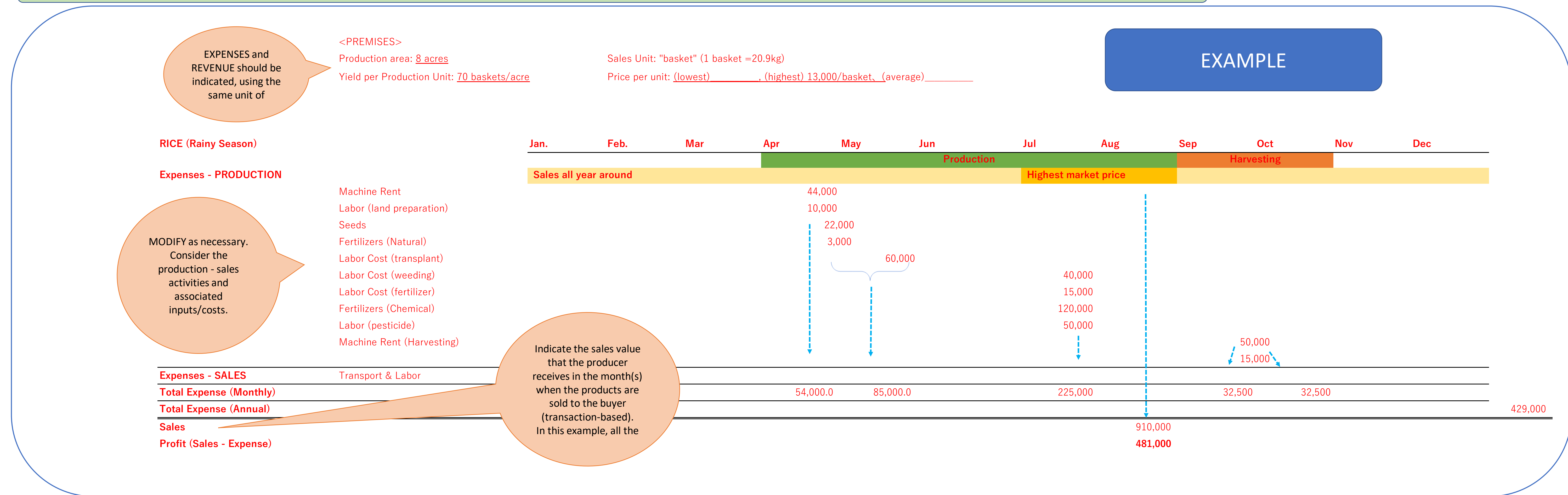
<p><b>4. Usage of health care service</b></p> <p>Usage status</p> <p>Cost and payment</p>	<p>When any one of your family becomes sick, where do you go to seek for help?</p> <p>Are you (your family) enrolled in the government health insurance system (NHIA)?</p> <p><i>IF YES (enrolled), what benefits do you find in the government insurance? List top three benefits.</i></p> <p>Do you find any inconvenience with the government insurance? If you do, what are they?</p> <p><i>IF NO (not enrolled), why are you not enrolled? (e.g. not qualified, don't know how to enrol, difficult to enrol (cost, etc.), not interested )</i></p> <p>Do you have regular health care-related expenditures (premium for health care service, medical services, medicine, etc.)?</p> <p>When you use health care service what cost(s) incur? (premium for the insurance, pay-as-you-go service fee, transportation, etc.)</p> <p>How do you pay for the fee? (e.g. using savings, borrow money, etc.)</p> <p>What payment method do you use? (cash, digital payment, etc.)</p>	<p>Savelugu hospital</p> <p>22 have NHIS, all have with exception of 3 adults (the head of household and his brothers don't have - they had the old ones but need to go stand in line for biometric ones and haven't done that)</p> <p>.</p> <p>.</p> <p>.</p> <p>No</p> <p>Pay about 150 cedis a month for services and medicines not covered under NHIS</p> <p>Cash</p> <p>cash</p>
<p><b>5. Usage of financial services</b></p>	<p>Do you have a bank account? (If owning more than 1 account, start with the main account)</p> <p>How often do you use the account?</p> <p>For what purposes do you use this account? (saving, remittance, etc.)</p> <p>Are you using any loan from the financial institution? (If YES, use "Calendar (Financial)")</p> <p>What type of financial products and services you use? (of which financial service provider(s)?)</p> <p>How do you assess their services?</p> <p>Are you borrowing money from your family, friends, someone from the village, or any other (informal) money lenders? (If YES, use "Calendar (Financial)")</p> <p>Do you (or other family members) use the phone for financial transactions? What do you think about conducting financial transactions over the phone?</p> <p>Do you have any insurance for your agriculture crop? If you do, who is the provider?</p> <p>Do you have life insurance? If you do, who is the provider?</p> <p>Do you have any health insurance? If you do, who is the provider?(e.g. insurance company, bundling product offered by mobile service provider, etc.)</p>	<p>Yes - Agriculture Development Bank, for 2 years</p> <p>Once a week</p> <p>Savings, because of earnings of motorking he deposits it to save it</p> <p>No</p> <p>Savings account</p> <p>Goes there physically</p> <p>Once a while he borrows from his relatives within the household (brothers, wives etc) for health services if they don't have money when someone is sick</p> <p>No</p> <p>No</p> <p>No</p> <p>Only NHIS</p>
<p><b>6. Worries/concerns in life and aspirations for the future</b></p>	<p>Do you have any worries/concerns in life? What are they?</p> <p>What are your aspirations for the future?</p>	<p>N/A</p> <p>Would like kids to be educated (become Ministers of the state), and go to university</p>

NAME of the INTERVIEWEE:     Aminu Mahama    

	QUESTION	ANSWER	
<b>General question</b>	Do you have your own agricultural land? If you do, what is the total size?	YES / NO	Yes
		Size:	20 acres (but uses 13 acres for farming)
	Do you cultivate for your own consumption? If so, what are they?	YES / NO	Yes
		(Crops)	Maize (they consume all they make), yam and cassava they also consume all they make
	What <b>cash crops</b> do you cultivate?		Groundnuts (4 acres), Maize (5 acres), Rice (3 acres), Yam (0.5 acre), Cassava (0.5 acre)
	Which one is the most important one (cash crop)?		They sell groundnut and rice Maize (because it is an important part of the household diet)
	Do you <b>cultivate individually? Or as a group?</b>		Both
	Do you <b>sell the products individually? Or collectively?</b>		Both
	What do women and men do at each stage of value chain: production, post-harvest processing & storage, distribution & sales?		
		<b>Men</b>	<b>Women</b>
	<b>Production</b>		
	<b>Post harvest</b>		Processing of shea butter and rice
	<b>Distribution and sales</b>		
	QUESTION	ANSWER	
<b>Crop 1:</b>	Crop name: <u>    Groundnut    </u>		
<b>Production period</b>	What is the land size you use for this crop? (specific size, or portion allocated out of the total land size answered above)		4 acres
<b>Inputs / unit</b>	Which months of the year do you produce this crop? Is this one production cycle? If not how many cycles are there during these months?		May to August, 1 cycle
	How many times can you harvest in each production cycle?		Once
	Which month(s) do you harvest?		September
	What are the inputs and their costs (materials and labor) required to produce? And at which point of the production cycle do you use them?		In the group they help each other with labour so they don't have to pay these labour costs, you just have to pay for feeding (see production calendar)
	From whom do you purchase seeds/seedling/fertilizers/pesticides?		Farmers group buys inputs in bulk
<b>Sales</b>	To whom do you sell your product?		At the market
	Do you sell your product right after you harvest? If not, when do you sell?		No, goes to the market every week and sees if price is good, once it is good he sells
	What was the sales price/unit most recently? Was it a good price?		See production calendar
	Who are the buyers of your products?		On the market
	Do your buyer come to your farm to purchase your products?		No
	Do you sell your products by yourself? If so, where?		
	If you sell your products by yourself, what are the associated costs (transportation, rent-a-space, etc.) and how much are they?		Has own transport, storage
	Is there any other costs associated with sales of your products?		N/A
<b>Value chain challenges</b>	What are your main challenges for you to <u>produce and sell this product</u> ? (production related issues) (storage/processing related issues) (delivery/sales related issues) (gender related issues)		N/A

	QUESTION	ANSWER
<b>Crop 2:</b>	Crop name: _____Rice_____	
<b>Production period</b>	What is the land size you use for this crop? (specific size, or portion allocated out of the total land size answered above)	3 acres
<b>Inputs / unit</b>	Which months of the year do you produce this crop? Is this one production cycle? If not how many cycles are there during these months?	June to October, 1 cycle
	How many times can you harvest in each production cycle?	Once
	Which month(s) do you harvest?	November
	What are the inputs and their costs (materials and labor) required to produce? And at which point of the production cycle do you use them?	See production calendar
	From whom do you purchase seeds/seedling/fertilizers/pesticides?	Farmer group buys in bulk
<b>Sales</b>	To whom do you sell your product?	Open market
	Do you sell your product right after you harvest? If not, when do you sell?	(To be confirmed)
	What was the sales price/unit most recently? Was it a good price?	See production calendar
	Who are the buyers of your products?	Open market
	Do your buyer come to your farm to purchase your products?	No
	Do you sell your products by yourself? If so, where?	Tamale and Savelugu market
	If you sell your products by yourself, what are the associated costs (transportation, rent-a-space, etc.) and how much are they?	Has own storage and transport
	Is there any other costs associated with sales of your products?	N/A
<b>Value chain challenges</b>	What are your main challenges for you to <u>produce and sell this product</u> ? (production related issues) (storage/procesing related issues) (delivery/sales related issues) (gender related issues)	N/A

The objective of this sheet is to understand in which month the production costs are incurred and sales are made.



20 acres - 13 in use  
 ground nuts 4 acres, maize 5 acres, rice 3 acres, 0.5 yam, 0.5 cassava  
 ground nuts to sell, maize to consume 100% in the house, rice to sell, yam and cassava to sell

production costs for yam and cassava?  
60% to sell?

Create production calendar for each main crop

BASIC INFORMATION		CROP 1 _____ (Rice) name of crop											
		Production Area: 3 acres				Sales Unit: "maxi bag" (1 maxi bag is 84 kg)							
		Yield per Production Unit: 10 maxi bags/acre				Unit Price: (lowest): 60 cedis/bag (highest): 100 cedis/bag (average): 80 cedis/bag							
DETAILED INFORMATION		Jan.	Feb.	Mar.	Apr.	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>Expenses - PRODUCTION</b>		Production											
Rent (land)		-											
Machine Rent (land prep.)		-											
Labor (land preparation)		-											
Fertilizers (Natural)		-											
Labor Cost (transplant)		-											
Labor Cost (weeding)		-											
Labor Cost (fertilizer)		-											
Fertilizers (Chemical)		-											
Labor (pesticide)		-											
Machine Rent (Harvesting)		-											
Labor (harvesting)		-											
other (Weedicide)		-											
other (seeds)		-											
other (sacks)		-											
Labor (planting by broadcasting)		-											
<b>Expenses - SALES</b>		-											
Transportation		-											
Labour		-											
Other cost (specify)		-											
<b>Total Expense</b>							120	840	135			180	1,275
<b>Sales</b>												3000	
<b>(REVENUE - EXPENSES)=Income</b>							(120)	(840)	(135)			2,820	1,725

Formula below should be 65-64

BASIC INFORMATION

<b>CROP 2</b>	<b>Maize</b>
Production Area: 5 acres	Sales Unit: "bags" (1 bag is 100kg)
Yield per Production Unit: 8 bags/acre	Unit Price: (lowest): 70 cedis/bag (highest): 120 cedis/bag (average): 100 cedis/bag

DETAILED INFORMATION

	Jan.	Feb.	Mar.	Apr.	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
<b>Expenses - PRODUCTION</b>								Production			Harvesting		
Rent (land)													
Machine Rent (land prep.)													
Labor (land preparation)													
Fertilizers (Natural)													
Labor Cost (transplant)													
Labor Cost (weeding)													
Labor Cost (fertilizer)													
Fertilizers (Chemical)													
Labor (pesticide)													
Machine Rent (Harvesting)													
Labor (harvesting)													
other (weedicide)													
other (sacks)													
other (seeds)													
Labor (planting)													
<b>Expenses - SALES</b>													
Transportation													
Labour													
Other cost (specify)													
<b>Total Expense</b>													
<b>Sales</b>													
<b>(REVENUE - EXPENSES)=Income</b>													

The same as above.

BASIC INFORMATION

<b>CROP 3</b>	<b>(Peanut)</b>
Production Area: 4 acres	Sales Unit: "maxi bag" (1 maxi bag is 30 kg)
Yield per Production Unit: 6 bags (unshelled)/acre	Unit Price: (lowest): 120 cedis/bag (highest): 150 cedis/bag (average): 135 cedis/bag

DETAILED INFORMATION

	Jan.	Feb.	Mar.	Apr.	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
<b>Expenses - PRODUCTION</b>								Production	Harvesting				
Rent (land)													
Machine Rent (land prep.)													
Labor (land preparation)						280							
Fertilizers (Natural)													
Labor Cost (transplant)						160							
Labor Cost (weeding)							240						
Labor Cost (fertilizer)													
Fertilizers (Chemical)													
Labor (pesticide)													
This is the biggest challenge													
Machine Rent (Harvesting)													
Labor (harvesting)									900				
other (Weedicide)													
other (seeds)													
other (sacks)													
Labor (planting by broadcasting)													
<b>Expenses - SALES</b>													
Transportation													
Labour													
Other cost (specify)													
<b>Total Expense</b>						440	240		900				1,580
<b>Sales</b>										3,600			
<b>(REVENUE - EXPENSES)=Income</b>						(440)	(240)		(900)	3,600			2,020
<b>TOTAL AGRICULTURAL INCOME</b>						(440)	(360)	(840)	(1,035)	3,600		2,820	3,745

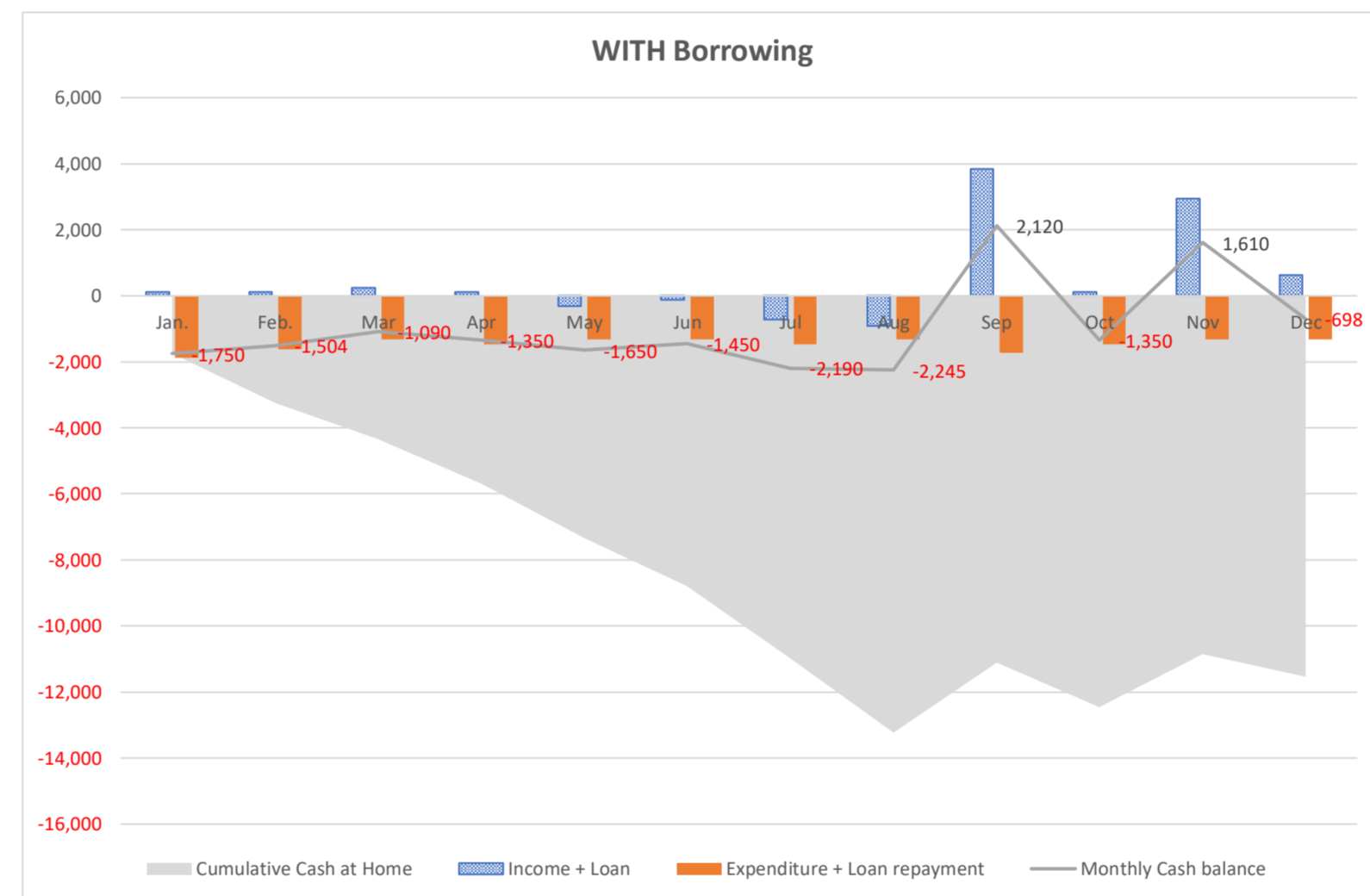
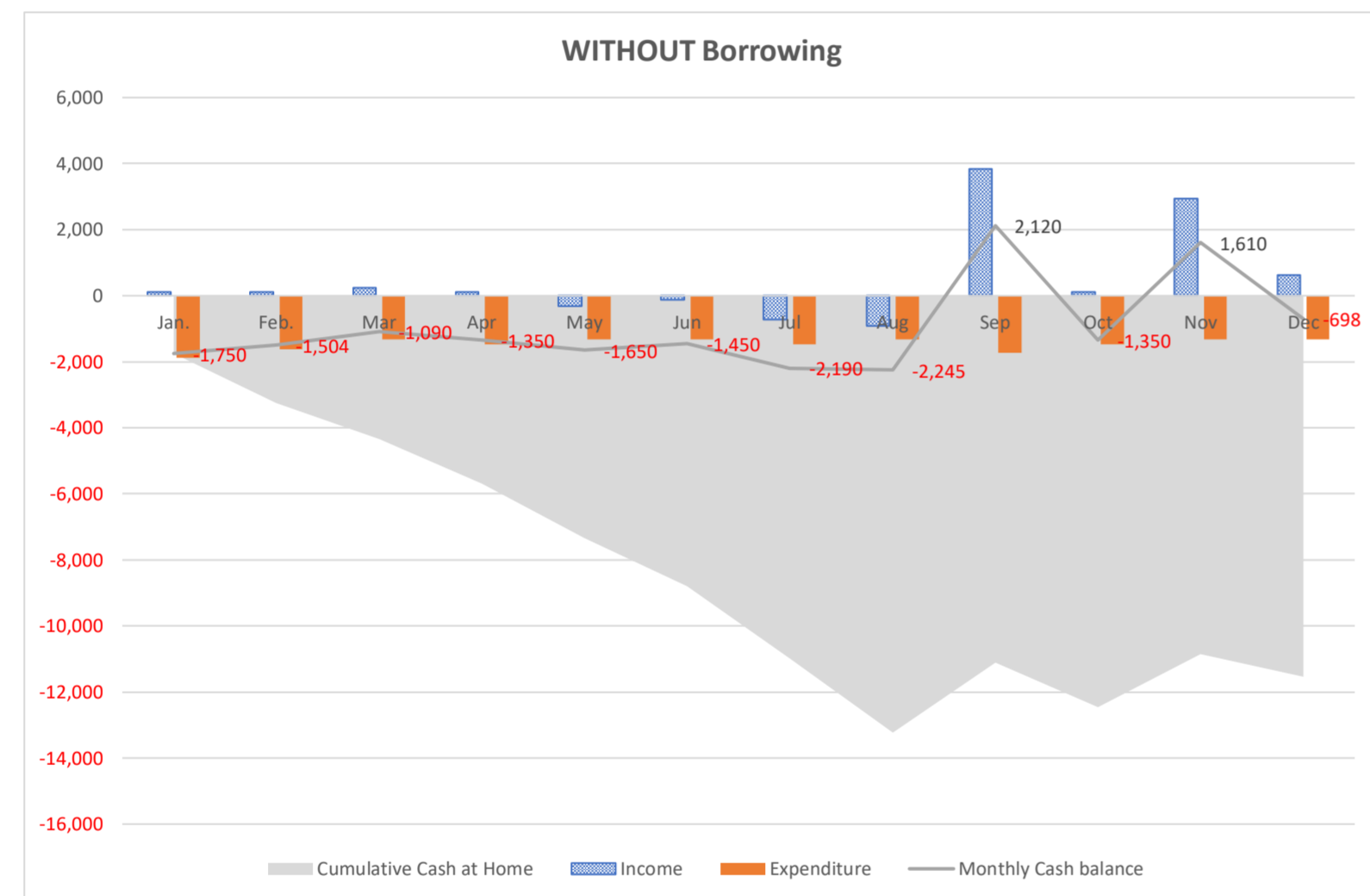


WITHOUT LOAN (Borrowing)

	Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Income	120	120	240	120	-320	-120	-720	-915	3,840	120	2,940	632
Expenditure	-1,870	-1,624	-1,330	-1,470	-1,330	-1,330	-1,470	-1,330	-1,720	-1,470	-1,330	-1,330
Monthly Cash balance	-1,750	-1,504	-1,090	-1,350	-1,650	-1,450	-2,190	-2,245	2,120	-1,350	1,610	-698
Cumulative Cash at Home	-1,750	-3,254	-4,344	-5,694	-7,344	-8,794	-10,984	-13,229	-11,109	-12,459	-10,849	-11,547

WITH LOAN (Borrowing)

	Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Income + Loan	120	120	240	120	-320	-120	-720	-915	3,840	120	2,940	632
Expenditure + Loan repayment	-1,870	-1,624	-1,330	-1,470	-1,330	-1,330	-1,470	-1,330	-1,720	-1,470	-1,330	-1,330
Monthly Cash balance	-1,750	-1,504	-1,090	-1,350	-1,650	-1,450	-2,190	-2,245	2,120	-1,350	1,610	-698
Cumulative Cash at Home	-1,750	-3,254	-4,344	-5,694	-7,344	-8,794	-10,984	-13,229	-11,109	-12,459	-10,849	-11,547



NAME of the INTERVIEWEE: \_\_\_\_\_ Fuseini Abdul Mumin Souchi \_\_\_\_\_

Community - Libga

Categories	Sub Categoris	Questions	Answer
<b>1. Basic information on the household</b>			
	Family member	Who are the member of the family? (member and age)	Farmer has finished Senior High School - is in an organization called Attai Base (a farmer-based group of 31 people - only for men, that does the following activities - promote peace, work on sanitation issues - e.g., cleaning around the borehole, and work farming land - e.g., find 4 acres and find it and use it for joint needs like funerals, weddings etc, also linking with other groups in the area 1 wife 5 children (16 years - he is in Senior High School to 2 years of age in range)
		How many family members live in this household? (i.e. those who share the household budget)	36 people live in this house (24 children and 8 adults), Head of household's father and his wife, 2 senior brothers and wives and their children (12 children), 1 younger brother with his wife and 2 children, 2 younger brothers who are not married, headof household's father also has a grandson, and 4 foster children  - 3 children in High School
		Is there any family member who live and work outside this home? If so, do they contribute to the household budget (send money home)?	Main wife works by farming but also buying vegetables from fellow farmers and selling in Tamale, takes GHC 500 worth of product to the market a day, she makes about GHC 120 a day profit (bra, ayoyo, aleefi, tomatoes, lettuce, cucumber, any vegetables that is available) - she goes in the company of other women, on a bad day she can make GHC 30-40 cedis  December, January, February, March - she earns GHC 120 a day Rest of the months - she earns GHC 30 a day
	Tangible asset (excluding monetary/financial)	Own home (no rent) <input type="checkbox"/> , agricultural machinery <input type="checkbox"/> (if checked, specify what machinery _____) Chicken (poultry or egg) <input type="checkbox"/> , aquaculture <input type="checkbox"/> , motor bicycle <input type="checkbox"/> , truck/vehicle <input type="checkbox"/> , cow <input type="checkbox"/> , piglet <input type="checkbox"/> smart phone <input type="checkbox"/> (if checked, specify how many and who uses the phone _____) feature phone <input type="checkbox"/> (if checked, specify how many and who uses the phone _____)	Farmer owns 7 sheep, 3 cattle, 1 feature phone, 50 chickens, 1 bicycle, 1 motorbike Wife owns a feature phone, owns 3 sheep
<b>2. Sources of income</b>			
	Agriculture-related income	How do you make your living? What are the sources of your household income? Please tell us what they are and amount for each month.  Regular income (associated with crop sales) Other agriculture-related income (caual labourer, machinery rent, etc.)	. .
	Non-Agriculture income	Regular income (non-farming income) Irregular income (any other income including receipt of remittance from family)	Farming .
		Who is the administrator of the household budget?	Both - man is in control of his finances and she is in control of her finances (she keeps money from her vegetable sales and farming), she is part of a VSLA, they meet once a week and you contribute what you can, you can't below GHC 2 per week, its is kept in each member's passbook, the head of the household (farmer) is the recordkeeper - one stamp is equal to GHC 2 of contributions. The money is kept in a box and it has 3 keys (each key is with different members - so one person can't open) and the box is kept by a 4th person. VSLA (name is Adakabia) they are 30 people.
		Does he/she record the income and expenditure? IF YES, what is his/her motivation of bookkeeping? IF NO, why not? How does he/she manage the budget?	No . They contribute for cooking and utilities (electricity) but take care of their own health-related expenditures
<b>3. Household expenditures</b>			
		Use [4. Household cash flow] sheet. Ask the "regular" and "irregular/unexpected" expenditures of the past 12 months.	



<p><b>4. Usage of health care service</b></p> <p>Usage status</p> <p>When any one of your family becomes sick, where do you go to seek for help?</p> <p>Are you (your family) enrolled in the government health insurance system (NHIA)?</p> <p><i>IF YES (enrolled), what benefits do you find in the government insurance? List top three benefits.</i></p> <p>Do you find any inconvenience with the government insurance? If you do, what are they?</p> <p><i>IF NO (not enrolled), why are you not enrolled? ( e.g. not qualified, don't know how to enrol, difficult to enrol (cost. etc.). not interested )</i></p> <p>Cost and payment</p> <p>Do you have regular health care-related expenditures (premium for health care service, medical services, medicine, etc.)?</p> <p>When you use health care service what cost(s) incur? (premium for the insurance, pay-as-you-go service fee, transportation, etc.)</p> <p>How do you pay for the fee? (e.g. using savings, borrow money, etc.)</p> <p>What payment method do you use? (cash, digital payment, etc.)</p>	<p>• Savelugu Hospital, Capsa Scientific Hospital (private)</p> <p>Yes everyone has NHIS</p> <p>•</p> <p>• She thinks it is good but sometimes they do things she is not happy with, long waiting times, neglect. However, you do get good care (attention) when you are pregnant (pregnant women has a dedicated section - antenatal care so get the support needed)</p> <p>•</p> <p>No - everyone in family is healthy</p> <p>Sometimes not all services are covered like technicians (lab tests, x-rays), sometimes technicians don't tell them the truth/lie about costs required - don't give receipts when asked</p> <p>Cash</p> <p>Cash</p>	<p>• Savelugu Hospital, Capsa Scientific Hospital (private)</p> <p>Yes everyone has NHIS</p> <p>•</p> <p>• She thinks it is good but sometimes they do things she is not happy with, long waiting times, neglect. However, you do get good care (attention) when you are pregnant (pregnant women has a dedicated section - antenatal care so get the support needed)</p> <p>•</p> <p>No - everyone in family is healthy</p> <p>Sometimes not all services are covered like technicians (lab tests, x-rays), sometimes technicians don't tell them the truth/lie about costs required - don't give receipts when asked</p> <p>Cash</p> <p>Cash</p>
<p><b>5. Usage of financial services</b></p> <p>Do you have a bank account? (If owning more than 1 account, start with the main account)</p> <p>How often do you use the account?</p> <p>For what purposes do you use this account? (saving, remittance, etc.)</p> <p>Are you using any loan from the financial institution? (If YES, use "Calendar (Financial)")</p> <p>What type of financial products and services you use? (of which financial service provider(s)?)</p> <p>How do you assess their services?</p> <p>Are you borrowing money from your family, friends, someone from the village, or any other (informal) money lenders? (If YES, use "Calendar (Financial)")</p> <p>Do you (or other family members) use the phone for financial transactions? What do you think about conducting financial transactions over the phone?</p> <p>Do you have any insurance for your agriculture crop? If you do, who is the provider?</p> <p>Do you have life insurance? If you do, who is the provider?</p> <p>Do you have any health insurance? If you do, who is the provider?(e.g. insurance company, bundling product offered by mobile service provider, etc.)</p>	<p>Agricultural Development Bank, also uses Vodafone Cash (mobile money), wife doesn't have a bank account but keeps the passbook</p> <p>Uses mobile money for short-term expenses</p> <p>Uses ADB for savings</p> <p>No</p> <p>Savings account</p> <p>Going there physically</p> <p>No</p> <p>For mobile money transactions</p> <p>Tried once - it didn't work, they registered them for drought insurance and left and never came back</p> <p>No</p> <p>Yes government insurance</p>	<p>Agricultural Development Bank, also uses Vodafone Cash (mobile money), wife doesn't have a bank account but keeps the passbook</p> <p>Uses mobile money for short-term expenses</p> <p>Uses ADB for savings</p> <p>No</p> <p>Savings account</p> <p>Going there physically</p> <p>No</p> <p>For mobile money transactions</p> <p>Tried once - it didn't work, they registered them for drought insurance and left and never came back</p> <p>No</p> <p>Yes government insurance</p>
<p><b>6. Worries/concerns in life and aspirations for the future</b></p> <p>Do you have any worries/concerns in life? What are they?</p> <p>What are your aspirations for the future?</p>	<p>N/A</p> <p>Saving GHC 7,000 to build a house at the roadside, has been working on it about 3 years (7,000 is what is left to go), also to pay for 5 kids to go to University</p>	<p>N/A</p> <p>Saving GHC 7,000 to build a house at the roadside, has been working on it about 3 years (7,000 is what is left to go), also to pay for 5 kids to go to University</p>



	QUESTION	ANSWER
Crop 2:	Crop name: _____ Tomatoes and Peppers _____	
Production period	What is the land size you use for this crop? (specific size, or portion allocated out of the total land size answered above)	1 acre each (2 acres total)
Inputs / unit	Which months of the year do you produce this crop? Is this one production cycle? If not how many cycles are there during these months?	Tomato - April to June, 1 cycle
	How many times can you harvest in each production cycle?	5 times for tomato for irrigated (then 1 minor for rainfed), 3 times for pepper (maximum 4 but minor yield)
	Which month(s) do you harvest?	Tomato - Harvest in July Pepper - Harvest in September
	What are the inputs and their costs (materials and labor) required to produce? And at which point of the production cycle do you use them?	See production calendars
	From whom do you purchase seeds/seedling/fertilizers/pesticides?	Input dealer comes to the community
	Sales	To whom do you sell your product?
Do you sell your product right after you harvest? If not, when do you sell?		Tomatoes are sold immediately, peppers are dried and sold in April in order to get a better price
What was the sales price/unit most recently? Was it a good price?		See production calendar
Who are the buyers of your products?		Buyer comes to farm
Do your buyer come to your farm to purchase your products?		Buyer comes to farm
Do you sell your products by yourself? If so, where?		N/A
If you sell your products by yourself, what are the associated costs (transportation, rent-a-space, etc.) and how much are they?		N/A
Is there any other costs associated with sales of your products?		N/A
Value chain challenges	What are your main challenges for you to <u>produce and sell this product</u> ? (production related issues)	Pests - white flies especially on pepper
	(storage/processing related issues)	
	(delivery/sales related issues)	
	(gender related issues)	

	QUESTION	ANSWER
Crop 3:	Crop name: _____ Green leafy vegetables _____	
Production period	What is the land size you use for this crop? (specific size, or portion allocated out of the total land size answered above)	0.5 acres
Inputs / unit	Which months of the year do you produce this crop? Is this one production cycle? If not how many cycles are there during these months?	December-February, 1 cycle
	How many times can you harvest in each production cycle?	6 times
	Which month(s) do you harvest?	every 12 days from December to February
	What are the inputs and their costs (materials and labor) required to produce? And at which point of the production cycle do you use them?	No labour costs except for harvesting, fertilizer, cost of preparing the land and seeds (see production calendar)
	From whom do you purchase seeds/seedling/fertilizers/pesticides?	Input supplier in the community
Sales	To whom do you sell your product?	Buyer comes
	Do you sell your product right after you harvest? If not, when do you sell?	Yes
	What was the sales price/unit most recently? Was it a good price?	Very good GHC 50 per basket, expects it to go up to GHC 70
	Who are the buyers of your products?	Buyer from the market
	Do your buyer come to your farm to purchase your products?	Yes
	Do you sell your products by yourself? If so, where?	Yes
	If you sell your products by yourself, what are the associated costs (transportation, rent-a-space, etc.) and how much are they?	None
	Is there any other costs associated with sales of your products?	No
Value chain challenges	What are your main challenges for you to <u>produce and sell this product</u> ? (production related issues)	Drought
	(storage/processing related issues)	
	(delivery/sales related issues)	
	(gender related issues)	

BASIC INFORMATION		CROP 1 (Green leafy vegetables)											
		Production Area: 1 acre			Sales Unit:			Harvest once every 12 days					
		Yield per Production Unit: 22 baskets			Unit Price:			During the rainy season (from March can harvest once every 6 days)					
					(lowest): 10 cedis/basket								
					(highest): 70 cedis/basket								
					(average): 40 cedis/basket								
DETAILED INFORMATION		Jan.	Feb.	Mar.	Apr.	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		Production											
Expenses - PRODUCTION		Highest price		Highest price								Highest price	
Rent (land)													
Machine Rent (land prep.)													
Labor (land preparation)													
Fertilizers (Natural)													
Labor Cost (transplant)													
Labor Cost (weeding)													
Labor Cost (fertilizer)													
Fertilizers (Chemical)													
Labor (pesticide)													
Machine Rent (Harvesting)		60		60								60	
Labor (harvesting)													
other (Weedicide)													
other (seeds)													
other (sacks)													
Labor (planting by broadcasting)													
Transportation													
Labour													
Other cost (specify)													
Total Expense		60		60								60	
Sales		3,080		3,080								3,080	
(REVENUE - EXPENSES)=Income		3,020		3,020								3,020	

BASIC INFORMATION		CROP 2 (PEPPER)											
		Production Area: 1 acre			Sales Unit:			Pepper					
		Yield per Production Unit: 25 bags/acre of pepper (legon 18 variety) - harvest 3 times but 25 is the tot			Unit Price:			(lowest): 80 cedis/bag					
								(highest): 500 cedis/bag					
								(average): 140 cedis/bag					
DETAILED INFORMATION		Jan.	Feb.	Mar.	Apr.	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		Surs Transplant Harvesting Drying											
Expenses - PRODUCTION													
Rent (land)													
Machine Rent (land prep.)													
Labor (land preparation)													
Fertilizers (Natural)													
Labor Cost (transplant)													
Labor Cost (weeding)													
Labor Cost (fertilizer)													
Fertilizers (Chemical)													
Labor (pesticide)													
Machine Rent (Harvesting)													
Labor (harvesting)													
other (Pesticide)													
other (sacks)													
other (seeds)													
Labor (planting)													
Transportation													
Labour													
Other cost (specify)													
Total Expense						15		140		17			
Sales						3,750							
(REVENUE - EXPENSES)=Income						3,750		(15)		(140)		(17)	

BASIC INFORMATION		CROP 3 (TOMATO)											
		Production Area: 1 acres			Sales Unit:			1 basin					
		Yield per Production Unit: 20 basins/tomatoes - we harvest 5 times = 100 basins			Unit Price:			(lowest): 15 cedis/basins					
								(highest): 200 cedis/basins					
								(average): 120 cedis/basins					
DETAILED INFORMATION		Jan.	Feb.	Mar.	Apr.	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		Surs Transplant Harvesting											
Expenses - PRODUCTION													
Rent (land)													
Machine Rent (land prep.)													
Labor (land preparation)													
Fertilizers (Natural)													
Labor Cost (transplant)													
Labor Cost (weeding)													
Labor Cost (fertilizer)													
Fertilizers (Chemical)													
Labor (pesticide)													
Machine Rent (Harvesting)													
Labor (harvesting)													
other (fertilizer)													
other (labor and cost of sticking)													
other (seeds)													
Labor (planting)													
Transportation													
Labour													
Other cost (specify)													
Total Expense						120		200		427		40	
Sales								20,000					

