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Bangladesh Portfolio Assessment

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TABLE OF CONTENTS

ACRONYMS	4
1. Introduction	5
1.1 SBI's Mandate	5
1.2 SBI's Approach	5
1.3 SBI's Findings	5
2. Portfolio Assessment	7
2.1 Mobile Financial Services in Bangladesh	7
2.2 Current State of Payments in Implementing Partners	8
2.3 Examples of Mobile Payments	11
2.4 Payment Challenges	11
2.5 Summary	12
3. Metrics	13
3.1 Mobile Money	13
3.2 The Global Health Initiative & Mobile Financial Services	15
3.3 Feed the Future and Mobile Financial Services	15
3.4 Mobile Money Performance Metrics	17
3.5 Additional Indicators	18
Appendix I: Metrics	19

List of Figures

Figure 1: Payment flows within typical USAID Bangladesh implementing partners	10
Figure 2: Metric flow process	13
Figure 3: Global mobile money metrics	14
Figure 4: Programmatic outcomes and mobile money outputs	16
Figure 5: Mobile money performance metrics	17
Figure 6: Women's Empowerment Index	18

ACRONYMS

AIP	Agro Inputs Program
B2B	Business to Business
CSP	Community Service Providers
DAM	Dhaka Ahsania Mission
DBBL	Dutch Bangla Bank Limited
DGFP	Directorate General of Family Planning
EBL	Eastern Bank Limited
FTF	Feed the Future
GHI	Global Health Indicators
GOB	Government of Bangladesh
GP	GrameenPhone
ICT	Information and Communication Technology
IVR	Interactive Voice Recognition
MAMA	Mobile Alliance for Maternal Action
MEAS	Modernizing Extension of Agriculture Services
MFS	Mobile Financial Services
mSTAR	Mobile Solutions for Technical Assistance and Research
NHSDP	NGO Health Services Delivery Program
P2P	Person to Person
SBI	ShoreBank International
SHOPS	Strengthening Health Outcomes through Private Sector
SMC	Social Marketing Company
USAID	United States Agency for International Development
USG	United States Government
WEI	Women's Empowerment Index

I. Introduction

The mobile banking market in Bangladesh has seen rapid growth in recent years. However, significant progress still needs to be made before Bangladesh's poor can fully realize the benefits of mobile banking. One area that promises significant near term opportunities to serve the needs of these groups is in government-sponsored payments. By utilizing mobile money or e-payment mechanisms, inefficiencies associated with disbursements can be reduced.

I.1 SBI's Mandate

ShoreBank International (“**SBI**”) was engaged to assist USAID Bangladesh in identifying 5 to 8 of its implementing partner programs – primarily in the fields of agriculture, health, education and gender – that are prepared to utilize mobile/e-payments to increase the ease and efficiency with which payments are disbursed as well as to expand access to digital financial services.

To achieve this objective, SBI prepared this assessment report, which will:

- Summarize the findings from the portfolio assessment
- Suggest a set of metrics specific to the mobile money sector
- Propose performance measures linked to the country-level results framework and the global-level indicators for Feed-The-Future (FTF) and the Global Health Initiative (GHI)

To achieve this mandate, the SBI team worked during a 4-week period (July 1, 2013 to July 31, 2013).

I.2 SBI's Approach

SBI employed a proven methodology that draws on lessons learned globally from similar past assignments in the areas of mobile/branchless banking, feasibility studies and portfolio assessments. Based on SBI's significant experience working in a variety of project domains in Bangladesh – including in gender, agriculture, value chains, and mobile and branchless banking, among others – the SBI team took a comprehensive approach that combined a thorough review of the portfolio with SBI's Bangladesh and global experience.

The SBI team's scope included both external and internal analysis. This analysis included undertaking a high level analysis of the Bangladeshi market for mobile payments, with a particular emphasis on USAID Bangladesh's target recipient base. The team also conducted a high-level assessment of USAID Bangladesh's implementing partners' internal capabilities through discussions with management and external stakeholders on issues specifically related to mobile payments.

I.3 SBI's Findings

From an external, market perspective, SBI found that Bangladesh is a rapidly growing market for mobile financial services (MFS). With a few major mobile financial service providers and over 4.6 million mobile wallets (as of March 2013), the concept of mobile banking is new but approaching scale quickly. In addition, the demographic majority in Bangladesh is young, and a large population remains unbanked, indicating that there is a large market scope for these services. Importantly, regulations are very permissive and encourage a bank-led solution. As a result, competition is likely to increase in the coming years, indicating that there may be more products available and tariff levels may decrease. Market trends indicate a dependence on cash, along with the large unbanked population, and a push for financial inclusion. At the same time, market gaps include limited access to financial services, unaffordable services, and a lack of interoperability.

From an institutional perspective, SBI focused on USAID Bangladesh's implementing partners. The SBI team found that implementing partners had varying experiences and awareness of mobile payments. Partners are also organized in different ways, depending on whether they are providing direct outreach or are coordinating with local organizations. All partners are organized to successfully achieve their relevant performance metrics. Partners also faced similar challenges in considering mobile payments, with perceived high tariff rates and confusion with respect to permissible transaction sizes being the most common. The SBI team observed that the majority of implementing partners interviewed are interested in mobile payments or are ready to incorporate such payments into their operations.

2. Portfolio Assessment

In the effort to understand the various types of programs, their payment flow, challenges, and possibilities, the SBI team spoke to nine implementing partners. Given constraints of time with the team on the ground for only two weeks – and added factors of timing during Ramadan and four days of strikes – and the availability of contact information from USAID staff, the assessment looked at only a subset of USAID Bangladesh’s overall activity. This section will outline the state of MFS in Bangladesh, how implementing partners use mobile payments, examples of mobile payments, and challenges faced by partners in using mobile payments.

2.1 Mobile Financial Services in Bangladesh

Mobile financial services in Bangladesh have been on the rise for the last two years. Bangladesh represents an ideal market for scaling MFS: high population density, good telephone network connectivity, a relatively homogenous population, low levels of financial inclusion, and a permissive regulatory environment. These factors and others are discussed further below.

Market factors create low financial inclusion. Although Bangladesh is home to 150 million people, of whom nearly 100 million are between the ages of 18 and 64, less than 20% of the population is formally “banked.” In addition, the country has extremely weak and undeveloped infrastructure, which limits communication and transport. This infrastructure limitations combined with high agrarian population density and widespread poverty severely strains the country’s ability to provide social services and for financial institutions to offer services to the rural poor.

Most transactions occur in cash – most significantly including remittances. Because of these factors, rural and poor Bangladeshis conduct almost all of their transactions in cash, including salary payments and remittances. These remittances represent a significant part of the Bangladeshi economy: external remittances accounting for 10% of the country’s GDP, or over USD 8.9 billion, while internal remittances may account for almost USD 600 million per year. Because sending international remittances to Bangladesh carries one of the highest fees in the world, informal remittances have been estimated to represent up to an additional 56% of all remittances, or over USD 5 billion.

High mobile network penetration indicates significant use of mobile phone technology. An additional factor contributing to the high potential of mobile money services is that although Bangladesh has little of the infrastructure necessary to support bank branches, it does boast an extremely sophisticated market for mobile technology. Mobile networks cover 99% of Bangladesh and mobile phone ownership rates are as high as 83% for urban Bangladeshis and almost 60% of the rural population.