		Jan.	Feb.	Mar.	Apr.	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
<b>(REVENUE - EXPENSES)=Income</b>		-	-	-	-	(120)	(200)	(427)	19,960	-	-	-	-	19,213
BASIC INFORMATION	<b>CROP 4 (SOYBEANS)</b>													
		Production Area: 3 acres			Sales Unit: "bags" (1 bag = 109 Kg)									
		Yield per Production Unit: 6 bags per acre			Unit Price: (lowest): 80 cedis/bag (highest): 200 cedis/bag (average): 120 cedis/bag									
DETAILED INFORMATION		Jan.	Feb.	Mar.	Apr.	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
<b>Expenses - PRODUCTION</b>	Rent (land)													
	Machine Rent (land prep.)													
	Labor (land preparation)													
	Fertilizers (Natural)													
	Labor Cost (transplant)													
	Labor Cost (weeding)													
	Labor Cost (fertilizer)													
	Fertilizers (Chemical)													
	Labor (pesticide)													
	Machine Rent (Harvesting)													
	Labor (harvesting)													
	other (weedicide)												108	
	other (sacks)													
	other (seeds)													
<b>Expenses - SALES</b>	Labor (planting)							135						
	Transportation													
	Labour													
	Other cost (specify)													
<b>Total Expense</b>								135					108	243
<b>Sales</b>										3600				
<b>(REVENUE - EXPENSES)=Income</b>		-	-	-	-	-	-	(135)	-	3,600	-	(108)	-	3,357
BASIC INFORMATION	<b>CROP 5 (MAIZE)</b>													
		Production Area: 10 acres			Sales Unit: "bags" (1 bag is 100kg)									
		Yield per Production Unit: 8 bags/acre			Unit Price: (lowest): 70 cedis/bag (highest): 120 cedis/bag (average): 100 cedis/bag									
DETAILED INFORMATION		Jan.	Feb.	Mar.	Apr.	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
<b>Expenses - PRODUCTION</b>	Rent (land)													
	Machine Rent (land prep.)						700							
	Labor (land preparation)													
	Fertilizers (Natural)													
	Labor Cost (transplant)													
	Labor Cost (weeding)													
	Labor Cost (fertilizer)													
	Fertilizers (Chemical)								2,200					
	Labor (pesticide)													
	Machine Rent (Harvesting)													
	Labor (harvesting)													
	other (weedicide)												48	
	other (sacks)													
	other (seeds)													
<b>Expenses - SALES</b>	Labor (planting)							225						
	Transportation													
	Labour													
	Other cost (specify)													
<b>Total Expense</b>								925	2,200				48	3,173
<b>Sales</b>												5760		
<b>(REVENUE - EXPENSES)=Income</b>		-	-	-	-	-	-	(925)	(2,200)	-	-	5,760	(48)	2,587
<b>TOTAL AGRICULTURAL INCOME</b>		3,020	3,020	-	3,630	(215)	(1,487)	17,620	(17)	3,600	5,760	(156)	3,020	37,795

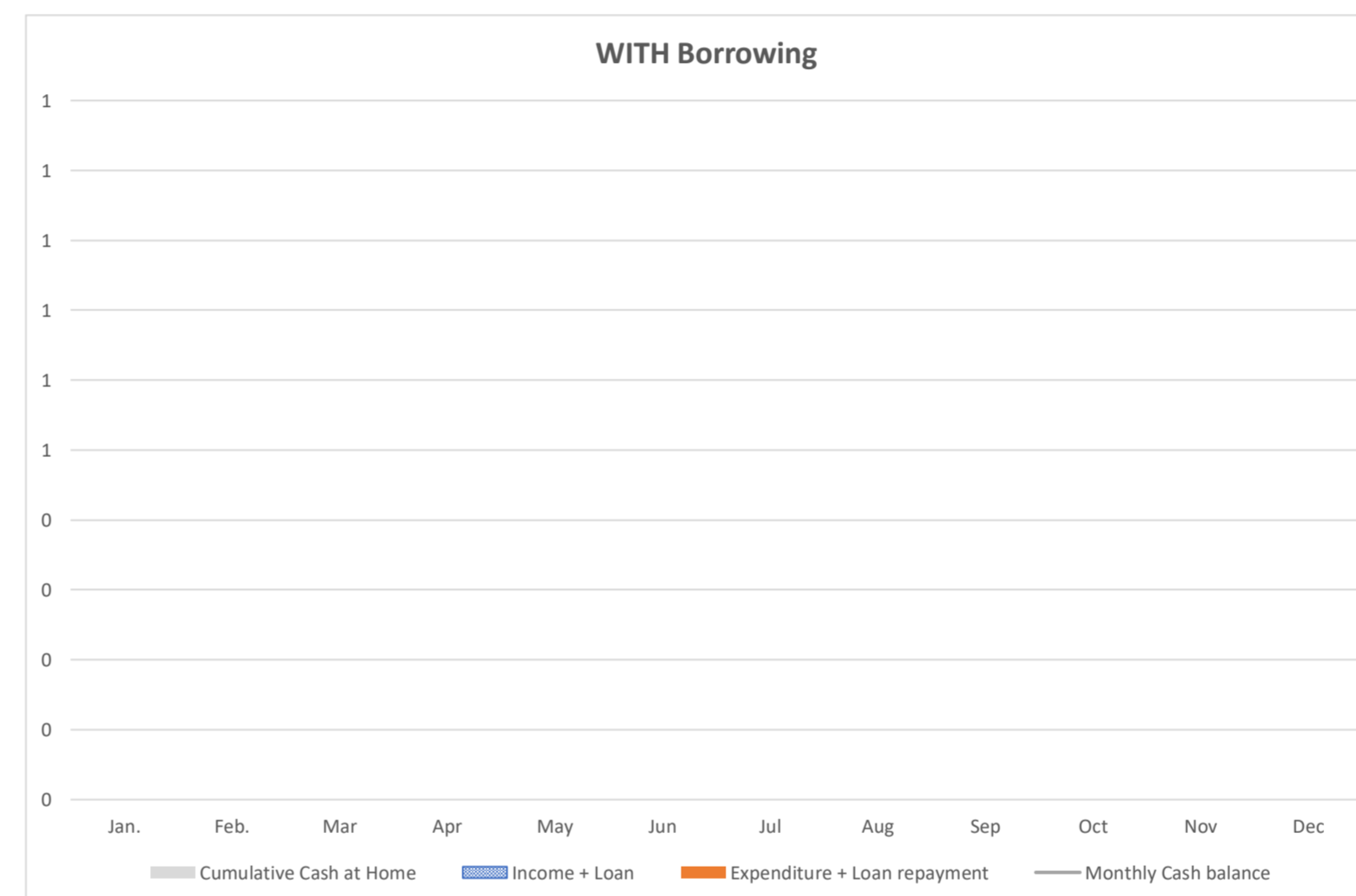
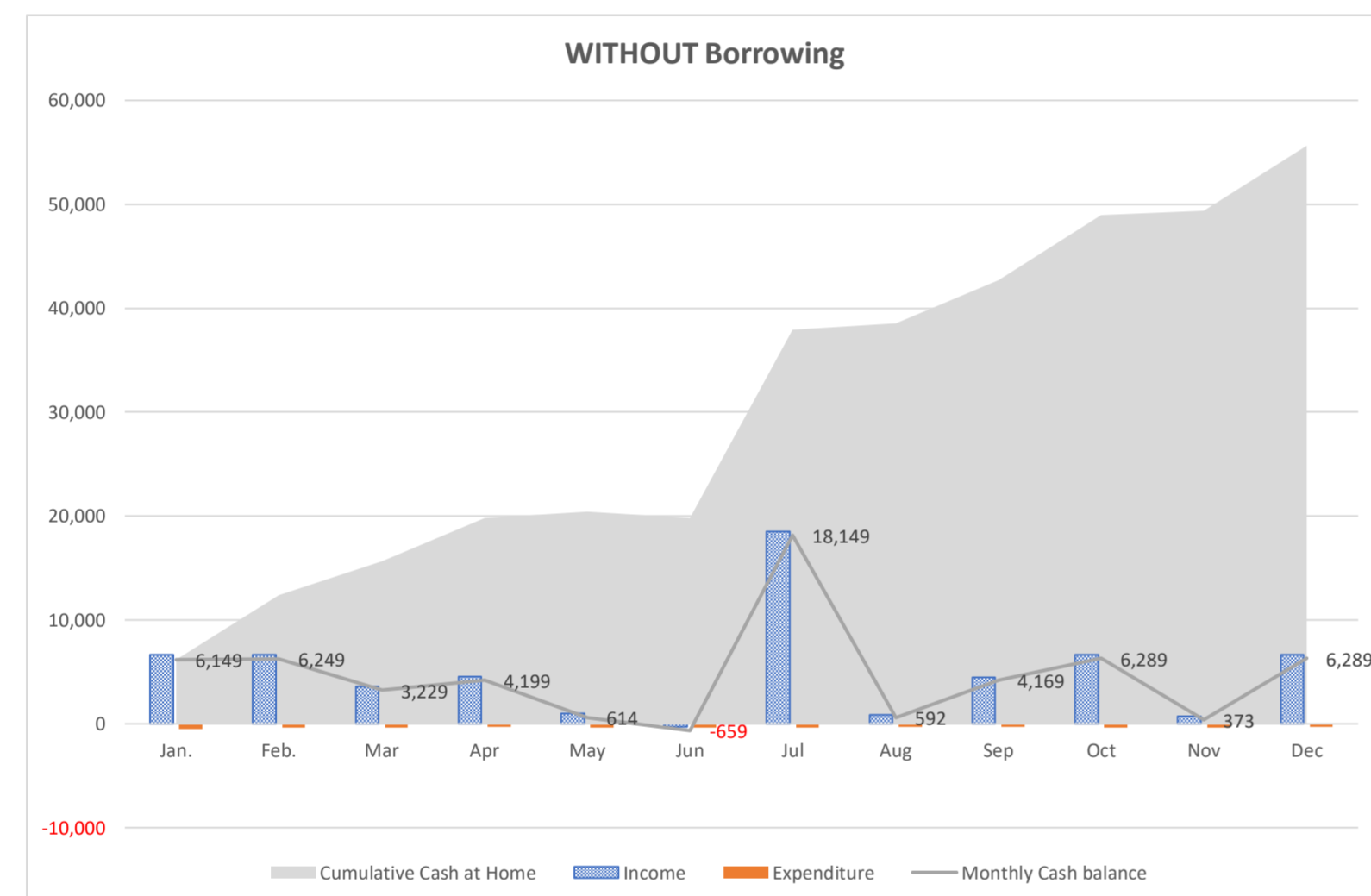


**WITHOUT LOAN (Borrowing)**

	Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Income	6,620	6,620	3,600	4,530	985	-287	18,520	883	4,500	6,660	744	6,620
Expenditure	-472	-372	-372	-332	-372	-372	-372	-292	-332	-372	-372	-332
Monthly Cash balance	6,149	6,249	3,229	4,199	614	-659	18,149	592	4,169	6,289	373	6,289
Cumulative Cash at Home	6,149	12,397	15,626	19,824	20,438	19,779	37,928	38,519	42,688	48,976	49,349	55,637

**WITH LOAN (Borrowing)**

	Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Income + Loan												
Expenditure + Loan repayment												
Monthly Cash balance												
Cumulative Cash at Home												



NAME of the INTERVIEWEE: Iddrisu Ziblim

Community - Libga

Categories	Sub Categoris	Questions	Answer
<b>1. Basic information on the household</b>			
	Family member	Who are the member of the family? (member and age)	1 farmer (didn't finish Senior High School), 2 wives, has 11 children 1 in an tertiary institution, 1 in high school, 6 in primary school, 1 too young for school
		How many family members live in this household? (i.e. those who share the household budget)	13 people in this house
		Is there any family member who live and work outside this home? If so, do they contribute to the household budget (send money home)?	1 son who is working as a teacher in Tarkwa (he is 30 years old), he has sent GHC 50 twice
	Tangible asset (excluding monetary/financial)	Own home (no rent) <input type="checkbox"/> , agricultural machinery <input type="checkbox"/> (if checked, specify what machinery _____) Chicken (poultry or egg) <input type="checkbox"/> , aquaculture <input type="checkbox"/> , motor bicycle <input type="checkbox"/> , truck/vehicle <input type="checkbox"/> , cow <input type="checkbox"/> , piglet <input type="checkbox"/> smart phone <input type="checkbox"/> (if checked, specify how many and who uses the phone _____) feature phone <input type="checkbox"/> (if checked, specify how many and who uses the phone _____)	Own home, has 1 motorbike and 1 bicycle, 3 feature phones, 10 sheep and more than 50 chicken
<b>2. Sources of income</b>			
		How do you make your living? What are the sources of your household income? Please tell us what they are and amount for each month.	
	Agriculture-related income	Regular income (associated with crop sales)	Husband is a farmer, wife is a farmer of vegetables
		Other agriculture-related income (caual labourer, machinery rent, etc.)	Wife also processes rice but she doesn't have money now so she's not doing rice (she would buy paddy rice, parboil it, dry it, mill it and sell) - she can process 10 bags at a time, would need GHC 1,000 to buy paddy rice, buy water, firewood and transportation these would cost GHC 600 and so she would need GHC 1,600 to start it up again, her profit is GHC 300 for 10 bags - so can make GHC 300 a week (GHC 1,200 for the month)
			Sells livestock from time to time
	Non-Agriculture income	Regular income (non-farming income)	None (only agriculture)
		Irregular income (any other income including receipt of remittance from family)	.
		Who is the administrator of the household budget?	Both
		Does he/she record the income and expenditure?	No
		IF YES, what is his/her motivation of bookkeeping?	.
		IF NO, why not? How does he/she manage the budget?	Every adult keeps their own wallets and then they come together to decide who should pay for each expense
<b>3. Household expenditures</b>			
		Use [4.Household cash flow] sheet. Ask the "regular" and "irregular/unexpected" expenditures of the past 12 months.	



<p><b>4. Usage of health care service</b></p> <p>Usage status</p> <p>Cost and payment</p>	<p>When any one of your family becomes sick, where do you go to seek for help?</p> <p>Are you (your family) enrolled in the government health insurance system (NHIA)?</p> <p><i>IF YES (enrolled), what benefits do you find in the government insurance? List top three benefits.</i></p> <p>Do you find any inconvenience with the government insurance? If you do, what are they?</p> <p><i>IF NO (not enrolled), why are you not enrolled? (e.g. not qualified, don't know how to enrol, difficult to enrol (cost, etc.). not interested )</i></p> <p>Do you have regular health care-related expenditures (premium for health care service, medical services, medicine, etc.)?</p> <p>When you use health care service what cost(s) incur? (premium for the insurance, pay-as-you-go service fee, transportation, etc.)</p> <p>How do you pay for the fee? (e.g. using savings, borrow money, etc.)</p> <p>What payment method do you use? (cash, digital payment, etc.)</p>	<p>Savelugu Hospital</p> <p>They all have national health insurance, but 1 of the wives' has expired she doesn't have money to renew yet so will renew</p> <p>.</p> <p>No, but sometimes you have to pay for things not covered by NHIS</p> <p>.</p> <p>No</p> <p>Sometimes has to pay GHC 20 a month in medicines (1 wife) etc that are not covered by health insurance</p> <p>Cash</p> <p>Cash</p>
<p><b>5. Usage of financial services</b></p>	<p>Do you have a bank account? <i>(If owning more than 1 account, start with the main account)</i></p> <p>How often do you use the account?</p> <p>For what purposes do you use this account? (saving, remittance, etc.)</p> <p>Are you using any loan from the financial institution? (If YES, use "Calendar (Financial)")</p> <p>What type of financial products and services you use? (of which financial service provider(s)?)</p> <p>How do you assess their services?</p> <p>Are you borrowing money from your family, friends, someone from the village, or any other (informal) money lenders? (If YES, use "Calendar (Financial)")</p> <p>Do you (or other family members) use the phone for financial transactions? What do you think about conducting financial transactions over the phone?</p> <p>Do you have any insurance for your agriculture crop? If you do, who is the provider?</p> <p>Do you have life insurance? If you do, who is the provider?</p> <p>Do you have any health insurance? If you do, who is the provider?(e.g. insurance company, bundling product offered by mobile service provider, etc.)</p>	<p>Husband and wife both use MTN mobile money</p> <p>Daily for transactions</p> <p>Husband uses mobile money, wife also uses mobile money she deposits her money (savings, getting money from others - remittances from her son in Tarkwa)</p> <p>No</p> <p>MTN mobile money</p> <p>Through the phone, and there is an agent in the community</p> <p>Borrowed GHC 1,500 from Adakabra for school fees - every 3 months, have to pay GHC 150 of interest (10 percent of what you borrow) - the wife is a member of VSLA (not the husband), this is the second time they borrowed from the VSLA, they also used to borrow for secondary school (because it was not free), they would hope to pay by the end of February (the third month)</p> <p>Borrowed from another VSLA (GHC 1,000 to pay for agricultural inputs) - the husband is a member of another one.</p> <p>Executives of the VSLA will check the accounts and approve the loan is the money exists in</p> <p>Yes, for savings and remittances, and for renewing health insurance</p> <p>No</p> <p>No</p> <p>NHIS</p>
<p><b>6. Worries/concerns in life and aspirations for the future</b></p>	<p>Do you have any worries/concerns in life? What are they?</p> <p>What are your aspirations for the future?</p>	<p>N/A</p> <p>Educate children because he understands the benefit of schooling so they can be financial independence and also contribute to the family</p>

NAME of the INTERVIEWEE: \_\_Iddrisu Ziblim\_\_\_\_\_

QUESTION		ANSWER												
General question	Do you have your own agricultural land? If you do, what is the total size?	YES / NO	Yes											
		Size:	4 acres - 2 acres of rice, 1 acre of maize, 1 soyabeans and grows (0.5 acre for green leafy vegetables in the dry season); Also farms on additional land of 6 acres for rice (got 75 bags of rice, made 15 bags of profit - 80 cedis a bag so GHC 1200 profit)											
	Do you cultivate for your own consumption? If so, what are they?	YES / NO	Yes - eat all the maize, eat some of soyabeans and sell 60% and rice we sell some about 60% and eat some, green leafy vegetables (ayoyo, bra) - consumes some and sells some											
		(Crops)	Maize, Soybeans, Rice											
	What <b>cash crops</b> do you cultivate?		Soybeans, Rice, Green leafy vegetables (ayoyo, bra)											
	Which one is the most important one (cash crop)?		Soybeans											
	Do you <b>cultivate individually? Or as a group?</b>		Both - is part of a farmer group that also does 4 acres											
Do you <b>sell the products individually? Or collectively?</b>			Both											
	What do women and men do at each stage of value chain: production, post-harvest processing & storage, distribution & sales?													
		<table border="1"> <thead> <tr> <th></th> <th>Men</th> <th>Women</th> </tr> </thead> <tbody> <tr> <td><b>Production</b></td> <td>All farming activities</td> <td>All farming activities</td> </tr> <tr> <td><b>Post harvest</b></td> <td>All post-harvest activities</td> <td>All post-harvest activities</td> </tr> <tr> <td><b>Distribution and sales</b></td> <td>All sales activities</td> <td>All sales activities</td> </tr> </tbody> </table>		Men	Women	<b>Production</b>	All farming activities	All farming activities	<b>Post harvest</b>	All post-harvest activities	All post-harvest activities	<b>Distribution and sales</b>	All sales activities	All sales activities
	Men	Women												
<b>Production</b>	All farming activities	All farming activities												
<b>Post harvest</b>	All post-harvest activities	All post-harvest activities												
<b>Distribution and sales</b>	All sales activities	All sales activities												

QUESTION		ANSWER	
Crop 1:	Crop name: __Green leafy vegetables_____		
Production period	What is the land size you use for this crop? (specific size, or portion allocated out of the total land size answered above)		0.5 acres
Inputs / unit	Which months of the year do you produce this crop? Is this one production cycle? If not how many cycles are there during these months?		See production calendar
	How many times can you harvest in each production cycle?		See production calendar
	Which month(s) do you harvest?		See production calendar
	What are the inputs and their costs (materials and labor) required to produce? And at which point of the production cycle do you use them?		See production calendar
	From whom do you purchase seeds/seedling/fertilizers/pesticides?		Buys seed from the market
Sales	To whom do you sell your product?		The buyer comes to the farm
	Do you sell your product right after you harvest? If not, when do you sell?		Yes
	What was the sales price/unit most recently? Was it a good price?		See production calendar
	Who are the buyers of your products?		Buyers from market
	Do your buyer come to your farm to purchase your products?		Yes
	Do you sell your products by yourself? If so, where?		N/A
	If you sell your products by yourself, what are the associated costs (transportation, rent-a-space, etc.) and how much are they?		N/A
	Is there any other costs associated with sales of your products?		N/A
Value chain challenges	What are your main challenges for you to <b>produce and sell this product?</b>		N/A
	(production related issues)		
	(storage/procesing related issues)		
	(delivery/sales related issues)		
	(gender related issues)		

	QUESTION	ANSWER
Crop 2:	Crop name: _____Rice_____	
Production period	What is the land size you use for this crop? (specific size, or portion allocated out of the total land size answered above)	2 acres of his own land, and 6 acres of borrowed/cropped land in another village
Inputs / unit	Which months of the year do you produce this crop? Is this one production cycle? If not how many cycles are there during these months?	June to October, 1 cycle
	How many times can you harvest in each production cycle?	See production calendar
	Which month(s) do you harvest?	
	What are the inputs and their costs (materials and labor) required to produce? And at which point of the production cycle do you use them?	
	From whom do you purchase seeds/seedling/fertilizers/pesticides?	
	Sales	To whom do you sell your product?
	Do you sell your product right after you harvest? If not, when do you sell?	
	What was the sales price/unit most recently? Was it a good price?	
	Who are the buyers of your products?	
	Do your buyer come to your farm to purchase your products?	
	Do you sell your products by yourself? If so, where?	
	If you sell your products by yourself, what are the associated costs (transportation, rent-a-space, etc.) and how much are they?	
	Is there any other costs associated with sales of your products?	
Value chain challenges	What are your main challenges for you to <u>produce and sell this product</u> ?	
	(production related issues)	Agricultural land is limited, they have to look land to crop, how to maximize land (additional land to farm) - e.g., Sakple about 50 kms
	(storage/procesing related issues)	
	(delivery/sales related issues)	
	(gender related issues)	

	QUESTION	ANSWER
Crop 3:	Crop name: _____Soybeans_____	
Production period	What is the land size you use for this crop? (specific size, or portion allocated out of the total land size answered above)	1 acres
Inputs / unit	Which months of the year do you produce this crop? Is this one production cycle? If not how many cycles are there during these months?	June-October, 1 cycle
	How many times can you harvest in each production cycle?	
	Which month(s) do you harvest?	
	What are the inputs and their costs (materials and labor) required to produce? And at which point of the production cycle do you use them?	
	From whom do you purchase seeds/seedling/fertilizers/pesticides?	
	Sales	To whom do you sell your product?
	Do you sell your product right after you harvest? If not, when do you sell?	
	What was the sales price/unit most recently? Was it a good price?	
	Who are the buyers of your products?	
	Do your buyer come to your farm to purchase your products?	
	Do you sell your products by yourself? If so, where?	
	If you sell your products by yourself, what are the associated costs (transportation, rent-a-space, etc.) and how much are they?	
	Is there any other costs associated with sales of your products?	
Value chain challenges	What are your main challenges for you to <u>produce and sell this product</u> ?	
	(production related issues)	
	(storage/procesing related issues)	
	(delivery/sales related issues)	
	(gender related issues)	

BASIC INFORMATION

<b>CROP 1</b>	<b>(RICE)</b>
Production Area: 8 acres	Sales Unit: "maxi bag" (1 maxi bag is 84 kg)
Yield per Production Unit: 10 maxi bags/acre	Unit Price: (lowest): 60 cedis/bag (highest): 100 cedis/bag (average): 80 cedis/bag

DETAILED INFORMATION

		Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
		<div style="display: flex; justify-content: space-around;"> <span style="background-color: #4CAF50; color: white; padding: 2px;">Production</span> <span style="background-color: #F44336; color: white; padding: 2px;">Harvesting</span> </div>												
<b>Expenses - PRODUCTION</b>	Rent (land)		-											
	Machine Rent (land prep.)						105							
	Labor (land preparation)													
	Fertilizers (Natural)													
	Labor Cost (transplant)													
	Labor Cost (weeding)													
	Labor Cost (fertilizer)													
	Fertilizers (Chemical)								220					
	Labor (pesticide)													
This is the biggest challenge	Machine Rent (Harvesting)													
	Labor (harvesting)													
	other (Weedicide)													
	other (seeds)							40						
	other (sacks)												60	
	Labor (planting by broadcasting)													
<b>Expenses - SALES</b>	Transportation													
	Labour													
	Other cost (specify)													
<b>Total Expense</b>								145	220				60	425
<b>Sales</b>											4800			4,800
<b>(REVENUE - EXPENSES)=Income</b>								(145)	(220)		4,800		(60)	4,375

BASIC INFORMATION

<b>CROP 2</b>	<b>(Green leafy vegetables)</b>
Production Area: 0.5 acres	Sales Unit: Harvest once every 12 days
Yield per Production Unit: 22 baskets	Unit Price: (lowest): 10 cedis/basket During the rainy season (from March can harvest once every 6 days) (highest): 70 cedis/basket (average): 40 cedis/basket

DETAILED INFORMATION

		Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
		<div style="display: flex; justify-content: space-around;"> <span style="background-color: #4CAF50; color: white; padding: 2px;">Production</span> <span style="background-color: #4CAF50; color: white; padding: 2px;">Production</span> </div>												
<b>Expenses - PRODUCTION</b>	Rent (land)		Highest price	Highest price									Highest price	
	Machine Rent (land prep.)		-											
	Labor (land preparation)													
	Fertilizers (Natural)													
	Labor Cost (transplant)													
	Labor Cost (weeding)													
	Labor Cost (fertilizer)													
	Fertilizers (Chemical)													
	Labor (pesticide)													
This is the biggest challenge	Machine Rent (Harvesting)		30	30										30
	Labor (harvesting)													
	other (Weedicide)													
	other (seeds)													
	other (sacks)													
	Labor (planting by broadcasting)								-					
<b>Expenses - SALES</b>	Transportation													
	Labour													
	Other cost (specify)													
<b>Total Expense</b>			30	30									30	90
<b>Sales</b>			1,848	1,848									1,848	5,544
<b>(REVENUE - EXPENSES)=Income</b>			1,818	1,818									1,818	5,454



The objective of this sheet is to understand the in-and-out of CASH on the MONTHLY basis.

NAME of the INTERVIEWEE: \_\_\_\_\_

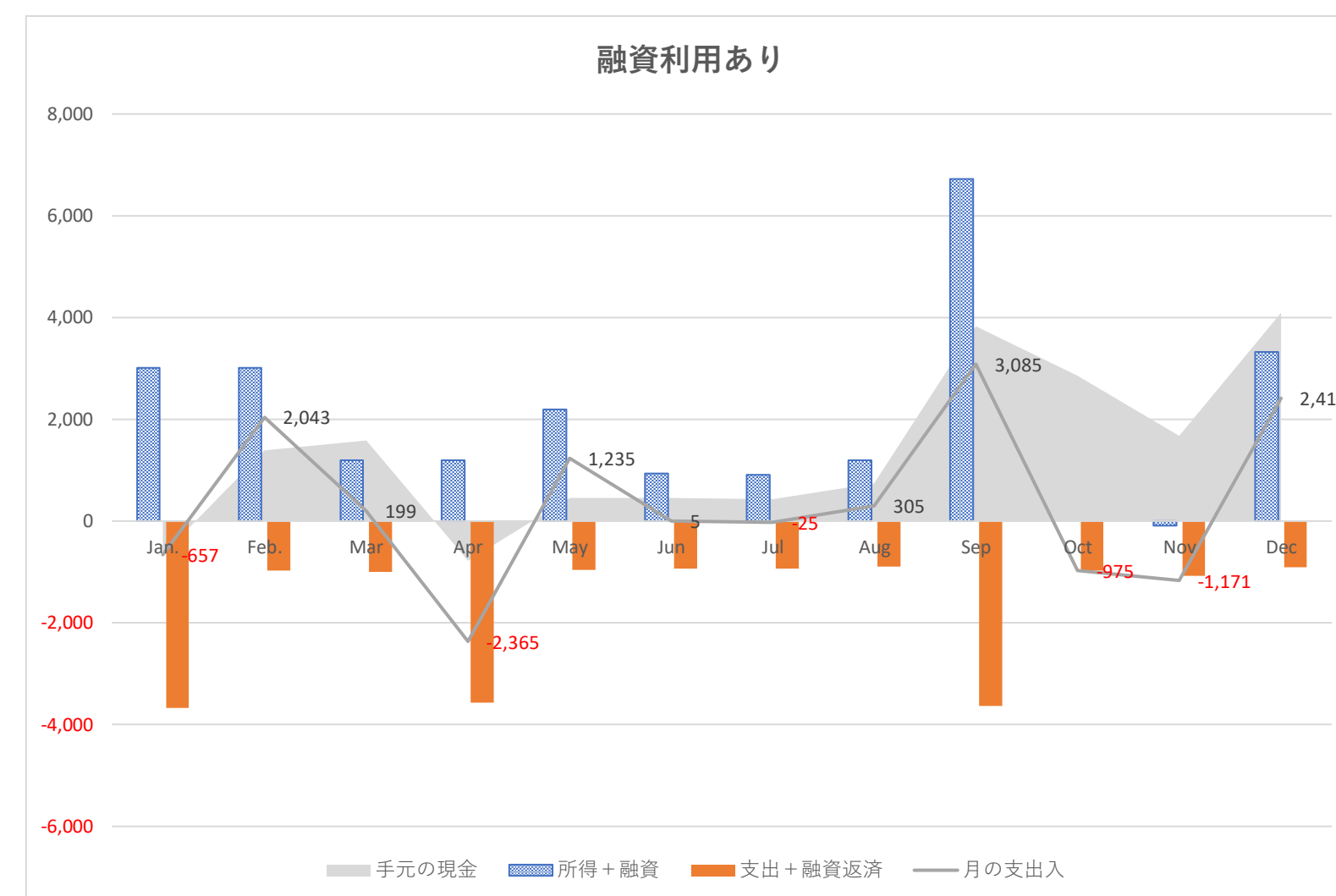
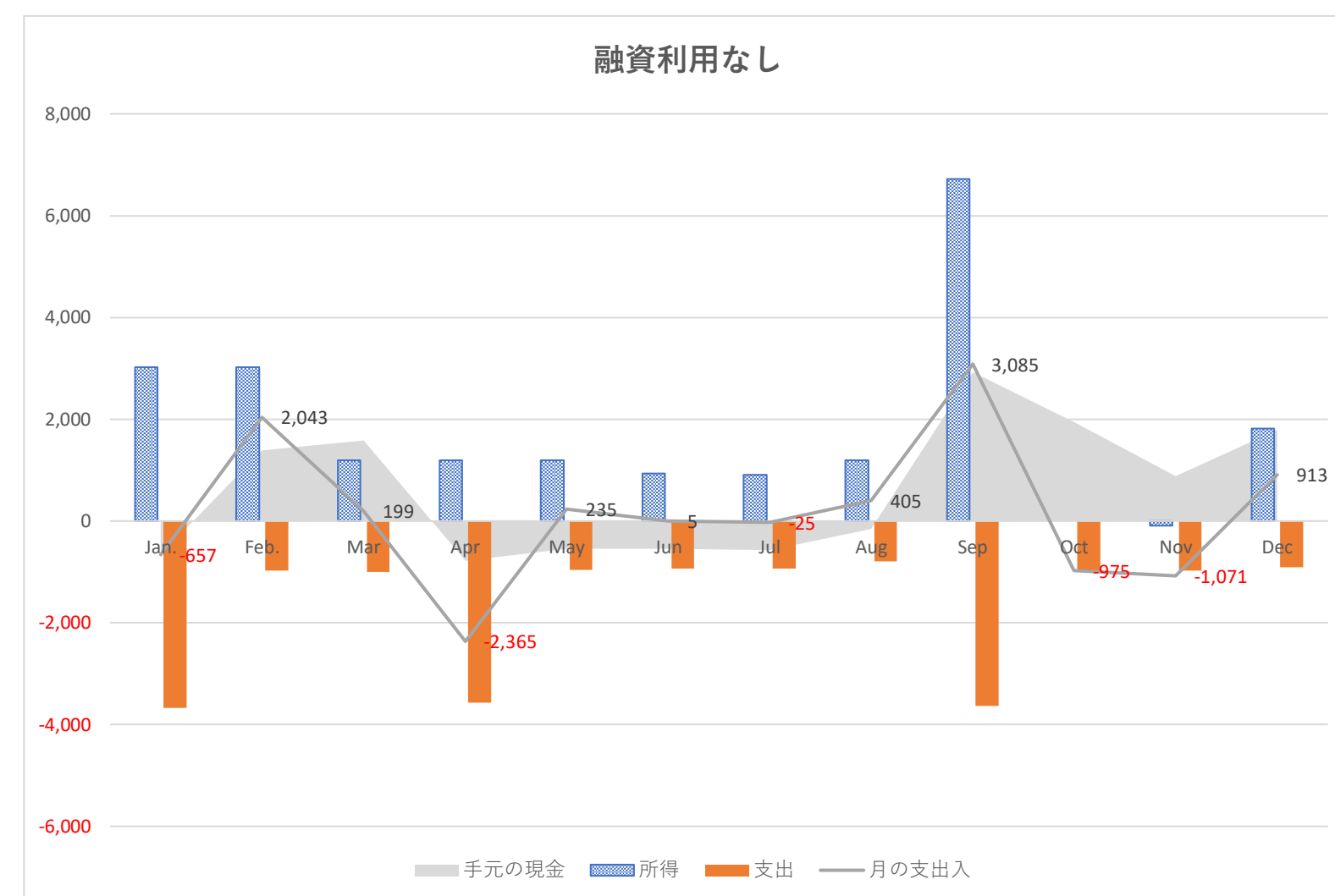
MONTH		Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Income	Agriculture income	1,818	1,818	0	0	0	-260	-290	0	5,520	0	-96	1,818
	Agriculture + rice processing (wife)	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200			
	<b>TOTAL HOUSEHOLD INCOME</b>	<b>3,018</b>	<b>3,018</b>	<b>1,200</b>	<b>1,200</b>	<b>1,200</b>	<b>940</b>	<b>910</b>	<b>1,200</b>	<b>6,720</b>	<b>0</b>	<b>-96</b>	<b>1,818</b>
Income with Loan	Agriculture + rice processing (wife)												
	<b>TOTAL HOUSEHOLD INCOME</b>	<b>3,018</b>	<b>3,018</b>	<b>1,200</b>	<b>1,200</b>	<b>1,200</b>	<b>940</b>	<b>910</b>	<b>1,200</b>	<b>6,720</b>	<b>0</b>	<b>-96</b>	<b>1,818</b>
Expenditures	House -> no rent												
	Electricity	20	20	20	20	20	20	20	20	20	20	20	20
	Fuel for vehicle	150	150	150	150	150	150	150	150	150	150	150	150
	Communication	120	120	120	120	120	120	120	120	120	120	120	120
	Food	400	400	400	400	400	400	400	400	400	400	400	400
	Education	2,700				2,700					2,770		
	Children daily allowance	140	140	140	70	140	140	140			70	140	140
	Health (insurance premium and non insured expenditure)	100	100	126	100	130	100	100	100	100	100	100	100
	Social events (festival, wedding, etc.)	45	45	45	5	5	5	5	5	5	45	45	45
	<b>TOTAL (Monthly)</b>	<b>3,675</b>	<b>975</b>	<b>1,001</b>	<b>3,565</b>	<b>965</b>	<b>935</b>	<b>935</b>	<b>795</b>	<b>3,635</b>	<b>975</b>	<b>975</b>	<b>905</b>
<b>TOTAL (Yearly)</b>												<b>19,336</b>	
Unexpected or irregular expenses	other item (please specify)												
	other item (please specify)												
	<b>TOTAL (Monthly)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
	<b>TOTAL (Yearly)</b>												<b>0</b>
<b>TOTAL Expenditure</b>	<b>-3,675</b>	<b>-975</b>	<b>-1,001</b>	<b>-3,565</b>	<b>-965</b>	<b>-935</b>	<b>-935</b>	<b>-795</b>	<b>-3,635</b>	<b>-975</b>	<b>-975</b>	<b>-905</b>	
LOAN Usage	VSLA (wife)												1,500
	VSLA (husband) (agriculture input)					1,000							
	Borrowing 3												
	<b>TOTAL Borrowing</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,500</b>
	VSLA Repayment (wife)												
	VSLA repayment (husband)								100			100	
Repayment 3													
<b>TOTAL Repayment</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>100</b>	<b>0</b>	<b>0</b>	<b>100</b>	<b>0</b>

WITHOUT LOAN (Borrowing)

	Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
所得	3,018	3,018	1,200	1,200	1,200	940	910	1,200	6,720	0	-96	1,818
支出	-3,675	-975	-1,001	-3,565	-965	-935	-935	-795	-3,635	-975	-975	-905
月の支出入	-657	2,043	199	-2,365	235	5	-25	405	3,085	-975	-1,071	913
手元の現金	-657	1,386	1,585	-780	-780	-545	-540	-565	-160	2,925	1,950	879

WITH LOAN (Borrowing)

	Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
所得 + 融資	3,018	3,018	1,200	1,200	2,200	940	910	1,200	6,720	0	-96	3,318
支出 + 融資返済	-3,675	-975	-1,001	-3,565	-965	-935	-935	-895	-3,635	-975	-1,075	-905
月の支出入	-657	2,043	199	-2,365	1,235	5	-25	305	3,085	-975	-1,171	2,413
手元の現金	-657	1,386	1,585	-780	455	460	435	740	3,825	2,850	1,679	4,092



NAME of the INTERVIEWEE: \_\_\_\_\_ Fuseini Abdul Mumin Souchi \_\_\_\_\_ Abukare Yakubu

Community - Libga

Categories	Sub Categoris	Questions	Answer
1. Basic information on the household	Family member	Who are the member of the family? (member and age)	1 husband (has not been to school) 2 wives 9 children (oldest is about 20, youngest was just born) - middle 6 are still in school, number 2 finished Senior High School, number 3 -8 in primary school and number 9 is not yet in school (was just born)
	Tangible asset (excluding monetary/financial)	How many family members live in this household? (i.e. those who share the household budget) Is there any family member who live and work outside this home? If so, do they contribute to the household budget (send money home)?  Own home (no rent) <input type="checkbox"/> , agricultural machinery <input type="checkbox"/> (if checked, specify what machinery _____) Chicken (poultry or egg) <input type="checkbox"/> , aquaculture <input type="checkbox"/> , motor bicycle <input type="checkbox"/> , truck/vehicle <input type="checkbox"/> , cow <input type="checkbox"/> , piglet <input type="checkbox"/> smart phone <input type="checkbox"/> (if checked, specify how many and who uses the phone _____) feature phone <input type="checkbox"/> (if checked, specify how many and who uses the phone _____)	11 people Eldest child finished 1-2 years of Senior High School - she's married and she is in Accra (has 2 kids) The second child didn't finish Senior High School didn't pass well so has been struggling since then  Owns house, 10 sheep, 20 guinea fowls, 40 chickens, 1 bicycle, satellite TV, 1 motorking (uses it for agricultural activities, transporting people/produce/inputs - after rainy season then he rents it out if someone needs it), 1 motorbike, 3 feature phones
2. Sources of income	Agriculture-related income	How do you make your living? What are the sources of your household income? Please tell us what they are and amount for each month. Regular income (associated with crop sales) Other agriculture-related income (caual labourer, machinery rent, etc.)	Farming (wives also grow vegetables) .
	Non-Agriculture income	Regular income (non-farming income) Irregular income (any other income including receipt of remittance from family) Who is the administrator of the household budget? Does he/she record the income and expenditure? IF YES, what is his/her motivation of bookkeeping? IF NO, why not? How does he/she manage the budget?	No  Motorking rentals Head of household No . They keep track of expenses in their head (Wife said she might be interested in learning about bookkeeping)
3. Household expenditures		Use [4.Household cash flow] sheet. Ask the "regular" and "irregular/unexpected" expenditures of the past 12 months.	



<p><b>4. Usage of health care service</b></p> <p>Usage status</p> <p>When any one of your family becomes sick, where do you go to seek for help?</p> <p>Are you (your family) enrolled in the government health insurance system (NHIA)?</p> <p><i>IF YES (enrolled), what benefits do you find in the government insurance? List top three benefits.</i></p> <p>Do you find any inconvenience with the government insurance? If you do, what are they?</p> <p><i>IF NO (not enrolled), why are you not enrolled? (e.g. not qualified, don't know how to enrol, difficult to enrol (cost, etc.), not interested )</i></p> <p>Cost and payment</p> <p>Do you have regular health care-related expenditures (premium for health care service, medical services, medicine, etc.)?</p> <p>When you use health care service what cost(s) incur? (premium for the insurance, pay-as-you-go service fee, transportation, etc.)</p> <p>How do you pay for the fee? (e.g. using savings, borrow money, etc.)</p> <p>What payment method do you use? (cash, digital payment, etc.)</p>	<p>When any one of your family becomes sick, where do you go to seek for help?</p> <p>Are you (your family) enrolled in the government health insurance system (NHIA)?</p> <p><i>IF YES (enrolled), what benefits do you find in the government insurance? List top three benefits.</i></p> <p>Do you find any inconvenience with the government insurance? If you do, what are they?</p> <p><i>IF NO (not enrolled), why are you not enrolled? (e.g. not qualified, don't know how to enrol, difficult to enrol (cost, etc.), not interested )</i></p> <p>Do you have regular health care-related expenditures (premium for health care service, medical services, medicine, etc.)?</p> <p>When you use health care service what cost(s) incur? (premium for the insurance, pay-as-you-go service fee, transportation, etc.)</p> <p>How do you pay for the fee? (e.g. using savings, borrow money, etc.)</p> <p>What payment method do you use? (cash, digital payment, etc.)</p>	<p>• Savelugu Hospital</p> <p>Yes everyone has NHIS. The head of the household (he has the old one(non-biometric) and has not gone for the new one) - wants to renew other expired ones of the household and when they all have it again, he will renew his last</p> <p>•</p> <p>Happy with service, but if you don't go early the antenatal will tell you to go home, till the following week</p> <p>•</p> <p>No</p> <p>About GHC 50 a month on other services not covered by NHIS</p> <p>Cash</p> <p>Cash</p>
<p><b>5. Usage of financial services</b></p>	<p>Do you have a bank account? (If owning more than 1 account, start with the main account)</p> <p>How often do you use the account?</p> <p>For what purposes do you use this account? (saving, remittance, etc.)</p> <p>Are you using any loan from the financial institution? (If YES, use "Calendar (Financial)")</p> <p>What type of financial products and services you use? (of which financial service provider(s)?)</p> <p>How do you assess their services?</p> <p>Are you borrowing money from your family, friends, someone from the village, or any other (informal) money lenders? (If YES, use "Calendar (Financial)")</p> <p>Do you (or other family members) use the phone for financial transactions? What do you think about conducting financial transactions over the phone?</p> <p>Do you have any insurance for your agriculture crop? If you do, who is the provider?</p> <p>Do you have life insurance? If you do, who is the provider?</p> <p>Do you have any health insurance? If you do, who is the provider?(e.g. insurance company, bundling product offered by mobile service provider, etc.)</p>	<p>Agricultural Development Bank, MTN Mobile Money</p> <p>Uses mobile money for regularly, doesn't use ADB often, he opened it to receive money from brother for work his brother wanted done in the village, currently ADB is dormant just a few cedis in there</p> <p>Uses mobile money for savings</p> <p>No</p> <p>Both wives are in VSLA (1 wife is in 2 VSLAs), husband uses MTN Money</p> <p>VSLAs are community-based, there is an MTN mobile money agent in Ligba. Wife likes VSLAs because it helps her to save for the future (Wife saves to buy foodstuffs (store it and when price is high she sells - arbitrage), also she saves to buy groundnuts to make into paste (peanut butter) for consumption by the family - it is used to make groundnut soup - needs GHC 600-1000 for this commodities trading business)</p> <p>Yes - borrows from friends or relatives, and wife borrowed sometimes from a VSLA about 2 or 3 times - for rice processing (business became difficult so she has stopped doing rice processing - because VSLA doesn't have enough liquidity for supporting rice processing activities, also sometimes difficulty in getting firewood etc) - doesn't borrow from VSLA any more relies on cash from her vegetable sales/farm</p> <p>He currently has a loan from his friend to buy inputs (fertilizer) borrowed in June - of GHC 500, and he has paid GHC 200 as of now (no interest)</p> <p>For mobile money transactions</p> <p>No</p> <p>No</p> <p>Yes government insurance - NHIS</p>
<p><b>6. Worries/concerns in life and aspirations for the future</b></p>	<p>Do you have any worries/concerns in life? What are they?</p> <p>What are your aspirations for the future?</p>	<p>N/A</p> <p>He would like all his children to go to school (as far as tertiary) so that in the future they can take care of him</p>

NAME of the INTERVIEWEE: \_\_\_\_\_Abukare Yakubu\_\_\_\_\_

	QUESTION	ANSWER												
General question	Do you have your own agricultural land? If you do, what is the total size?	YES / NO	Yes											
		Size:	15 acres - 10 acres of maize, 3 acres soybeans, 1 acre tomatoes and pepper (rainy season), 1 acre okra, 1 acre green leafy vegetables - in irrigable area (dry season)											
	Do you cultivate for your own consumption? If so, what are they?	YES / NO	Yes - some of maize and rice, some of vegetables											
		(Crops)	Crops rice elsewhere - 10 acres (he ploughed 20 acres for the person and then cropped on 10) - he did not get any money or produce from this because the rains failed (drought)											
	What <b>cash crops</b> do you cultivate?		Soybeans (sells all)											
	Which one is the most important one (cash crop)?		Soybeans											
	Do you <b>cultivate individually? Or as a group?</b>		Individually											
	Do you <b>sell the products individually? Or collectively?</b>		Individually											
	What do women and men do at each stage of value chain: production, post-harvest processing & storage, distribution & sales?													
		<table border="1"> <thead> <tr> <th></th> <th>Men</th> <th>Women</th> </tr> </thead> <tbody> <tr> <td><b>Production</b></td> <td>All farming activities</td> <td>Planting, fertilizer application, harvesting</td> </tr> <tr> <td><b>Post harvest</b></td> <td></td> <td></td> </tr> <tr> <td><b>Distribution and sales</b></td> <td>Sales</td> <td>Sales</td> </tr> </tbody> </table>		Men	Women	<b>Production</b>	All farming activities	Planting, fertilizer application, harvesting	<b>Post harvest</b>			<b>Distribution and sales</b>	Sales	Sales
	Men	Women												
<b>Production</b>	All farming activities	Planting, fertilizer application, harvesting												
<b>Post harvest</b>														
<b>Distribution and sales</b>	Sales	Sales												

	QUESTION	ANSWER
Crop 1:	Crop name: _____Soybeans_____	
Production period	What is the land size you use for this crop? (specific size, or portion allocated out of the total land size answered above)	3 acres
Inputs / unit	Which months of the year do you produce this crop? Is this one production cycle? If not how many cycles are there during these months?	June-October, 1 cycle
	How many times can you harvest in each production cycle?	Once
	Which month(s) do you harvest?	November
	What are the inputs and their costs (materials and labor) required to produce? And at which point of the production cycle do you use them?	See production calendar
	From whom do you purchase seeds/seedling/fertilizers/pesticides?	Input supplier in Ligba
Sales	To whom do you sell your product?	Buyer coems to farm
	Do you sell your product right after you harvest? If not, when do you sell?	Yes
	What was the sales price/unit most recently? Was it a good price?	
	Who are the buyers of your products?	
	Do your buyer come to your farm to purchase your products?	Yes
	Do you sell your products by yourself? If so, where?	N/A
	If you sell your products by yourself, what are the associated costs (transportation, rent-a-space, etc.) and how much are they?	N/A
Is there any other costs associated with sales of your products?	N/A	
Value chain challenges	What are your main challenges for you to <u>produce and sell this product</u> ?	N/A
	(production related issues)	Lack of financing for inputs and equipment needed like tractors etc
	(storage/processing related issues)	
	(delivery/sales related issues)	
	(gender related issues)	

	QUESTION	ANSWER
Crop 2:	Crop name: _____ Tomatoes and Peppers _____	
Production period	What is the land size you use for this crop? (specific size, or portion allocated out of the total land size answered above)	0.5 acres each (1 acre total)
Inputs / unit	Which months of the year do you produce this crop? Is this one production cycle? If not how many cycles are there during these months?	Tomato - April to June, 1 cycle
	How many times can you harvest in each production cycle?	5 times for tomato for irrigated (then 1 minor for rainfed), 3 times for pepper (maximum 4 but minor yield)
	Which month(s) do you harvest?	Tomato - Harvest in July Pepper - Harvest in September
	What are the inputs and their costs (materials and labor) required to produce? And at which point of the production cycle do you use them?	See production calendars
	From whom do you purchase seeds/seedling/fertilizers/pesticides?	Input dealer comes to the community
Sales	To whom do you sell your product?	Buyer comes to farm
	Do you sell your product right after you harvest? If not, when do you sell?	Tomatoes are sold immediately, peppers are dried and sold in April in order to get a better price
	What was the sales price/unit most recently? Was it a good price?	
	Who are the buyers of your products?	Buyer comes to farm
	Do your buyer come to your farm to purchase your products?	Buyer comes to farm
	Do you sell your products by yourself? If so, where?	N/A
	If you sell your products by yourself, what are the associated costs (transportation, rent-a-space, etc.) and how much are they?	N/A
	Is there any other costs associated with sales of your products?	N/A
Value chain challenges	What are your main challenges for you to <u>produce and sell this product</u> ? (production related issues)	Pests - white files especially on pepper
	(storage/procesing related issues)	
	(delivery/sales related issues)	
	(gender related issues)	

	QUESTION	ANSWER
Crop 3:	Crop name: _____ Okra _____	
Production period	What is the land size you use for this crop? (specific size, or portion allocated out of the total land size answered above)	1 acre
Inputs / unit	Which months of the year do you produce this crop? Is this one production cycle? If not how many cycles are there during these months?	December-February, 1 cycle
	How many times can you harvest in each production cycle?	6 times
	Which month(s) do you harvest?	every 12 days from December to February
	What are the inputs and their costs (materials and labor) required to produce? And at which point of the production cycle do you use them?	No labour costs except for harvesting, fertilizer, cost of preparing the land and seeds (see production calendar)
	From whom do you purchase seeds/seedling/fertilizers/pesticides?	
Sales	To whom do you sell your product?	Buyer comes
	Do you sell your product right after you harvest? If not, when do you sell?	Yes
	What was the sales price/unit most recently? Was it a good price?	Very good GHC 50 per basket, expects it to go up to GHC 70
	Who are the buyers of your products?	Buyer from the market
	Do your buyer come to your farm to purchase your products?	Yes
	Do you sell your products by yourself? If so, where?	Yes
	If you sell your products by yourself, what are the associated costs (transportation, rent-a-space, etc.) and how much are they?	None
	Is there any other costs associated with sales of your products?	No
Value chain challenges	What are your main challenges for you to <u>produce and sell this product</u> ? (production related issues)	Drought
	(storage/procesing related issues)	
	(delivery/sales related issues)	
	(gender related issues)	

BASIC INFORMATION

<b>CROP 1</b> _____ <b>(OKRA)</b>
Production Area: 1 acre
Yield per Production Unit: 5 basins/acre twice a week for 2 months (16 times) - so 80 basins
Sales Unit: 1 basin
Unit Price: (lowest): 10 cedis/basins
(highest): 40 cedis/basins
(average): 25 cedis/basins

DETAILED INFORMATION

		Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
						Planting	Harvesting	Harvesting						
<b>Expenses - PRODUCTION</b>	Rent (land)		-											
	Machine Rent (land prep.)					70								
	Labor (land preparation)													
	Fertilizers (Natural)													
	Labor Cost (transplant)													
	Labor Cost (weeding)							20						
	Labor Cost (fertilizer)													
	Fertilizers (Chemical)													
	Labor (pesticide)													
This is the biggest challenge	Machine Rent (Harvesting)													
	Labor (harvesting)													
	other (Weedicide)													
	other (seeds)					30.0								
	other (sacks)													
	Labor (planting by broadcasting)								-					
<b>Expenses - SALES</b>	Transportation													
	Labour													
	Other cost (specify)													
<b>Total Expense</b>			-				100	20						120
<b>Sales</b>								960	960					
<b>(REVENUE - EXPENSES)=Income</b>			-				(100)	940	960					1,800

BASIC INFORMATION

<b>CROP 2</b> _____ <b>(Green leafy vegetables)</b>
Production Area: 1 acre
Yield per Production Unit: 22 baskets
Sales Unit:
Unit Price: (lowest): 10 cedis/basket
(highest): 70 cedis/basket
(average): 40 cedis/basket
Harvest once every 12 days
During the rainy season (from March can harvest once every 6 days)

DETAILED INFORMATION

		Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
				Production									Production	
	Highest price		Highest price										Highest price	
<b>Expenses - PRODUCTION</b>	Rent (land)		-											
	Machine Rent (land prep.)											60		
	Labor (land preparation)												80	
	Fertilizers (Natural)													
	Labor Cost (transplant)													
	Labor Cost (weeding)													
	Labor Cost (fertilizer)													
	Fertilizers (Chemical)												280	
	Labor (pesticide)													
This is the biggest challenge	Machine Rent (Harvesting)		60	60									60	
	Labor (harvesting)													
	other (Weedicide)													
	other (seeds)												200	
	other (sacks)													
	Labor (planting by broadcasting)													
<b>Expenses - SALES</b>	Transportation													
	Labour													
	Other cost (specify)													
<b>Total Expense</b>			60	60									620	800
<b>Sales</b>		3,696		3,696									3,696	11,088
<b>(REVENUE - EXPENSES)=Income</b>		3,636		3,636									(620)	10,288

BASIC INFORMATION

<b>CROP 3</b>	<b>(Pepper)</b>
Production Area: 0.5 acre	Sales Unit: Pepper
Yield per Production Unit: 25 bags/acre of pepper (legon 18 variety) - harvest 3 times but 25	Unit Price: (lowest): 80 cedis/bag
	(highest): 500 cedis/bag
	(average): 140 cedis/bag
30 minibags/eggplant - harvest 8 times	

DETAILED INFORMATION

	Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
					Nurse	Transplant			Harvesting	Drying			
<b>Expenses - PRODUCTION</b>													
Rent (land)													
Machine Rent (land prep.)													
Labor (land preparation)													
Fertilizers (Natural)													
Labor Cost (transplant)													
Labor Cost (weeding)								35					
Labor Cost (fertilizer)													
Fertilizers (Chemical)								35					
Labor (pesticide)									5				
Machine Rent (Harvesting)													
Labor (harvesting)													
other (Pesticide)									4				
other (sacks)													
other (seeds)						8							
Labor (planting)													
<b>Expenses - SALES</b>													
Transportation													
Labour													
Other cost (specify)													
<b>Total Expense</b>		-		-	-	8	-	70	9	-	-	-	86
<b>Sales</b>					3,750								3,750
<b>(REVENUE - EXPENSES)=Income</b>		-	-	-	3,750	(8)	-	(70)	(9)	-	-	-	3,664

BASIC INFORMATION

<b>CROP 4</b>	<b>(TOMATO)</b>
Production Area: 0.5 acres	Sales Unit: 1 basin
Yield per Production Unit: 20 basins/tomatoes - we harvest 5 times = 100 basins	Unit Price: (lowest): 15 cedis/basins
	(highest): 200 cedis/basins
	(average): 120 cedis/basins

DETAILED INFORMATION

	Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
				Nurse	Transplant		Harvesting						
<b>Expenses - PRODUCTION</b>													
Rent (land)													
Machine Rent (land prep.)													
Labor (land preparation)													
Fertilizers (Natural)													
Labor Cost (transplant)													
Labor Cost (weeding)													
Labor Cost (fertilizer)							35						
Fertilizers (Chemical)													
Labor (pesticide)													
Machine Rent (Harvesting)													
Labor (harvesting)													
other (fertilizer)													
other (labor and cost of sticking)						50.0	50						
other (seeds)					30								
Labor (planting)													
<b>Expenses - SALES</b>													
Transportation													
Labour													
Other cost (specify)													
<b>Total Expense</b>		-	-	-	30	50	85	-	-	-	-	-	165
<b>Sales</b>								12,000					

(REVENUE - EXPENSES)=Income 11,835

BASIC INFORMATION

<b>CROP 5</b>	<b>(SOYBEANS)</b>	Production Area: 3 acres	Sales Unit: "bags" (1 bag = 109 Kg)
		Yield per Production Unit: 6 bags per acre	Unit Price: (lowest): 80 cedis/bag
			(highest): 200 cedis/bag
			(average): 120 cedis/bag

DETAILED INFORMATION

		Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
									Production				Harvesting		
<b>Expenses - PRODUCTION</b>	Rent (land)														
	Machine Rent (land prep.)														
	Labor (land preparation)														
	Fertilizers (Natural)														
	Labor Cost (transplant)														
	Labor Cost (weeding)														
	Labor Cost (fertilizer)														
	Fertilizers (Chemical)									210					
	Labor (pesticide)														
	Machine Rent (Harvesting)														
	Labor (harvesting)														
	other (weedicide)														
other (sacks)													108		
other (seeds)								135							
Labor (planting)															
<b>Expenses - SALES</b>	Transportation														
	Labour														
	Other cost (specify)														
<b>Total Expense</b>		-	-	-	-	-	-	135	210	-	-	-	108	453	
<b>Sales</b>											3600				

(REVENUE - EXPENSES)=Income 3,147

BASIC INFORMATION

<b>CROP 6</b>	<b>(MAIZE)</b>	Production Area: 10 acres	Sales Unit: "bags" (1 bag is 100kg)
		Yield per Production Unit: 8 bags/acre	Unit Price: (lowest): 70 cedis/bag
			(highest): 120 cedis/bag
			(average): 100 cedis/bag

DETAILED INFORMATION

		Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
									Production				Harvesting		
<b>Expenses - PRODUCTION</b>	Rent (land)														
	Machine Rent (land prep.)						700								
	Labor (land preparation)														
	Fertilizers (Natural)														
	Labor Cost (transplant)														
	Labor Cost (weeding)														
	Labor Cost (fertilizer)														
	Fertilizers (Chemical)									2,200					
	Labor (pesticide)														
	Machine Rent (Harvesting)														
	Labor (harvesting)														
	other (weedicide)														
other (sacks)													48		
other (seeds)								225							
Labor (planting)															
<b>Expenses - SALES</b>	Transportation														
	Labour														
	Other cost (specify)														
<b>Total Expense</b>		-	-	-	-	-	-	925	2,200	-	-	-	48	3,173	
<b>Sales</b>												5760			

(REVENUE - EXPENSES)=Income 2,587

<b>TOTAL AGRICULTURAL INCOME</b>	3,636	3,636	-	3,720	(158)	(205)	10,480	(9)	3,600	5,760	(776)	3,636	33,321
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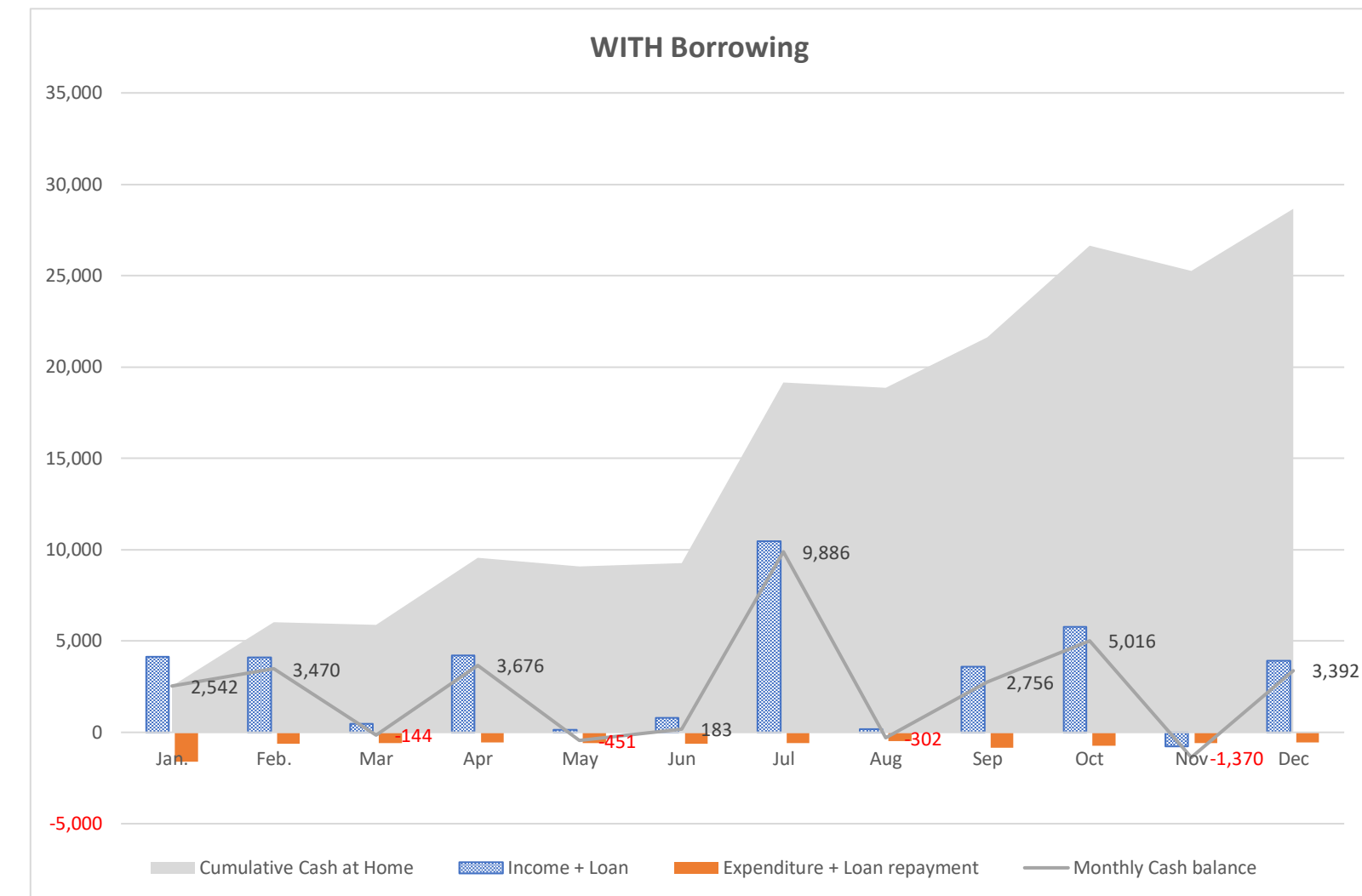
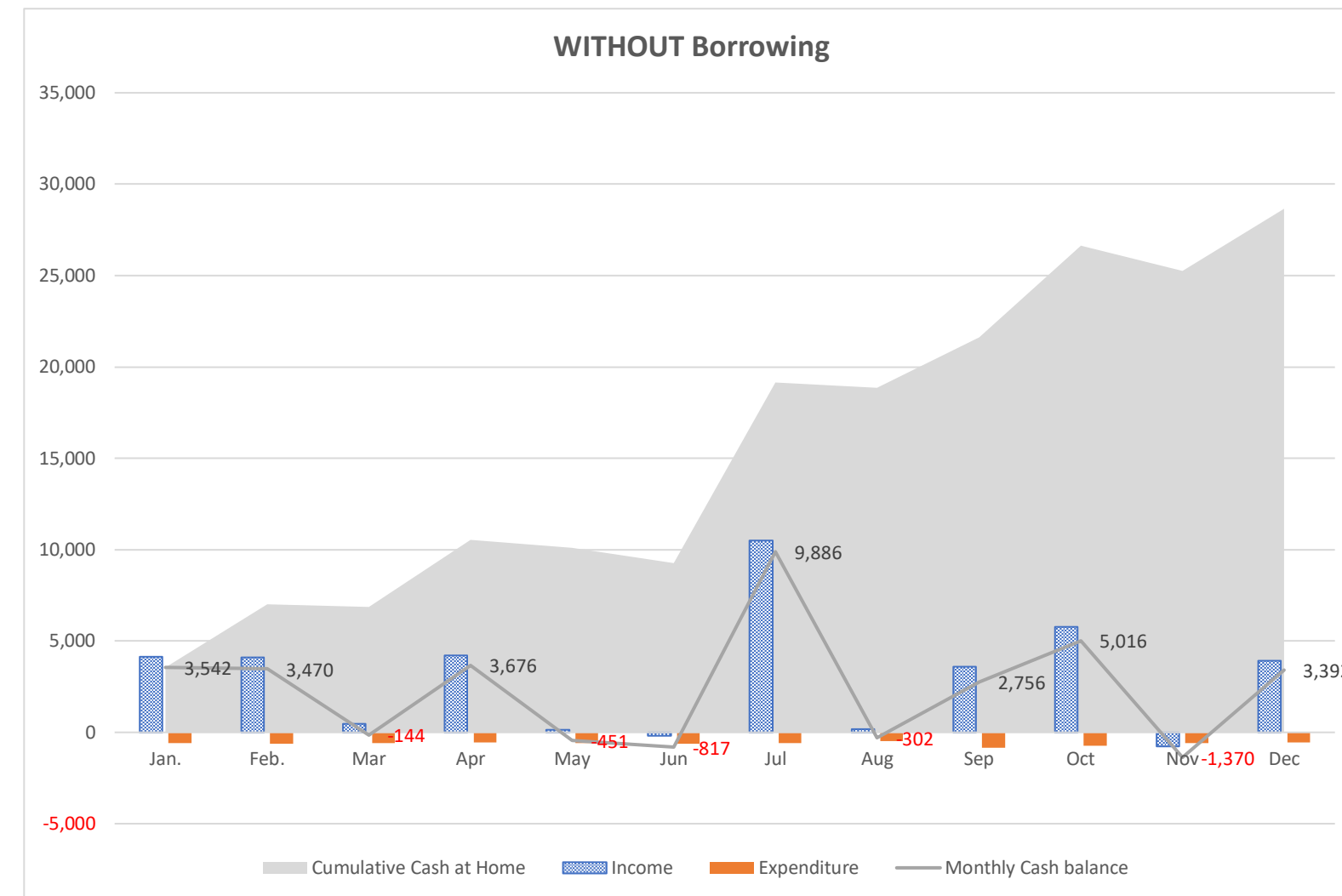


WITHOUT LOAN (Borrowing)

	Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Income	4,136	4,086	450	4,220	4,220	143	-205	10,480	192	3,600	5,760	-776	3,936
Expenditure	-594	-616	-594	-544	-544	-594	-612	-594	-494	-844	-744	-594	-544
Monthly Cash balance	3,542	3,470	-144	3,676	3,676	-451	-817	9,886	-302	2,756	5,016	-1,370	3,392
Cumulative Cash at Home	3,542	7,012	6,869	10,545	10,545	10,093	9,277	19,163	18,860	21,617	26,633	25,263	28,655

WITH LOAN (Borrowing)

	Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Income + Loan	4,136	4,086	450	4,220	4,220	143	795	10,480	192	3,600	5,760	-776	3,936
Expenditure + Loan repayment	-1,594	-616	-594	-544	-544	-594	-612	-594	-494	-844	-744	-594	-544
Monthly Cash balance	2,542	3,470	-144	3,676	3,676	-451	183	9,886	-302	2,756	5,016	-1,370	3,392
Cumulative Cash at Home	2,542	6,012	5,869	9,545	9,545	9,093	9,277	19,163	18,860	21,617	26,633	25,263	28,655



注) コメの栽培への投資分を反映していない。収穫がなかったため。  
4,200 (plowing for 20 acres \* twice)



No	名称	カテゴリー	タイプ	預金総額		営業		支店顧客数規模 (人)	融資商品						預金商品	コメント		
				USD または GHS		本部	支店		グループ融資	グループ融資額	個人融資	個人融資額	融資期間	利率 (年利%)			返済方法*	任意預金
1	CARD	MFI	Financial Local NGO	(agri in-kind) 1. USAID Project 43.5 million USD (capital) 2. Sada District Project 200 million USD 3. USAID 200,000 USD grant	Tamale	0	9746 individuals (男女半数) (430 groups)			ただし、融資管理はグループレベルで行われる。	小規模農家向け(90%) 農産品加工業者、トレーダー、飲食業(10%) 100 USD (1st timer) 200 USD (2nd timer) 物資(例えば、肥料1袋を提供し、メイズで返済)	平均5カ月 作物取引の場合は4カ月 May - August (disbursement) November - Feb (repayment)	小規模農家向け トレーダーなど	n.a.	農業と非農業向けサービス コミュニティにつき10万GHSの予算(plowing service, seeds, fertilizer, 麻袋の購入) 5月のポストハーベスト、害虫による損失は30%に及ぶ 10% デフォルト率 (5% stealing, 5%他理由) 10% 貨幣価値減少 小規模農家融資は、男女ペア MTN, Vodafoneのデジタルマネーで支払い、返済を行う。オペレーションには、18名のオフィサーが従事。ローン・オフィサーは村人(200名程度もインター、1バイク、1携帯、1バッグを支給する)。			
2	ADB	Government Bank	LC	8 million GHS 2.7 million GHS (outstanding loan balance)	Accra	5 in Northern Region	8500		(ただし実際はほぼ実施していない)		10,000 - 100,000 (すべての融資商品)	1年	30-35% p.a.	作物によっては、3-6カ月の返済猶予期間(元本、利息共に)が与えられる。	預金口座の利率 1.5-5% p.a.	農家は1カ月~1.5カ月程度の短期融資を申請してくるが、ADBIにとっては短期過ぎる。毎月1回預金する程度では、与信履歴としては不足。 MNOのデジタルマネーを利用できる。		
3	Bonzali Rural Bank	MFI事業部を有するRural Bank(商業銀行)	LC	26 million GHS	Kumbungu	8支店 (Yendi Karaga 2 more branches)	58000 individuals and 15000 women in groups (800 groups)		(既存のVSLAでもよいが、実際は多くの場合は、Bonzaliが仲介して新たに形成する)		一人につき500 to 20,000 グループにつき最高額が100,000	(2019年は1件のみ) 100,000 GHS コンバイン収穫機械の購入目的	返済方法が隔週または各月の場合は最長6カ月 毎週返済の場合は最長4カ月	32%	ブレット返済	当座口座 預金口座 8% p.a.	Northern Regionの主要FSP。事業の30%がマイクロファイナンス事業。農業生産向け融資を実施しており、Advans, Fingaとも連携実績あり。 Aggregatorの女性向けの商品。 Rural enterprise のマッチング・グラントを提供している。Bank finance 30%, customer 10%, rural enterprise 30%の出資。 ガーナ農業保険(天候インデックス保険)を販売した経験がある。 利用者が融資グループを形成する前に、ローンオフィサーが5週間の研修を行う。1週間または2週間に1セッションx5セッション。健康保健管理および教育のテーマも扱う。このセッションは、与信(credit appraisal)の要素も持つ。	
4	Fidelity	商業銀行	LC	48 million GHS	Accra		30万口座								普通預金(3%)、定期預金(5%) Yello Save(8%)	Yello Saveは、MTNと提携したデジタル預金サービス。必要最低預金額2セディで、低所得者にも使いやすい。 口座開設前後に金融教育を実施。Financial Inclusion Unitの行員と地方支店の行員が担当。		
5	People's Pension Trust	Pension License (NPRA)	LC		Accra	Ga Southを含む南部地域の25 タウンシップに、Pension house と呼ばれる移動式キオスクと販売スタッフを配置。 Tamaleには支店あり (manager and sales agents)	45,000人 (60%都市部)								個人年金預金(2カ月後には、預金額の50%までを引き出すことが可能)	インフォーマルセクターや農家も利用可能。 個人ベースのみならず、個人が所属する組織(労働組合など)と連携することで規模の経済を実現。Savings and Loan機関との連携、MNOとの連携にも積極的に取り組んでいる。 メディア戦略を展開して、市場での認知度を上げている。		
6	Ga South Rural Bank	Rural Bank(商業銀行)	LC	49 million	Amasama	8支店	8000 (E-susuの顧客は900名、100 farmers)		√(農家、MFI利用者)		農家3000-4000 (1名) MFI 2000-3000(1名)	E-susu利用者	預金残高の2倍上限 (4万セディ)	6カ月	年利40%	・ブレット返済 2か月のgrade periodの後、毎週返済	e-Susu 預金口座(3%利息)	
7	Success for People	Deposit-taking MFC	LC	4.8 million	Accra	Upper East州、Upper West州、ノーザン州(タマレ)、Ashanti, Otiに設置予定(近くに穀物倉庫がある)	農業投入融資の顧客8000農家、預金サービスの利用者は1.5万人		√農業投資融資、売掛債権融資(または倉庫証券融資)(AGRA)				月利2%(農家向け譲歩利率) 売掛債権融資は3%		2020年発売予定 Your Future Saving(普通預金と緊急用預金のブレンド)	USAIDのFinGAPと提携しているFSP、各地域に農業資材会社との連携あり 収穫後技術アドバイスができる農業技術スタッフも雇用している 農家向け金融教育も実施		
8	MTN	MNO	LC		Accra										Yello Save(Fidelityと)	国内MNO最大手 金融包摂促進の国際的なイニシアチブ(GSAM Connected Women, Initiatives for Impact)に参加し、女性の金融包摂に必要なニーズに対応した商品・サービスの開発に力を入れている。 保険商品の開発にも力を入れている(携帯のチャージで買える保険、事業保険、事故・傷害保険など)		

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1. JICA ガーナ事務所	
日時	2020年1月9日(木) 16:00-17:00
場所	JICA ガーナ事務所
先方面会者	小澤次長、宮坂所員、鎮目所員、渡辺企画調査員
当方面会者	研究チーム：田中(記録)

目的: 調査の日程と内容の確認

1. 調査団より、ミャンマーにおける現地調査の結果について、概略をご説明し、ガーナ調査に関する協議を行った。先方からの発言の要旨は以下の通り。
2. 12月に開催された本研究の勉強会におけるコメント内容の確認。ガーナ政府がNHIAを中心として「国民健康保険」を目指して取り組んでいる中で、JICAが民間事業者との連携を通して政府の取り組みを補完する役割を支援するといったような活動を支援することは考えにくい。民間の保険事業者を活用した国民健康保険に対する支援を推奨するような提案が本調査より出てきたとしても、JICAとしてそのような支援活動を形成・実施する見通しは低いと言える。このため、あまりそのような提案が出ることは期待していない。
3. 明日のNHIAおよび保健省との面談につき、上記の点について留意されたい。「民間事業者をどのように使っていきたいか」、といったような質問はしても良いが、国民健康保険への取り組み方についてすでに多方面からされているような指摘を本調査で行うのは不適切である。(当方より、本調査でガーナの省庁に対してそのような提案をする予定は全くない旨確認した。)
4. 国民健康保険の普及率が必ずしも高くない理由について。保険料そのものの問題というよりは、医療施設に出向くためにかかる交通費や、NHIAから医療施設に対する支払いが遅延することに起因する問題など、周辺のアドミに関連した問題であると認識している。そもそも貧困層に対してはすでに保険料は免除になっているが、むしろ保険料が減免されている層の保険加入率が低い。加入率を上げるためにNHIAは保険加入者の携帯登録・保険加入の更新を昨年より実施しており、この取り組みは成功している。
5. ガーナ事務所として本件調査に期待するのは、小規模農家の生計に関する理解の深化である。特に保健分野については必ずしも調査結果がプロジェクト活動に直接反映されることになるとは考えていないが、受益者世帯の家計管理の実情に関する理解を深めることはいずれにしても重要であると考えている。その一環として、農家が「健康リスク」に対して実際にはどのように考え、どのように対応しているのか、を理解したいと考えている。当方より、そのような趣旨で、「ペルソナ」を作成することを本調査では重視している旨説明した。