These market factors have allowed Bangladesh to be well-placed for MFS. CGAP recently wrote about the remarkable uptake with the following analysis:¹

- Bangladesh has made an eight-fold jump in accounts and agents from 2012 to 2013.
- Bangladesh growth is driven primarily by bKash, a subsidiary of BRAC Bank, which accounts for 80% of market share by several measures. But Dutch Bangla Bank Limited (DBBL) Mobile is also on a steep growth trajectory. Bangladesh’s largest private bank – Islami Bank – just launched MCash, which is poised to make a large contribution.
- The latest data from Q1 2013 shows 71,000 agents with 4.6 million accounts.

¹ CGAP Blog, 06 June 2013, <http://www.cgap.org/blog/comparing-branchless-banking-bangladesh-and-pakistan>

Encouraging the use of mobile payments is not possible in every market that USAID has presence; however, Bangladesh has the appropriate infrastructure, uptake, and regulatory environment to merit further effort in shifting from cash to digital.

2.2 Current State of Payments in Implementing Partners

Partners varied in how they use payments, how often, and for what purpose. Below, the SBI team provides snapshots of conversations with implementing partners.

WorldFish – WorldFish is an NGO that focuses on aquaculture and has received roughly \$6 million USAID grant funding from 2011-2016. WorldFish is currently implementing more than 15 projects, through several regional offices. WorldFish works mainly in the southern parts of Bangladesh. In the USAID funded project under the FTF program, WorldFish works with nutrition, food security, homestead gardening and conducting research in various areas.

Payments to three field offices are done through local bank branches. Other branches take cash advances to meet necessary expenses. Subgrants to implementing partners are transferred electronically and the salaries of all employees are disbursed directly to their bank accounts. WorldFish tries to make all payments by cheques to their vendors. In remote areas they pay vendors with cash, as branches are not available. WorldFish uses DBBL mobile banking services to make some payments in the southern parts of Bangladesh.

CARE – CARE is an NGO that focuses on food security, improving livelihoods, climate change, and various other areas. It is currently implementing a \$117 million USAID funded food and nutrition security project known as SHOUHARDO II. The Government of Bangladesh has contributed a further \$13 million to the project. The current phase is covering 11 districts in the northern and southern parts of the country, 30 upazillas, 1500 villages, and 370,000 households. The project started in June 2010 and will go until May 2015.

There is no cash delivery to end beneficiaries through this project. Poultry, livestock and food are delivered in kind. Employees get their salary through direct deposits. Cheques and electronic transfers are used to pay vendors. There has been internal discussion about the application e-payments. There is, however, no immediate need for e-payments.

CNFA – CNFA focuses on rural livelihoods and has received a \$14 million USAID grant from 2012-2017. Currently in its formative stage, the project aims to introduce supply of quality agricultural inputs through retailers. The project activities will be spread across 20 districts and 120 upazillas. The project will also provide \$1000 grants to 300 women to become retailers of agro inputs. It also plans to set up a \$250,000 credit guarantee facility.

All office expenses are made electronically or through cheques. Employees are paid through direct deposits and vendors through cheques. Currently there is no area to integrate with e-payments since operations are still under planning stages, but as the project progresses, there may be scope to introduce e-payments.

D.Net – D.Net is an NGO working primarily in health and education and has received a \$1.8 million USAID grant from 2011-2013. The Mobile Alliance for Maternal Action (MAMA) project provides mobile phone messages on pregnancy and maternal health in text and interactive voice recognition formats to pregnant women (six weeks old and above) and new mothers (child age up to one year).

These messages are also sent to their “gatekeepers,” i.e. husbands/mother-in-law. Women are registered to this service through a network of 1500 community agents. The number of registered subscribers stands at 100,000 across 35 districts. 20% of the subscribers have been selected from the underprivileged group. They are given the service for free.

All salary payments to core staff members are done through direct deposits. Grants from corporate partners and payment to vendor are done through cheques. D.Net has incorporated the use of mobile payments in the project. D.Net held discussions with both bKash and DBBL mobile banking. They are currently using DBBL mobile banking service in their project to pay 1500 community workers.

EngenderHealth – EngenderHealth has been working in Bangladesh since 1974 on availability of quality healthcare and has received \$12 million USAID grant from 2009-2013. Maya Hashi focuses on implementing family planning activities. The project is spread over all across the country. Their 21 priority districts are located in Chittagong, Sylhet, and Barisal divisions. Married couples are the main target groups. The project reaches out to target beneficiaries through the Directorate General of Family Planning (DGFP). The project provides capacity building training to DGFP field staff.

At EngenderHealth most payments are done either through cheques or through electronic transfer. In rural areas where bank branches are not available, expenses are met through cash advances. Mobile payments have been integrated into the project through bKash to pay data collectors 600 taka a month (a total of 500,000 taka is transferred monthly across data collectors) in very remote areas of the country.

Social Marketing Company – Social Marketing Company (SMC) has received a grant worth \$20 million from USAID. The project aims on distributing quality health products across the country. SMC is represented by twelve area offices and 101 sales officers who account for 800,000 transactions per year. The annual revenue of the company is between \$30-32 million.

Salary payments to employees at SMC are done through direct deposits. Vendors are paid through cheques. Minor expenses are met through cash payment. Sales collection from the field is collected through bank branches. SMC has spoken to bKash to use the service to collect daily field sales collections. Discussions are still ongoing.

Abt Associates – Abt Associates is implementing a project on “Strengthening Health Outcomes through Private Sector (SHOPS)” with a USAID grant of \$1.1 million. SHOPS is working with 50 facilities (hospitals and medical colleges) in Dhaka (35) and Chittagong (15). The facilities are being benefited from various capacity building activities, which will enable them to serve their clients better.

SHOPS does not provide any cash benefit to beneficiaries. Subgrants and salary payments are done electronically. Vendor payments are done electronically and through cheques. Small cash payments are done rarely. Management does not see any potential use for mobile payments in SHOPS as there are no cash transactions in their activities.

NGO Health Services Delivery Program (NHSDP) – NHSDP works with 26 local NGOs to provide health services, build capacity, and conduct behavior change campaigns with a \$53 million USAID grant over four years. They currently transfer money electronically to their NGO partners, who in turn handle all other payments. NGO partners pay Community Service Providers (CSPs) and pay for field expenses in cash. They have about 6,300 CSPs under NHSDP program. CSPs receive, on average, about 600 taka as honorarium and commission on drug sales.

NHSDP was interested in learning more about mobile payments and sees potential in integrating such payments with CSPs, and potentially other activities that their local partners undertake.

Dhaka Ahsania Mission - Dhaka Ahsania Mission (DAM) has been working in Bangladesh for over 50 years in various sectors. DAM, in consortium with CARE Bangladesh and mPower, is going to implement the five-year USAID Agriculture Extension Support Activity. The goal of the project is to strengthen the existing agriculture extension system in 20 districts in southwest and central Bangladesh in order to sustainably improve food security and nutrition for 200,000 vulnerable women and smallholder farmers.

At DAM, all salary payments are made through direct deposits. Vendor payments are done through payee cheques. When staff members go to the field they receive a cash advance from the head office as per travel rules. DAM sees the potential benefits of using mobile financial services and will explore possible application of the service in their programs.