6. 本研究の最終成果品であるガイドラインに関して、「保健分野事業に金融包摂視点を組み込むためのガイドライン」というのは若干違和感がある（小澤次長）。この点につき、「保健分野事業」というよりも、「健康リスク」を生活全般に関するやり繰りの一部として取り上げてガイドラインに反映させる方法があるのではないかと、という可能性について協議した。先方からは、そのような方向性でガイドラインがまとめられれば違和感がない旨の反応を得た。
7. SHEP 案件については、「農業収入向上」を「生計・生活向上」につなげる、というプロジェクト全体としての目的意識がある。そのためには農家の家計管理の状況の実際を理解する必要があり、上記と同様に本件調査ではこの点の理解の促進を期待している。プロジェクトの詳細計画は来年度になってから実施する予定であり、3 か所での実施を考えているが、Savelugu と Ga South では農家の状況もかなり異なり、詳しい状況がわかっていないので今回の調査で農家の状況に関する理解を進めることができるのを期待している。
8. 今回受益者調査のコーディネーターにあたる Savelugu と Ga South の普及員は、日本で SHEP 研修に参加し、研修で立案したアクションプランを実施していることから、今回インタビューを実施する農家は、すでにこのような活動の対象となっている農家であると予測される。
9. Ga South の受益者がイスラム教徒であることから、金曜日と土曜日（17日、18日）に計画されているインタビューはあまり日程的に都合が良くないという情報が入っているので、Ga South の普及員と相談してほしい。

以上。

2. National Health Insurance Authority (NHIA)、保健省	
日時	2020年1月10日（金）9:00-10:00
場所	NHIA
先方面会者	NHIA Dr. Lydia Dsane-Selby, Chief Executive Mr. Francis Owusu, Deputy chief Executive of finance and investment Mr. Francis Oti Frempong, Deputy Director, Executive Assistant to Chief Executive 保健省 Dr. Emmanuel Ankrah Odame, AG.Director PPME (Policy Planning, Monitoring & Evaluation)
当方面会者	JICA ガーナ事務所: 鎮目職員 研究チーム: 田中 (記録)、望月 (記録)

目的：保険制度における金融包摂の視点の取り入れを検討するための情報収集

1. 当方より、本調査の趣旨と、今後 JICA が保健分野の協力において金融包摂の視点を取り入れていく上で意見を伺いたい旨説明したところ、先方（主として NHIA の Dr. Salby）の発言の要旨は下記の通り。
2. NHIA は JICA と直接に協力していないため JICA の保健セクターのプロジェクトをあまり知らない。よって JICA の支援のコンテキストでの発言は控えたい。ガーナの国民保険は強制加入制度であり、UHC の達成とは法律の実施の問題である。加入者の年間掛金は 30 セディ（約 4 ドル）であり、アフォーダブルであるため、UHC の達成は掛金の問題ではなく、保険制度を魅力的なものにする必要性の問題である。今日、2200 万人の登録者のうち、最低 1 度の利用履歴がある利用者数は、1200 万人にとどまっている。登録更新の方法は整備され、携帯電話で簡単に手続きができるようになった。対象者が保険システムを継続的に利用するためには、保険制度利用啓発およびサービスの内容（約款）とベネフィットに関する理解向上が必要であり、そのためのワークショップ開催やロードショーの実施が望まれる。
3. 一方で、保険サービスの利用をユーザー視点から魅力的なものにするためには、医療サービスの質を向上させることが肝要であると考えている。つまり、基本的に今日の保険に関する重要課題は、(NHIA の管轄ではなく保健省の管轄下にある) 医療機関にある。医療サービスの質についてのユーザー調査（韓国協力支援）によると、医療施設利用時点での支払請求発生、医療従事者の患者／利用者に対する態度、医療行為（care）の質が不満要素である。一方、医療施設からは、保険がカバーする料金が低いこと、償還が遅いことが現行の保険制度の問題であると報告されている。CHIPS が満足に機能していない。地域医療制度は予防や健康増進に注力すべきところを、CHIPS コンパウンドで勤務する従事者は、保険制度が存在するために治療を受けに来る患者を待つことに終始しており、CHIPS と UHC の目的が相互補完的な関係となっていない。
4. 他方、保険制度について今日まで関係者向けのガイドラインが整備されておらず、病院および保健所（health center）においては、財政規律が欠けている。薬品等の必需品ではなく必需性が低い物品の購入などが起きている。しかし、保健医療サービス従事者の給料はタイムリーに支払われているため、（給料の支払い遅延によるモラル低下につながるといったような）問題はない。取り組むべきは、医療保健サービス従事者に対する UHC 理解を深める教育、strategic purchasing の実施、受療者のベネフィットにつながる薬剤および機器の利用、医療行為によるアウトプットの創出・可視化である。医療従事者が UHC の概念に沿った保健医療サービスを、どのようにして効果的に提供できるかについて知識を習得することが肝要であり、その一環として例えば世銀が実施する保健財政コースや WHO による Strategic purchasing のコースの受講が望ましい。
5. （当方より、UHC 達成に向けて民間のマイクロ保険の役割をどのように考えるか、との質問に対し、）民間のマイクロ保険は、あまりにも保険金の金額が少額すぎて、インパクトは小さ

いと考えている。国民健康保険制度のトップアップとしての役割はあるが、代替にはならない。NHIA は民間事業者との連携をすでに実施している。例えば登録の更新を携帯電話で行えるようにしたことから、現在では登録更新の7割が携帯電話で行われるようになった。

他参考情報：

- PPME からは下記の意見が発せられた。
  - ✓ Emergency care や非感染疾患ケアの分野を強化する必要がある。
  - ✓ ガーナ人は、health care officer ではなく、医師に相談をすることを好む傾向が強い。
  - ✓ CHIPS では、治療的なケアが多く、予防や保健教育が不足している。

(調査団所感)：政策担当者や JICA 人間開発部関係者にとっては、「保健分野と金融包摂」というテーマは「保健財政」とほぼ同義語に理解されているように感じられる。しかし、利用者側(貧困世帯)の視点に立つと、「保健」と「金融包摂」との関係は、①健康リスクへの対応、②保健サービスへのアクセスの向上、という観点が最も重要である。もちろん DFS 等の金融サービスの活用がコストダウンにつながるという観点からは民間事業者との連携による金融包摂が保健財政の改善に貢献することは間違いないが、上記のふたつの観点にはかなりの乖離があるように感じられる。

JICA の技プロに金融包摂視点を組み込む、という問題意識に立つと、より受益者側の視点に立った金融包摂の役割に着目しても良いのではないかと考える。例としては、母子保健や CHIPS などの地域医療プロジェクトにおける末端の医療サービス提供者とサービス利用者の能力向上に着目した活動を検討するなど。①質の良い保健医療サービスへのアクセスの向上、②世帯における健康・衛生に関する知識の向上、③医療関連の出費リスクの備えるための家計管理や金融サービスの活用など。

以上。

3. AGRA (Alliance for Green Revolution in Africa)	
日時	2020年1月10日(金) 14:00-15:15
場所	AGRA ガーナ事務所
先方面会者	Mr. Victor Antwi (PhD), Head of Input Distribution and Agro Dealer Development Mr. Oumar N'diaye, Development Cooperation Officer, West Africa)
当方面会者	田中、Buruku コンサルタントチーム金融包摂アドバイザー、望月(記録)

目的：Financial Inclusion for Smallholder Farmers in Africa Program (FISFAP)の農家向け金融包摂アプローチに係る知見の収集。

結果：FISFAPを通じて、僻地の農家向けに金融を含めた包括的なサービスの様々な提供モデルが試行されてきたことは分かったが、その効果については明確ではなかった。AGRAのFISFAPパートナーで、北部や南部で事業を行っている関係者のコンタクトを共有してもらい、現場の

声を聞くことにする。

### 1. AGRA について ([www.agra.org](http://www.agra.org))

ナイロビに本部を置く Not-For-Profit 組織。ガーナ事務所には 22 名のスタッフが常勤。うち 16 名がテクニカル・スタッフ。AGRA ガーナは 2017 年～2021 年の間に、小規模農家 60 万世帯（直接）（間接的には小規模農家 120 万世帯）の収入を倍増する目標を掲げている。今回のヒアリングに協力してくれた Antwi 氏は、ガーナで唯一の AGRA インターナショナルスタッフであり、USAID のプロジェクト<sup>1</sup> 責任者をはじめ関連分野における豊富な経験を有する。本調査に関連する AGRA を代表する取り組みに、Master Card Foundation が資金提供した FISFAP（ガーナ、ケニア、タンザニア）がある。

### 2. FISFAP 概要

FISFAP は、農作物のマーケット情報システムとイノベティブな決済サービスを活用して小規模農家を支援するプログラムである。具体的には、デジタルおよびノンデジタルの金融ソリューションの試行を支援し、アップテックを加速させ、僻地の農家のアフォーダブルで利便性のあるサービスへのアクセス向上を図ってきた。ガーナ FISFAP（現在のプロジェクトは 2020 年 9～10 月で終了）は、8 企業とパートナーシップを組み（企業に対してグラントを提供）、デジタルチャンネルの活用、エージェントバンキング、ブランチレスバンキングといった異なるサービスデリバリーによるアウトリーチのアプローチを試行してきた。パートナー企業は、① Success for People Microfinance、② Advans Ghana、③ First Allied、④ Pan Africa Savings & Loans、⑤ Farmerline、⑥ Agro Africa、⑦ Trontro Tractor、⑧ Esoko。①～④は低所得層および SMEs に対して金融サービスを提供する金融機関である。Farmerline と Trontro Tractor は農家とアグリビジネスをサービスプロバイダー（FSP）へつなぐテクノロジー企業である。Esoko は、SMS、音声 SMS、コールセンターを通じて天気情報、農業生産技術情報、市場情報、保険などを提供する社会企業である。

AGRA は FISFAP 実施機関として、FSP スタッフおよびエージェント向けの研修の実施、外部コンサルタントによる事業計画の策定支援を実施している。

### 3. FISFAP 実施地域と対象農家

主に北部（穀類—コメ、メイズおよび大豆生産農家）と南部。Vodafone と連携。西部（養鶏農家）、中部（コーヒー？）においても、MTN マネーを使ったビジネス決済の事例がある。

支援対象のほとんどは女性。個人融資もあるが、連帯融資が基本である。1 つのグループの最大人数は 30 名。担保なしで融資を提供している（→地域訪問時に確認）。

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<sup>1</sup> USAID は Fidelity Bank と協力し、デジタルプラットフォームとエージェント配置を組み合わせたエージェントバンキングを促進した経験を持つ。

FSP 利用者は、農家だけではなく、村レベルの小規模集荷業者もいる。小規模集荷業者が必要とするローンは 500 セディ程度の額で、融資返済サイクルも短い。

#### 4. アウトリーチモデル事例

Village Savings and Loans (ROSCA) にデジタル化を組み合わせた取り組みや、エージェントバンキングを取り入れたパターンがある。ここで言及するエージェントバンキングでは、金融機関の行員（エージェント）が顧客へ出向くわけではなく、村に既存のキオスクオーナーなどが FSP のエージェントを兼業し、集金などをする。テクノロジーを導入することにより、利用者がトップアップをする利便性が高まった。しかし、こうしたエージェントシステムにおいては、エージェントが利鞘を確保するためには、ある程度の顧客数が必要であるのに対し、地域内でその数がなかなか確保できず、結果として廃業に至るという課題も表面化している。農家が Village savings and loans を利用するか、または FSP を利用するかは、地域によって異なるが、AGRA は Village savings and loans のスケールアップを狙っている。

別のタイプのエージェントとして、Farmerline (<https://farmerline.co/products/>) のエージェントは農業資材の販売業を行っている。(ウェブサイトによるとデジタルプラットフォーム上で、FSP サービスへもアクセスできるようになっている。)

以上。

4. BIMA	
日時	2020 年 1 月 10 日 (金) 16:20-17:45
場所	BIMA ガーナ本部
先方面会者	Damien, Country Manager
当方面会者	研究チーム：田中（記録）、望月

目的：マイクロ保険の役割に関する当事者からの意見聴取、企業の活動内容に関する情報収集。  
結果: BIMA はマイクロ保険の「補完的役割」を明確に認識しつつ、顧客中心主義に基づくサービス提供を行っている優良事例であると思われる。

1. BIMA はスウェーデンの FinTech 企業が開始した企業であり、2010 年、ガーナに初の事務所を設立、現在アフリカ地域 11 か国で事業を展開している。その他にはアジア地域でもバングラデシュ、フィリピンなどに最近展開してきている。BIMA は、民間投資（上記スウェーデンの FinTech および Alliance (保険会社)）により運営されている民間企業である。一部新たな商品・サービス分野などに関して GIZ などのドナーと協力することはあるが、全体的な運営資金をドナーに依存することはしていない。ガーナ事務所のスタッフは約 700 名、内 450 名程度がコールセンターでマーケティングおよび顧客サービスに対応する人員である。
2. ガーナでは当初から Teleco の Tigo との連携によって事業展開を行って来た。つまり、Tigo の



顧客やサービス拠点(distribution channel)を活用している。BIMA の保険加入者数は現在約 2 百万人規模であり、収支は最近黒字転換した。(顧客ひとりあたりの金額は低いので一定の規模の経済を確保する必要がある。) 基本的には都市を中心としたインフォーマルセクターの事業従事者が顧客層の核ではあるが、特に顧客層を貧困層に特定しているわけではなく、あくまでもマス・マーケットを対象とした事業展開を行っている。このことにより、黒字運営の達成の可能性が向上し、また、顧客間で中間所得層と低所得層の「相互補助 (cross subsidization)」が起きるというメリットもある。

3. BIMA の保険活用が可能な医療機関は民間医療機関である。NHIA の保険加入者が BIMA 保険にも加入している場合も多い。マイクロ保険は加入者に対するいわば「支援金」のような形で一定料金が支払われる仕組みであり、医療機関側へのリインバースメントではないため、医療機関側の医療行為の種別、医療行為にかかった費用とはリンクしていない仕組みである。(つまり、NHIA が直面しているような医療機関側へのリインバースメントのタイミングの遅れ等に関連した課題もマイクロ保険の仕組みでは生じない。) BIMA としては、マイクロ保険は NHIA が提供する保険制度への補完的な役割を果たすものと認識しており、競合関係にあるとの認識はない。
4. ガーナでは、当初携帯電話のエアタイムによる支払い徴収を基本とするビジネスを行っていたが、この方法では顧客ひとりあたりチャージされている金額が低いこと、エアタイムが課税対象であるために保険料として徴収できる金額がさらに限定されてしまうこと、という問題があったため、現在はモバイル・マネーによる支払い徴収にシフトしようとしている。モバイル・マネーは非課税であり、ガーナではモバイル・マネーが普及していることからこのようなビジネスモデルが可能となっている。
5. BIMA では顧客中心主義(顧客の声に傾聴する)を実践している。当初は入院費用の一部を保険金でカバーすることを中心としたマイクロ保険商品を提供していたが、カスタマー・ジャーニーの検討に基づき、入院に至る前に健康リスクに関連した一連の顧客のニーズに対応できるように保健関連サービス内容の幅(生命保険、治療・薬に対する保険等)を広げてきた。
6. その一環として最近開始したのが「電話医療相談 (tele medicine)」サービスである。医師や看護師が BIMA 本部のブースから顧客の電話相談に対応するサービスである。BIMA が収集している数値によると、1 カ月に 8000 件程度の医療相談(医師や看護師が実際に症状への対応などのアドバイスを行った件数)を実施しており、相談件数の 7 割程度について電話相談のみで(つまり医療機関へのリファerralなしで)症状への対応が可能である。この比率は、特に民間の試験機関(ラボラトリー)との連携を開始してから向上した。「電話医療相談」の対応状況は BIMA の職員がモニターしており、顧客対応や説明の仕方が適切であったかが相談を行った医師、看護師にフィードバックされている。BIMA としては、このようなフィードバックが医師、看護師に対する「顧客対応研修」となっており、顧客サービスの向上に

つながるものと考えている。(現状の医療機関では公共機関・民間機関を問わず顧客対応はかなり悪いと認識している。)

- 現状では、上記のような「電話医療相談」はガーナでは許認可制度が整備されておらず、きちんとした免許を取得した業者のみがサービスを提供できる、といったような体制となっていない。JICAのような開発パートナーには、政策担当機関および市民の双方に対してこのようなサービスのメリットについてのアドボカシーを実施していただけるとありがたいと考える。「電話医療相談」については GIZ が関心を示し、新たなサービスの開発（都市部の顧客が集中する地域にキオスクのようなブースを設けて顧客とのタッチポイントとし、物理的に顧客サービスを提供できるようにする）などについて協力を行っている。

以上。

5. Savelugu Kanshegu コミュニティ 農家世帯調査	
日時	2020年1月13日(月) 8:20-17:15
場所	Kanshegu コミュニティ内、農家世帯
先方面会者	Mr & Mrs Rufai Baba、Kanshegu コミュニティ農家 Mr & Mrs Alhasan Nourideen、Kanshegu コミュニティ農家 Mr. Amimu Mahama、Kanshegu コミュニティ農家  Mr. Felix Oteng、 Mr. Sarare (通訳) Savelugu 地区農業局普及員 Mr. Ahmed Mohammed Adam、 Savelugu 地区農業局長
当方面会者	研究チーム：田中(本議事録記録)、望月、Agnes Allotey (ローカルコンサルタント)(各メンバーが異なる側面を分担して記録)

- 各農家面談の個別メモおよび農業生産、生計に関する数値データは別添エクセルシートに1件ずつまとめた。また、Kanshegu コミュニティの農家のペルソナ(ペルソナ1)は Alhasan Nourideen 夫妻および Amimu Mahama 氏からの聞き取り結果を基にして作成した。以下の面談録では、Kanshegu コミュニティにおける農家面談に関し、主として個別のデータに明確に記録されていない事項について記述する。
- 1月11日(金)に調査団ローカルコンサルタントが Savelugu に到着し、まず普及員の Felix 氏および投入財会社(兼農家)の協力を得て、地域の主要産品であるコメ、メイズ、大豆についての「栽培カレンダー」(各産品の販売価格、投入財等の費用、時期)を作成した。農家面談に際して使用した農業生産データは、11日(金)に得た情報を基に算出した。Kanshegu コミュニティではこの他にピーナツが栽培されていることがわかったため、ピーナツに関するデータは農家から直接入手した。尚、Savelugu 地区では XXX という言語が使用されており、本件調査を担当した普及員 Felix 氏はこの言語を話さないため、同僚の普及員 Sarac 氏に通訳をお願いした。

3. 調査団は両氏と 12 日（日）に打ち合わせを行った。打合せにおいて両氏より説明があった主要な点は以下の 2 点である。①Savelugu 地区の農地所有権は、若干特殊な考え方がされている。基本的に土地はコミュニティ・チーフのもの（共同所有）であり、個々人には耕作権のみがある、という考え方である。このため土地証書などはなく、土地を売買することもない。②今般の調査の実施に当たっては、コミュニティ・チーフ、Savelugu 農業局長、Savelugu 自治体局長、といった各方面の関係者に表敬を行う必要がある。（農業局は、地方分権化政策の下で自治体の管轄下にある。）
4. Kanshegu コミュニティは主としてイスラム教徒の約 200 世帯（人口約 1000 人程度）からなるコミュニティであり、村の農地はすべて天水農業であるため、農業（特に主要作物の耕作）は基本的に雨期（6 月から 11 月）しか行われていない。当日の調査開始に当たっては、コミュニティのチーフに表敬を行った。コミュニティではすでに Felix 氏の活動およびその他ドナーが活動を行っており、「ベースライン調査」という言葉が解されるらしく、通訳からコミュニティ・チーフに対して、今般の調査は「ベースライン調査」である旨説明がなされた。
5. Felix 氏によると、Kanshegu には 3 つほど現在機能している農家グループがあり、特に一つの農家グループ（Rufai Baba 氏がリーダーを務める、会員は 26 名、内 20 名が男性、6 名が女性）は大変に活動が活発であり、週 2 回集会を行っている。Felix 氏は 3 年ほど前から同グループに対して営農指導・マーケティング指導などを行っている。農家の主たる目的は共有地（13 エーカー（内コメ 10 エーカー、メイズ 3 エーカー））を共同耕作し、そこから得た収益を貯蓄して各種会員の便益となる事項に活用することである。例えば同グループは最近韓国の KOICA の支援を得て農機（耕作機）を購入したが、KOICA が費用の 9 割を支援し、グループが 1 割を支出した。農機を購入したことから、グループでは新たな農地を得たい（つまり借地？）と考えている。また、同グループでは、最近 Felix 氏の指導で卸売市場に出かけて作物価格を調べたり、投入財の共同購入、作物の共同販売などを行うようになった。
6. Rufai Baba 氏夫妻は年齢は 30 代、子供が二人（妻は妊娠中）いる。自らの核家族世帯の他に別宅に住む離婚した妻の子供の食費や教育費、別宅に住む母親（50 代）の食事の世話を行っている（ただし母親もまだ精米業などを営んでいる）。Rufai Baba 氏は農家グループが 20 年ほど前に活動を開始した時からのリーダーであり（つまり 10 代の頃からリーダーをつとめてきた）、自身の教育レベルは小学校中退（4 年間の教育）であるが、人の話をよく聞いて親身になって相談にのる、など、人望が厚い。Rufai 氏が耕作権を持つ個人の土地は 30 エーカーあるが、現在耕作を行っているのは 3 エーカー（メイズと大豆）のみであり、その他に自家消費用に家庭菜園でオクラ、アルファルファなどを栽培している。収入の 9 割以上を飲料水販売ビジネス（委託を受けて飲料水パックをタマレ、Savelugu などで販売し、コミッションを得るビジネス）から得ている（月々の収入が約 900GHS）。Rufai 氏は Agricultural Development Bank (ADB) に銀行口座を持ち、月に 1 回余剰金の預金を行っているが、利息が

低すぎる（年利 2%以下？）ため他の銀行に移りたいと考えている。その他の金融機関のサービスは活用しておらず、ADB の口座も預金を行うのみ、融資は受けたことはない。自らの預金のみで現在の家を 4 年間かけて建てた。完成まであと一步である。現在の自宅が完成したら、さらに預金を継続してもう 1 軒家を建てたいと考えている。この家を人に貸して、老後資金にしたいとの考えである。

7. 上記 Rufai 氏は核家族世帯であるが、これはおそらく Kanshegu コミュニティでは例外的な事例であり、ひとつのコンパウンドを複数の家屋が取り囲む形式となっている複合世帯が主流であり、通常一か所に 10 名以上が住んでいる。2 名以上の妻を持つ家庭も多く、1 人の妻と 5 人程度の子供を持つ家庭が多いようである。また、ペルソナに記述した通り同じコンパウンドに住む家族とは別の家族（父母、別の妻の子供など）を養っているケースも珍しくないようで、20 名内外の構成員の世帯も多いように見受けられた（Mr. Amimu Mahama の世帯は同じコンパウンドに 25 名の世帯構成員が住んでいる）。
8. ジェンダーの状況について。イスラム教徒のコミュニティであるが、面談に際して調査団からの妻の同席の求めに問題なく応じていただき（Mahama 氏の妻は前日に出産したばかりでまだ病院に入院中のため不在）、必要に応じて妻の発言もあった。家計の支出の決定権は夫が持っているとのことである。Nourideen 氏の妻は雑貨店を営み、収入がある。村には 2 名以上の妻を持つ夫が多数いるとのことであり、多くが同じコンパウンドに両方の妻が居住している。
9. 保健医療について。Rufai 氏妻は妊娠中であり、Savelugu 病院に定期的に通っている（NHIS の健康保険に加入。妊娠中の女性の保険料は無料）。Kanshegu コミュニティからアクセスのある医療機関は基本的には Savelugu 病院であり、その他の一次保健サービス提供機関はないとのことであった。妊娠中のケアは特に不満はないとのコメントがあったが、特に入院する際には電気がなかったり看護が不十分だったり、と不満な点もある。しかし他に選択肢がないので、皆 Savelugu 病院に行くとのことだ。今般面談を行った 3 家族については、どの家族も国民医療保険に加入していた（一部制度があらたになってから更新手続きを行っていないために保険が切れた状態になっている人はいた）。妊娠中のケアは無料であるが、一部の治療や薬代などは有料となるため、健康保険に加入していても一定の保健医療経費がかかる。上記の通り世帯構成員の人数が多く、幼い子供や老夫婦を抱える世帯も多いため、特に恒常的な健康問題を抱える家族がいなくても比較的定期的に病院に行くことがあるようである。例えば Mr. Amimu Mahama の世帯では、特に恒常的な病人がいるわけではないが月々 150GHS の保健医療費がかかることで、恒常的な支出項目としては教育費とほぼ並ぶ項目である。Alhasan Nourideen の世帯のように病人を抱え、しかも健康保険が効かない治療を長期間継続する必要が生じると、保健医療費の負担はさらに大きくなる。
10. 金融サービスの活用状況について。今般面談をした 3 世帯共に、FSP からの融資を受けた経

験はなかった。Nourideen 氏のケースのように比較的まとまった資金（6000GHS）であっても親戚に融資を親戚に頼っている。Rufai 氏および Mahama 氏は ADB に預金、Nourideen 氏は MTN(モバイルマネー)に預金しているとのことで、自宅に現金を置いておくのはセキュリティ上の問題があるため、FSP は主として預金サービスが活用されているようであった。MTN はコミュニティ内にエージェントがあるため容易にキャッシュイン・アウトができる。

以上。

6. Savelugu Libga コミュニティ 農家世帯調査	
日時	2020 年 1 月 14 日 (火) 8:20-17:15
場所	Savelugu Libga コミュニティ
先方面会者	Mr & Mrs Fuseini Souchi、コミュニティ農家 Mr & Mrs Alhasan Nourideen 、Kanshegu コミュニティ農家 Mr. Amimu Mahama、Kanshegu コミュニティ農家  Mr. Felix Oteng、 Mr. Sarare (通訳) Savelugu 地区農業局普及員 Mr. Ahmed Mohammed Adam、 Savelugu 地区農業局長
当方面会者	研究チーム：田中（本議事録記録）、望月、Agnes Allotey（ローカルコンサルタント）（各メンバーが異なる側面を分担して記録）

1. Kanshegu と共通する点も多いが、Libga におけるインタビューに基づき追記する。このコミュニティの近くにはダムがあり、1 世帯につき 1 エーカーの灌漑農地があるため、乾季に野菜栽培ができる。野菜栽培については、各種葉野菜、ペパー、トマト、ナスなどを栽培している。各農家は通常灌漑農地よりも大きな非灌漑農地を持っており、天水農業ではコメ、メイズ、大豆などを栽培している。
2. 主としてイスラム教徒のコミュニティであるが、Kashengu コミュニティと同様に女性は経済的にアクティブであり、家庭内の地位も低くないように見受けられた。特に Fuseini Souchi 氏夫妻のお金の管理はかなり平等性が意識されている。（例として、預金について、預金の名義は夫名義であるが、預金のパスブックは妻が所持している、など）。
3. 保健について、Kashengu コミュニティと同様に多くの人は Savelugu Hospital を利用。それほど満足していなくても他に代替施設がない。Fuseini 氏のみ、過去の経験（潰瘍を患った時の治療体験）に基づき私立の Capsa Scientific Hospital を利用している、との回答があった。聞き取り結果に基づく、Kanshegu でも Libga でも人々の通常の食生活はメイズやコメなどの穀物が中心であり、動物性たんぱく質はほとんどとることがないようである。栄養失調のために腹部が膨れた状態とみられる子供が稀に見かけられた。

以上。

7. CARD (Financial NGO、社会企業)	
日時	2020年1月15日(水) 8:50-9:30
場所	CARD Savelugu 事務所
先方面会者	Mr Naresh Shukla, Group Manager
当方面会者	研究チーム：田中(記録)、望月、Agnes Allotey

- CARD は 1999 年に世帯レベルでの食糧安全保障、マイクロファイナンス、農村振興を目的とした北部ガーナの NGO として発足した。現状の予算規模(つまり融資の原資)は 3 百万 USD である。顧客から返済された農作物の価値は 43.5 百万 USD。顧客規模は 9800 名で、農家グループを単位とした投入財クレジットの供与を行っている。顧客の農家グループの数としては 476 グループある。平均クレジット額は一人当たり 100USD、2 回目以降は 200USD (CARD のクレジットは US ドル建てである)。CARD 本部は Tamale に所在し、支店はない。18 名のクレジット担当者が 1 人当たり 200 名程度の顧客を回っている。
- Mr. Shukla (インド人マネージャー) が 7 年間かけて「キャッシュレス・ファイナンス・モデル(Crop Cashless Financing Services (CCFS))」(下記 2、5 に詳細を説明)を開発した。同モデルのポイントは、基本的に投入財クレジット (Input credit) の提供対象である農家との取引を「農作物と投入財」の現物ベースとすることにより、農家は現物ベースの量では無利子で投入財クレジットを受けられるようにすることである。つまり、クレジットを受け取る時点で、農家は 1 単位の作物を栽培することができる 1 単位の投入財を受け取り、支払い時にはその 1 単位の作物を支払いすれば良い、というクレジット条件である。小規模農家にとって投入財購入のための資金はボトルネックとなることが多く、質の良い投入財を必要な量購入できる資金が不足しているために農地を十分に活用できず、結果として農業収益が上がらないことも多い。このために投入財クレジットへのアクセスは、農家にとって極めて重要である。
- クレジットの承認は、基本的にクレジット担当者が行っている。基本的にはクレジット担当者が支払いを回収するが、モバイル・オペレータ (MTN、Voda Phone) と連携しているため、支払いはモバイルマネーでも受け付けている。
- 農家が耕うん、種、(環境に良い) 投入財、包装等の営農ニーズをクレジット担当者に伝え、そのニーズにベースにして、クレジット担当者がクレジット額を決定し、事務所がクレジット承認を行う。農家にとっては「条件の良いクレジットである」との認識があるため、支払い率はほぼ 100%に近い。クレジット申請は、男女の組み合わせ(夫婦、兄弟など、「男女」の関係は問わない)で行わなければならない規則となっている。北部ガーナの天水農業地域の収穫時期と一致するように、CARD のクレジットの支払い期間は 11 月から 2 月までに設定されている。
- CARD 本部自身が「商品取引」(commodity trading)に従事し、利ザヤを稼ぐことによって上記のような「現物ベースでは無利子」の投入財クレジットの提供が可能となっている。CARD としては、まず投入財をまとめて注文することによって投入財を割引価格で購入することができるので、投入財を 10%程度安価に入手可能となる。その他に、害虫によるポ

ストハーベスト損失が通常 30%程度はあるため、支払いを 100%の現物作物で受け取ることができるということは、CARD にとっては 30%の「儲け」があることになる。また、CARD は農家から受領した作物を貯蔵し、市場価格の上昇を見計らって販売を行っている。さらに、US ドル建てのクレジットとすることにより、概ね 10%の為替レートの儲けがある。このようにして、CARD は商品取引で実質的に合計概ね 50%の利ザヤが稼げている計算であり、このために農家に好条件の投入財クレジットを提供することができるのである。

6. CARD は USAID の Financing Ghanaian Agriculture Project (USAID-FinGAP、コメ、メイズ、大豆バリューチェーン支援を目的とした 5 か年のプロジェクト、[www.agrifinanceghana.org](http://www.agrifinanceghana.org)) に参加し、2015 年に USAID から 6 万 USD のグラントを受領し、農家に対して 1.5 百万 USD 相当の投入財クレジットを提供した。これは、USAID のグラントの 25 倍に当たる規模のクレジットを顧客である小規模農家に提供したことになる。

以上。

8. Agricultural Development Bank (ADB), Savelugu 支店	
日時	2020 年 1 月 15 日 (水) 10:30-11:00
場所	ADB Savelugu 支店
先方面会者	Mr. Paa Kwesi Tono Barnes, Manager
当方面会者	研究チーム：田中 (記録)、望月、Agnes Allotey

1. ADB は当初農業に特化した銀行として設立されたが、20 年間以上前に通常の商業銀行に改変された。ADB は現在でも 'Agricultural Development Bank' の略称ではあるものの、「農業セクターの銀行」というイメージから脱却するために 'adb' というロゴに変えた。ADB のポートフォリオは、融資残高 2.7 百万 GHS、預金残高 8 百万 GHS。全国で 82 支店、北部州では 5 支店がある。焦点を当てる顧客層は、商業融資である。MTN、Voda phone、他数多くのモバイルオペレーターと連携している。
2. 現在通常の融資規模は一件あたり 10,000 – 100,000 GHS 規模である。利子率は 30-35%年、融資期間として最も多いのは 1 年間である。融資を受けるには担保、申請書類が必要である。返済スキームは通常 3 カ月の猶予期間があり、その後は 1 カ月毎の定期的な返済が必要となる。預金利率は 1.5 – 5% である。
3. 小規模農家は融資対象としてこれまでのトラックレコードが悪すぎる。ADB としては、融資対象としての確でないと考えている。小規模農家向け融資に返済能力があることが示されない限り積極的に小規模農家を顧客とすることは難しい。これまでの ADB の経験値に基づくと、グループ融資は不良融資 (non-performing loan) となる比率が高い。
4. 2019 年のガーナ金融セクター危機のあとに、ガーナ国民として金融機関との取引に躊躇がある環境であることから、既存の顧客に対する教育=金融機関への信頼の回復が必要であると考えている。このような考えに基づき顧客サービスを充実・向上させることに努めている。(顧客サービスとは、取引に際して面倒が少ないこと、デジタル・サービスの提

供による利便性の向上などを指す)。

以上。

9. Bonzare Rural Development Bank 本店、Kumbungu	
日時	2020年1月15日(水) 11:30-12:20
場所	ADB Savelugu 支店
先方面会者	?? ? 5名の面談者であった。
当方面会者	研究チーム：田中(記録)、望月、Agnes Allotey

1. Bonzare の金融機関組織としての最大のミッションは、農家の生産面でのニーズに対応することである。北部州に 8 支店がある。顧客数は 58,000、融資残高としては 26 百万 GHS 規模であり、北部州ではリーディング・ポジションにある Rural bank である。預金金利は 8% である。94 名の職員と 52 名のコミッションベースで業務に従事する mobile banker を雇用している。
2. Bonzare では、銀行組織の中にマイクロファイナンス部があるが、2019 年に承認することができた融資は、コンバインハーベスターを購入するための 100,000GHS 融資 1 件を実施しただけである。その主たる理由は、Bonzare として使うことのできる安い原資の不足である。的確な原資は利率 10% まで。農業セクターの融資の利率は通常 32% をチャージしている。
3. これまで各種のドナーと組んだプロジェクトを実施してきた。例えば ADVANS とのパートナーシップでは、耕うんのコストについて 30% を Bonzare が融資し、ADVANS が 70% のグラントを供与する、というスキームを実施したことがある。FINGA (米国 NGO) とのパートナーに関しては、リベートを銀行に支払う (2%) 利子を補助する支援するスキームを実施した。天候インデックス保険をオファーしたこともあるが、うまくいかなかった。
4. マイクロファイナンス部 (顧客規模 15,000 人 (800 グループ)) 融資の 7 割がグループ融資であり、ひとりあたりの融資額は 500 – 20,000 GHS、グループとしては 100,000 GHS 規模、融資期間は 6 カ月まで。4 カ月以降毎週の返済が求められる。雄姿なので 100,000 GHS など 6 カ月まで。4 カ月 毎週返済 原本と利子と両方を返済しなければならない。
5. 1 週間に 1 回、5 回の金融教育を実施してから融資を提供してきた。グループ融資の単位となる相互扶助グループ (Solidarity Group) は 4 人—6 人で、融資を受ける際のリスクヘッジは、Solidarity group が集まってコンディションを理解している。
6. JICA との協力可能性を検討するに当たって、関心があるのは以下の分野である。①融資の原資提供、②営業に必要なバイク、コンピュータなどの物品供与、③銀行の能力強化 (金融商品開発等)、④バリューチェーンファイナンス融資に関心がある。

以上。



10. Catholic Relief Service	
日時	2020年1月15日(水) 14:30-15:40
場所	CRS Tamale
先方面会者	<ul style="list-style-type: none"> <li>● Mr. Adam Haliq, Senior Project Officer REST II Project</li> <li>● Mr. Abdul-Fatahi Adam, Senior Program Officer “Rural Emergency Health Services and Transport II Project”</li> <li>● Mr. Mawali Asigbee, Program Manager Agric</li> </ul>
当方面会者	研究チーム：田中、望月（記録）, Allotey 現地アシスタント

目的：CRSが農業および保健プロジェクトにおいてどのように金融包摂の視点の取り入れているのか、彼らの知見経験をヒアリングする。

1. CRSは、国内18のdistricts (North East, Savannah, Upper East)で展開している、農業および保健分野の主要な技術支援プロジェクト (Agric、REST II) において、独自の金融包摂アプローチであるSILC手法を適用している。
2. SILC (Saving and Internal Lending Communities) 手法 (<https://www.crs.org/publication-tags/silc>) は、VSLA同様、コミュニティ内のグループ預金・小規模融資のスキームであり、女性をターゲットにしている。保健プロジェクトにおいては、Community Pregnancy Schoolsにて、保健教育に加えてSILC手法を使った家計管理などの金融教育を実施している。さらに、各コミュニティに1名のPrivate Service Provider (PSP)を配置したことで、プロジェクト終了後も継続的に金融教育が行われるようになった。PSPの配置においては、コミュニティ在住の識字者の中からやる気のある者を募り、PSPとなるべくToTを実施する。多くのPSPは男性である。PSPへの報酬は、グループが自身で決めている（例えば、共同預金開始から8~10カ月後にshare outする時の総額の5%を支払う等）が、多くのPSPはボランティア的に活動に取り組んできた。女性たちからは、PSPは有益であるとの声が聞かれている。
3. 農業プロジェクトAGRICにおいても、特に農家の預金習慣の強化に資する金融教育としてSILCを活用している。農業資材および水・衛生アクセスの改善に融資が活用されている。AGRICにおいては、さらにCRSが定義する「smart skills」の強化を進めている。これは、subsistenceレベルの農家が市場販売レベルへ成長するために必要なスキルセットであり、SILC、マーケティング基礎、イノベーション、NRM (natural resource management)などで構成される。さらに、金融包摂をフォーマルなサービス利用までアップグレードする目的で、FSPとの協働を検討している。金融機関パートナーに対して、SILC手法の理解や、グループの金融ニーズについての知見向上をサポートし、適切な金融商品・サービスの開発に取り組んでもらうことを期待できる。現在最有力パートナー候補であるFidelity銀行は、CAREとデジタルサービスに関連した分野で協力した実績を持つことに加え、CRSのターゲットコミュニティにリーチアウトするのに適したエージェント・バンキングを持つ。