Overall, partners tend to use payments in the following way:

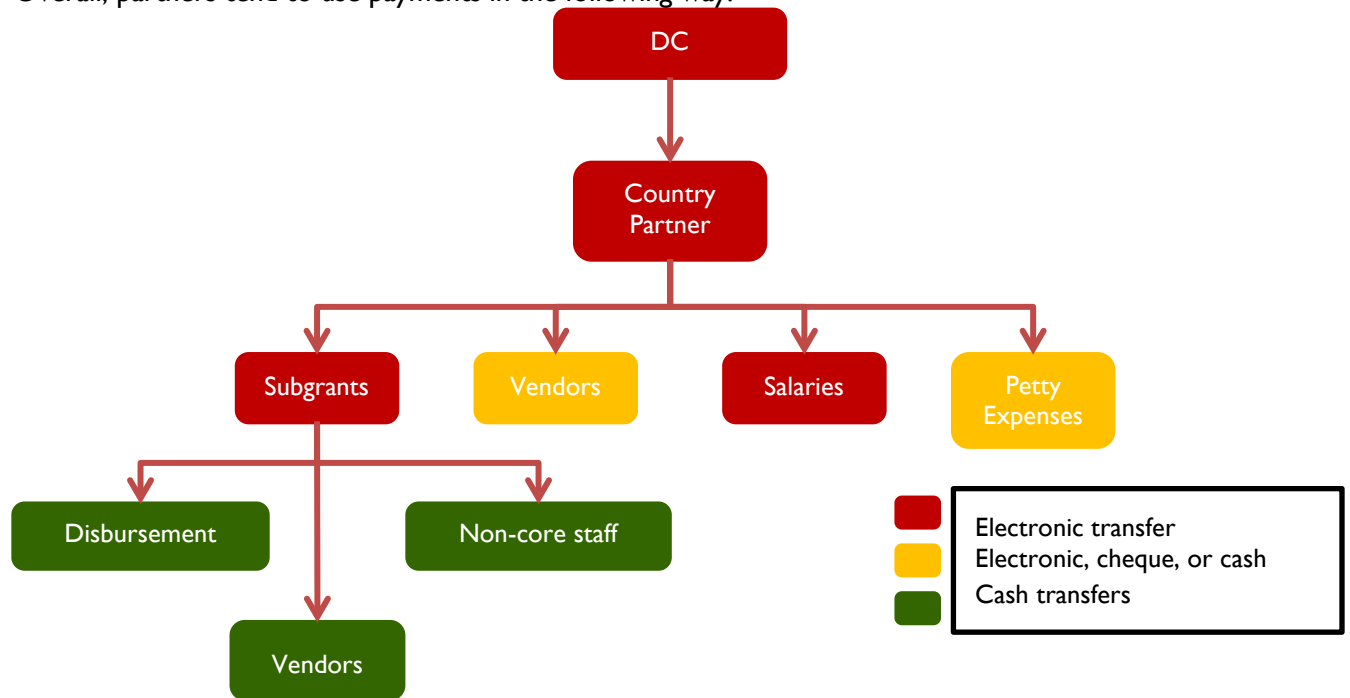


Figure 1: Payment flows within typical USAID Bangladesh implementing partners

Electronic transfers are common for shifting money between organizations or doing direct salary deposits; vendors and petty expenses are paid with a mix of methods; local organizations tend to use cash as their primary method. This information helps indicate where appropriate USAID interventions can be placed, and how the shift from cash to digital will change payment flows within projects.

2.3 Examples of Mobile Payments

Two successful cases of mobile payment application were identified by the SBI when meeting the various USAID implementing partners. These are MAMA, D.Net and Maya Hashi, Engender Health. Each is profiled below.

Project – MAMA, D.Net

Mobile Payments Provider – DBBL Mobile Banking

Purpose – Beneficiary Registration Incentive

D.Net uses 1500 community workers to register women to the MAMA Service. Community agents report to a point person in their area. 200 supervisors are working in the field. After filling up registration forms, community workers courier the document to the D.Net head office. Once D.Net completes its background verification, for each successful registration a community worker receives ten taka and the point person to whom he/she reports to receive two taka. Such payments are disbursed through DBBL mobile banking. D.Net also spoke with bKash, but decided that the terms and conditions offered by DBBL were better. All community workers received training on using their DBBL mobile wallet account.

Project – Maya Hashi, EngenderHealth

Mobile Payments Provider – bKash

Purpose – Data Collector Salary

EngenderHealth collects data about its targeted beneficiaries from three districts through 703 community workers. Each worker receives 600 taka/month for successful data collection. EngenderHealth would previously send out their employees with cash to these districts to pay the community workers. This proved to be a long and expensive process. To reduce the cost of transporting money, EngenderHealth decided to use mobile payments and spoke with both bKash and DBBL. After discussions Maya Hashi decided to use bKash to pay their data collectors. At the end of every month, Maya Hashi sends details on payment disbursement. bKash checks to see whether the numbers are operative and then sends a statement with the required charges for the transfer. Maya Hashi then issues a cheque in favour of bKash. Once the cheque clears bKash makes the transfer to the specified bKash wallets and sends a transaction statement to Maya Hashi. If any SIM is inoperative, bKash sends that particular amount back to Maya Hashi. The data collectors were given training on how to operate a bKash account.

2.4 Payment Challenges

All the implementing partners mentioned that they face no challenges when it came to making payments through bank transfers or cheques. EngenderHealth and D.Net are satisfied with the service they receive from their respective MFS provider. There are, however, a couple of areas that these two partners and others are facing challenges in addressing.

Bulk Transfers – Bulk transfers are those that occur in high number of transfers or high amount of transfers. EngenderHealth and SMC both are looking at MFS options for bulk transfers. EngenderHealth needs to make large payments for field expenses and SMC to collect sales collections (100,000 taka/day, on average) from their field staff. They mentioned that the daily transaction limit (i.e. 50,000 taka) through MFS is one of the main obstacles. However during discussions with bKash, the SBI team understood that the transaction limits apply only for person-to-person (P2P) transfers. There is no such limit for business-to-business (B2B) transactions.

Transaction Charges – The size of the transaction charge for transfer using MFS is acceptable for some partners whereas it has proven to be too high for others. For example, SMC has avoided using the service because their calculations indicate that the charge they will incur in transacting through MFS is higher than the cost incurred for their sales officers to wait in bank branches to deposit the sales collections. For example, a transaction charge of 1% on the average 100,000 taka daily sales is 1,000 taka. However, the cost of a sales agent per hour is, on average, 400 taka. Therefore, even if the sales agent has to spend two hours waiting in line, it costs 800 taka for SMC versus the 1,000 taka for a transaction fee.

Psychological Barriers – Implementing partners are also facing challenges in convincing their employees to take up MFS with a high level of comfort. WorldFish headquarters is trying to eliminate all cash payments across their operations. WorldFish in Dhaka gives cash advances to their employees to make vendor payments and to meet other expenses in remote areas of the country. To eliminate cash advances, WorldFish spoke with bKash and did a pilot in early 2013. The pilot proved unsuccessful as the employees were uncomfortable going to the field without the cash in hand. They also complained about having to wait in long queues to receive payments from agents. While WorldFish could enforce a policy to use only mobile payments, if the field staff is not comfortable with its usage, there may be limited utility and slow uptake.

These barriers – bulk payments, transaction charges, and creating a psychological shift – may be mitigated through targeted support.

2.5 Summary

The case for MFS in Bangladesh is strong, due to the conducive environment in which MFS is taking off. USAID Bangladesh's implementing partners are already using a variety of payment methods, from electronic transfer to cheques to cash. A few are integrating mobile payments. Since implementing partners are often working with other, more local, organizations in rural areas, they can also serve as the catalyst or gatekeeper to encourage further use of mobile payments. At the same time, partners have to overcome challenges when considering mobile payments, including ensuring its financial viability and shifting behavior patterns. Overall, partners are held accountable to certain metrics as part of their USAID grant, and would be interested in understanding how mobile payments may help achieve their targets. The next section on "Metrics" provides a review of the relevant metrics and suggests a way to integrate an appropriate set of metrics and results framework into a mobile payments program.

3. Metrics

One of the major components of SBI's scope was to suggest a set of metrics specific to the mobile money sector and propose performance measures linked to the country-level results framework and the global-level indicators for Feed-The-Future (FTF) and the Global Health Initiative (GHI). The goal of this exercise was to begin to develop a framework of metrics that USAID could use both within Bangladesh, and globally, to understand the impact of mobile financial services on broader USG policy objectives. In addition, such a framework would allow USAID Bangladesh to track performance in MFS initiatives according broader USAID mission goals. To undertake this exercise, SBI closely examined existing global mobile money indicators and then reviewed which indicators would be available for USAID to track in Bangladesh. Simultaneously, the team reviewed the global goals of Feed the Future (FTF) and the Global Health Initiative (GHI). At the request of the Mission Bangladesh, the SBI team also examined the relationship between mobile financial services and the Women's Empowerment Index.

SBI then examined how MFS objectives could advance these goals by identifying policy intersections that exist within and between MFS objectives and global indicators. Finally, the team identified specific performance metrics which could be linked to the activities the team identified during the portfolio assessment. The workflow process of this exercise is highlighted in Figure 2 below.

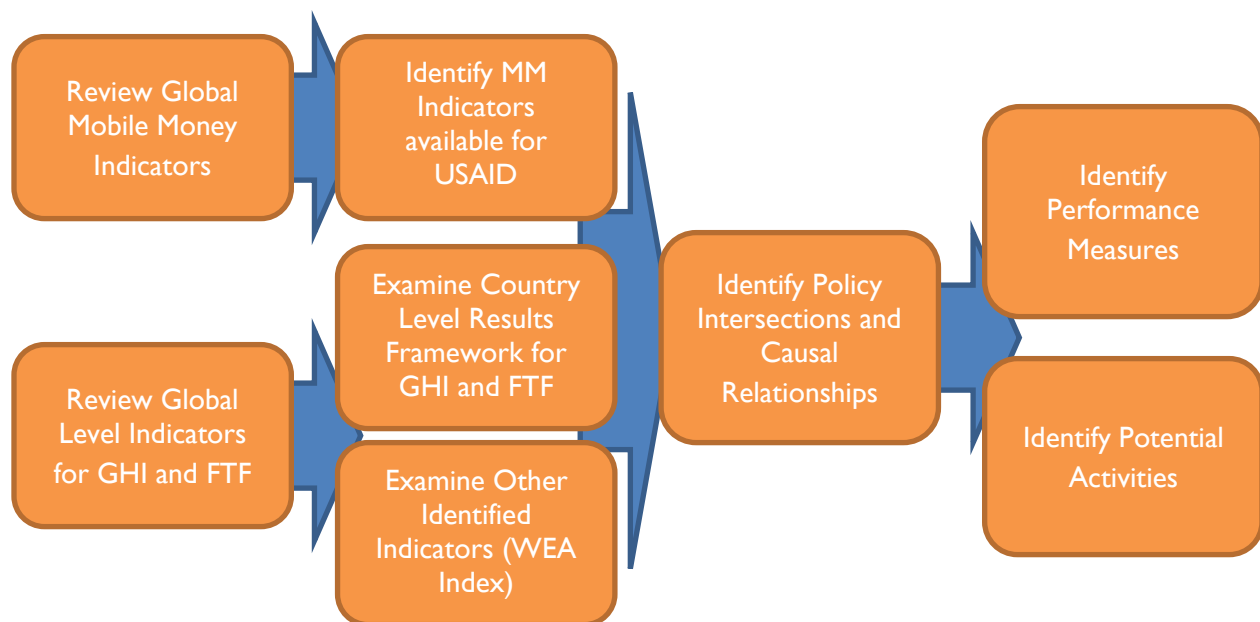


Figure 2: Metric workflow process

This approach allowed the SBI team to understand what MFS metrics would be appropriate for USAID Bangladesh to track and how those metrics would link to the broader development agenda

3.1 Mobile Money

Given the nascent state of the mobile financial services industry there are a wide variety of indicators that have been identified and developed. Many of these indicators are designed to allow donors, investors, governments and other stakeholders to track the health of the mobile financial services ecosystem and enable where mobile financial solutions may be underperforming or where additional investment or activities are required. Although there are no indicators that are universally accepted as

indicative of “success” there are broadly three categories of indicators: those designed to capture **acceptance** of service, **access** to service and the **utility** of service.

Indicators that target **acceptance** are often correlated to factors that are related to consumer awareness and market penetration -- the most obvious of these indicators would be number of users. **Access** indicators tend to be focused on the ability of target audiences – typically the poor and underbanked – to access these services. As such, indicators surrounding agents – either their location, hours or demographic profile – tend to fall into this category. Finally, **utility** indicators are often focused on product specific features – pricing, product characteristics and usage – which can indicate how useful consumers find these services.

However, while there are a wide variety of metrics that are tracked within various markets, comparisons across markets, or global indicators, are difficult due to the variety of regulatory, market, demographic, political and macroeconomic conditions that exist within markets. In addition, in highly competitive markets or markets with low levels of transparency, there are often very few publicly available indicators. It is worth noting that many of the most active donors and investors in mobile financial services that make funding available directly to implementing partners, demand and gain access to non-public information in order to create indicators.

As such, when identifying indicators that could be tracked in Bangladesh, SBI sought to prioritize those indicators that are publicly available or that USAID could reasonably expect to receive from implementing partners. The graphic below details a number of global indicators – in addition to those indicators, related to financial performance, that SBI often tracks in the course of our work with partners. The SBI applied a screen to these global indicators to prioritize those (in green) that USAID could track with minimal cost.