インフォーマルな預金グループと金融機関をリンクさせる支援プロジェクトとしては、世銀の Ghana Financial Sector Development Project (<http://documents.worldbank.org/curated/en/768071536096255699/Ghana-Financial-Sector-Development-Project>) がある。Barclay 銀行やデジタルプラットフォームをデザイン・構築するテクノロジー企業が参加する予定である。

4. 金融包摂をフォーマルな金融サービスの利用まで向上させるためには、当事者の行動変容が肝要である。SILK の経験を通じて貯金の重要性、Share out のベネフィットなど基礎的なことを理解し、融資の仕組みおよび正しく利用することを学んで、ひいては他の FSP の利用もできるようになる。そのために、例えば、SILC では自分が預金した額の 3 倍以上の額を借りることはできない、といった Due Diligence に係るルールを設けている。
5. SILC のようにお金にまつわる研修の実施は、保健・栄養にかかる活動（イベント）への参加の動機につながっている。例えば、新生児の育児にはお金がかかるため、母親にとってもお金は関心のあるテーマである。同様のことが農業プロジェクトでもいえる。
6. 現時点では識字レベルが低いため、SILC 手法へデジタルマネーを活用することは考えていない。
7. 2020 年 2 月にタマレもしくはアクラで SILC 手法実施から得た経験・学びについて発表するワークショップが開催される。ジェンダー視点（世帯内における男女のパワーバランス）、定住コミュニティと家畜を管理する遊牧コミュニティ間の関係改善、水・衛生分野における改善などにかかる SILC 手法によるポジティブな行動変容について紹介する予定である。

（調査団所感）：CRS の経験から、金融のテーマが、住民の視点からも農業（生計向上）や生活改善・人間開発（保健・栄養）とも親和性が高いことが伺えた。また、金融包摂をインフォーマルレベルから、フォーマルレベルへ押し上げるにあたり、FSP との連携のあり方（FSP 側のベネフィット）についても一つのモデルが明確になった。CRS は District Health Office および GHS ともコラボしているとのこと。JICA の CHIPS プロジェクトや母子保健プロジェクトにおいても金融教育を取り入れる参考になると思料。

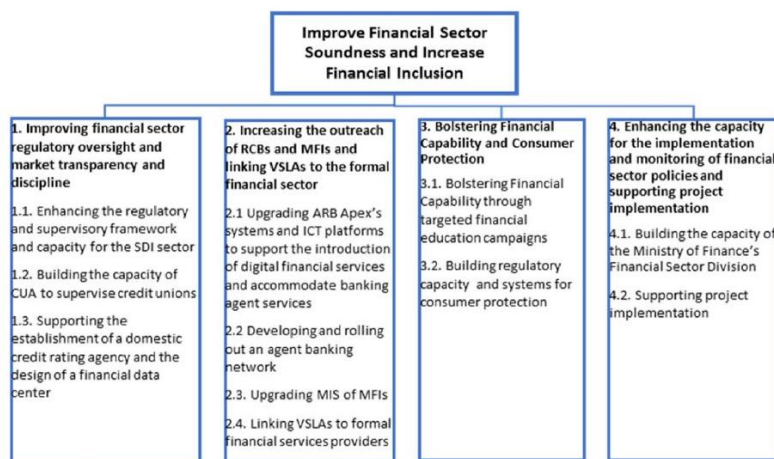
以上。

11. ARB (Association of Rural Banks) APEX Bank	
日時	2020 年 1 月 16 日（木）9:00-10:00 2020 年 1 月 20 日（月）14:00-15:00
場所	世銀事務所会議室 ARB APEX Bank

先方面会者	<ul style="list-style-type: none"> <li>● Mr. Ignatius Cobbina, Consultant (16日の面談)</li> <li>● Mr. Roderick Okoampah AYEH, Manager, Credit Risk, ARB APEX Bank (20日の面談)</li> </ul>
当方面会者	JICA: 菅原専門員、Addo-Maame JICA ガーナ事務所ナショナル・スタッフ 研究チーム：田中（記録）、望月

1. Rural Community Banks (RCBs)は 1975 年頃から設立が開始したが、2000 年近くになって設立数が増加し、RCB に特化した規制機関が必要となったため、2000 年から 2001 年にかけて世銀の支援を得て APEX Bank が設立された。APEX Bank は基本的に 141 の RCB s に対するクリアリングハウス(つまり、RCB s にとっての中央銀行)としての機能を果たしている。APEX Bank は、その設立の経緯としてはガーナ中央銀行の意向を受けたものであったが、現状の組織は RCB s を株主とする純粋な民間企業であり、ガーナ政府の組織ではない。
2. 現在 APEX Bank は、①RCB の規制、融資原資の供給、資金マネジメント等の銀行サービスの提供と共に、②APEX 機関として、世銀や JICA などの 2 国間ドナー支援を RCBs に還元するという非銀行サービスの提供や金融商品開発などの技術支援を行うという任務（機能）を持つ。②の関連では、JICA が 10 年ほど前に APEX Bank を通して、女性・子供省 (Ministry of Women and Children) に対する女性起業家支援プロジェクトを実施したとのこと。
3. APEX Bank は、近年上記②の機能の一環として、RCB s のデジタル化整備、ネットワークの Interoperability の向上などに努めてきている。このような関連から、直近でパイプラインにある取り組みとしてはブランチレス・バンキングへの取り組みがある。2020 年 6 月を目途に、エージェントを通じた RCB 金融サービス提供の促進を行っている。これは、世銀が現在実施する Ghana Finance Sector Development Project (下図) の 4 つのコンポーネントの内の一つである。RCB s に対する支援は、アウトリーチ拡大の観点から重要な支援対象であると考えられており、RCB s は、小規模農家の金融包摂の拡大という観点からは非常に重要な金融機関であると言える。

Figure 2: Project Overview



(出所: Appraisal Report on Ghana Finance Sector Development Project, Report No: PAD2862, Aug 2018, World Bank)

4. RCBs は、それらの設立の経緯から、元々小規模農家の金融ニーズに合致した商品・サービスの提供をマニフェストとしてきた金融機関であり、また、本支店の設置場所も農村コミュニティからのアクセスが良い。さらに、RCBs は通常近隣のコミュニティの人々が株主となっており、オーナーシップの観点からも小規模農家との繋がりが深い。これらの観点から、ガーナにおける小規模農家の金融包摂アジェンダを考える上で、RCBs の役割は極めて重要である。このような観点からガーナ政府は RCBs に対して一定の優遇策を講じており、例えば資本金規制についても低めの設定 (1 百万 GHS) とするなどしている。
5. (当方より、昨今のモバイル・バンキングの普及により、RCBs の競争力が低下したというような事象はないのかと質問したところ) 預金動員の観点からは、モバイルマネーとの競争という現象が生じている。RCBs は直接 Teleco と連携することにより、このような競争を勝ち抜こうとしているのが現状である。しかし、融資に関しては、未だ農村部における RCBs の競争力の強さは健在であると思料する。融資においては、やはり「デジタルベース」ではなく「対人ベース」の取引が重要であるのがその理由である。つまり、ここでは RCBs の地理的プレゼンスがいまだにモノを言っているといえるだろう。
6. (当方より、融資の原資のコストの高さが問題で 2019 年はほとんど融資を提供することができなかった RCB と面談したことを話したところ、) RCB にとって原資のコストは課題のひとつである。APEX Bank では、RCB から原資へのアクセス申請を受け付けている。小規模農家を対象とするような、金融包摂アジェンダに関連した融資については、原資のコストを 15% と考えるのが一つの目安ではないか、とのコメントあり。
7. RCBs は、過去 2 年間程度のガーナ金融セクター危機の直接の影響はそれほど受けていない。その一つの理由は、例えば取り付け騒ぎになりそうな状況が察知された場合、APEX Bank が該当する RCB の流動性支援を行い、そのような問題の発生を事前に食い止めていたことが大きいと思われる。

以上。

12. Fidelity Bank	
日時	2020 年 1 月 16 日 (木) 11:00-12:00
場所	世銀事務所会議室
先方面会者	Ms. Ophelia Oni, Fidelity Bank
当方面会者	JICA: 菅原専門員 (記録)、Addo-Maame JICA ガーナ事務所ナショナル・スタッフ 研究チーム: 田中、望月

1. 2013年にFinancial Inclusion Unit 設立し、mass market へのサービス提供開始。まずは携帯電話を活用した簡便な口座開設サービスを提供(5-10分で開設)。その後POSを使ったエージェントバンキングサービスを開始したが、電力供給の問題から課題あり。そのため、POS利用はやめ、エージェント向けのアプリケーションを開発・導入。現在、3000 エージェントを抱え、300,000 口座の利用があるが、簡便な口座開設サービスのみならず、低所得層マーケットのニーズを満たすためにサービスの多様化を模索している。
2. その一環として、近年、および本年は以下のような活動を計画・実施。①短期デジタルローンの提供(1 か月)、②労働者向けローンの提供(来月ラウンチ予定)、③農業 (VC) ローンの開発・提供 (2019 年からカカオ生産農家向けのパイロットを実施。カカオ以外の小農へのサービス展開についても検討中)、④MTN と連携して低所得女性向けデジタル預金サービスの検討。
3. 上記④との関係では、'Yellow save'(必要最低預金額2セディ)という預金サービスを MTN とともに2019年より提供。年8%の利息(通常普通預金は3%、定期預金(Saving account)は5%の年利)。Fidelity にとっては安い資金の動員というメリットがあり、また MTN には顧客の保持と顧客の CICO 時のサービスフィー徴収による収入増加というメリットがある。また、以前女性の金融包摂促進絡みで、デジタル ROSCA を Emergent Technology というフィンテックと検討・協議したことがある。
4. ローン提供と回収はあくまで独自のエージェントネットワークを使い、MTN と連携し MTN のプラットフォームを使ったデジタルローンは提供していない。
5. 口座開設前、後の金融教育を重視。Financial Inclusion Unit の8名のスタッフと支店のスタッフで、毎月現場に出向き金融教育のセッションを提供。一回2時間程度。金融教育のコンテンツ開発や提供活動は、部分的に GIZ や Solidaridad (NGO)が資金援助。ABC of saving, ABC of ATM, ABC of agent などの金融教育、およびカカオ農民向けの帳簿付け指導などが実施されてきた。
6. 小農セグメントはまだ新しいマーケットセグメントであり、リスクも高い。この層に金融サービスを提供するためには、こうしたセグメントの状況を把握するためこうした層へのタッチポイントを提供してくれる組織が必要。またこうした層の生計やキャッシュフローなどの情報が必要。まずは100人程度の小農について調査し、プロトタイプを検討、試行が必要であり、タッチポイントの提供、潜在的顧客情報の整備・提供、新サービスの検討などの面で JICA に期待するところはある。

以上。

13. People's Pension Trust	
日時	2020年1月16日(木) 16:00-17:00
場所	People's Pension Trust 会議室
先方面会者	● Mr. Samuel Bediako Waterberg, CEO
当方面会者	JICA: 菅原専門員、Addo-Maame JICA ガーナ事務所ナショナル・スタッフ 研究チーム: 田中(記録)、望月

1. People's Pension Trust の企業としてのコンセプトは、(通常年金のない) 小規模農家を含むインフォーマルセクターの人々が老後資金を貯蓄し、自らの手で「年金」を形成することにより、尊厳のある老後を迎えることができることである。企業の設立に当たっては顧客層(小規模農家を含む) 2000人と面談し、ニーズの把握に努めた。その結果、特に子供の教育資金を引き出し可能な貯蓄スキームが必要であるという結論に至った。このようなニーズ調査活動を2014年に開始したが、2017年に NPRA (National Pension Registration Authority) に企業(Corporate trustee 免許)として登録した。現在の顧客数は45,000人規模、その6割は都市部の顧客である。Tamale には支店があり (office, manager, sales agents)、Ga South にはキオスクを通してサービス提供をしている(kiosk, sales agents)。未だビジネスとしてブレイク・イーブンには達しておらず、2023年を達成目標として定めている。
2. People's Pension Trust が提供する貯蓄スキームは、2カ月間の定期的な預金後には、預金額の50%までをいつでもどのような目的のためでも引き出し可能とするものである。引き出し申請後3日以内にデイスパースされる。預金額はその時々顧客の財務状況に応じて柔軟に決めることができ、一定額でなくてもよい。
3. 上記の通り引き出し可能額は預金額50%ではあるが、実際には総預金額の15%程度しか引き出されていないことがわかっている。オランダの Wageningen 大学や CGAP などと連携し、インフォーマルセクター顧客の貯蓄行動などについて調査を実施している。
4. People's Pension Trust は、Data Bank のファンド・マネジメントのアドバイスに基づき顧客の預金を投資運用している。現在の主要ポートフォリオは政府の債権(21%)の他に商業銀行での定期預金、などである。顧客の預金には2.5%のコミッションをチャージしているが、一定期間以上預金を実施した顧客には Life bonus を出している??。カストディアン銀行は Standard Chartered 銀行である。トラスティーの数は32であり、その85%がフォーマルセクターの組織、15%がインフォーマルセクター組織である。
5. People's Pension Trust のビジネス・モデルでは、各種の組織とのパートナーシップが重要な役割を果たしている。インフォーマルセクターの顧客が何らかの形で所属する組織と連携することにより、必ずしも個人顧客のみとの取引に限定せず「規模の経済」を実現することができる。このような組織の例としては、Coco 協同組合、Union of Informal sector

Association、Trade Union Congress (TUC) などの労働組合組織などである。また、Savings and Loan 機関と連携することによって、顧客に対して新たな商品提供を可能とする試みも行っている。さらに、Vodafone や Airtel、Tigo との連携により、携帯電話による登録やモバイルマネーからの預金支払いが可能となっている。

6. 顧客とのフィールドレベルでのタッチポイントは、コミュニティ在住（農家グループリーダーなど住民から信頼されているオピニオンリーダー的な人材を非正規雇用ベースでリクルートしている）のペンション・マネージャーである。ペンション・マネージャーは 1 日程度の研修を受ける。現在 40 人のペンション・マネージャーがいる。People's Pension Trust の職員として末端で雇用されているのはセールス・エージェントであり、これらの人々は 1-2 週間の研修を受けている。
  
7. （当方より、2019 年の金融セクター危機をくぐり抜けて、現在存続している MFI の中で信用力の高い MFI はどのような機関であると考えるか、との質問に対し）金融危機に際し、存続の危機にさらされた MFI の問題の共通項としては、ガバナンス上の問題があったと考えている。MFI は「個人ビジネス」的に運営されていた組織が多く、そのような MFI では MFI の経営陣が個人の資金と MFI の資金を明確に分離していなかったものとの認識である。

以上。

14. Ga South コミュニティ 農家世帯調査	
日時	2020 年 1 月 17 日（金）8:00-16:00
場所	Ga South 市役所、Domeabra コミュニティ、Langma コミュニティ、Bortiannor コミュニティ
先方面会者	Ms Georgina Lartey、Domeabra コミュニティ農家 Ms Grace Tetteh、Domeabra コミュニティ農家 Mr & Mrs Abraham Allotey、Langma コミュニティ農家 Mr & Mrs Abraham Ozor、Langma コミュニティ農家 Mr. & Mrs Timothy Quaye、Botiannor コミュニティ農家 Mr. & Mrs Daniel Otoo、Botinannor コミュニティ農家  Mr. Fifi Dawson、 Ga South 地区農業局普及員 Ga South Municipal Coordinator Director Ga South 地区農業局長
当方面会者	JICA: 菅原専門員、Addo-Maame JICA ガーナ事務所ナショナル・スタッフ  研究チーム：田中（本議事録の一部記録）、望月（本議事録の記録）、Agnes Allotey

1. 1月17日(金)に、農家へのヒアリングに先立ち Ga South の Municipality Assembly を表敬訪問し、Municipal Coordinating Director である Imango Baise 氏に話を聞いた。同市は、2018年に創設された新しい自治体であり、アクラ中心部から車で西へ1時間ほどの距離に位置する。そうした立地条件から、企業の移転(移入)や住宅の増加など建設が活発化している。不動産税および建築許可の発行を中心とした税収が豊富にあり、自治体自らの税収で市役所、市議会を建築した。Ga South では、VSLA を正式な金融機関と連携させる金融包摂プロジェクトを最近実施した('Green skills for Ghana' Project)。最近では、アメリカ企業との PPP を通じて、再生可能エネルギーを活用したエコな Flower City 設立の構想を掲げている。
2. 同日には、Ga South に4つの店舗を持つ農業資材会社 Ekudank Agro の代表者とも「栽培カレンダー」作成に必要な投入財の基礎情報を収集する目的で面談したが、時間の制約によりオクラ栽培に係る情報を部分的に入手するに終わった。この地域では主として野菜を栽培しており、一部が輸出されている。主要な作物はトマト、ペパー、オクラ、なす、玉ねぎ、メイズなどである。
3. 農家訪問においては、Fifi Dawson 農業技術普及員(JICAによる6週間のSHEP本邦研修参加者)が両日共に、また、Elizabeth Akaba 農業フィールド・オフィサーが2日目の調査に同行した。訪問地域の農家の共通語は Ga 語であるため、必要に応じて Fifi 普及員および調査チームのローカルコンサルタントが通訳も務めた。英語でコミュニケーションができる場面では、直接質問回答を得ることができた。
4. 各農家面談の個別メモおよび農業生産、生計に関する数値データは別添エクセルシートに1件ずつまとめた。また、農家のペルソナ1~3は各コミュニティの農家からの聞き取り結果を基にして作成した。以下の面談録では、Ga South 市の3つのコミュニティにおける農家面談に関し、主として個別のデータに明確に記録されていない事項について記述する。
5. Domeabra 地区の農家世帯 訪問した農家世帯の隣の農地を使用している Ahortor 氏は農業経理簿をつけており、国を代表する優秀農業者として表彰を受けた実績を持つ。ヒアリング対象農家の営農状況も熟知していることから、栽培に関する情報の補足支援のためにインタビューに同席した。ヒアリング対象の農家は2世帯ともに、60代の未亡人が世帯主であり、天水農業による野菜栽培・販売および飲料水販売で所得を得ることで家族を養っている。住居と農地の場所は離れており、農作業をするために交通費がかかることに加え、収穫作物を農地へ買いつけに来る業者がいないことから、自力で地元の市場へ販売するためにも交通費がかさんでいる。また、農地の除草などの作業に必要な労働者の不足が深刻化している。さらに、前述した建設ラッシュの影響から、資材となる砂(土?)の収集車が農地の近くまで迫ってきており、自分たちの農地への影響を懸念している。独立した子供から送金を受け取る際にモバイルマネーを利用しているほか、Susu や VSLA を利用している。国民健康保険(NHIS)に加入しているが、カバーされない保健医療サービス



も利用しており、そのための出費はタンス預金や送金などから捻出している。

6. **Domeabra** コミュニティにはモバイルマネー・エージェント（キオスク）が3か所ある。2か所はコミュニティの入り口の道路沿いに面した位置、1か所は村の中にある。道路沿いのエージェントは、Tigo、MTN（Momo）、Vodafone の3社の商品を取り扱っている。コミッションは定額（トランザクションの数や金額と連動していない）で会社によって150-200GHS。最も多い取引は預金（1回につき100-200GHS）。近くの銀行の支店から1日に2回程度現金の回収・補給があり、これまで現金のバランス（liquidity）に関して問題となった経験はない。現金保有額は通常2000GHS（村の中にあるエージェント）から5000GHS（道路沿いのエージェント）。道路沿いに面したエージェントは1日あたり通常40-50の取引を扱っており、村の中にあるエージェントは30程度であるとのことであった。帳簿を見せていただいたところ、一回の取引額はほとんどが400GHS程度の金額までであった。キオスクは1000GHS程度の金額で立てることができるとのこと、道路沿いのエージェント（20代の女性）は、パートナーと二人でキオスクを立て、事業を行っているとのことであった。事業上の大きな問題点は特にないが、ネットワークの質が悪いことが度々ある点が問題であると感じている。村の中にあるエージェントは、顧客を装った人たち（ナイジェリア人とみられる、とのこと）から現金をだましとられた経験がある、と語っていた。
7. **Botianno** 地区。ヒアリング対象農家は、いずれも50~60代の夫婦を筆頭とする3世代同居世帯である。世帯の生業の柱は灌漑農業による野菜栽培（オクラ、トマト、キュウリ等）である。地区には灌漑農業組合があり、栽培は個人単位で行うが、販売は農地へ買い付けに来る業者へグループ単位で販売している（Quayeさん世帯）。2世帯とも家族全員がNHISに加入しているほか、Quayeさん世帯はBIMA保険も利用している。2世帯ともGa Rural Bankの口座とモバイルマネー口座を所有しており、預貯金と融資サービスを利用している。Quayeさん世帯は、夫婦それぞれが口座を保有し、融資を利用してきた。
8. **Langma** 地区は、ビーチに面しており、幾ばくかの観光業もあるようである。インタビューした2世帯は、いずれも20~30代の若い夫婦の核家族世帯である。（Allotey氏夫妻へのインタビューについては、葬儀に参列中であったところ、一時退席をして調査に対応してくれたが、短時間で切り上げた。同夫妻には子供がおらず、ガーナとしては小さな世帯であり、農業収入と不動産賃貸による定期的収入を得ている。）Ouza夫妻の世帯は、天水農業（トマト、唐辛子、オクラ等）を主な生業としつつ、季節限定の漁業（家業）および不定期な建設日雇い労働賃金も収入源としてある。夫人は、飲料水販売をしているが、収入は月3ドル程度であり、家計の足しになっているとは言い難い。世帯所得に対して生活支出が多いが、家計が苦しい時には友人から無利子で借金をしてやりくりをしている。家計簿はつけていないが、機会があれば家計管理を習得し地と思っている。NHISは利用していない。

9. 訪問した 3 地区の各地区で少なくとも 1 世帯は、家計簿または農業経理簿をつけている (Domeabra については補助情報提供者)。どの地区においても農業は気候変動の影響を受けているようで、主要換金作物であるトマトの栽培ができない年があったり、一方では市場飽和に起因する売値の暴落があったりと農業収入は不安定である。そのため、トラクターや乗用車のレンタルビジネス、食品加工・販売業、建設資材販売など、生業の多角化を目指そうとする世帯が多い。しかし、そのための資金準備 (預貯金目標額を設定したり、実際に預貯金したりすること)には取り組めていないようである。Botiannor および Langma 地区の世帯は、生業のオプションとして、漁業や魚の加工 (燻製) が挙げられた、キリスト教徒が多く教会への寄付を毎週している、インフォーマルな金融サービスは利用せずに Ga Rural Bank やモバイルマネーのサービスを利用しているといった共通点が見られた。Susu や VSLA といったグループレベルでのインフォーマルな金融サービスに対しては、グループの連帯保証に信頼を寄せていない。農業投資のためにフォーマルな融資を利用したいものの、利率が高くて手が出しにくい、アフォーダブルな農家向けの融資サービスを要望する声が聞かれた。
10. Fifi 普及員によると、Langma では、農家の組織化を進めており、現在は形成されたグループの正規登録に必要な経理の指導を実施中である。

以上。

15. GA Rural Bank, Kokrobite	
日時	2020 年 1 月 18 日 (金) 13:45-14:30
場所	GA Rural Bank
先方面会者	Mr. James Mensah
当方面会者	JICA: 菅原専門員、Addo-Maame JICA ガーナ事務所ナショナル・スタッフ 研究チーム: 田中、望月 (記録)、Agnes Allotey (ローカルコンサルタント)

地域の唯一の Rural Bank。8000 名の顧客を有する。主な顧客は commercial entities であるが、商業や公共機関があまりない地域であるため、petty traders や農家のセグメントへのサービスを展開している。一般的な商業銀行と同様の商品・サービスに加えて、以下のようなサービスを提供している。

- E-Susu (グループ預金・融資スキームである Susu の電子版)
  - 2019 年サービス開始から、急速に成長しており、現在 900 名の利用者がいる。ほぼ全員が**零細事業者 (petty traders)**。
  - 毎日 4 名の E-Susu エージェント (銀行員) が、自転車で営業訪問する。新規口座についてもその場で開設が可能である (エージェントの携帯電話を使って)。行員の訪問を通じて預金できることは、零細事業者にとって利便性が高い。Susu 口座に最低預金額、利息ともない。現金引き出し回数 (多くの銀行は週?月?2 回) の制限もないが、引き出しには来店する必要

がある。

- 2か月以上預金を利用すると、預金残高の最大2倍の額までの融資を受けることができる。最高額（平均？）は、4万セディ。口座保有者の30%ほどが融資も利用している。利息は年利40%で融資期間は6か月（それとも6か月で40%？）。利用開始から2か月の猶予期間があり、その後は毎週の返済。
- 利用者は、通帳を受け取るため、残高を確認することができる。手元の通帳で残高を確認できることは、利用者にとってうれしいことである（通常の銀行における取引は、slipしか発行されない）。エージェントが支店に戻り、銀行のシステムに預金情報を入力するが、過去には、顧客が持つ通帳の残高と銀行の預金残高の情報が異なるケースがあった。行員による不正であることが発覚したが、このように利用者側と提供者側の2地点で情報を管理することで、透明性の確保につなげることができている。

## 2. 農家向けサービス

- 4年前からサービス提供を開始し、農家セグメントの顧客数は100名
- 主に地域の2つの灌漑グループ（各15名のメンバー、オクラおよびトマト生産者）が利用している。
- グループ融資（連帯保証）であるが、個々のニーズに対応した金額を貸与。農家は、栽培準備～収穫期にかけて融資のニーズがある。個々のメンバーの融資額は、3000～4000セディ。融資期間、利息、返済条件は、E-susu同様。
- 融資返済不履行の保証として、融資額の5%を「mother account」に入金する。

## 3. Microfinance 事業

- 4年前に開始
- 利用者が15～20名のグループを形成し、連帯保証で融資を申請する。個人の融資利用額は2000～3000セディ。
- 現在7グループの顧客がいる。グループメンバーは、fish smokers, petty traders、女性。
- 融資期間、利息、返済条件、mother accountの利用はE-susu、農家向けサービス同様。

## 4. G-connect (mobile money) service

- 2019年11月から開始。
- スマートフォンを必要とすることもあり、利用者数は限られている（5-6名）
- いわゆるモバイルマネーのサービス
- 最大融資額は1,000セディ。利率は月7%。

以上

16. Success for People Microfinance	
日時	2020年1月20日（月）9:30-

場所	Success for People オフィス
先方面会者	Ms. Victoria Antwi, CEO
当方面会者	JICA: 菅原専門員、Addo-Maame JICA ガーナ事務所ナショナル・スタッフ 研究チーム：田中、望月（記録）

- Success for People Microfinance (SPM) <https://www.success4people.com> は、Tier 2 の預金機能を有するマイクロファイナンス機関である。預金サービスを利用している顧客セグメントとして、SMEs、traders、農家以外の女性グループなどがある。（オフィスの周囲には、魚市場、郵便局、零細商店などが数多くある）
- USAID のプロジェクトおよび AGRA との連携を通じた農家向け金融サービスを開発・提供してきた。
- USAID のプロジェクトでは、主に行員の能力強化と、クライアント向けに譲歩利率を適用した融資商品の提供を行った。
- 支店を穀物倉庫がある場所の近くへ移転中である。（設置場所 Upper East 州、Upper West 州、ノーザン州（タマレ）、Ashanti, Oti, Accra）。
- 銀行業に加えて、収穫後技術アドバイスができる農業技術スタッフ（agronomist）を雇用している。

#### 金融商品

- 農業投入融資（Input finance）
  - 2019 年 12 月の時点での顧客数は 8000 農家（グループ単位でアテンドする）
  - 利用者は、現金または農産品現物で返済することができる。返済率は 90%。
  - 融資金利は月利 2%（これは農家向け譲歩利率）
  - SPM は市場価格（保管倉庫価格ではない）を調べて、現物を現金化。
  - SPM は、各地域ごとに異なる農業資材会社と提携している。
- アセットファイナンス（USAID のプロジェクトが構想されていたが、SPM が販売する短期融資とミスマッチであるため、提供していない。）
- Warehouse receipt finance (AGRA を通じたグラントを活用して 2018 年からパイロット的に実施。2019 年 10 月～12 月の利用者数は 4600。農家、集荷（仲介業者）、加工業者など 300 グループ）- カシューナッツ、メイズ、コメ、ダイズ、ゴマなど腐敗しない穀物を担保にする売掛債権融資。利息 3%。
  - ガーナ商品取引所（農業資材会社以外のすべての農業 VC アクターが参加する）で取引するまで、穀物は倉庫に保管される。決済時に至るまで、農家の農業資金は不足気味になるところを、SPM が、農家が次の栽培に必要な資金を融資する。
  - 農家については、集荷（仲介）業者や加工業者による買取価格が低いことから、穀物商品取引所での取引を希望するようになった。
  - 基本的には、正式な農家グループと取引するが、Upper East や Upper West 州のグループについては、グループ内の信頼関係が強固であるため、グループのフォーマル化を条件

としていない。

- 農家向け金融教育 (Financial literacy)
- ポストハーベスト管理
- 預金サービス (利用者数 1.5 万人) VSLA として口座を保有する女性グループ。
  - 2020 年販売開始の新品 **Wo Daakye (Your Future saving)**
    - ◇ 普通預金と緊急時用に使える預金をブレンドした商品
    - ◇ 総預金額の 50% ずつがそれぞれの目的の預金として保管される。
    - ◇ 普通預金には年利 6% の利息が、緊急用預金には 15% の利息がつく。後者は、例えば、子供の教育費に使うことができるが、その際には、就学証明のような書類を提出させるなどして正当性の確認を行う。
    - ◇ 預金は毎週預金。一人 5~10 セディ。
  - デジタル技術を使った金融包摂には、ユーザーにコストがかかる。ユーザーがモバイルマネーを現金化する際には、引き出し額の 10% がサービスフィーとして課せられる。Visa カードやデビットカードを利用して現金を引き出す場合には、こうしたチャージは課せられないのに対し、モバイルマネー利用者には負担がかかる。AGRA パートナーのミーティングでは、こうした点についての協議がされたが、Master Card Foundation のグラントによる活動終了後は、別のソリューションが必要になる。SPM では、Vodafone と農家による取引のフィー軽減を図っている。しかし、MNO 市場の 8 割は MTN が占めており、Vodafone ユーザーは比較的少ないことから、インパクトは限られていると思料。

17. Emergent Technology Holdings	
日時	2020 年 1 月 20 日 (月) 11:15-
場所	同社オフィス
先方面会者	Mr. Saquib Nazir, Managing Director, Africa 3 staff (Ghana, Cameroon, Benin)
当方面会者	JICA: 菅原専門員、Addo-Maame JICA ガーナ事務所ナショナル・スタッフ 研究チーム: 田中、望月 (記録)

目的: デジタル Rosca のシステムを開発した会社。 <http://emergentpaymentsafrica.com> モバイルマネーのエンドユーザーと銀行をつなぐ interoperable なエコシステムについてヒアリングする。

#### 1. 基礎情報

- 5 年前に創業した決済サービス企業。E-コマース業も行っているが、需要は少ない。
- 約 3000 万人ほどいる日銭および週単位で稼ぎがある自営業者 (トレーダー、グラフィックデザイナーなど) や農家などを金融包摂を促進する対象の市場 (= インフォーマル経済従事者) 規模と捉えている。
- 従業員数 20 名 (多国籍)

- アフリカ地域においては Benin, Burkina Faso, Nigeria へのビジネス展開を計画中。
- DFID や世銀などと連携・協力実績を持つが、ビジネスを優先。コンサルティングサービスへの関心は高くないが、金融教育の実施やドナー等へ経験を共有することは厭わない。

## 2. 外部資金活用のベネフィット

- 2019年5月～11月に Master Card Foundation のグラント（100万ドル）を受領して、エコシステムを構築した。
  - 自己資金ベースであれば、村落部の貧困層にリーチアウトするには3～4年はかかるが、グラントの資金を使って3～4カ月に短縮できた（外注なども活用して調査を進めた）。
  - エンドユーザーから現金を徴収する際にかかる費用を抑えることができた。調査によると、マイクロファイナンス（FSP）は、徴収した金額の1%をオペレーションコストに充てている。ETは、FSPに対するサービス料として1.5%を請求するが、グラントの資金を活用することで、収益を確保しつつも、サービス料の率を1%程度に低く設定することができる。

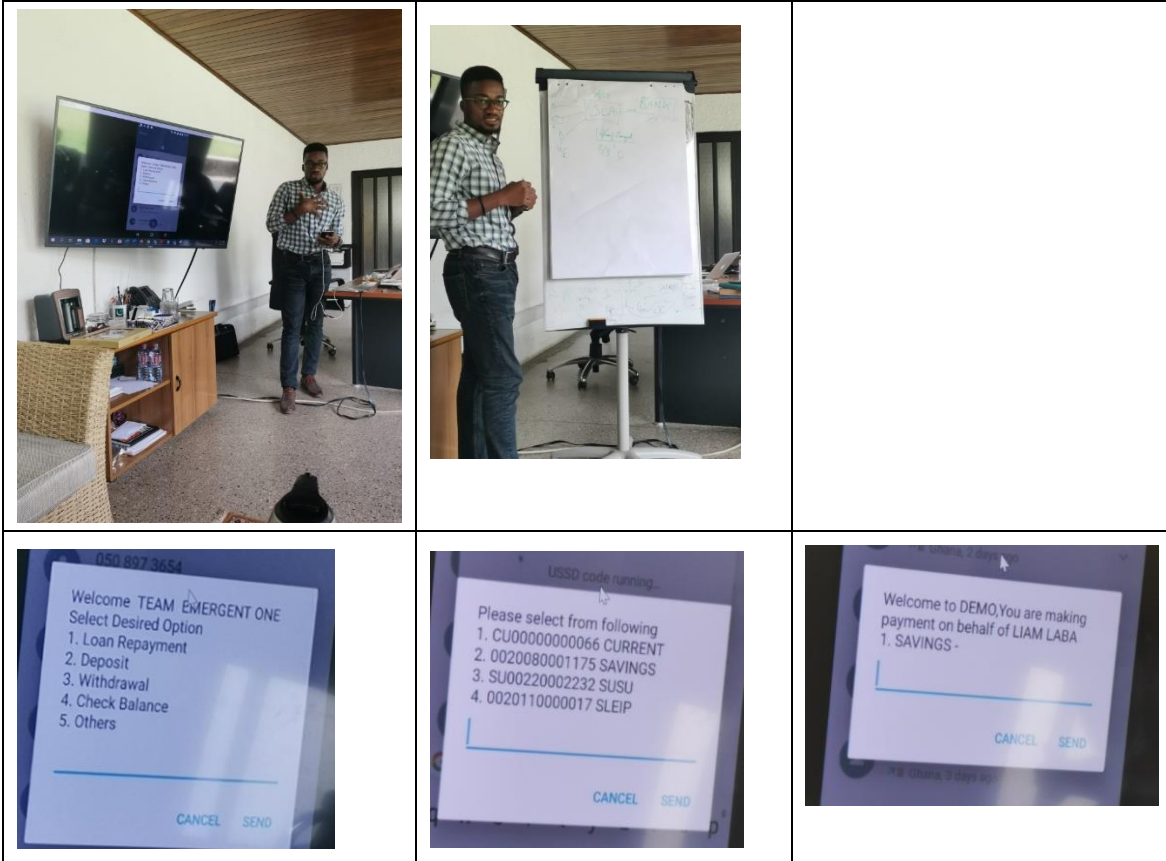
## 3. 小規模農家を関連性が高い主なサービス

- デジタル ROSCA（VSLA グループの預金および現金引き出しシステム「Maximus」紹介ビデオのリンク→ [Maximus website](#))
  - 現在4つのFSP（S&L、Rural and Community Bank）と提携。2020年には、提携するFSP数を30まで増やす計画。
  - ユーザーは、FSP（銀行）口座を有するVSLAグループ（ETの顧客はFSPs）。
  - デジタル ROSCA（預金・引き出しのみ。融資には使えない。）
    - ◇ （預金）ユーザーは、携帯電話を使って各種取引（共有口座への預金、個人のモバイルマネー口座への引き出し）を行うことができる。すべての履歴について、SMSが送られてくる。かかる履歴は、金融機関側のシステムに記録として残るほか、VSLAグループの管理グループ（president, secretary, treasurer）に対してもSMSが送信される。
    - ◇ （引き出し）グループ口座への預金を個人メンバーが、グループの管理者（president, secretary, treasurer）の承認を得て、預金を個人のモバイルマネー口座へ引き出しをすることができる。（その後、現金化する）グループ管理者は、専用のインターフェース上で承認行為を行う。これら複数の人を要する一連のアクションすべてが、簡易携帯電話を介して行うことができる。（ROSCAグループは預貯金額の一部は、緊急時用に銀行へ預金せずにコミュニティ内にて管理している。）
    - ◇ 事例：MHOPE（Central Region の MicroFin Rural Bank のサービス。ETのサービスにより、グループ融資の個人メンバーへ融資（disbursement）をモバイルマネー口座に振り込むことができるようになった）
- 村落部では、電話を持っていない人も少なからずいる。携帯電話を分割払いで購入できるサービスも提供している。モバイルマネー口座から支払いが可能。

- 保険 (保険会社と連携し、既存の保険商品を「日」や「週」単位で購入できるように設計し、アフォーダブルな保険商品を購入できるシステムを構築。)
- 年金 (保険商品と同様の仕組み作り)