Customers (USAID MS Team)	Merchants/ Participating Institutions (USAID MS Team)
Number of Registered Users by gender	Partner Institutions Using mMoney
Number of New Users per Month by gender	Participating merchants
Number of Active(*) Users by gender	Pricing (USAID MS Team)
Customer Acquisition Cost*	Price per Round Trip Savings (Deposit and Withdrawal)
Average Savings (*) Balance in Wallet (in USD)	Price per Round Trip P2P (Deposit, Transfer, and Withdrawal)
Number of People who Use Branchless Banking for Savings	Revenue (USAID MS Team)
Agents (USAID MS Team)	Average Revenue per User per Month (by type)
Number of Agents	Average Revenue per Day per Agent (by type)
Number of Active Agents	Process (USAID MS Team)
Number of New Agents per Month	Countries Adopting regulatory reform (by type of regulatory reform)
Number of Users per Agent	Countries Adopting regulatory framework permitting interoperability
Agent Attrition Rate % (Closed Agents/Total Agents)	Countries Adopting regulatory framework permitting AML/ATF
Agent Acquisition Cost	Mobile Penetration (USAID MS Team)
Ongoing Agent Costs per Agent per Month	Mobile Money Penetration rate
Transactions (USAID MS Team)	Total Number Mobile Subscribers
Number of User Transactions per Month by type (*) by gender	Sponsor Performance (SBI)
Total Value of Transactions per Month by Type(*) by gender	Number of products
Number of User Transactions per User per Month by Type* by gender	Revenue of MFS product portfolio
Total Value of Transactions per User per Month by Type* by gender	MFS Profitability
Number of User Transactions per Agent per Month by Type*	Margin per transaction
Total Value of Transactions per Agent per Month by Type*	Profitability of Firm
Total Value of Transactions per User per Month by Type*	Firm Profitability Year over Year

These metrics are either publicly available or a version of this metric could be created based on USAID implementing partner data	Although not publicly available, these metrics could be provided by the Bangladesh Central Bank and are regularly updated	Metrics not captured by market participants or market participants are unlikely to provide
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Figure 3: Global mobile money metrics

SBI notes that those indicators in orange would be available from the Bangladesh Bank as they are provided monthly by all service providers in Bangladesh. Based on our meetings in country, SBI does not believe it is feasible for USAID to independently gather these metrics directly from MFS providers as it would require MFS providers to disclose material non-public information in a highly competitive market. However, SBI does believe that significant headway could be made in tracking performance based only on the metrics that are public or available to USAID (in green). Section 3.6 will outline how such indicators could be created to track performance.

3.2 The Global Health Initiative & Mobile Financial Services

SBI examined the global and country level indicators of the Global Health Initiative to determine what indicators mobile financial services could best advance. At a global level, SBI concluded that mobile financial services may be best positioned to improve programmatic efficiency both in direct efficiency gains (cost improvements) and return on investment for USAID. SBI describes “direct efficiency gains” as those efficiency improvements that have a positive financial impact on the program. For example, if an implementing partner is currently spending \$5 for a bank transfer and a comparable service is available for \$4 through mobile money, this would be an example of a direct efficiency gain.

“Return on investment” improvements are where the efficiencies of mobile money are realized on USAID’s part through improved programmatic performance. An example of a return on investment is if it takes an implementing partner two staff hours out of a ten hour day to complete a money transfer and that mobile money will allow this time to be used instead on programmatic activities. In a country like Bangladesh, where labor costs are low, two hours of staff time has a relatively low economic value – for example purposes, \$2. As such, a \$4 mobile money transaction (example) may not be financially superior to a bank transfer. However, if a program worker can increase his programmatic activities by 25% that may represent a significant return on investment for USAID – even if it slightly increases the cost to the implementing partner.

SBI sees scope for improvement on both direct efficiency gains and return on investment within GHI. The full diagram of indicators can be found in Appendix I. However, the team identified three specific indicators at the country level to target:

- Country Level Indicator 2.1: Expanded delivery of integrated essential population, health and nutrition services.
- Country Level Indicator 2.2: Improved service delivery through effective public private partnerships
- Country Level Indicator 3.2: Improved health support systems for efficient service delivery

The relationship between each of these indicators and mobile financial services delivery is more fully detailed in Sections 3.3 and 3.4.

3.3 Feed the Future and Mobile Financial Services

Similarly to GHI, SBI closely reviewed the Feed the Future (FTF) global indicators and the country level results framework. These can be found in Appendix I. SBI found that FTF goals aligned well with the potential that mobile financial services can provide. In addition to programmatic efficiency improvements – such as direct efficiency gains and return on investment which were detailed in the preceding section – there are direct causal links to agricultural productivity and economic growth. Specifically, the capacity of mobile financial services to expand financial access directly advances some FTF goals. In addition, national level results create scope for direct project linkages where efficiency improvements and

economic growth are targeted outcomes. The FTF results that can be targeted according to their relationship with mobile financial services can be found in the table below. In addition, the three GHI indicators have also been included.

Programmatic Outcomes	Mobile Money Outputs		
	Financial Efficiency	Return on Investment	Causal Relationship
Expanded delivery of integrated services (GHI-B)	✓	✓	
Improved public service delivery (GHI-B)	✓	✓	
Efficient service delivery (GHI-B)	✓	✓	
Improved Ag productivity (FTF)			✓
Expanded Markets and Trade (FTF)			✓
Increased Investment in Ag and Nutrition (FTF)			✓
Increased employment opportunities in value chains (FTF)			✓
Increase resilience of vulnerable communities (FTF)			✓
Gross margins per unit of land or animal of selected product (FTF-B)		✓	✓
% change of value of inter-regional trade in targeted agricultural commodities (FTF-B)	✓	✓	
Value of incremental sales (farm-level) (FTF-B)	✓	✓	✓
% national budget invested in agricultural & nutrition (FTF-B)	✓		
Value of new private sector invest in ag sector or value chain (FTF-B)	✓	✓	✓
Number of jobs attributed to FTF programs (FTF-B)		✓	✓
Prevalence of households with moderate to severe hunger (FTF-B)	✓	✓	
# of indiv who received USG ST ag sector productivity or food security training (FTF WoG)	✓	✓	✓
# of farmers and others who have applied new technologies or mgmt practices ...(FTF WoG)	✓	✓	✓
# of private enterprises, ... receiving USG assistance (FTF WoG)	✓	✓	✓
# of ... applied new technologies or management practices ..(FTF WoG)	✓	✓	✓
Value of agricultural and rural loans (FTF WoG)	✓	✓	✓

Figure 4: Programmatic outcomes and mobile money outputs

Those programmatic outcomes where SBI sees a causal relationship between mobile money outputs – improved access, acceptance and utility of financial services – are summarized below:

- Agricultural productivity is improved through greater access to finance, which reduces transaction costs and allows for expanded credit and investment.
- Expanded markets and trade are catalyzed by improved access to financial services and reduced transaction costs.
- Investment in agricultural and nutrition are made more efficient by mobile financial services.
- Increased employment opportunities are created by mobile financial services which employ people directly as agents and indirectly by reducing barriers to entry.
- Vulnerable communities are more resilient by MFS as they allow for easier payments and transfers to protect against shocks.
- Gross margins are increased by reducing transaction costs.
- Incremental sales values increase when MFS solutions open new markets and reduce transaction costs.
- Private sector investment increases through direct MFS investment and by investment that leverages expanded payment networks.
- Direct job numbers can increase through more efficient agricultural and nutrition programs that create new opportunities for advancement and promotion.

- Individuals and private enterprises served increase by making it easier for USG programs to reach new communities.
- New technologies are directly expanded to farmers through improved MFS.
- Value of agriculture loans increase through MFS services as the cost of providing financial services drops.

In addition to programmatic improvements and greater return on investment, these causal impacts strengthen the case for encouraging partners to adopt MFS solutions.

3.4 Mobile Money Performance Metrics

In order to determine how effectively mobile money is achieving the three types of impact identified – financial efficiency, return on investment and causal relationship, SBI identified specific goals associated with each type of impact and metrics that USAID could use to target these goals. These are summarized in Figure 5 below.

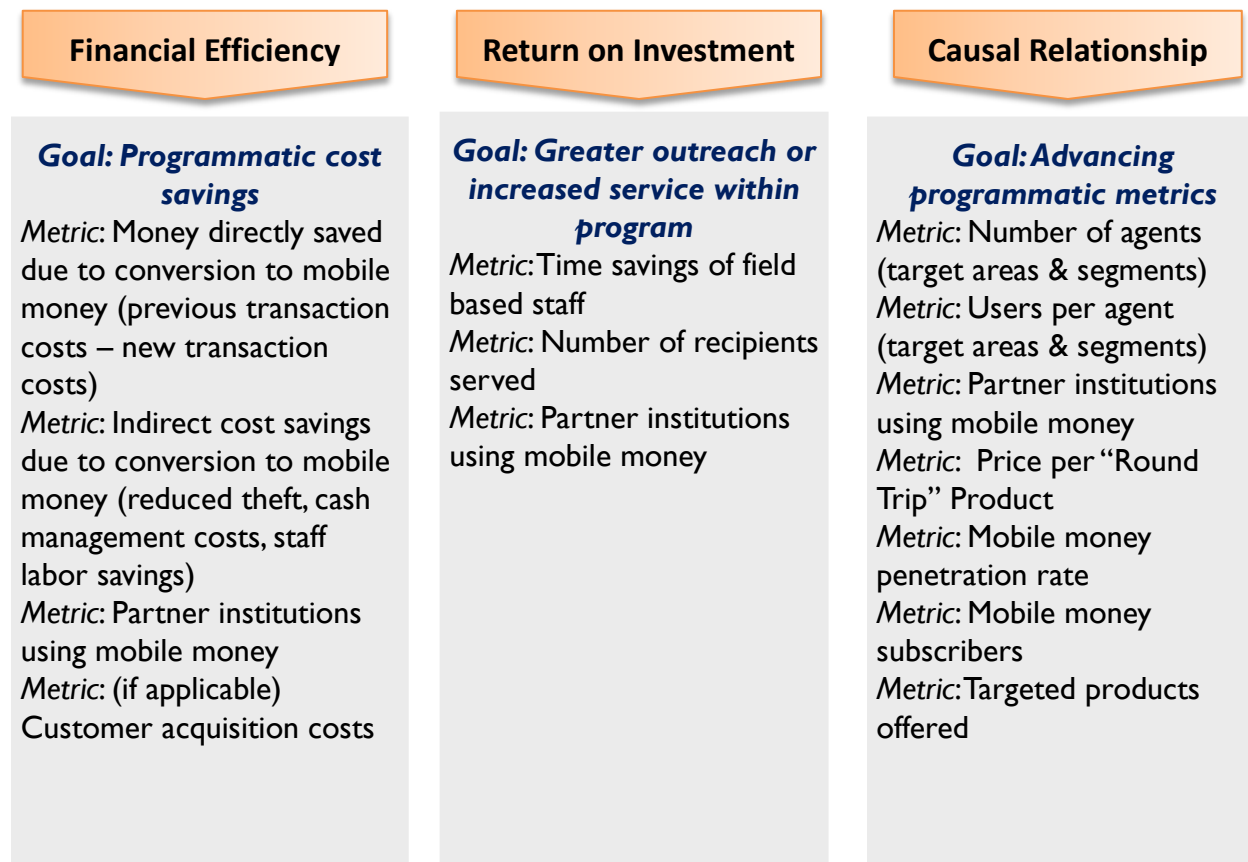


Figure 5: Mobile money performance metrics

Mobile money is capable of **improving the financial efficiency** of projects. As such, the goal should be creating cost savings within existing programs. To monitor progress on this front, USAID should draw on partners to track direct and indirect financial costs. USAID’s mobile money costing utility is helpful in this regard. In addition, USAID should also track the number of its implementing partners who use mobile money – as this would indicate that partners see an economic incentive to use the services – and, where applicable, customer acquisition costs. By customer acquisition costs, we refer to the costs that implementing partners incur to find and engage new recipients of services. An example of

a customer acquisition cost would be the cost of providing health services to targeted populations. If mobile financial services can reduce the costs of providing health services – such as by reducing travel time between remote clinic locations and financial institutions – the per-consumer costs of the service should capture this dynamic.

In cases where mobile money is being used to improve USAID’s **return on investment**, USAID should try to track indicators that correspond to greater outreach. Examples of these indicators would be the time savings of field based staff, the number of recipients served and the number of partner institutions using mobile money. Each of these indicators would indicate an increase in the scope and service of projects.

When using mobile money to capture **causal** impact the metrics should correspond to the logic that underpins the causal relationship, which depends on the specific requirements of each project. These should be designed in close coordination with implementing partners in order to ensure that the metrics will be available and that the integration steps required to integrate mobile financial services into operations is fully understood.

3.5 Additional Indicators

In addition to the GHI and FTF and indicators, SBI examined how MFS could advance innovate new indicators such as the Women’s Empowerment Index (WEI). SBI undertook this examination at the request of the USAID mission in Bangladesh. SBI’s examination identified three domains of the WEI where the expansion of mobile financial services could have a direct positive impact. These are related to resources, income and time and are highlighted in the figure below.