#### 4. デジタル ROSCA の利点

- 農家 (エンドユーザー)
  - エンドユーザーは VSLA 内でも個別の番号で識別される仕組みになっている。よって、携帯電話をもっていないメンバーも、同じグループ内の携帯電話を持つ別のメンバーに、自分の預金をしてもらうことができる。
  - エンドユーザーにかかる費用は、一般的な送金または引き出しに対し、携帯電話会社が 1%チャージするのに対し、Maximus を使うと、現金引き出しに 1%がかかるのみである。  
(→FSPs bear the cost of transaction?)
- FSP 側
  - エージェントが、大金の預金を回収・持ち歩く必要がなくなる。(リスクの軽減)
  - エージェントは、既存顧客がいるコミュニティへ集金に行くオペレーションを削減し、新たな顧客開拓のための営業に力をいれることができる。
  - 各社のコアバンキングシステムに ET の取引アプリを統合することにより、due diligence もスムーズにできる決済システムを有することができる。
- その他のサービスとして、FSP (S&L) に対するマーケティング研修も提供している。



最初の画面	入金先を選択する画面	VSLA のほかのメンバーのために預金する場合の画面
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注：写真は、スマートフォンを使ったデモ。簡易携帯電話でも同様のオペレーションである。

18. MTN	
日時	2020年1月21日（月）10:00-
場所	MTN オフィス
先方面会者	Ms. Ruth Badoo, Senior Manager, MFS Operations & Service Delivery
当方面会者	JICA: 菅原専門員、Addo-Maame JICA ガーナ事務所ナショナル・スタッフ 研究チーム：田中、望月（記録）

MNO の最大手（市場占有 80%+地理的カバー広範）が販売している女性向け商品についてのヒアリング。

- MTN 側としては、JICA の重点分野・地域および MTN に期待することが明確になれば、連携について協議することにオープンである。これまでも、GSMA を介して、CARE International、UNCDF といった開発パートナーと協働した経験を持っている。
- 主要な商品としては、利息がつく預金（Yello）、3~4 年前から始めた携帯の Air time で購入できる保険（Ayo 保険会社との共同開発・販売）がある。その他に、新商品として Enterprise Insurance、10 年前からあるモバイルマネーで加入できる事故・傷害保険（MyLife）などがある。
- GSMA の Connected Women のイニシアチブ
  - MNO が女性を対象に金融包摂促進するコミットメントを求めている。MTN においては、2016 年から 2019 年 12 月までの 3 年間（第 1 フェーズ）で、女性ユーザー数を 42% から XX% へ増加する、以後の第 2 フェーズにおいては、Yello 預金の販促強化およびビジネスの場でのモバイルマネー決済の促進に取り組んでいる。
  - GSMA は金融包摂促進にかかる様々な調査を実施しており、最近の取り組みの中には、世帯調査データを使い、女性の潜在顧客を予測する AI（Gate）の開発も行っている。
- Initiatives for Impact イニシアチブ
  - Open Market で Petty Trading を営む女性たちが直面する課題を分析し、それに対する解決策および Value Proposition を策定するための調査を実施した。識字率が低いことや、携帯電話の操作においても他人頼りがちであることなどから、詐欺・不正行為の被害に遭いやすい。また、携帯電話の操作メニューは全て英語であり、ローカル言語に翻訳されていない。



- MNT は、商品をブレイクダウンすることで簡素化し、サービスがわかりやすくかつ使い勝手が良いようにすることに取り組んだ。さらに、サービスの利用について携帯電話を使いながらステップバイステップのデモンストレーションを行っている。地元で「Market Queens」（市場の元締め。リーダー的存在）と呼ばれる人を特定し、効率的・効果的に女性へのリーチアウトを図ってきた。商品の内容や使い方の説明においては、忍耐を要する。MTN は、registration カ所を増設するとともに、金融教育部門を国内の北部、中部、南部の3つの地域ごとに設置し、管理者を配置している。
- モバイルマネー利用促進戦略として、地域によって販促メッセージを調整している。Trading corridor に着目し、例えば北部はヤム芋生産者が多いことから、農業活動に関連した用途におけるサービスの利用をプロモーションする、西部の鉱山地域においては送金ニーズが多いので、送金手段としてのモバイルマネーサービスの利用をプロモーションするなど。
- MTN のモバイルマネーエージェントのインセンティブ制度について
  - エンドユーザーがモバイルマネーをキャッシュ・アウトする際には、手数料として額の1%（最高10セディまで）がチャージされる。その4割はエージェントのコミッションとなり、残り6割がMTNの収入となる。
  - エンドユーザーによる各月のモバイルマネー口座への預け入れ金額に応じて、MTN からコミッション料を得る。
  - （これまでの調査のヒアリングにおいて、エージェントの収入は、キャッシュ・アウト時のコミッションのみであるとの情報を得ていたが、預入促進もインセンティブになることが明らかになった。）

19. ESOKO	
日時	2020年1月21日（火）14:30-16:00
場所	同社オフィス
先方面会者	Mr. Castro Antwi-Danso, Director, Sales and Marketing www.esoko.com
当方面会者	JICA: 菅原専門員、Addo-Maame JICA ガーナ事務所ナショナル・スタッフ 研究チーム：田中、望月（記録）

1. ESOKO はモバイルネットワークと IT 技術を活用した農村コミュニティのエンパワメントをミッションとして 2008 年に設立された社会企業である。金融機関、保険会社、テレコ、開発パートナーなど、各種のパートナー組織との連携を通じた商品やサービスとバンドリングした農業情報サービスを約百万人の小規模農家に提供する。その他に農家・農村に関連したリサーチ・サービスを提供している。
2. ESOKO が提供するサービスの内容は、下記の通りまとめられる。
  - 「農業情報サービス（①作物市場価格情報、②栽培アドバイザーサービス、③天候情報(third

party integration による)、左記②と③を合わせた「Climate Smart Agriculture」サービスの提供。ESOKO 本部スタッフ総勢 40 名が同サービス提供の各種の部分に関わっている。

- ESOKO のサービス提供の核となるのはボイスメッセージである。栽培サイクルに合わせて最大 1 分間までのボイスメッセージをサブスクライバーの農家に流して、注意を喚起したり、タイムリーなアドバイスを 40 のローカル言語で提供する。フィーチャーフォンを通じた SMS、ボイスメッセージサービスの他に、コールセンターサービス (フルタイムスタッフ、6-7 名) を提供している。
- 上記①の作物市場価格提供に関し、ESOKO は現在 32 名のエージェントを全国に配置し、58 の卸売市場で作物価格を把握、農業情報サービスの一環として提供している。情報提供は卸売市場の開場頻度に合わせて行っている (つまり、毎日開場される市場については毎日情報をアップデートする)。顧客に対し、タイムリーに情報提供を行うことが信条である。エージェントが卸売市場で収集した情報はアクラ本部の担当者にタブレットで送付され、'most quoted price' が情報として提供される仕組みである。
- 上記②のサービスにつき、ESOKO としては、農業省が奨励する農業技術、栽培方法と祖語のある情報を顧客に対して提供しないために、コンテンツの開発にあたっては農業省、普及員、Savana Agriculture Research Institute 等とのすり合わせを行った。また、サービスを提供する 48 の作物の各々について農学的専門家のアドバイザリー・ボードを設置。専門的見地から誤ったアドバイスが提供されないように担保するバックストップの仕組みを設置している。
- また、②については、モバイルを通じた情報提供サービスの他に対面ベースの研修の提供を行っている (例としては基本的な携帯電話の使用方法を研修する Digital skills training など)
- パートナーとの連携事例①Vodafone: Farmer Club サービスの顧客である小規模農家に上記「農業情報サービス」をパッケージの一部として格安に提供。また、Club メンバー間のコミュニケーションが無料となる。農家は 0.5 USD/month でサービスにアクセス可能。プロジェクト期間 (4 年間) については、Vodafone が差額を負担する。
- パートナーとの連携事例②GSMA: 上記「農業情報サービス」のサブスクライバー小規模農家に栄養情報をパッケージの一部として提供。
- パートナーとの連携事例③AGRA: モバイルマネー口座に「サブウォレット」を作り、投入財購入を目的とした預金を推進する。目標金額がたまると、ディーラーが投入財を農家に届ける、という仕組みである。ガーナでは AGRA との連携で 650 名の農家に対するパイロットを実施したがあまりうまくいかなかったので商品のロールアウトには至らなかった。しかし、この商品はケニアで TULA の商品としてロールアウトされ、成功している。(ケニアでの成功要因はエージェントネットワークの密度が高いなど、モバイルマネーのエコシステムがガーナより発達していることである。)
- その他にも、USAID、ADVANS、AFP、GSMA、Microinsre など各種のパートナーと連携し、

バンドリング・サービスを提供している。今後は Ghana Agriculture Insurance と連携し、農業保険 (Crop insurance、天候インデックス保険など) の提供も検討していきたいと考えている。

- ESOKO では上記の「農業情報サービス」の他にも農業・農村を対象とした調査サービスを提供しているが、本議事録では詳細の記述は割愛する。

以上。



# GUIDELINES FOR INCORPORATING FINANCIAL INCLUSION PERSPECTIVES INTO JICA PROJECTS TARGETING SMALLHOLDER HOUSEHOLDS

MARCH 2020

KAIHATSU MANAGEMENT CONSULTING, INC.

基盤
JR
20-040

# Guidelines for Incorporating Financial Inclusion Perspectives into JICA Projects Targeting Smallholder Households

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## Attachments

- 1. Livelihood questionnaires
- 2. Agriculture questionnaires
- 3. Production calendar
- 4. Household cashflow
- 5-1. FSPs questionnaires
- 5-2. FSPs summary sheet

This document summarizes the original full report prepared in Japanese, March 2020.

## Acronyms

CARD	Coalition for African Rice Development
CF	Cash flow
CGAP	Consultative Group to Assist the Poor
DFS	Digital Financial Service
DV	Domestic Violence
FAO	Food and Agriculture Organization
FSPs	Financial Service Providers
FSS	Financial Self Sufficiency
FVC	Food Value Chain
F2P	Firm to Person
GAMC	Ghana Association of Microfinance Companies
GAP	Good Agricultural Practice
GSMA	Global System for Mobile Communication Association
G2P	Government to Person
IFAD	International Fund for Agricultural Development
IFNA	Initiative for Food and Nutrition Security in Africa
ICT	Information Technology
ILO	International Labour Organisation
JICA	Japan International Cooperation Agency
KYC	Know Your Customer
MFI	Micro Finance Institution
MNO	Mobile Network Operators
NGO	Non-Governmental Organization
OSS	Operational Self Sufficiency
PDM	Project Design Matrix
RICE	Resilience, Industrialization, Competitiveness, Empowerment
SDGs	Sustainable Development Goals
SHEP	Smallholder Horticulture Empowerment & Promotion
SPM	Social Performance Management
UHC	Universal Health Coverage
UNCDF	United Nations Capital Development Fund
UNICEF	United Nations Children's Fund

	<h2 style="background-color: #4CAF50; color: white; padding: 5px;">1. INTRODUCTION</h2> <ul style="list-style-type: none"> <li>1.1 Background and purpose of the Guidelines</li> <li>1.2 How to use the Guidelines</li> <li>1.3 Limitations</li> </ul>
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### 1.1. BACKGROUND AND PURPOSE OF THE GUIDELINES

According to the CGAP, financial inclusion is not only a key indicator of achieving the Sustainable Development Goals (SDGs) Goal 1 “Eradication of Poverty,” but it is also an important enabler in achieving six other SDGs goals (Figure 1). This strongly suggests that taking financial inclusion perspectives into JICA’s projects will also bring about significant benefits in improving the livelihood of smallholder family beneficiaries.

However, at present, there are few JICA projects that take these considerations into account. In this context, JICA has conducted the “Study on Innovative Financial Inclusion Approach in Agriculture and Health Sector” from October 2019 to March 2020, with the purpose of deepening understanding of the scenarios of how financial inclusion can solve issues typically addressed in projects and enhance the benefits of the smallholder households. The Study consisted of a desk review and field surveys in Myanmar and Ghana. During the field survey, the study team visited smallholder households, financial service providers and their partners, as well as relevant donor projects to collect evidence and compile cases to analyze the current situation and to develop suggestions as to how JICA projects may incorporate a financial inclusion approach into sector projects in the future. The findings of the Study have been largely reflected in the Guidelines (full version in Japanese) and in the research tool examples attached to the Guidelines (Japanese and English).



**Figure 1 SDGs in which financial inclusion is mentioned**

(Source. CGAP Strategic Directions FY 2019-2023, May 2018.)



## 1.2. HOW TO USE THE GUIDELINES

The expected users of this Guidelines are JICA staff of the agriculture and health sectors in charge of project planning/preparation, and other relevant persons engaged in project preparation. The Guidelines are applicable to projects of either sector on the premise that project beneficiaries include smallholder households.

After this introductory chapter, the Guidelines contain the basic concepts of how financial inclusion can be linked with JICA sector activities (agriculture and health) (Chapter 2). In Chapter 3, the methodology of the research at the project preparation phase, is explained. The methodology has been developed based on the field studies in Myanmar and Ghana. In the final chapter, further implications for JICA projects in terms of defining concrete activity options, and some examples of the financial inclusion solutions for agriculture and health sector issues are suggested.

## 1.3. LIMITATIONS

In the actual project design (PDM; Project Design Matrix), the project activity options elaborated by financial inclusion perspectives (as illustrated in the examples of Chapter 4) can be defined as project activities or as an independent financial inclusion component ('Output'). The activities might comprise of support for different stakeholders at micro (financial service users), meso (financial service providers) and macro (regulation, policy) levels. The Guidelines do not clarify in what ways financial inclusion needs to be embedded in the project, or how it should be reflected in the PDM as objectives, outputs, activities, results, or indicators.

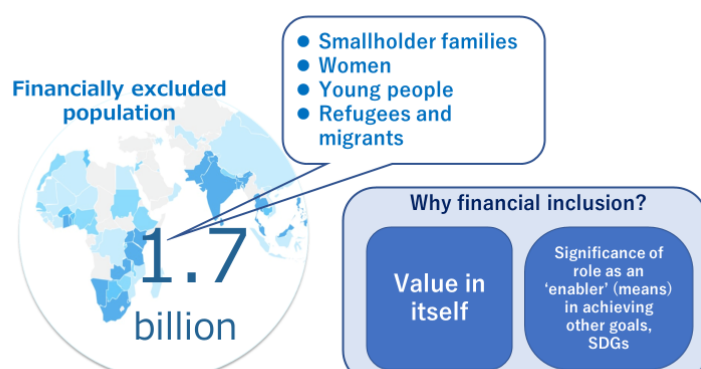
The research focused on agriculture and health sectors, which are closely linked with livelihood of smallholder households. (Livelihood of smallholder households encompasses both 'production' and 'family life management' aspects of their lives.) On the other hand, field research plans were made with several agriculture sector projects under project formulation/preparation stages in mind, with a view to making specific recommendations for them. As a result, a limited number of interviews were conducted with health-sector Ministries and service providers during the field research. Thus, analysis on health sector in this research was conducted based on limited information, as compared with that on agriculture sector.

It is also worth mentioning that the data collection and analytical tools presented in the Guidelines and attached reference materials were used on a trial basis and modified based on that experience. They are subject to modification and improvement in accordance with the scope and focus of future projects.

	<h2 style="background-color: #4CAF50; color: white; padding: 5px;">2. WHY INTEGRATING FINANCIAL INCLUSION PERSPECTIVES?</h2> <ul style="list-style-type: none"> <li>2.1 Smallholder Segments and Challenges</li> <li>2.2 JICA's Strategy and Major initiatives in Agriculture and Rural Development and Health</li> <li>2.3 Financial Inclusion as an Enabler for Market-Oriented Agriculture</li> <li>2.4 Financial Inclusion as an Enabler for Improving Smallholder Households' Livelihood &amp; Well-being</li> </ul>
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### 2.1. SMALLHOLDER SEGMENTS AND CHALLENGES

Today, the number of small-scale farmers in developing countries (many of them cultivate less than 5 acres of land) has reached more than 500 million households and 2 billion people, and their food crop production accounts for 80% (value base) of the world's food supply. These smallholders represent 80% of the poorest, living with less than \$ 1.9 a day, and 75% of the poor, living with \$ 1.9- \$ 3.2 a day, with limited access to formal financial services<sup>1</sup>. As Figure 2 shows, smallholders comprise a major group of 1.7 billion financially excluded population.



**Figure 2 Financially excluded population and value of financial inclusion**

According to the CGAP's study <sup>2</sup>, smallholder households strive to make ends meet with agricultural and non-agricultural income, while using various informal financial measures, such as saving (keeping cash or tangible assets such as gold, etc.) at home, borrowing money from middlemen, and

<sup>1</sup> H. Khares, J.W. Arthur, I. Ohno eds (2019). Leave No One Behind., FAO (2014) The State of Food and Agriculture.

<sup>2</sup> [https://www.cgap.org/small\\_holders\\_data\\_portal/](https://www.cgap.org/small_holders_data_portal/)

group savings and lending, etc. Supporting them to better cope with regular and irregular money issues associated with livelihood will enhance their ability to smooth consumption, to respond to risks and unexpected events, and to diversify or expand income generation activities. In this regard, financial inclusion of the smallholder households enhances (or contributes to) inclusive and equal economic development and poverty reduction.

Smallholder farmers are diverse in terms of their production scale, income sources and levels, and importance of agricultural activities in their livelihood strategy, and do not constitute a uniform segment. Table 1 shows three representative smallholder segments in developing countries and their main characteristics. These formed the basis for the development of the questionnaires and the ‘Persona’, one of the major outputs of the research (see details in the Chapter 3).

**Table 1 Segments of smallholder households**

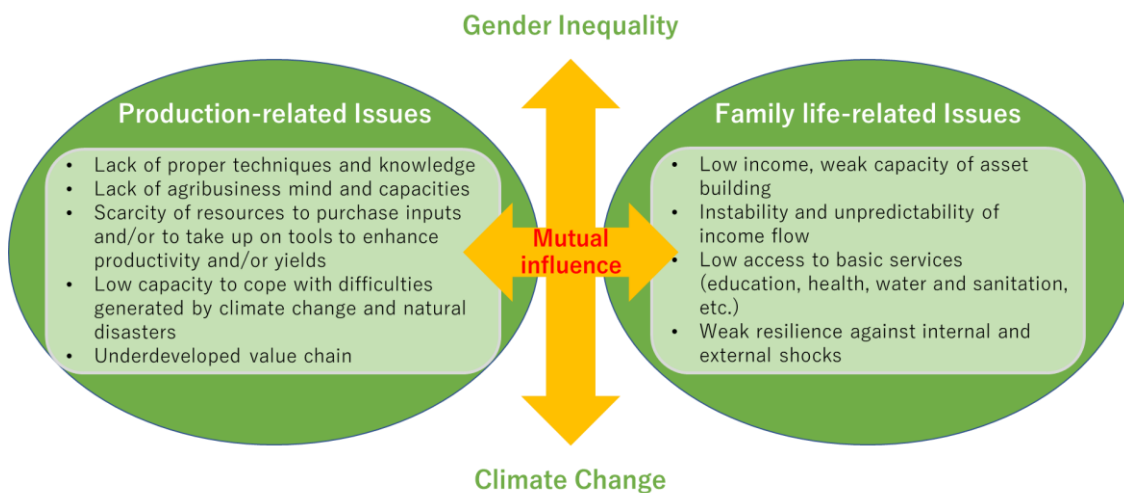
<b>Factors</b>	<b>Subsisting</b>	<b>Commercializing</b>	<b>Diversifying</b>
Resident	Rural area	Rural area	Rural, Urban/peri-urban
Income source	Agriculture, irregular wage labor	Agriculture	Diverse: wage labor, irregular labor income, self-employed, agriculture
Ratio of households whose main source of income is agriculture	75%	85%	37%
Ratio of households who consider agriculture as “business”	64%	85%	31%
Income level (relative)	Low	High	High
Agriculture crops	Mostly house consumption. Extra harvests for sales.	Production and sales of Cash crops	Self-consumption
Land size	Small - Mid	Large	Very small
Use of financial services	Low	Use formal and informal services	Use formal services

(Source : Smallholder households: Distinct segments, Different needs. CGP Focus Note No. 111, April 2019)

The challenges commonly faced by all segments of smallholder households encompass two dimensions: those related to (agriculture) production<sup>3</sup>; and those related to family life

<sup>3</sup> Productive activities for income generation and livelihood creation, including both agriculture and non-agriculture.

management<sup>4</sup>. Additionally, those issues are influenced by other factors embedded in the society (e.g. gender inequality) and environment (e.g. climate change) (see Figure 3).

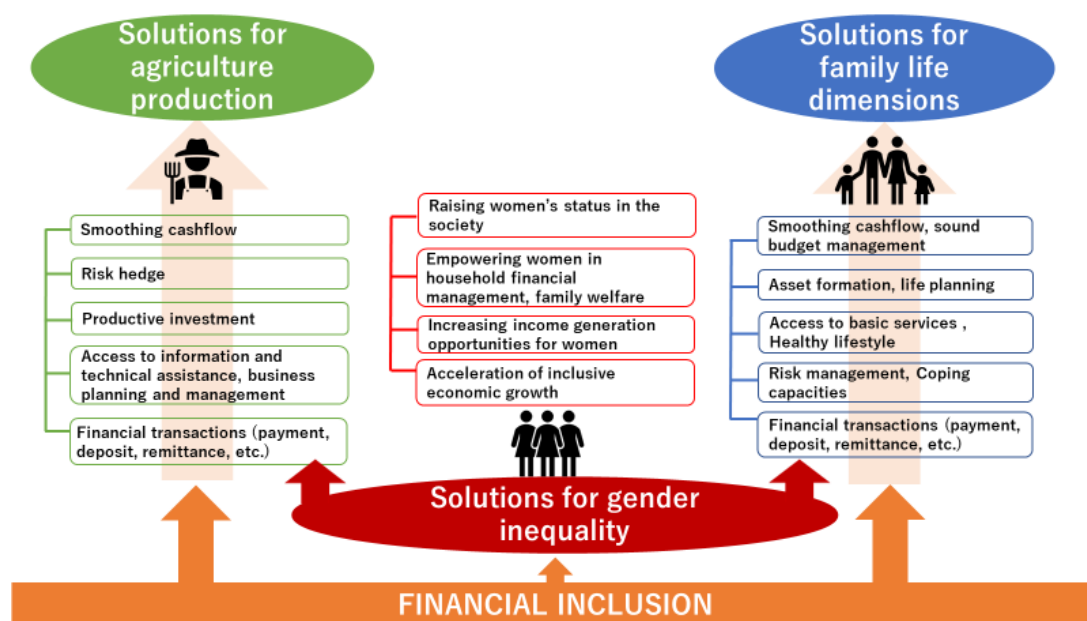


**Figure 3 Common challenges of smallholder households**

(Source: Elaborated by the Study team, referring to the learning materials of JICA training "Financial Inclusion and Poverty Reduction" (Nov. 2019), H. Khares, J.W. Arthur, I. Ohno eds. (2019) Leave No One Behind)

Figure 4 illustrates in what ways financial inclusion perspectives can contribute to solving issues in the respective dimensions. (More details are described later. "Production" 2.2, "Family life management" and "Gender" 2.3).

<sup>4</sup> Family life management-related activities undertaken as consumers and community members.



**Figure 4 Holistic picture of contribution of financial inclusion for livelihood improvement of smallholder households**

(Source: Elaborated by Study team)

Figure 5 shows how financial inclusion for smallholder households could contribute to easing problems faced by smallholders concerning agricultural production, family life management and gender inequality. While the importance of agriculture production varies depending on the segment, family life-associated issues are equally and highly important across the segments. At a household level, both men and women are involved in activities and decision-making associated with “production” and “family life”. Therefore, exploring effective ways to solve issues requires collecting data with careful attention to gender differences in terms of the degree of involvement in activities and decision-making, division of labor, access to information and assets, etc.

Segment	Production (agriculture)	Family life
Subsisting	High for those households whose income heavily rely on agriculture	High
Commercializing	Very high	High
Diversifying	Not very high	High

↑

Relevance and Significance of Gender Perspectives  
Depends on the social and cultural contexts

**Figure 5 Degree of concerns over issues in production and family life spheres by different segments of smallholder households**

(Source: Elaborated by Study team)

## 2.2. JICA'S STRATEGY AND MAJOR INITIATIVES IN AGRICULTURE AND RURAL DEVELOPMENT, AND HEALTH SECTORS

Before looking into the 'enabling' aspect of financial inclusion and the way it could be incorporated into JICA sector projects, major initiatives and approaches of JICA in the agricultural and health sectors are reviewed.

Table 2 summarizes JICA's Sector work strategies in the agricultural and rural development and corresponding goals and initiatives. While CARD and SHEP address the challenges in agricultural production and (family) life management, the agriculture dimension weighs more as they emphasize adopting better technologies, participation in the value chain and the beneficiaries' competitiveness in the market.

**Table 2 JICA Sector Work Strategy and Initiatives in Agriculture and Rural Development**

Aspect	Strategic theme	Goal/approach	Flagship initiatives
Agricultural Production	Economic growth (promotion of agriculture, forestry, aquaculture)	Strengthening food value chain (from production to consumption)	<ul style="list-style-type: none"> <li>• ASEAN Food Value Chain</li> <li>• Agriculture infrastructure</li> <li>• SHEP (Smallholder Horticulture Empowerment and Promotion)</li> <li>• CARD (Community for African Rice Promotion)</li> </ul>
Living	Human-centered development (nutrition)	Multisectoral approach, focusing on the nutrition improvement for infants	<ul style="list-style-type: none"> <li>• IFNA (Initiative for Food and Nutrition for Africa, collaborating with health, education, water and sanitation sectors)</li> </ul>
Environment	Global challenges (food security)	Productivity improvement of main crops, Resilience against climate change, nutrition	<ul style="list-style-type: none"> <li>• CARD</li> <li>• Aquaculture promotion and management</li> <li>• Containment of livestock diseases</li> </ul>

(Source: Elaborated by Study team based on the JICA seminar materials on the JICA assistance strategy May 21, 2019)

Table 3 shows how the RICE approach of CARD addresses the three aspects of the challenges faced by smallholder households. It can be observed that four elements of the RICE approach are designed to respond to the needs in respective aspects of "production", "family life management", and "environment" addressed earlier in Figure 2.

**Table 3 CARD's RICE approach**

Dimensions of challenges	Elements of Approach	Contents
External environment	Resilience	-Adoption of adequate techniques and inputs to materialize stable production and yield in the context of climate change.
Agriculture production	Industrialization	-Promotion of commercialization of rice/establishment of value chains, adoption of machineries and improved inputs (in partnership with private sector) -Enhancing access to finance of agribusinesses
	Competitiveness	-Promotion of improved seeds and strengthening post-harvest (processing) techniques
Living	Empowerment	-Enhancing livelihood improvement of farmers (crop diversification, nutrition) -Supporting access to finance and agribusiness promotion

(Source: Elaborated by Study team based on the CARD publication)

As for JICA's **health sector** work, the underlying policy is to promote "human-centered development", which entails "enhancement of basic life (of the bottom beneficiaries)" with health (health and nutrition) as one of the pillars and the Universal Health Coverage (UHC) as the priority area<sup>5</sup>. JICA projects provide direct assistance to line ministries and relevant agencies (e.g. health, social security and welfare), and public health service providers (health centers, hospitals) to strengthen their institutional and technical capacities so that they can cater to the needs of the users with quality service and efficient service delivery operation. In pursuit of the "human-centered development" and "inclusive and uninterrupted provision of quality health care service", it is indispensable for those actors in the healthcare system to understand the needs of the service users (i.e. JICA projects' end beneficiaries including smallholder households) and reflect them in the service provisions. This implies that JICA's health sector projects can explore ways to incorporate financial inclusion at 2 different levels: health system actors/service providers; and the service users.

### 2.3. FINANCIAL INCLUSION AS AN ENABLER FOR MARKET-ORIENTED AGRICULTURE

The starting point of analyzing how financial inclusion approach can be embedded into JICA's agriculture projects is to identify issues arisen at different stages of agriculture value

<sup>5</sup> Details of the JICA's health sector work strategies can be found in the materials prepared by JICA Human Development Division and circulated in May 2019.

chain and to contemplate potential solutions that financial and non-financial services can provide. Table 4 showcases some of the issues and corresponding measures by the financial inclusion approach. Note that these contents represent just examples, hence it is necessary to gather project specific information in accordance to the project focus and scope.

**Table 4 Issues associated with agriculture VC and potential solutions by the financial inclusion approach**

VC elements	VC Issues/Challenges (Examples)		Areas of contribution by FI
	VC actors <sup>6</sup>	Issues/Challenges	
<b>Production</b>	Farmers	<ul style="list-style-type: none"> <li>• Shortage of financial resources to purchase inputs (seeds, fertilizers, pesticides/herbicides, etc.) or inability to pay-off the purchase until harvest.</li> <li>• Lack of convenient payment methods for business transactions (e.g. input purchase, payment for wage laborers).</li> <li>• Lack of information and knowledge of adequate inputs, pest control techniques, etc. (to realize agribusiness)</li> <li>• Lack of knowledge and financial resources to establish facilities or purchase machineries that enable ensuring product quality and raising productivity.</li> <li>• Exposure to risks associated with weather/natural disasters.</li> </ul>	<ul style="list-style-type: none"> <li>• Enables timely financing of operational costs and investment by providing access to saving products and loans (short-term, small amount)</li> <li>• Provision of payment services with enhanced convenience for the farmers.</li> <li>• Enables risk hedging by providing agriculture insurance (e.g. weather index insurance, harvest insurance, etc.)</li> <li>• Facilitate sound cashflow by provision of leasing or hire and purchase services of agricultural machineries which omit spending large amount of money at a time.</li> <li>• Provide access to investment fund with loan provision (long-term, tied with investment purpose)</li> </ul>
	Input companies	<ul style="list-style-type: none"> <li>• Equipped with insufficient supply volume and quality.</li> </ul>	<ul style="list-style-type: none"> <li>• Respond to the needs of operational capital by provision of saving products and loans (short-term, small amount)</li> </ul>
	Technical service providers, such as Extension officers	<ul style="list-style-type: none"> <li>• Public extension system not well established.</li> <li>• Not enough private technical service providers, and/or their service fees not affordable by smallholder farmers.</li> </ul>	<ul style="list-style-type: none"> <li>• Provision of bundled service comprising financial services and technical assistance (extension).</li> </ul>

<sup>6</sup> VC actors include producers, processors, traders, other associated businesses, and donor agencies.



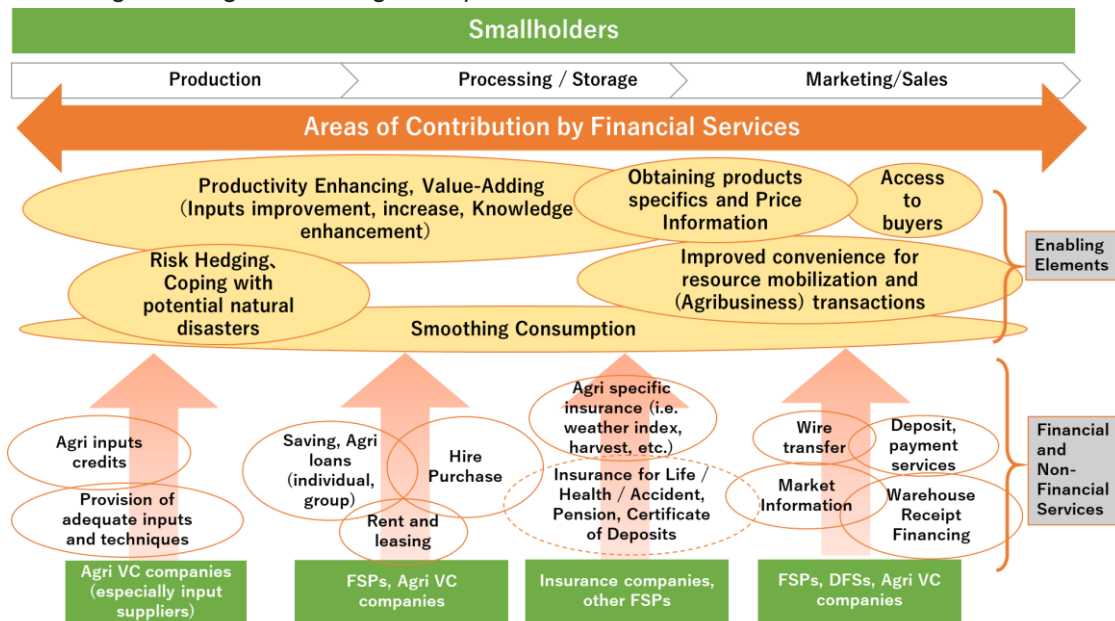
<b>Post-harvest (processing, storage)</b>	Farmers	<ul style="list-style-type: none"> <li>• Lack of financial resources to establish post-harvest/storage facilities.</li> <li>• Difficulty in accessing to processing/storage facilities.</li> </ul>	<ul style="list-style-type: none"> <li>• Enables resource mobilization with loan (long-term, investment purpose) provision</li> <li>• Provision of alternative schemes of loan guarantee without using collaterals.</li> <li>• Validation of alternative financing methods, such as warehouse receipt (for loans)<sup>7</sup>.</li> <li>• Facilitate smoothing cashflow by provision of leasing service of transportation methods (trucks and other vehicles)</li> </ul>
	Processor, Storage operators	<ul style="list-style-type: none"> <li>• Low technical capacity of processing</li> <li>• Lack of financial resources to improve infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>• Enables resource mobilization with loan (long-term, investment purpose) provision</li> <li>• Provision of alternative schemes of loan guarantee without using collaterals.</li> </ul>
<b>Logistics/ transportation</b>	Farmers	<ul style="list-style-type: none"> <li>• Paying large margin to the traders</li> <li>• Lack of measures to access to markets directly.</li> </ul>	<ul style="list-style-type: none"> <li>• "Leasing" of vehicles allows farmers to go to the markets directly.</li> </ul>
	Traders, logistics	<ul style="list-style-type: none"> <li>• Inefficient to trade with individual smallholder farmers.</li> </ul>	<ul style="list-style-type: none"> <li>• Digital payment platform facilitate and time-saves the transactions with multiple clients.</li> </ul>
<b>Sales and marketing</b>	Farmers	<ul style="list-style-type: none"> <li>• Lack of market information and potential buyers.</li> <li>• Difficulties in keeping products until the price becomes favorable due to weak cashflow.</li> <li>• Unstable/low price.</li> <li>• Lack of capacity to meet the conditions of contract-farming (quality and volume)</li> <li>• Delay in receiving payment from the buyers.</li> </ul>	<ul style="list-style-type: none"> <li>• Services combining financial products and market information.</li> <li>• Loan and lease contributes to ensure quality and raise productivity</li> <li>• Deposit and remittance services facilitate business transactions (deposit of sales revenue)</li> </ul>

<sup>7</sup> Warehouse receipt financing systems are financial arrangements which allow farmers to store their agricultural production in a certified warehouse in exchange for a warehousing receipt that can serve as a collateral for receiving credit in a formal financial institution. This allows the farmers to avoid selling the products right after the harvest when the market prices are depressed.

	Buyers, Exporters	• Small number of “qualified” farmers with whom to engage in contract-based farming	
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(Source: Elaborated by Study team)

Figure 6 summarizes how the financial inclusion approach helps smallholder households to solve issues associated with agricultural “production”. Providing financial products and services that reflect the needs of smallholder households will allow them to make proper investments from production to sales in an affordable manner to realize agribusiness, while strengthening their coping strategies against risks and possibilities for long-term planning. Provision of **non-financial services** related to agriculture<sup>8</sup> will also enhance farming knowledge and agribusiness growth potentials.



**Figure 6 Areas of contribution of financial inclusion for smallholder households in the agriculture production dimension**

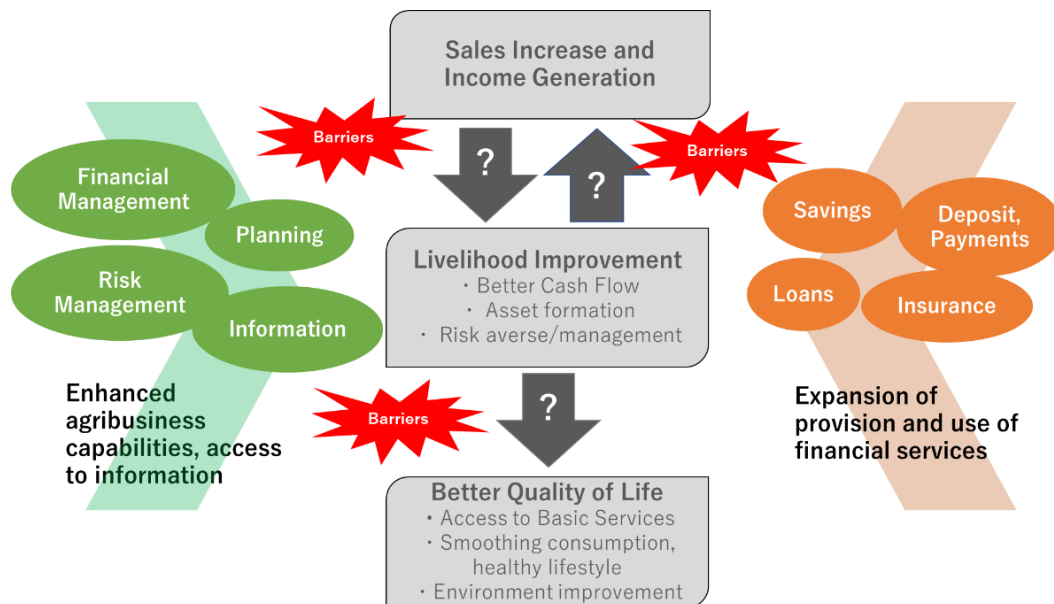
(Source: Elaborated by Study team)

<sup>8</sup> “Non-financial services” can be offered by FSPs/DFs (some in partnership with VC actors) to their existing or potential customers, in the form of training and seminars on acquiring knowledge, and their contents vary. Examples of NBS are financial literacy seminars (learning about features of financial products and related services, finance planning, household budget management, etc), access to information include crop trading market information of crops, medical consultation over the phone for insurance users, text messaging services covering topics such as food and nutrition, healthcare and more. NFS are designed to be value-adding when existing and potential customers use financial products and services, and are effective tools to motivate the use of financial products and services. At the same time, in order to promote correct understanding of financial products and services among customers, it plays an important role in accordance with the principle of “customer protection” and can be expected to have the effect of improving the financial capability of customers.