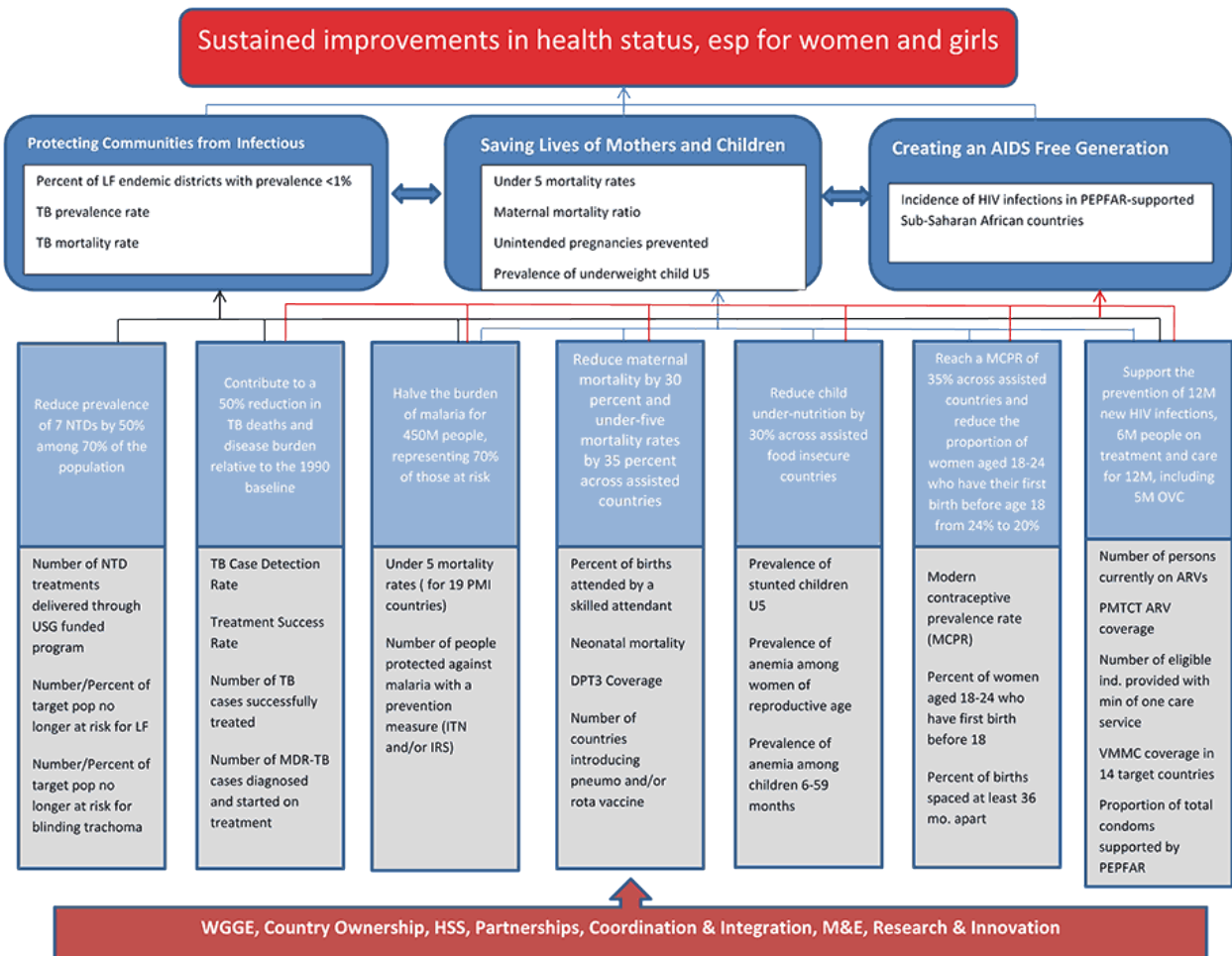
Domain	Indicators	Weight
Production	Input in productive decisions	1/10
	Autonomy in production	1/10
Resources	Ownership of assets	1/15
	Purchase, sale, or transfer of assets	1/15
	Access to and decisions on credit	1/15
Income	Control over use of income	1/5
Leadership	Group member	1/10
	Speaking in public	1/10
Time	Workload	1/10
	Letsure	1/10

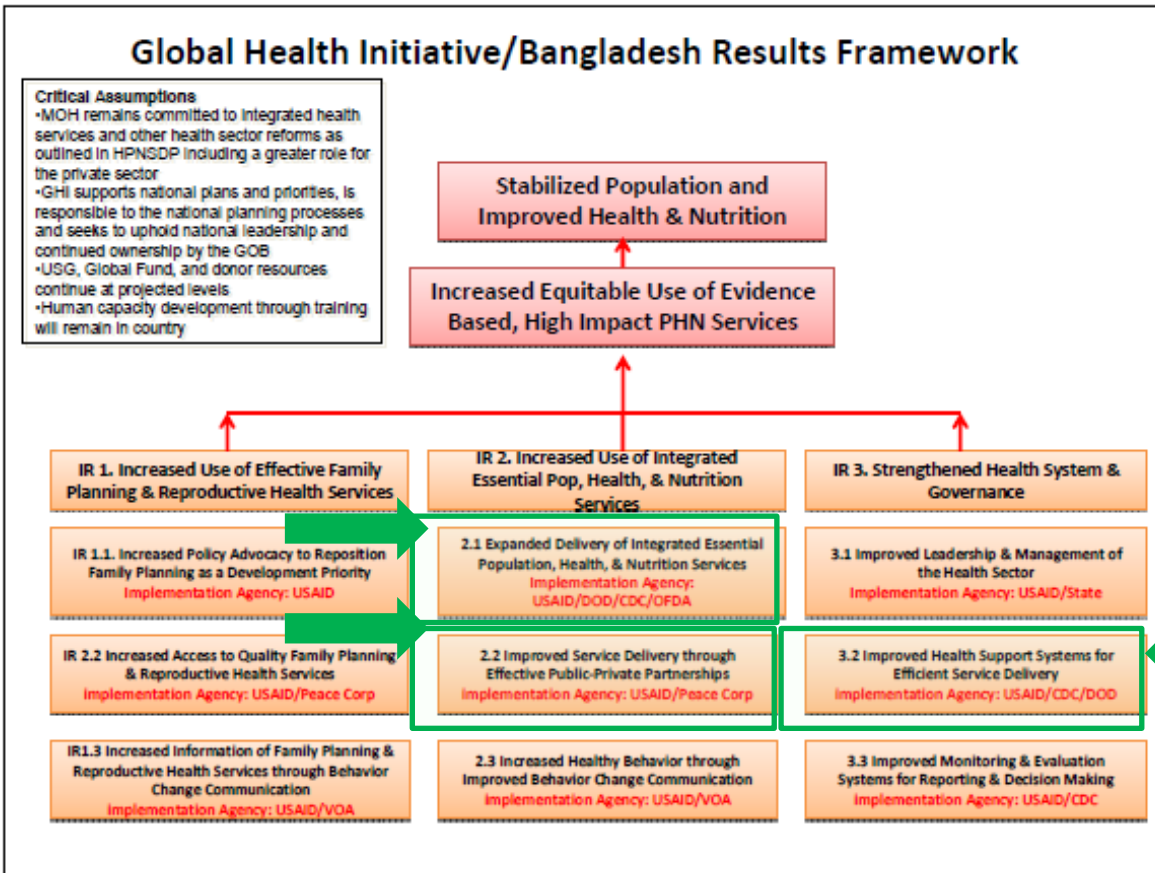
Figure 6: Women’s Empowerment Index

With respect to resources, mobile financial services empower women by giving them direct control over financial decisions. This can lead to increased ownership of, and access to, assets. Income is boosted by mobile financial series because they tend to create new income generating opportunities within and out of the home. Finally MFS reduces travel, waiting and transaction time having a direct positive impact on these metrics. As such, SBI concluded that MFS can directly contribute to the achievement of many metrics of this important policy initiative for USAID.