## 2.4. FINANCIAL INCLUSION AS AN ENABLER FOR IMPROVEMENT OF SMALLHOLDER HOUSEHOLDS' LIVELIHOOD & WELL-BEING

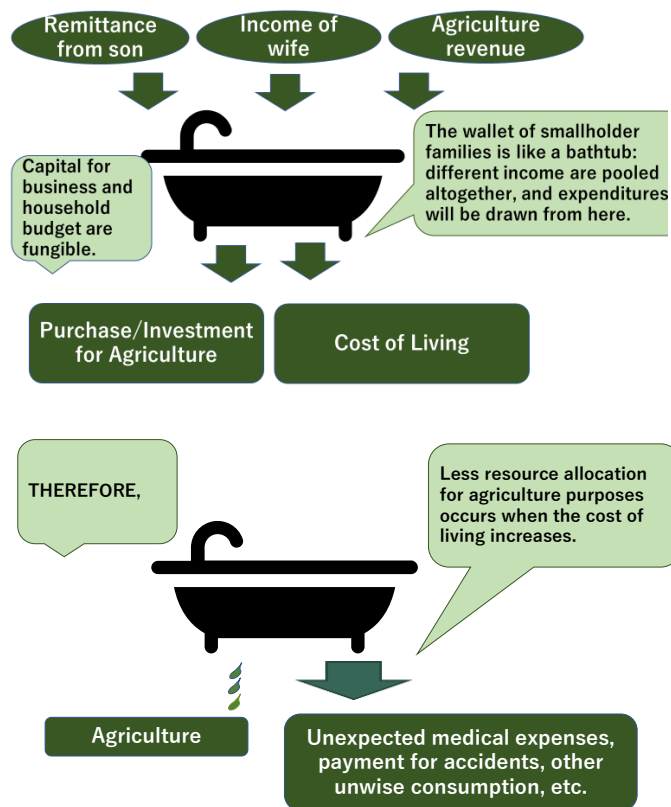
As already described, “family life management-related issues” are considered to be of high importance to small-scale farmers of all segments. JICA's agriculture and rural development projects often aim to improve the ‘livelihood or well-being’ of farmers through addressing the value chain constraints. The underlying assumption of this logic is that equipping the smallholder beneficiaries with knowledge and tools to become competent actors in the agriculture value chain will enable them to increase their income, which in turn, lead to further investment for sustainable expansion of agribusiness, diversification of income sources, better consumption, and (thus better well-being?) quality of life. However, such scenario is unlikely to prevail in the absence of careful interventions (see Figure 6).

Because the smallholder households tend to pool their mixed resources in a single wallet to cover all the livelihood related costs, and there is a high degree of fungibility between investment and consumption. It means, for example, that the funds allocated for agricultural investment can be diverted for payment of school fees or medical expenses as necessary, or for debt repayment or unexpected expenditures in the event of accidents or natural disaster, etc. (See Figure 7).



**Figure 7 Cause and effect of livelihood improvement and the role of financial inclusion**

(Source: Elaborated by Study team)



**Figure 8 Fungibility of household finance of smallholder families**

(Source: Elaborated by Study team with reference to the learning materials of Microfinance Expert Program of Frankfurt School of Finance and Management)

Even if farmers' knowledge and abilities related to household finance management are enhanced and behavioral changes are induced, if access and utilization of means of saving and asset formation (financial services) are insufficient, household cash flow or asset formation constraints remain.

Therefore, it is highly relevant to shed light on the issues of the “family life management” dimension of the smallholder households (for both agriculture and health sector projects). How financial inclusion could provide some solutions for problems faced by smallholders in family life management is illustrated in **エラ** **一! 参照元が見つかりません。**

**Table 5 Issues associated with “family life management” dimension and possible solutions by financial inclusion**

Family life management	Issues	Contribution by financial inclusion
Income and consumption	<ul style="list-style-type: none"> <li>• Low income</li> <li>• Income is unstable and unpredictable</li> <li>• Unable to cover necessary consumption for healthy life</li> <li>• Unable to cover significant expenditures associated with social events, medical costs.</li> <li>• Lack of credit history.</li> </ul>	<ul style="list-style-type: none"> <li>• Saving facilitates sound financial management and smoothing cashflow</li> <li>• Enhanced convenience of receiving remittance</li> <li>• Enhanced user-friendliness of payment/deposit services</li> <li>• Loan (short-term, consumption purpose) compensates cash shortage and helps avoid serious deterioration of living conditions (e.g. under nutrition)</li> </ul>

		<ul style="list-style-type: none"> <li>• Well-designed credit scoring system enables loan assessment without credit history</li> </ul>
Asset accumulation	<ul style="list-style-type: none"> <li>• Little saving and asset formulation practices</li> <li>• Unable to allocate money for ceremonial occasions (funerals, weddings, etc.) and medical expenses.</li> <li>• Constrained to invest in home improvement.</li> </ul>	<ul style="list-style-type: none"> <li>• Saving enables sound budget management and long-term financial/investment planning.</li> <li>• (long-term, asset formulation purpose) loans facilitate cashflow management and livelihood improvement.</li> </ul>
Access and use of basic services (education, health, water and sanitation)	<ul style="list-style-type: none"> <li>• Unable to pay service/utility fees</li> </ul>	<ul style="list-style-type: none"> <li>• (Short-term) loan facilitates smoothing cashflow and livelihood improvement.</li> <li>• Encourage access to/use of services by lowering service costs.</li> </ul>
Risk management (natural disaster, health, robbery, etc.)	<ul style="list-style-type: none"> <li>• Vulnerable to external risks</li> <li>• Keeping money at home is subject to loss because of robbery or fire, etc.</li> <li>• Unable to give proper care for health of family members</li> </ul>	<ul style="list-style-type: none"> <li>• Saving products/services enable to protect asset and practice financial planning.</li> <li>• Loans and insurance facilitate coping with risks and unexpected incidences.</li> </ul>

(Source: Elaborated by Study team based on the material of JICA training “Financial Inclusion and Poverty Reduction)

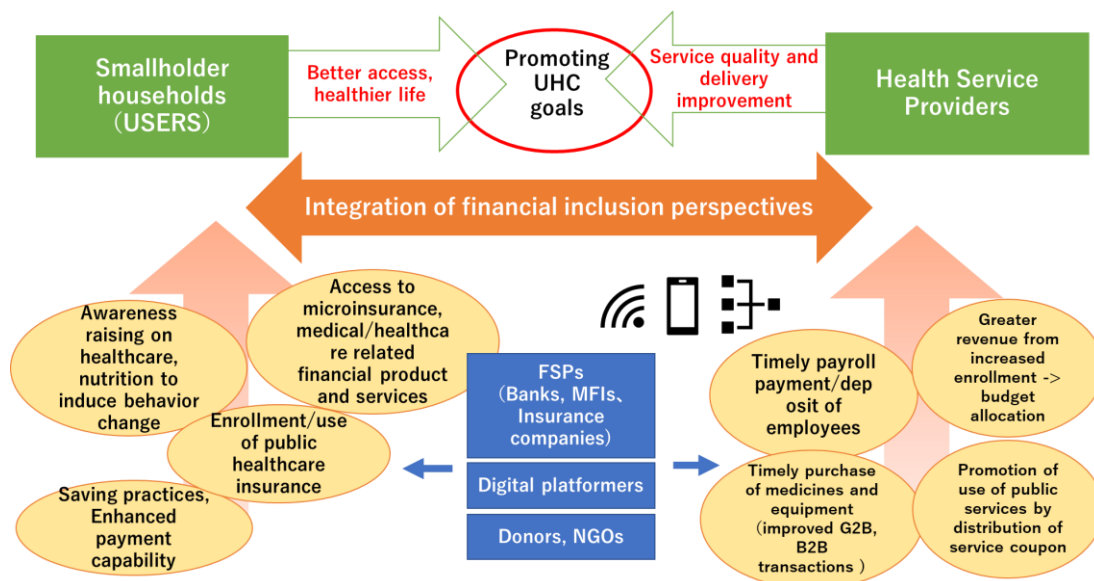
According to the World Health Organization (WHO), UHC is achieved when all people are provided with adequate quality health services at affordable costs whenever needed. When smallholder households seek for healthcare services, they are likely to face following constraints.

- Limited physical access and service quality: Most villages have a limited number of health care service providers. Service quality and coverage issues often prevail because of resource scarcity (lack of necessary equipment, specialized staff, and medicines, etc.) of the provider side. Users also may complain about the quality of attention (the attitude and performance of medical professionals) or administrative procedures.
- Low risk response and coping capability: Smallholder households are unlikely to be covered by health insurance under the national social security system. Use of private insurance services is uncommon, and community insurance, which has been introduced

as a safety net by NGOs and donors, rarely works well. In fact, many of the poor pay for healthcare-related expenses on their own. The cost of consultation, medical treatment, etc., required for unexpected injuries and illnesses, and the transportation cost is a huge expense for poor households. In addition, the patients and the family caretaker suffer from the loss of income generating opportunities. The consequences are further strains on households and possible occurrence of debt.

- Lack of information and understanding: Smallholder households are more likely to be exposed to health risks because of their living environment, customs and the characteristics of their economic activities. However, the importance and necessity of healthcare services (i.e. taking preventive measures against infectious diseases, maternal and child health, and nutritional balance) are not well understood by the households. Language barriers may prevail between the service users and providers in countries and regions where each ethnicity or tribe uses different language. Information on healthcare services may not be readily available in different languages. Vulnerable and poor users may become exposure to unfair charges (bribery) if they do not understand the fee structure and administrative procedures.

**On the healthcare service provider side**, efforts to progress with UHC goals need to be accompanied by significant investment in infrastructure to improve delivery of health services to remote communities, development of a social security system to reduce the burden of medical expenses on the users, increase of facilities and enhancement of facilities, and in training of the professionals to ensure the quality of their performance. Adopting financial inclusion measures facilitate improvements in these areas without excessive burden on public expenditures or compromising the service quality by introducing efficiency in the system, increasing the attractiveness of the benefits of public healthcare service, new product/service development by private sectors, etc.



**Figure 9 Potential contribution by financial inclusion approach in health sector projects**

(Source: Elaborated by Study team)

Table 6 and Table 7 show the areas of contribution of financial inclusion focusing on "access and use of services" and "risk response" supported by JICA's health sector (to strengthen health systems) projects from the "healthcare service users" side and the "healthcare service provider" side, respectively. As already mentioned, health service providers need to consider the challenges faced by service users. For this reason, the issues faced by users are also a matter of concern for the service providers. Furthermore, a gender perspective is extremely important in promoting access and use of health services.

**Table 6 Dimensions of contribution by financial inclusion approach for healthcare users**

Living	Issues for users	Contribution by financial inclusion
Access to and use of healthcare services	<ul style="list-style-type: none"> <li>• Not enrolled in health insurance</li> <li>• Incapable to pay service fees and other associated expenses (medicine, transportation cost, etc.)</li> <li>• Unable to lose income generating opportunities by healthcare attention</li> <li>• Insufficient understanding of the importance of healthcare</li> </ul>	<ul style="list-style-type: none"> <li>• Provision of financial services, including DFSs enhance payment capabilities and reduce risk of impoverishment</li> <li>= &gt; Savings for healthcare / medical purposes, use of microinsurance</li> <li>= &gt; awareness raising on topics such as healthcare, health management, nutrition, family planning, maternity health, infant care, medicines, etc.</li> </ul>
Health risk management	<ul style="list-style-type: none"> <li>• Unable to pay medical bills</li> </ul>	<ul style="list-style-type: none"> <li>= &gt; distribution of coupons (healthcare service, discount drug,</li> </ul>

	<ul style="list-style-type: none"> <li>• Unable to prioritize medical attention over income generating activities</li> <li>• Little exposure / Lack of access to relevant information and knowledge base regarding healthcare, nutrition, etc.</li> </ul>	<p>etc.) and promotion of use of coupon</p> <p>= &gt; Promotion of use of bank account for money management, loan for economic activities or capital formulation</p> <p>= &gt; foreign remittance service tied with healthcare/medical services</p> <ul style="list-style-type: none"> <li>• Lowering service costs with new technologies</li> <li>• Digitalization of transactions associated with the enrolment/use of health insurance, which omits user's time and transportation costs, etc.</li> <li>• Text messaging services (reminder of payment, useful information related to health, encouragement to use preventive healthcare, etc.) combined with financial transaction.</li> </ul>
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(Source: Elaborated by Study team, reference including “USAID (2020) Role of DFS in Accelerating USAID’s Health Goals, ILO (2018) Financial Inclusion and Health)

**Table 7 Issues of healthcare service providers and the role of financial inclusion**

Life (healthcare) dimension	Issues	Contribution of financial inclusion
Access and use of services (“provision” from the providers standpoint)	<p>(mostly quality and efficiency related issues)</p> <ul style="list-style-type: none"> <li>• Lack of proper equipment and infrastructure, shortage of human resources</li> <li>• Moral hazard of medical and administrative personnel (public system)</li> <li>• Weak governance of public healthcare system (accountability, lack of transparency in procurement)</li> </ul>	<p>DFSs facilitate:</p> <ul style="list-style-type: none"> <li>• scheduled salary payment for personnel</li> <li>• transparent procurement practices of goods</li> <li>• operational efficiency in facility management</li> <li>• distribution of e-coupons for healthcare services</li> <li>• accumulation of data of the usage history of healthcare services (based on the e-coupons)</li> <li>• improvement of service quality based on data analysis</li> </ul>
Response to health risk	<ul style="list-style-type: none"> <li>• Insufficient budget allocation</li> <li>• Limited coverage of insurance holders</li> </ul>	<ul style="list-style-type: none"> <li>• Digitalization of enrolment /renewal process of health insurance and payment/reimbursement helps reduce associated administrative costs.</li> </ul>

(Source: Elaborated by Study team, reference including “USAID (2020) The Role of DFS in Accelerating USAID’s Health Goals, ILO (2018) Financial Inclusion and Health)




In projects targeting small-scale farmers, it is extremely important to understand the different roles and needs of men and women on both sides of "production" and "family life management", and it is necessary to pay attention to gender-related issues, since women are often disadvantaged in both dimensions. Table 8 summarizes gender inequality-based issues and potential contribution by financial inclusion approaches.

**Table 8 Potential contribution in gender issues by financial inclusion approach**

Dimensions	Issues	Contribution by financial inclusion
Gender inequality in social inclusion and status	<ul style="list-style-type: none"> <li>• Women have low social status and are less advanced with financial inclusion</li> </ul>	<ul style="list-style-type: none"> <li>• Financial inclusion targeting women contributes to enhanced exercise of women's rights, social status and inclusive economic growth.</li> </ul>
Inequal resource allocation within the household	<ul style="list-style-type: none"> <li>• Women have no/less decision making power concerning resource allocation in the family</li> <li>• Women are not allowed to own money or be in charge of managing home economics</li> <li>• Women's low status within the family result in less investment in education or in medical treatment/health care</li> </ul>	<ul style="list-style-type: none"> <li>• Women empowerment in household budget management</li> <li>• Budget management by women increases budget allocation to cover the basic needs (food and water) as well as to improve the child welfare (education and health), which lead to progress of achieving the SDGs.</li> </ul>
Scarcity or unequal access to economic opportunities, poverty	<ul style="list-style-type: none"> <li>• Employment opportunities for women are limited. Therefore, many women engage in informal self-employment. In the absence of collateral or credit history, they are unable to access to financial services.</li> <li>• Poverty ratio among women is higher than that of men.</li> <li>• Women are subject to higher risks of domestic or gender-based violence.</li> </ul>	<ul style="list-style-type: none"> <li>• Financial inclusion targeting women facilitate entrepreneurship and other economic opportunities</li> <li>• Facilitating access to economic activities of women will promote poverty reduction of the family as a whole.</li> </ul> <p>Economic empowerment of women leave them less vulnerable to risks of domestic/gender-based violence.</p>

(Source: Elaborated by Study team, reference CGAP (2016) Role of Financial Inclusion, H. Kharas, J. W. McArthur and I. Ohno Eds (2019), Leave No-one behind: Time for specifics on SDGs)




### 3. PROJECT PREPARATION-STAGE

### RESEARCH DESIGN AND EXECUTION

3.1 Research Objectives and Outputs

3.2. Flow and Methods (collecting and organizing information)



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graph LR
    A[Desk review] --> B[Field research]
    B --> C[Analysis & Activity Options]
  
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3.3. Tips for Planning and Execution

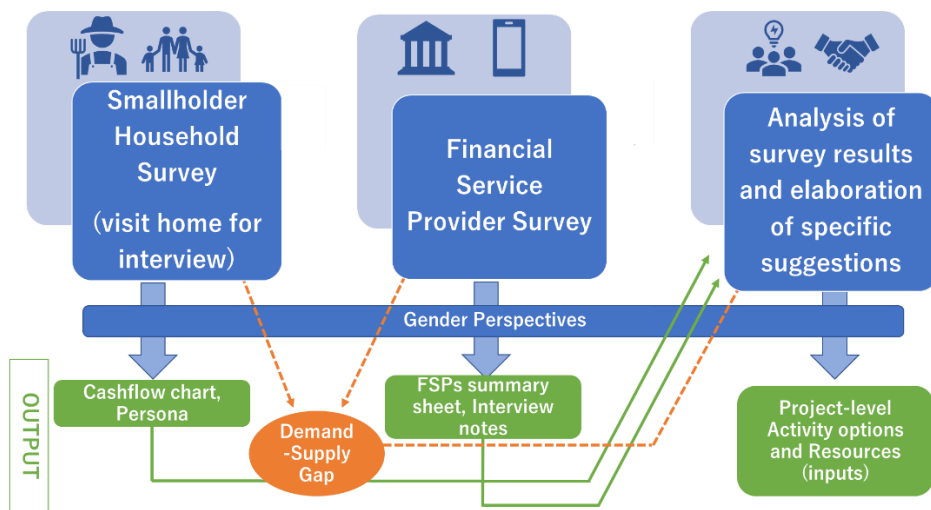
Also see five attached documents of this guideline (sample questionnaires and output templates)

### 3.1. RESEARCH OBJECTIVES AND OUTPUTS

This chapter explains the research design and execution at the project preparation stage to explore how to incorporate financial inclusion perspectives in the JICA project. The purpose of the research is threefold:

- 1). To gather information on smallholders' livelihood situation, including the use and needs of financial services and other coping strategies. (Household survey)
- 2). To gather information on the status of the financial service providers and the available services in order to understand the supply side. Research for this purpose includes the overall financial sector environment, major players (financial service providers and associated actors, including VC actors, digital platform providers, ICTs, donor-funded projects, etc.) and their businesses (Financial services survey).
- 3). To analyze the results of the above-mentioned surveys in view of exploring the ways in which to incorporate financial inclusion perspectives to help solve the issues addressed in JICA projects, including the activity options and potential partnership with relevant actors identified in the financial services survey.

Figure 9 illustrates the research structure and outputs. The details of each component will be explained later.



**Figure 9 Research components and outputs (deliverables)**

(source: Elaborated by Study team)

### 3.2. FLOW AND METHODS (COLLECTING AND ORGANIZING INFORMATION)



**Figure 10 Research Flow**

#### DESK REVIEW

- **Preparation of survey questionnaires**

**[Smallholder household survey]**

**(Also refer to the Attachment 1~4 (“Livelihood questionnaire”, “Agriculture questionnaire”, “Production calendar”, “Household Cashflow” for the details of the survey contents.)**

The overall purpose of this survey is to understand their livelihood realities and coping methods with a view to identifying specific areas where and how financial inclusion perspectives can provide solutions or better tools. Table 9 lists up the main elements of questions in three dimensions.

**Table 9 Main elements of questions to smallholder households**

Income/Agriculture	Family life management	Access and use of formal and informal financial services
<ul style="list-style-type: none"> <li>➤ What are your sources of income?</li> <li>➤ What investments do you make (or do you need to make) for your income generation activities?</li> <li>➤ What is your monthly agriculture and non-agriculture income?</li> <li>➤ How do you want to increase your agriculture revenue / family income?</li> </ul>	<ul style="list-style-type: none"> <li>➤ Who constitutes this household?</li> <li>➤ What do you spend money on and how much on a monthly basis?</li> <li>➤ Do you have health insurance?</li> <li>➤ Who manages the family budget?</li> <li>➤ What is your/family's dream? (life improvement)</li> </ul>	<ul style="list-style-type: none"> <li>➤ Do you own a bank account? The purpose and frequency of the usage.</li> <li>➤ Do you use informal financial services? The form of the informal services, purpose and frequency of the usage.</li> </ul>

(Source: Study Team)

**[Financial service providers survey]**

The purpose of this survey is to collect information of the characteristics of the financial services available in the market, and accessible by smallholder households. It is imperative to understand their perceptions of the smallholder segments as clients and level of interest in catering to the needs of the smallholder family's financial needs. As JICA projects may endeavor collaboration or partnership with the FSPs, asking questions about their relevant experiences and conditions to partnership is also essential.

**Table 10 Main elements of questions to the FSPs**

Basic business information	Products and services	Partnership with the government (central, regional), donors
<ul style="list-style-type: none"> <li>➤ Size (number of customers and branches, outstanding loan balance, OSS/FSS)</li> <li>➤ Main target segments</li> <li>➤ Business partners (e.g. MNOs, digital platform providers, etc.)</li> </ul>	<ul style="list-style-type: none"> <li>➤ Characteristics of saving products, loans, non-financial services</li> <li>➤ (potential) customer surveys</li> <li>➤ Management of customer information</li> </ul>	<ul style="list-style-type: none"> <li>➤ Have you partnered with the government or donors to cater to the needs of the smallholder households?</li> <li>➤ If YES, what scheme and contents, roles? What are the impacts and benefits for your business? What needs to be improved?</li> <li>➤ What benefit do you expect when partnering with donors?</li> </ul>

(Source: Study Team)

**[Survey on the Agricultural value chain actors]**

Table 11 lists up the main elements of questions to the value chain stakeholders (except FSPs and farmers). Here, the value chain actors are from the public sector (line ministry agencies, public bank, SOEs, donors and NGOs) and the private sector (agriculture input suppliers, market information provider, processors, wholesalers/retailers, etc).

**Table 11 Main elements of questions to the VC actors**

Private sector actors	Public sector of the project country
<ul style="list-style-type: none"> <li>➤ What is your business?</li> <li>➤ Do you serve to the smallholder household segments? How important are they as your clients?</li> <li>➤ What products / services are available to the smallholder segments?</li> <li>➤ Do you collaborate with other businesses, public sector, donors? In what ways?</li> </ul>	<ul style="list-style-type: none"> <li>➤ Policies to support smallholder households</li> <li>➤ Examples of public-private partnership in supporting the smallholder segments. Design, impacts, constraints and challenges, relevance with financial inclusion approach of good practices.</li> </ul>

(Source: Study Team)

By combining the findings from the above mentioned three surveys, it is possible to identify the supply and demand gaps of financial services from the standpoint of smallholder households. Said analysis provides foundations to explore what new services can be developed, or how the existing products and services can be adjusted in terms of contents, accessibility, affordability, and delivery method to cater to the needs of the smallholder households.

**[Healthcare service survey]**

In addition to the household survey and FSPs survey, interviews with health sector stakeholders need to be conducted when considering the incorporation of financial inclusion perspectives in health sector projects.

**Table 12 Elements of questions to the health service providers**

Health and medical service providers ( Health centres, public and private medical facilities, etc.)	Government agencies (line ministries), donors	Private insurance companies
<ul style="list-style-type: none"> <li>➤ Usage by smallholder households and touch points</li> </ul>	<ul style="list-style-type: none"> <li>➤ Public health insurance systems (to what extent it is helpful to the smallholder households,</li> </ul>	<ul style="list-style-type: none"> <li>➤ Business family clients</li> <li>➤ Smallholder clients</li> </ul>

<ul style="list-style-type: none"> <li>➤ Payment methods for service fees ( free of charge, public/private health insurance, out-of-pocket)</li> <li>➤ Provision of services adequate and convenient for smallholder households (what factors make the provision viable? Or inhibit the provision?)</li> <li>➤ Provision of information or awareness raising sessions on health-related topics for users/visitors.</li> </ul>	<p>what are constraints and issues, areas of improvements)</p> <ul style="list-style-type: none"> <li>➤ Donor projects and initiatives</li> <li>➤ Good practices of public-private partnership. Models, impacts, how financial inclusion approach is applied (ex. Adopting DFS for G2P)</li> </ul>	<ul style="list-style-type: none"> <li>➤ How their product/service contribute to the smallholder households to overcome physical accessibility and affordability that they commonly confront when seeking for financial services.</li> </ul>
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(Source: Study Team)

### ● Secondary data collection and review

Secondary data collection and review will be conducted prior to the on-site survey. While smallholder specific data are not always available, various data can be found in the existing literature and databases. Observing data of different segmentation (e.g. urban/rural, male/female, age blocks) can help construct and scrutinize the research methodology and surveys in terms of hypotheses and scoping areas. As always, data collection and review should be carried out with a gender perspective. For the secondary data gathering stage specific interview candidates (companies, donors, association, government agencies, etc.). need to be enlisted.

Table 13 and Table 14 show major secondary data, focusing on the demand side (users) and supply side (providers) of financial services. As for the latter, when health sector projects are concerned, it is imperative to gather information of the country's public health care system, including the players in the health insurance markets (insurance companies, digital platform providers, ICTs, etc.).

**Table 13 Demand side information to collect and organize**

	Major data	Resources
<b>Financial Inclusion</b>	<ul style="list-style-type: none"> <li>✓ Access to and use of financial institutions</li> <li>✓ Use of loans</li> <li>✓ Saving practices (% of saving account users)</li> </ul>	<ul style="list-style-type: none"> <li>■ Global Financial Inclusion (Global Findex) Database</li> <li>■ Global Partnership for Financial Inclusion (GPII) country report</li> </ul>

	<ul style="list-style-type: none"> <li>✓ Users of mobile phone/internet</li> <li>✓ Experiences of payment using mobile phone/internet</li> <li>✓ Enrolment in public health insurance</li> <li>✓ Private insurance policy holders</li> <li>✓ Financing sources in case of emergency</li> <li>✓ Use of informal saving/loan system</li> </ul>	<p>(available for selected countries only)</p> <ul style="list-style-type: none"> <li>■ UNCDF country report (available for selected countries only)</li> </ul>
<b>Others</b>	<ul style="list-style-type: none"> <li>✓ Literacy rate</li> <li>✓ Data and major indicators of agriculture, economy, health sector</li> <li>✓ Characteristics of the country/community's social structure and social capital</li> </ul>	<ul style="list-style-type: none"> <li>■ Sector reports, country reports of major donors (World Bank, CGAP, regional Development Banks, FAO, IFAD, UNDP, UNICEF, UNCDF, etc.) and NGOs and donor partners</li> </ul>

(Source: Study Team)

**Table 14 Supply side information to collect and organize**

	<b>Data</b>	<b>Major resources (examples)</b>
<b>Macro level</b>	<ul style="list-style-type: none"> <li>✓ Regulatory environment</li> <li>✓ Primary economic and financial indicators (inflation, key interest rates, etc.)</li> <li>✓ Financial inclusion policy</li> </ul>	<ul style="list-style-type: none"> <li>■ Central Bank, regulatory agencies</li> <li>■ World Bank WDI database</li> <li>■ UNCDF and other donor initiatives</li> </ul>
<b>Mezo level</b>	<ul style="list-style-type: none"> <li>✓ Relevant associations, their roles, relevant platforms</li> <li>✓ Fintech and Agritech business proliferation</li> <li>✓ ICTs and their financial inclusion businesses</li> </ul>	<ul style="list-style-type: none"> <li>■ Website of microfinance association or relevant association in the country</li> <li>■ Study report by GSMA</li> <li>■ Reports by major donors</li> </ul>
<b>Micro level</b>	<ul style="list-style-type: none"> <li>✓ Number of FSPs</li> <li>✓ Categories of FSPs</li> <li>✓ Number of payment service provider agents and/or ATMs for 100000 people</li> <li>✓ Basic information of major FSPs and relevance with smallholder households</li> <li>✓ Sector tendency</li> </ul>	<ul style="list-style-type: none"> <li>■ Central Bank, regulatory agencies</li> <li>■ Website of microfinance association or relevant association in the country</li> <li>■ MixMarket Database</li> <li>■ Global Findex Database</li> <li>■ Online search</li> </ul>

(Source: Study Team)

## FIELD RESEARCH

## (1) Implementation and output of smallholder household survey

The smallholder household survey encompasses three dimensions: (1) production with focus on agriculture; (2) family life management; and (3) access to and usage of financial services. The survey takes about 1.5 to 2 hours and should be conducted at their home, with the presence of both husband and wife. During the interview, information can be collected on the questionnaire, along with the completion of the **crop calendar** and **household cashflow chart** (see attached documents 1 to 4).

The **Crop Calendar** provides an overall picture of income and expenditure patterns associated with agriculture. The essential element of this exercise is to identify a series of production activities and grasp the ideas as to when and for what purpose “investment needs” take place and in what size. If the household produces various cash crops, focus on the top three in terms of their significance in income. If a portion of cash crop is used for self-consumption, rough percentages should be noted.

Depending on the household, the **Household Cashflow Chart** needs to be prepared for two separate patterns: formal or informal loans. In principle, cashflow charts can be prepared for a year. However, depending on the focus of project, the project team may decide to expand or adjust the cashflow span in order to appropriately reflect expenditures/investments.

The study team should firstly capture the “average scenario”, and then alternative scenarios that emerge as the results of irregular factors.

Interpreting the information and data from the Crop Calendar and Cashflow will lead to the development of “**Persona**” of smallholder households. The “Persona” is a “fictional user image” that represents a specific behavior / attitude with respect to (assumed) goods and services. Put differently, “Persona” is a tool for product/service development to examine the design (contents, price) and delivery method (sales promotion / sales channel). “Persona” can be built by identifying common and different characteristics and behaviors in the “production” and “life” dimensions among the interviewed smallholder households. Summarizing their features, the households are classified into separate “Persona” groups. In order for a specific “user image” to emerge, it is necessary to arrange at least the following items of information. “Persona” description should contain elements such as: (1) household composition (households who share their livelihood, not necessarily living together) ; (2) assets owned by households (rather than financial assets, refers to assets used for income



generation, assets for security, and assets that can be used as collateral for loans; for example, trucks, livestock, homes and land, etc.) ; (3) means of livelihood and income sources; (4) living expenses / investments; (5) usage of financial services; and (6) concerns and hope for the future.

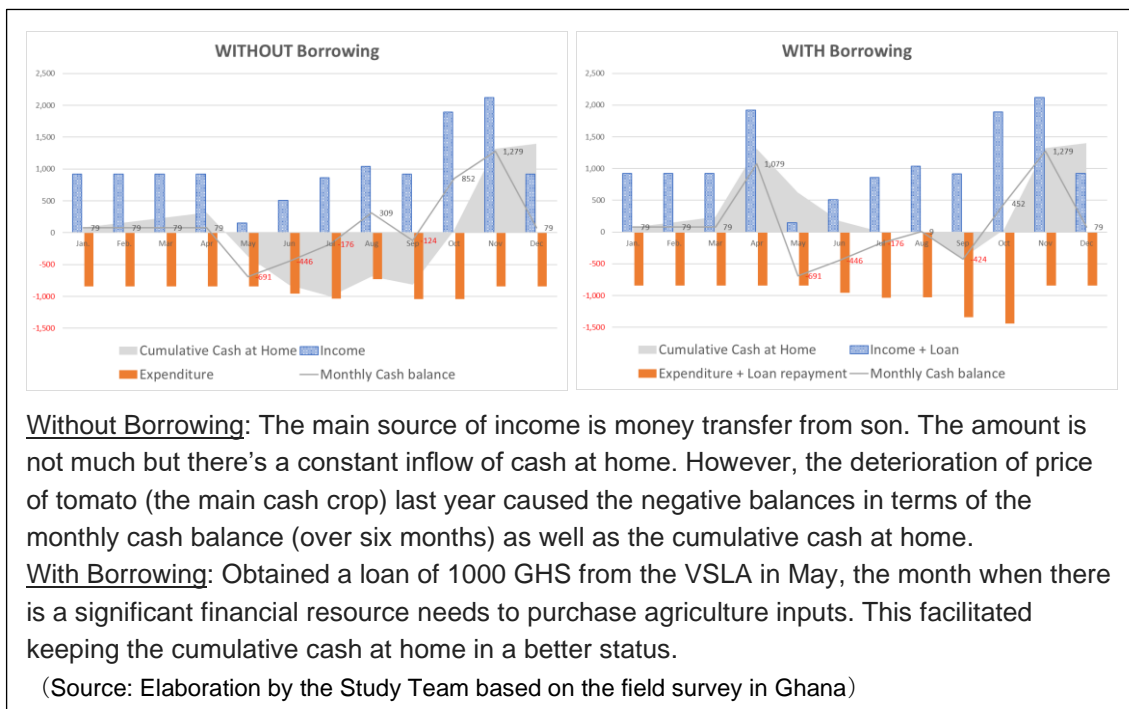


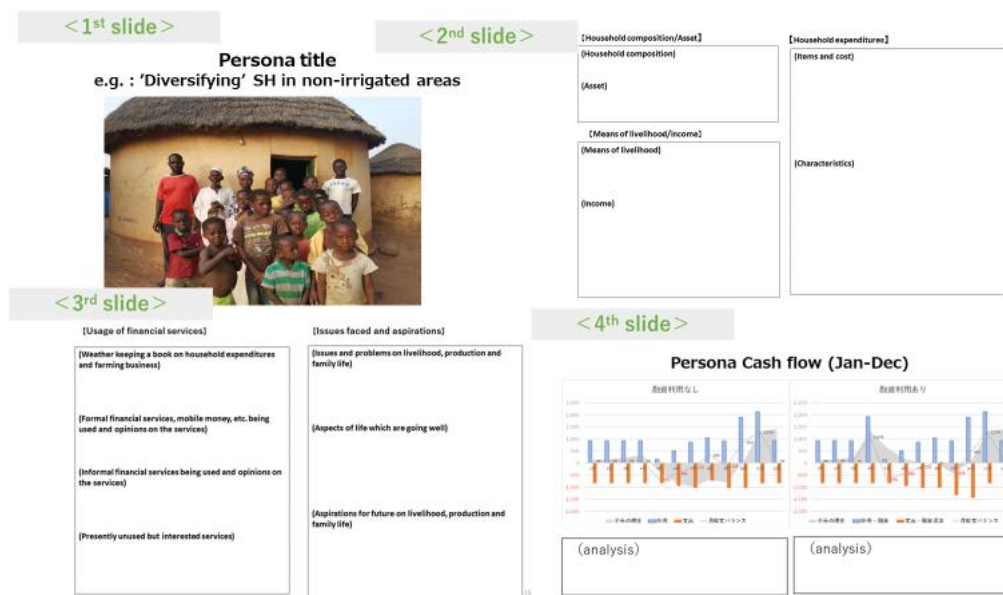
Figure 11 An example of Cash Flow analysis and interpretation

Production area: 8 acres		Sales Unit: "basket" (1 basket = 20.9kg)											
Yield per Production Unit: 70 baskets/acre		Price per unit: (lowest) _____, (highest) 13,000/basket, (average) _____											
<b>RICE (Rainy Season)</b>													
	Jan.	Feb.	Mar.	Apr.	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
				Production			Harvesting						
<b>Expenses - PRODUCTION</b>	Sales all year around			Highest market price									
Machine Rent				44,000									44,000
Labor (land preparation)				10,000									10,000
Seeds				22,000									22,000
Fertilizers (Natural)				3,000									3,000
Labor Cost (transplant)					60,000								60,000
Labor Cost (weeding)						40,000							40,000
Labor Cost (fertilizer)						15,000							15,000
Fertilizers (Chemical)						120,000							120,000
Labor (pesticide)						50,000							50,000
Machine Rent (Harvesting)										50,000			50,000
										15,000			15,000
<b>Expenses - SALES</b>	Transport & Labor												
<b>Total Expense (Monthly)</b>				54,000.0	85,000.0					32,500	32,500		429,000
<b>Total Expense (Annual)</b>													429,000
<b>Sales</b>									910,000				910,000
<b>Profit (Sales - Expense)</b>													481,000

(Source: Study Team)

Figure 12 Crop Calendar example

Persona can be presented in 4 slides for each case as shown below.



**Figure 13 An example of 'Persona'**

(2) Implementation and output of financial service provision survey (example questionnaire in attachment 5-1 and summary sheet template 5-2.)

Interviews should be conducted with financial service providers (including Banks, MFIs, cooperatives, DFSPs, value chain actors, donor projects etc.) and the information acquired should be recorded in a note. For FSPs, it is desirable to visit both the head office and branches in the project target area. At the head office, the company's management policy and the vision of how smallholder households are perceived as customers may be assessed. At the branch office, more direct information of their business operations and their customers can be gathered. Note that there are companies which do not allow interviewing branch offices without prior permission from the head office. In addition to the interview record of individual visit, a "FSP summary sheet" can be filled out to organize the information of selected businesses that offer services of interest. The below are some of the important questions to be posed to FSPs during interview.

- Business scale (loan balance, number of customers (by gender), number of branches, (especially for MFIs, number of loan officers))
- Characteristics of financial products for individuals or groups (deposits and savings products, lending scale / term / repayment method, deposit / financing annual interest rate, collateral (physical / non-physical (FSP risk hedging method), bundling of different products / services) (Combination) sale option)

- Availability of non-financial services for individuals or groups, and if so, what
- Cooperation examples and results (MNO, digital platformers, donors, administrative agencies, etc.)
- Other notable features or points to note. For example, financial soundness that can be judged from the status of achievement of operational independence (OSS) and financial independence (FSS), target setting, etc. (expected to be achieved in three years)

### (3) Summary of field survey results

The findings (facts and observations) derived from the surveys can be organized as the matrix illustrated in the figure below for a systematic review.