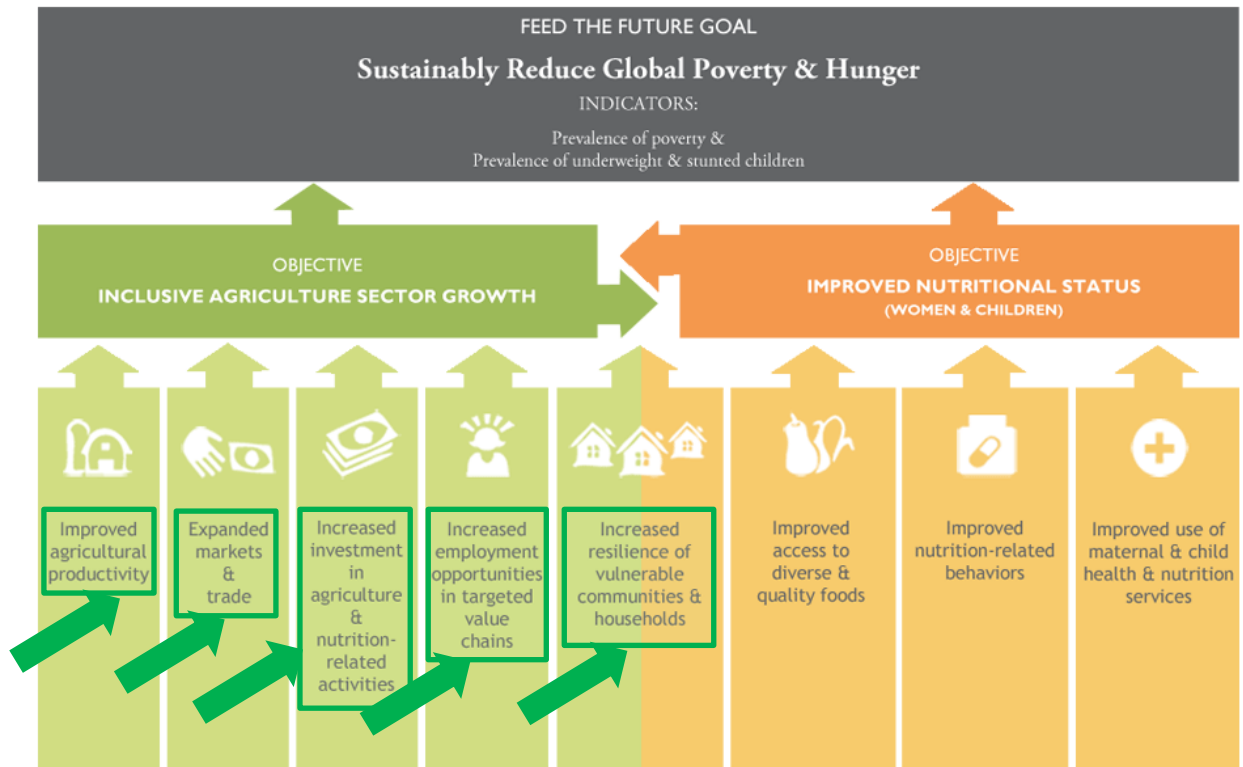
Appendix I: Metrics

Global Health Indicators Framework

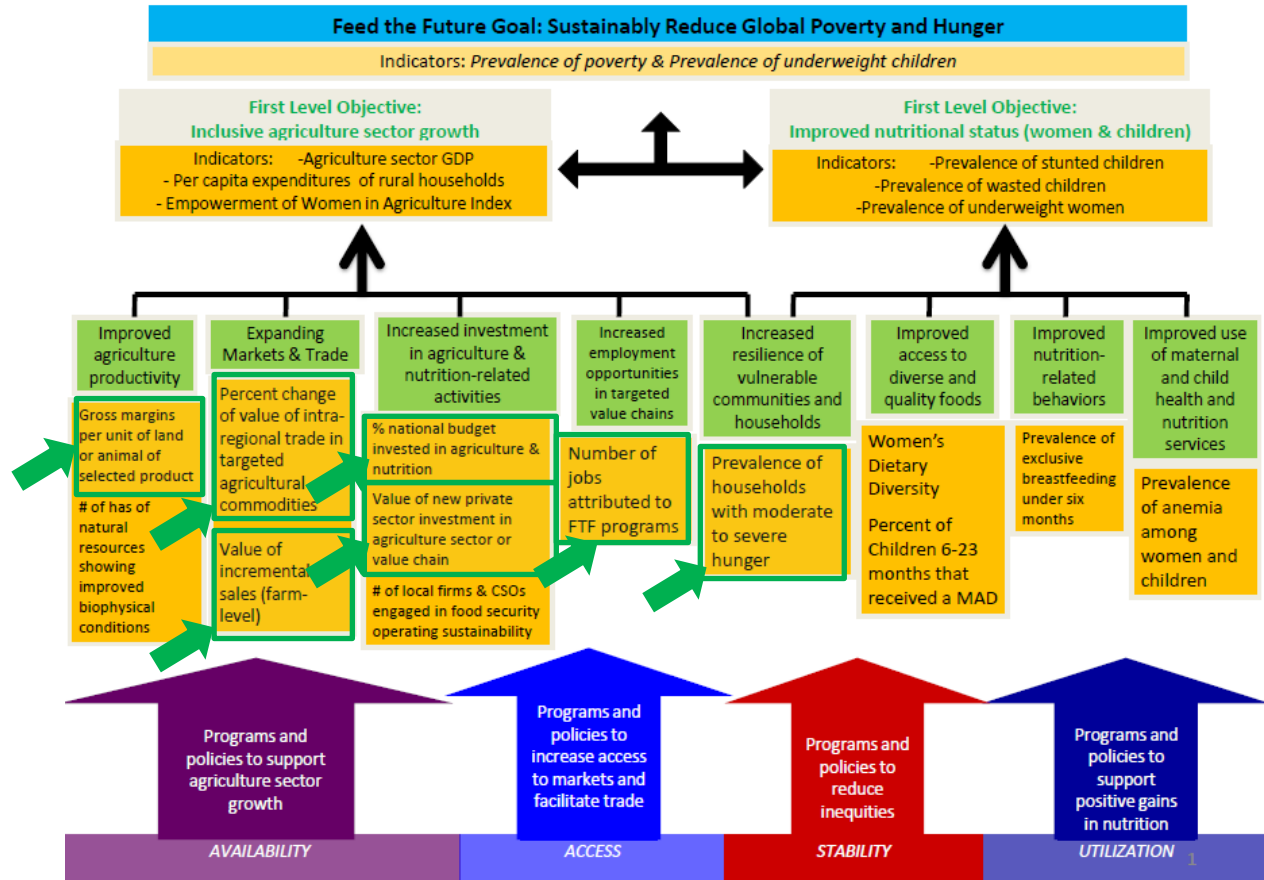




Global Feed-the-Future Framework



FTF Framework (Bangladesh)



Country Level FTF Framework (USG)

FTF Whole-of Government Common Indicators	
Improved Agricultural Productivity (output)	<ul style="list-style-type: none"> Number of individuals who have <u>received</u> USG supported short-term agricultural sector productivity or food security training.
Improved Agricultural Productivity (outcome)	<ul style="list-style-type: none"> Number of farmers and others who have <u>applied</u> new technologies or management practices as a result of USG assistance
Improved Agricultural Productivity (outcome)	<ul style="list-style-type: none"> Number of additional hectares under improved technologies or management practices as a result of USG assistance
Improved Agricultural Productivity (output)	<ul style="list-style-type: none"> Number of private enterprises, producers organizations, water users associations, trade and business associations, and community-based organizations (CBOs) <u>receiving</u> USG assistance
Improved Agricultural Productivity (outcome)	<ul style="list-style-type: none"> Number of private enterprises, producers organizations, water users associations, trade and business associations, and community-based organizations (CBOs) that <u>applied</u> new technologies or management practices as a result of USG assistance
Expanding Markets and Trade (output)	<ul style="list-style-type: none"> Kilometers of roads improved or constructed
Expanding Markets and Trade (outcome)	<ul style="list-style-type: none"> Value of Agricultural and Rural Loans
Expanding Markets and Trade (outcome)	<ul style="list-style-type: none"> Number of households with formalized land