Needs Dimension	Demand side (families)	Supply side (FSPs)
<b>Production (agriculture, non-agriculture)</b>		
<b>Living</b>		

**Figure 14 Matrix for analysis (example)**

#### ■ Identifying supply and demand gap

- Demand Side
  - ✧ What are their financial service needs: what situations/purposes? What type of services (deposit, savings, loans)? What is the range of amount involved (saving, loans, etc.)?
  - ✧ What is their perception (satisfaction/dissatisfaction) of current financial services in the market, the services they use?
  - ✧ Are they interested in using financial services: on what conditions?
- Supply Side
  - ✧ Products and services that support agriculture activities (availability, convenience, user-friendliness, relevance with crop calendar, service bundling, etc.)
  - ✧ Products and services that support “family life management” dimension of smallholder households (physical accessibility and convenience, affordability and economic value, non-financial value adding such as bundling with useful information, purpose-tied products (for health, children’s education, emergency, etc.)

- ◇ Viable business collaboration models by different private sector actors, such as FSPs, FDSs, value-chain businesses, platform providers.
- JICA's collaboration with FSPs to be explored for the following points of view.
    - In what ways can JICA offer solutions to the hurdles of the FSPs to cater services to smallholder households (e.g. provision of access to “low risk” potential customer clusters through JICA project (project beneficiaries), practical knowledge of smallholder households that are useful for product/service development for FSPs)
    - What benefits FSPs expect to gain from partnership with other businesses and stakeholders, especially donors.

### 3.3. TIPS FOR PLANNING AND EXECUTION

- The contents proposed in these Guidelines generates approximately two weeks of work. Due to time constraints, this research covered only the upstream part of the agriculture value chain. The downstream of the value chain should be considered after the project starts.
- It is useful to identify a local resource person (e.g. JICA national staff, financial inclusion consultant, extension officers, etc.) at the earlier stage of the research. A good understanding of the local context is important for preparatory tasks such as the following:
  - ◇ A preliminary simple survey to identify local social capital
  - ◇ Interpretation of the secondary data
  - ◇ Review of survey questionnaires
  - ◇ Identification of stakeholders to conduct interview
  - ◇ Selection of smallholder households to interview
- Selecting smallholder households to interview should be done carefully, with the support from extension officers and/or community workers/leaders. However, the selection should not be left entirely in their hands because they may have a bias towards presenting wealthier model farmers to outsiders. In order to eliminate such bias as much as possible, they should be well-informed about the purpose of the survey. In order to have enough information to reflect the heterogeneity of the smallholder households, selection should consider several villages with different characteristics in the same area (e.g. irrigated and non-irrigated areas, households with single or multiple income sources, etc.)

- It is realistic to schedule three household interviews per day. If the entire in-country research takes about two weeks, up to four days can be reserved for this part of the survey, which permits interviewing 12 households.
- It is very important for woman of the households to participate in the interview. Women usually know the details of their households; they may also engage in different economic activities and have income at their disposals to be spent on healthcare or education. If time allows, it is recommendable to conduct a women only focused group interview, in order to capture issues and needs which may be unique to women.



## 4. DEFINING DIRECTIONS FOR PROJECT ACTIVITIES

### 4.1 Principles in designing activities

### 4.2 Activity options

#### 4.1. PRINCIPLES IN DESIGNING ACTIVITIES

To start examining the direction and options of concrete activities for a given project, it is desirable to validate the significance and relevance of financial inclusion issues with smallholders livelihood. By taking this step, activities related to financial inclusion can be endorsed and accordingly integrated into the PDM.

The findings from the Myanmar and Ghana survey validated the essential points as follows. (At the end of this chapter, interesting business cases and project initiatives are listed.)

- **Importance of understanding the household financial situation in a comprehensive manner to articulate effective intervention measures:** Commonly, smallholder households manage their living expenses and production expenses with one consolidated wallet. By looking into their finance managing behavior in totality, it is possible to identify ways in which to define project activities.
- **Money is a matter of great interest/concern for smallholder households:** Hence, incorporating money aspects into thematic trainings (e.g. adoption of agricultural technology, farming techniques, child health, nutrition, etc.) of projects will increase participation.
- **Money is an integral element of sustaining behavior change of smallholder households:** Smallholder households who participate in the above-mentioned trainings will need money to put the acquired knowledge and skills into practice. Access to financial resources is expected to enhance the possibility of sustainability of project effects.

- **Adopting a market system approach to make support sustainably available for smallholder households:** It is essential to promote access to services that contribute to improvement of livelihood (“production” and “family life management” dimensions) of smallholder households that are offered by agriculture value chain actors (private sector). Private sector actors are expected to sustain their business with smallholder households after the relevant donor project ends.
- **Mobile money as an affordable and convenient tool for smallholder households to get exposure to and use various services:** In countries where an advanced digital ecosystem exists, there is an increasing opportunity to make use of mobile money, or DFS in general. Promoting access to and use of such services could help enhance effectiveness of achieving the project purpose (e.g. ‘to increase household income’).

#### 4.2. ACTIVITY OPTIONS

It is necessary to explore activity options of financial inclusion that consider the needs associated with both “production” and “family life management” dimensions. While JICA’s agriculture and health sectoral projects tend to provide assistance to the beneficiaries focusing on either aspect, incorporating the perspective of financial inclusion helps the project design to be based on a holistic understanding the financial needs of the smallholder farmers.

The following table summarizes the financial needs that were commonly found among the smallholder households interviewed in Myanmar and Ghana (as part of the study to prepare these Guidelines).

**Table 15 Common financial needs of smallholder households in Myanmar and Ghana**

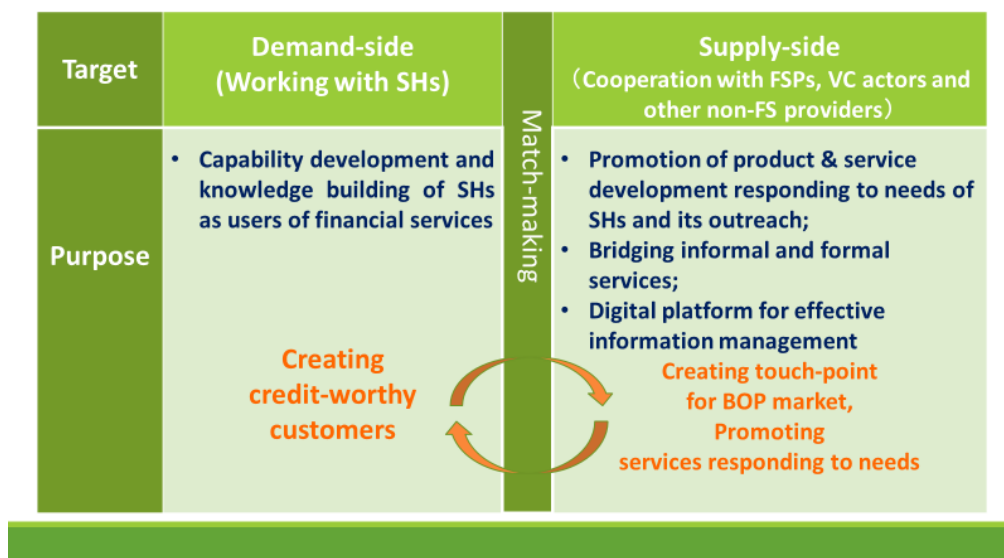
Family life management dimension	
<ul style="list-style-type: none"> <li>● Consumption smoothing needs</li> </ul>	<ul style="list-style-type: none"> <li>● The seasonal character of agriculture comes with income fluctuation. Households may suffer from negative cash balance for several months.</li> <li>● Few households record their income and expenditures or consciously manage their finances. They are not accustomed to adjusting their consumption/expenditure patterns as a result of income fluctuations.</li> <li>● Some households respond to the smoothing needs by taking various measures (e.g. saving cash, storing cash crops at home, receiving remittance from family and relatives, etc.)</li> </ul>
<ul style="list-style-type: none"> <li>● Life risk management needs (disease, accident)</li> </ul>	<ul style="list-style-type: none"> <li>● Diseases and accidents bring about double risks: increase of medical expenses and loss of employment/income generation opportunities.</li> </ul>

	<ul style="list-style-type: none"> <li>● Public health insurance systems vary from country to country.</li> <li>● Some households do not recognize health risks.</li> <li>● Health risks and financial burdens (expenses that are not covered) are still incurred even when enrolled in public health insurance.</li> </ul>
● Investment needs for better life	<ul style="list-style-type: none"> <li>● Most households have wishes and dreams for the near (e.g. home improvement, repairs) or distant future (e.g. better education for children with the hope that they will earn good money, and potentially take care of the parents later), and realizing these require investment.</li> </ul>
<b>Production Dimension</b>	
● Production	<ul style="list-style-type: none"> <li>● Most households need money to cover costs associated with purchase of agricultural inputs, payment to wage workers, and machinery rent.</li> <li>● Investment needs concentrate at the beginning of the production cycle. Many households take out (short-term) loans to cover expenses.</li> <li>● There's a limited offer / accessibility of both informal and formal loans. The lending amount may not be sufficient to cover the expenses.</li> <li>● Many households lack agriculture technical knowledge (disease resilient seeds, proper application of fertilizers/pesticides, etc.)</li> </ul>
● Processing / Storage	<ul style="list-style-type: none"> <li>● Some crops are adequate for processing and storing, which enables the farmers to sell when the market price is higher. In order to do so, farmers need proper processing techniques and storage facilities.</li> </ul>
● Logistics / Trading	<ul style="list-style-type: none"> <li>● Farmers are vulnerable to crop price fluctuations. There is a significant need of access to market price information.</li> <li>● There is a need of rental trucks to transport goods to the market for sales.</li> </ul>
● Diversification needs	<ul style="list-style-type: none"> <li>● Many farmers remain vulnerable to the impacts of climate change. They suffer from lack of water, crop yield, price deterioration. Many farmers are interested in launching non-agricultural businesses to diversify sources of income.</li> </ul>

(Source: Elaboration by Study Team based on the surveys carried out in Myanmar and Ghana)

Figure 15 presents an example of activity options that are defined based on the analysis above, using the matrix introduced in Figure 14.





**Figure 15 Options for incorporating financial inclusion activities: an overview**

(Source: Elaboration by Study Team)

It should be noted that the "demand side" and the "supply side" are shown separately for the sake of logic of explanation. It is not recommended that one side be selected; activities tied to a particular side should be examined in parallel. The following part complements the activities described in the Figure 15.

■ **The demand-side approach in JICA projects can be more easily implemented than the supply-side approach.**

The demand side approach basically comprises of financial education, strengthening of financial capacity, and provision of financial service information. There are two ways to execute these: working directly with smallholder beneficiaries, or/and in collaboration with FSPs or other VC actors in the supply-side. The following describes potential activities.

**(1) Financial education, strengthening financial capability, provision of financial service information.**

These activities encompass training on household finance management and financial education. Financial education includes understanding the need for risk treatment, encouraging saving, knowledge about loans (including understanding the risks of solidarity guarantees) and other financial products, digital literacy and available DFS services, etc.

Activities can be embedded in the technical trainings envisaged in the sector projects. For example, in the case of an **agricultural project**, it is conceivable to incorporate the contents of financial education for the training conducted by extension officers for farmers. The

extension officers can provide guidance of adequate financial planning in accordance with the crop cycle or with the introduction of techniques , and information on what kind of financial services (such as deposits for agriculture input procurement, agricultural loans, stock-backed loans, etc.) would be most applicable. In case of a **health project**, financial education can be incorporated in the training provided by community health workers for the residents, covering topics such as when and how much is needed to carry out specific activities related to pregnancy, childbirth, infant care, nutrition enhancement, and what saving method, financial services (e.g. deposit saving services and micro-insurance) can be used. For both sector projects, these contents can be reflected in the training materials. As for the available financial services, it may be more practical to collaborate with the local FSPs to provide information about innovative financial services that exist locally. In this regard, the widespread use of informal finance should be taken into account. Although fairly accessible, informal financial services have their shortcomings such as the smaller loan size and no recording of credit history. JICA projects can play a role in bridging the informal financial practices (savings and loans) with formal financial services through fintech (i.e. case of digitalization of rural community savings and loans, etc.).

**(2) Promotion of appropriate farming through improvement of information provision and access to useful information on “production” and “family life management” dimensions**

Cost reduction by optimizing agriculture inputs plays a significant role in improving agricultural revenue of smallholders. This motivates them to organize and engage in collective purchase. Likewise, adopting safe and appropriate farming practices that meets standards such as GAP (Good Agricultural Practice) adds value to their products. Since GAP certification is usually provided to farmer groups and not individuals, this also encourages farmers to organize themselves. Digital information platforms facilitate farmers to share information not only related to agribusiness (such as access to market information, opportunities of contract farming, etc.) but also those services are helpful for improving “family life management” and quality of life dimensions. JICA projects of either the agriculture or the health sector can capitalize on information platforms to conduct financial education, to disseminate agribusiness techniques or health/nutrition related information, or to gain insight in the interests of the farmers and their households.

■ **Working on the supply side actors (service providers) to incorporate the financial inclusion perspective is a little more difficult than working on the demand side.**

The supply side approach contains four activity options:

- (1) Collaboration in the provision of financial education (as mentioned in the demand-side).
- (2) Introduction of potential customers through the touch point of JICA projects; It is costly and time-consuming for FSPs to identify new potential customers. JICA projects can facilitate reach out to the project beneficiaries as such customer base. Since the project beneficiaries receive technical assistance, they represent “prominent customers with low risk” in the eyes of the FPSs. It is also beneficial for the JICA project side as FSPs can carry out activities that contribute to financial inclusion of the project beneficiaries.
- (3) Support FSPs to develop products and services that respond to the needs of the smallholder households: R&D costs of new financial products are high. Working with JICA projects in market research targeting new segments (smallholders, poor, women, young people) helps reduce risks and initial investment costs of the FSPs. In addition, FSPs gain access to knowledge and customer-centric methodology tools<sup>9</sup>, which in turn becomes an incentive for collaboration. Through such collaboration, FSPs can seek for developing services tailored for the needs of specific segments and in that regard, establish a unique position in the FSP market. In particular, microinsurance is an area where partnership with private sector is expected to rise<sup>10</sup>.
- (4) Collaboration with value chain actors to develop products and services useful for the smallholder households: JICA projects can seek for potential collaboration with value chain actors in the same way with the FSPs mentioned above. JICA projects can host a forum where such actors including material companies, equipment companies, logistics and storage companies, and buyers (processors, wholesalers, retailers), as well as FSPs gather with the project beneficiaries (smallholder households, not limited to farmers)<sup>11</sup>. The forum provides opportunities for the service providers and private sectors to offer their financial and non-financial products/services separately, or in a combined way, to the beneficiaries as well as for the beneficiaries to manifest their needs and to seek for consultations.

The first step in such collaboration is to hold a "matching fair" that brings together the value chain stakeholders (a concept similar to SHEP's "matchmaking forum").

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<sup>9</sup> For example, JICA's Smallholder Farmers Financial Inclusion Project (ongoing) helps the counterpart to work on "customer journey map", an exercise tool to develop tailored products/service for the customers ("Persona").

<sup>10</sup> According to our survey findings in Ghana, microinsurance does not substitute public healthcare system; it complements what's not contemplated in the public healthcare service.

<sup>11</sup> The concept is similar to that of matching forum of JICA SHEP projects.

The following Table 16 illustrates an example of segment-specific (women) issues and service development ideas. In accordance with the findings reported by GSMA, the ideas focus on solutions using DFS.

**Table 16 DFS that respond to the financial needs of women**

Areas where Gender inequality prevails	Issues	Possible solutions by DFS
Identify	• no ID	• Simplify the standards of KYC (know-your-customer) for selected services and facilitate women to open a bank account.
Education, literacy	• Low literacy rates, insufficient education	• Offer financial education and learning materials tailored to the needs of women.
Freedom to move	• Social / cultural norm constrains free movement of women (e.g. women are not allowed to go to bank alone)	• Enhance financial service usability for women customers by offering home visit services by female staff, mobile transaction services, etc.
Privacy	• Woman is not allowed to possess money on her own in the family.	• Enhance financial service usability for women customers by offering home visit services by female staff, mobile transaction services, etc.
Market	• Market side does not know specific needs of women segments.	• Develop marketing strategy based on focused group interview, interviews, customer journey maps of potential female customers.

(Source: Elaborated by Study team, using reference such as GSMA Accelerating digital financial inclusion for women)

## REFERENCE (LIST OF PRACTICAL CASES)

### **Saving and Internal Lending Communities (SILC) by Catholic Relief Service (Ghana)**

<https://www.crs.org/our-work-overseas/where-we-work/ghana>

### **BIMA (Ghana) <https://www.bima.com.gh>**

Affordable mobile health insurance and services with access to consultation with medical professionals over the phone, targeting mass market.

### **People's Pension Trust (Ghana) <https://www.peoplespensiontrust.com>**

Affordable certificate of deposit with withdraw options as private pension

### **Esoko Ltd. (Ghana, Africa) [www.esoko.com](http://www.esoko.com)**

Offers comprehensive financial and agriculture market information and technical services option for smallholder households. Also caters to financial needs of the “living” dimension.

### **Smart Agriculture Myanmar (SAM) by Impact Terra <https://www.impactterra.com/smart-agriculture-myanmar>**

Operates “Golden Paddy”, a platform that offers agribusiness consultation services and financial inclusion in partnership with FSPs for 50,000 rice producers.

### **Green Way Agriculture Livestock mobile app <http://en.greenwaymyanmar.org/>**

Smallholder-friendly mobile application with simple use. Rich contents with information of agriculture techniques.

### **FINGAP by USAID (Ghana) <http://www.carana.com/projects/subsaharanafrica/919-financing-ghanaian-agriculture-project-fingap>**

Provides grants (40 million USD as of 2015) to local FSPs to develop and offer innovative financial services for the agriculture value chain (rice, maize, soybean) stakeholders, including smallholder farmers.

### **Agriculture Input Improvement Project by IFC (Myanmar)**

Support carrying out “GAP Fair matching event”, gathering various stakeholders of agriculture value chain.

### **myAgro (Mali, Senegal) <https://www.myagro.org/>**

Provision of the online platform that enable approximately 50,000 farmers to save money digitally. Farmers can use their saving for purchase of agriculture inputs and access to technical services that are also offered on the same platform.

**Good Brothers Co., Ltd. (Myanmar)** <http://www.gbs.com.mm/en/about/corporate-structure/>  
Offers vertically integrated and comprehensive agriculture services to farmers. Licensed Kubota machinery seller in Myanmar and participated in JICA two-step loan.

**FISFAP (Ghana)** <http://agra.org/2015AnnualReport/milestones/financial-inclusion-for-smallholder-farmers-in-africa-project>

Project to promote financial inclusion for smallholder farmers by MasterCard Foundation and AGRA (Alliance for Green Revolution in Africa) .

Innovative financial inclusion approach materialized by partnership of DFS, FSP, VC actors, and donors, promoting mobile financial services, establishment of network of mobile agents, loans based

NAME of the INTERVIEWEES: (Husband : name, age) , (Wife: name, age)

PLACE, DATE, TIME of the interview

Category/Sub category	QUESTIONS	ANSWERS
<b>1. Basic information on the household</b>		
1.1. Family member	<ul style="list-style-type: none"> <li>List up the members of the family (member composition and age/sex of each member)</li> <li>How many family members live in this household? (i.e. those who share the household budget)</li> <li>Is there any family member who live and work outside this home?</li> </ul>	<p>NOTE: these questions are examples.</p>
1.2. Tangible asset (excluding monetary/financial)	<ul style="list-style-type: none"> <li>own home (no rent) <input type="checkbox"/></li> <li>own land <input type="checkbox"/></li> <li>agricultural machinery <input type="checkbox"/> (if checked, specify what machinery _____)</li> <li>motor bicycle <input type="checkbox"/></li> <li>truck/vehicle <input type="checkbox"/></li> <li>Livestock (cow <input type="checkbox"/>、piglet <input type="checkbox"/>、Chicken (poultry or egg) <input type="checkbox"/>、aquaculture <input type="checkbox"/>、others)</li> <li>smart phone <input type="checkbox"/> (if checked, specify how many and who uses the phone)</li> <li>feature phone <input type="checkbox"/> (if checked, specify how many and who uses the phone)</li> <li>others (specify)</li> </ul>	<p>It is recommended to elaborate the preliminary list of common items according to the local context. There may be unlisted assets that smallholder families own and use as collaterals or to convert to cash, if needed.</p> <p>Understanding the ownership and use behavior of the mobile phone of family members is important, considering that they are essential tools to access to digital financial services. The types of phones (i.e. smartphone or feature phone) should be identified as their features</p>
<b>2. Household Budget</b>		
2.1. Management and decision-making	<ul style="list-style-type: none"> <li>Who is the administrator of the household budget?</li> </ul>	
2.2. Record keeping	<ul style="list-style-type: none"> <li>Do you keep record of household income and expenditures?</li> <li>Who keeps the record?</li> <li>Why do you keep the record? What is your motivation for bookkeeping?</li> <li>What benefits (favorable effects) are you obtaining from keeping the record?</li> </ul>	
<b>3. Sources of income and amount</b>		
3.1 Agriculture based income	<ul style="list-style-type: none"> <li>What are your cash crops?</li> <li>What other income do you have? Do you earn as casual labourer? Do you gain income from renting out agricultural machinery?, etc.</li> </ul>	<p>This part comprises the preliminary part before filling in the detailed information in the "Production Calendar" sheet.</p>
3.2 Non-Agricultural income	<ul style="list-style-type: none"> <li>Do you have any other income outside your farming activity?</li> <li>Does your household budget include any remittance, government subsidies, contribution from family members who have income (e.g. as a wage worker, salaried worker, self-employed, etc.)</li> </ul>	<p>The idea is to grasp general information about the non-agricultural income - both Regular and Irregular - that the household has, and take note of the sources (items) and rough amount. Detailed information will be filled in "Household Cash Flow" sheet.</p>
<b>4. Household expenditures</b>		
	<ul style="list-style-type: none"> <li>Use [4.Household cash flow] sheet. Ask the "regular" and "irregular/unexpected" expenditures of the past 12 months.</li> </ul>	

5. Usage of health care service		
5.1 Usage status	<ul style="list-style-type: none"> <li>When any one of your family becomes sick, where do you go to seek for help?</li> <li>Are you (and your family members) enrolled in the government health insurance system?</li> <li>IF YES (enrolled), what benefits do you find in the government insurance? List top three benefits.</li> <li>Do you find any inconvenience with the government insurance? If you do, what are they?</li> <li>IF NO (not enrolled), why are you not enrolled? (e.g. not qualified, don't know how to enrol, difficult to enrol (cost, etc.), not interested)</li> </ul>	<p>Questions regarding the use of public healthcare insurance need to be elaborated in coherent with the context and the public healthcare system of the target country. The principal idea is to obtain data of enrolment status, use of any other healthcare financial services, and their opinions of the services which explain their decisions of their usage status. The benefits and inconveniences that they perceive also derive hints for better tools and services to develop.</p>
5.2 Cost and payment	<ul style="list-style-type: none"> <li>Do you have regular health care-related expenditures (premium for health care service, medical)</li> <li>When you use health care service what cost(s) incur? (premium for the insurance, pay-as-you-go)</li> <li>How do you pay for the fee? (e.g. using savings, borrow money, etc.)</li> <li>What payment method do you use? (cash, digital payment, etc.)</li> </ul>	
6. Usage of financial services		
6.1 Formal financial services	<ul style="list-style-type: none"> <li>Do you have any bank account?</li> <li>IF YES, <ul style="list-style-type: none"> <li>Which FSPs?</li> <li>How often do you use the account?</li> <li>For what purposes do you use this account? (saving, emergency expenses, remittance, etc.)</li> </ul> </li> <li>Are you using any loan from the financial institution? (If YES, use calendar)</li> <li>What types of financial products and services do you use?</li> <li>Which FSPs?</li> <li>Are you using any loan from your buyers, agriculture inputs suppliers, or else?</li> <li>Do you use mobile money?</li> <li>How do you assess the services provided by each of the FSPs you use? Please mention 3 good points and 3 unfavorable points, if possible.</li> <li>What insurance products do you have? (health, life, crop, accident, etc.)</li> <li>Who is the insurance provider?</li> </ul>	<p>The individual data of this part can be compared with the secondary data collected during the desk review. Then the interviewer can consider what segment this household represents.</p>
6.2 Informal financial services	<ul style="list-style-type: none"> <li>Do you participate in (informal, village, community) saving and loan group?</li> <li>IF YES, <ul style="list-style-type: none"> <li>How does this system work? (group formation, frequency of meeting, forms of collecting money and keeping them, repayment schedule, interest rate, etc.)</li> </ul> </li> <li>Are you borrowing money from your family, relatives, friends, informal money lender, etc.?</li> </ul>	
7. Worries/concerns in life		
	<ul style="list-style-type: none"> <li>Do you have any worries/concerns in life? What are they?</li> </ul>	<p>It is expected that some aspects of their answers have implications for financial needs and associated non-financial services. The findings will help identify critical and urgent areas of needs of smallholder families. e.g.) lack of cash, plan to expand agriculture, interests in diversify crops, purchase of truck, saving money for</p>
8. Aspirations for the future		
	<ul style="list-style-type: none"> <li>What are your aspirations for the future?</li> </ul>	



NAME of the INTERVIEWEES: (Husband's name and age) (Wife's name and age)

PLACE, DATE, TIME of the interview

Category/Sub category	QUESTIONS	ANSWERS
<b>1. Production and Harvest</b>		
	<ul style="list-style-type: none"> <li>• Do you farm individually (hourhold leve) or participate in group farming? Or both?</li> <li>• Do you purchase inputs individually or in group?</li> <li>• From whom do you purchase inputs?</li> <li>(Regarding the individual farming)</li> <li>• What is the size of your farming land?</li> <li>• Is this land your own? Do you have the land title certificate? Under whose name?</li> <li>• Is this land rent? How much do you pay? (monthly or yearly)</li> <li>• Is your farming land irrigated?</li> <li>• Do you use machinery? Own or rent?</li> <li>• What crops do you cultivate?</li> <li>• Which crops are cash crops?</li> <li>• Do you sell all of your cash crops or consume part of it? What is the portion of household consumption?</li> <li>• Which crops are important for your family? Why's so?</li> </ul>	<div style="border: 1px solid red; border-radius: 15px; padding: 10px; margin-bottom: 10px;"> <p>Ensure to ask about division of labor and responsibilities between men and women, if any, at different stage of agriculture (i.e. from production to sales).</p> <p>Note that this questionnaire is prepared for family agriculture and touches upon minimum aspect for group farming.</p> </div> <div style="border: 1px solid red; border-radius: 15px; padding: 10px;"> <p>Details of the priority crops (those that are for sales or support family consumption) to be filled in the Production Calendar.</p> </div>
<b>2. Sales and Marketing</b>		
	<ul style="list-style-type: none"> <li>• To whom do you sell your products?</li> <li>• Do your buyer come to your farm?</li> <li>• Where do you sell your products?</li> <li>• What is your transportation measure?</li> <li>• Where/how do obtain the price information?</li> </ul>	

PRODUCTION CALENDAR (栽培カレンダー)

The objective of this sheet is to understand **in which month** the production **costs are incurred** and **sales are made**.

**CROP 1. RICE (Rainy Season)**

Production area: 8 acres

Sales Unit: "basket" (1 basket =20.9kg)

Yield per Production Unit: 70 baskets/acre

Price per unit: (lowest) \_\_\_\_\_, (highest) 13,000/basket, (average) \_\_\_\_\_

**EXAMPLE**

Indicate the cycle of the specific crop (when to produce, harvest, sell, etc.)

Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
			Production					Harvesting			
Sales all year around						Highest market price					

**Expenses - PRODUCTION**

LIST the Expsnse Items of each production activity. List the Expense Items, and fill in the amount in the month

- Machine Rent
- Labor (land preparation)
- Seeds
- Fertilizers (Natural)
- Labor Cost (transplant)
- Labor Cost (weeding)
- Labor Cost (fertilizer)
- Fertilizers (Chemical)
- Labor (pesticide)
- Machine P

Expenses associated with Marketing and Sales (e.g. transport cost, payment for transporters, etc.). List the Expense Items, and fill in the amount in the month incurred.

**Expenses - SALES**

- Transport & Labor

**Total Expense (Monthly)**

**Total Expense (Annual)**

**Revenue**

**Income (Revenue - Expenses)**

				44,000								
				10,000								
				22,000								
				3,000								
				60,000								
							40,000					
							15,000					
							120,000					
							50,000					
									50,000			
									15,000			
				54,000.0	85,000.0		225,000		32,500	32,500		
												429,000
							910,000					
							481,000					

Fill in the Revenue amount derived from this crop in the month(s) when the money was received.

PRODUCTION CALENDAR (栽培カレンダー)

CROP 1 \_\_\_\_\_ (name of crop)

Production Area: \_\_\_\_\_ Sales Unit: \_\_\_\_\_

Yield per Production Unit: \_\_\_\_\_ Unit Price: (lowest): \_\_\_\_\_

(highest): \_\_\_\_\_

(average): \_\_\_\_\_

Jan. Feb. Mar Apr May Jun Jul Aug Sep Oct Nov Dec

Expenses - PRODUCTION

Expenses - SALES

Total Expense	-	-	-	-	-	-	-	-	-	-	-	-	-
Sales (income)													

<b>INCOME</b>	-	-	-	-	-	-	-	-	-	-	-	-	-
---------------	---	---	---	---	---	---	---	---	---	---	---	---	---

CROP 2 \_\_\_\_\_ (name of crop)

Production Area: \_\_\_\_\_ Sales Unit: \_\_\_\_\_

Yield per Production Unit: \_\_\_\_\_ Unit Price: (lowest): \_\_\_\_\_

(highest): \_\_\_\_\_

(average): \_\_\_\_\_

Jan. Feb. Mar Apr May Jun Jul Aug Sep Oct Nov Dec

Expenses - PRODUCTION

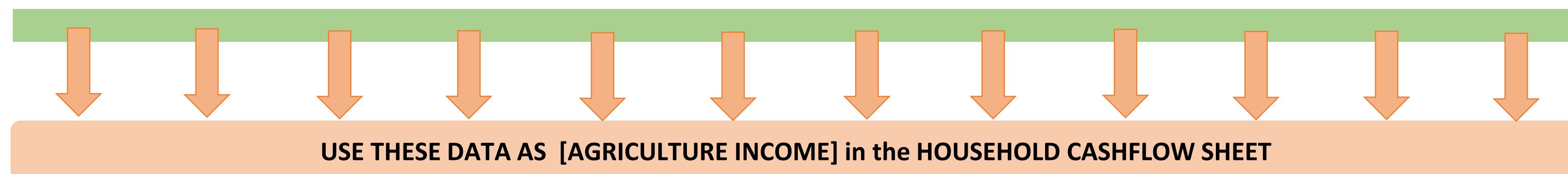
Expenses - SALES

Total Expense	-	-	-	-	-	-	-	-	-	-	-	-	-
Sales													

<b>INCOME</b>	-	-	-	-	-	-	-	-	-	-	-	-	-
---------------	---	---	---	---	---	---	---	---	---	---	---	---	---

SUM of MONTHLY [INCOME (Revenue - Expenses)] of ALL THE CROPS STUDIED ABOVE.

**TOTAL AGRICULTURAL INCOME**



The objective of this sheet is to understand the **in-and-out of CASH on the MONTHLY basis.**

NAME of the INTERVIEWEE: \_\_\_\_\_

MONTH		Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
① Income	Agriculture income												
	Non-agriculture income 1												
	Non-agriculture income 2												
	Non-agriculture income 2												
	TOTAL HOUSEHOLD INCOME												
② Expenditures	Rent 1 (residence)												
	Rent 2 (other)												
	Electricity												
	Fuel												
	Communication												
	Food												
	Education												
	Social events (festival, wedding, etc.)												
	Welfare (social security, insurance, etc.)												
	Health (regular visit, medication, insurance)												
	other item 1 (please specify)												
	other item 2 (please specify)												
	other item 3 (please specify)												
		TOTAL (Monthly)											
	TOTAL (Yearly)												
③ Unexpected or irregular expenses		Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	Health-related, accident												
	other item (please specify)												
	other item (please specify)												
	TOTAL (Monthly)												
	TOTAL (Yearly)												

**DATA of Agriculture income can be taken from the Production Calendar. Add in the list, non-agriculture income of the household.**

**Items listed for ①~④ areas are to be adjusted based on the answers in the household survey. What's shown in this sheet is example.**

④  
LOAN Usage

MONTH	Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Borrowing 1												
Borrowing 2												
Borrowing 3												
TOTAL Borrowing												
Repayment 1												
Repayment 2												
Repayment 3												
TOTAL Repayment												

Elaborate using the data ①、②、③ above.

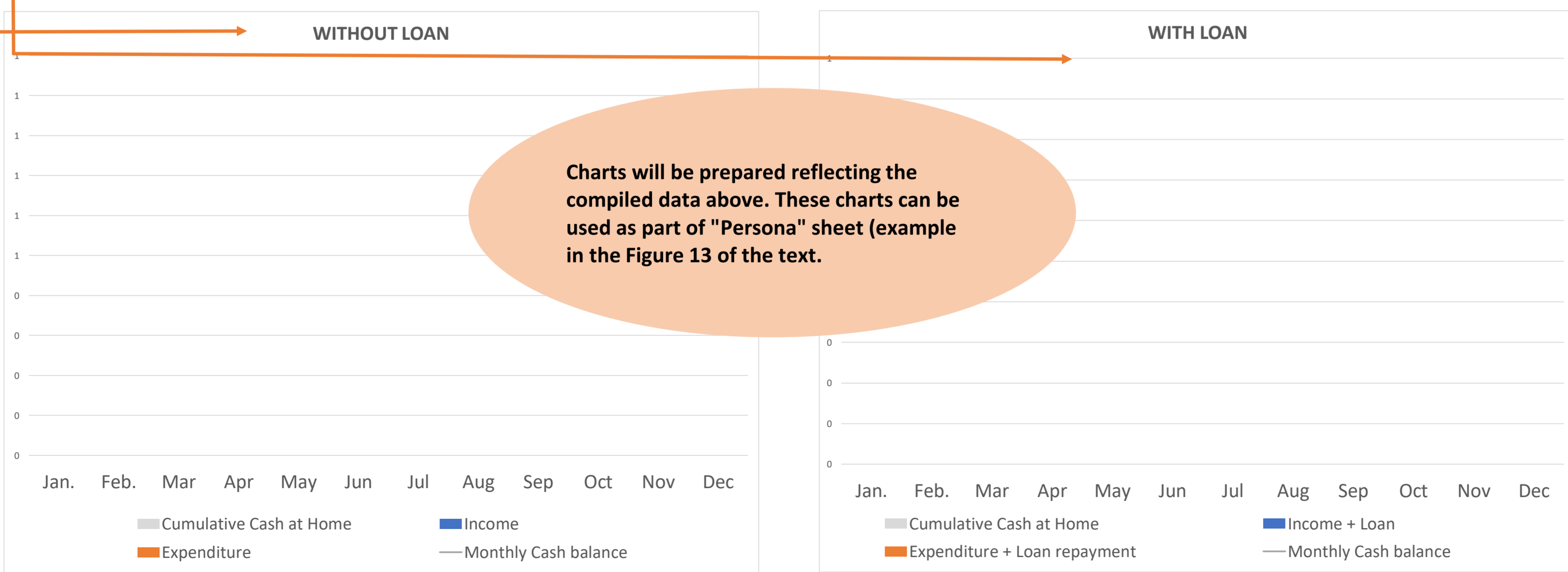
**WITHOUT LOAN (Borrowing)**

	Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Income												
Expenditure												
Monthly Cash balance												
Cumulative Cash at Home												

Elaborate using the data ①、②、③、④ above.  
Note that some income should materialize in the absense of loan. Make sure to reflect the capacity of generating income in this scenario.

**WITH LOAN (Borrowing)**

	Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Income + Loan												
Expenditure + Loan repayment												
Monthly Cash balance												
Cumulative Cash at Home												



Charts will be prepared reflecting the compiled data above. These charts can be used as part of "Persona" sheet (example in the Figure 13 of the text).

Company Name:  
 Name and position of the interviewee:  
 PLACE, DATE, TIME:

Aspect	Key questions	Note	ANSWERS
1. General Information	1.1 Operation history (from when), vision and mission, if any	Note the terms related to financial inclusion, rural agriculture, women	
	1.2 Areas of operation	Check if our target areas are covered	
	1.3 Branches and touchpoints, including their numbers and accessibility to farmers	Accessibility to farmers	
	1.4 Number of current customers and future plan		
	1.5 Financial viability (OSS/FSS, NPL, etc.) and social performance assessment, if any.	Sound financial base?	
	1.6. Partner organizations, if any.	Value chain actors, banks, etc.	
2. Products and services	2.1. Financial products	Cost to customers in using the products and services; single or multiple benefits?	
	2.2. Non-financial services		
3. Customer segments	Target customer segments (at present and planned)	Check if smallholders (and women) are within their scope of interest	

No.	Name of FSP	Category	Type	Loan Balance Amount	Branch offices in JICA Project Area	Num. of Client (total and by branch)	LOAN FEATURES						SAVING		Comment (e.g. Non-financial value adding services, Business partners, experience/willingness to partner with donors, etc.)	
							Offer of Group Lending	Loan size per lending (Group)	Offer of Individual Lending	Loan size per lending (Individual)	Loan Term	Monthly Interest Rate	Repayment method and Terms	Obrigatory		Voluntary
1																
2																
3																
4																
5																
6																

Based on the classification defined in the country's regulation, if any.

These represent basic dimensions of financial services, where similarities and differences of the providers can be identified.

The items are subject for modification according to the scope of the JICA project and the country's context.