SOBA

SIERRA LEONE OPPORTUNITIES FOR BUSINESS ACTION

Smart Subsidy Implementation Guide
Agricultural Inputs & Services
Sierra Leone 2017

Purpose of the Guide

The 'Smart Subsidy' Implementation Guide is a manual for those interested in implementing a market-oriented subsidy and learning from Sierra Leone's Smart Subsidy Pilot.

The document walks the reader through the implementation steps of the Smart Subsidy Pilot, which was led by SOBA in 2017. Though the Guide specifically addresses fertilizer subsidy led by Government of Sierra Leone (GoSL) and outlines an alternative approach for GoSL, it can be viewed more widely – by agencies and actors interested in undertaking a similar, market-oriented approach for a myriad of products and services (not least agro-inputs).

Many of the methodologies employed here may be utilized for adoption and further scale-up in 2018. However, it should be emphasized that the pilot was designed as a proof of concept and the primary purpose was to test, adapt, and learn. Accordingly, it is recommended that the Guide be read together with the Assessment and that the reader pay particularly close attention to the recommendations derived from pilot learning.

Table of Content

Background

About SOBA

Sierra Leone Opportunities for Business Action (SOBA) is a UK Aid funded private sector development programme that uses a market systems approach to facilitate pro-poor economic growth in Sierra Leone. The programme collaborates with private sector businesses in three primary areas: **(1) agriculture, (2) renewable energy, (3) professional services and entrepreneurship markets,** to trial and to scale innovative and inclusive business practices that reduce poverty and improve economic opportunities for poor women and men.

SOBA invests to improve ag-inputs sector performance in Sierra Leone. A better connected and more capacitated ag-input sector will create viable business opportunities among Freetown-based input distributors, provincial agro-dealers, and international input suppliers to pursue Sierra Leone's small farmer market with improved inputs and agricultural advisory.

Shifting GoSL support to underpin private sector agro-dealer and distributor performance will be vital to the sector's improved responsiveness to farmer needs. With this in mind, SOBA partnered with GoSL to test an alternative and private sector-led approach to its subsidy objectives in 2017.

Sierra Leone's Fertilizer Subsidy System

Sierra Leone does not have an extant fertilizer subsidization policy[1] . However, like many Sub-Saharan countries, the Government of Sierra Leone (GoSL) has allocated large portions of the Agricultural budget toward the purchase, transportation, storage and distribution of fertilizer. While these allocations have been interrupted during times of war (1991-2002) and other crises (viz. Ebola, 2013-2015), the GoSL continues to assume the role of the private sector and import, transport and essentially "give-away"[2] fertilizer through government channels.

Unfortunately, this subsidization is often done at enormous cost with little effect [3].

The GoSL's Ministry of Agriculture, Forestry and Food Security (MAFFS) has recently articulated a policy shift and desire to extricate itself from the "business" of fertilizer subsidies and to handover the procurement, transportation and sale of fertilizer to the private sector. SOBA applauds MAFFS' decision and agrees that the current fertilizer subsidies system is unsustainable. Moreover, the current system has unintendedly impeded the development of Sierra Leone's agricultural inputs market systems[4].

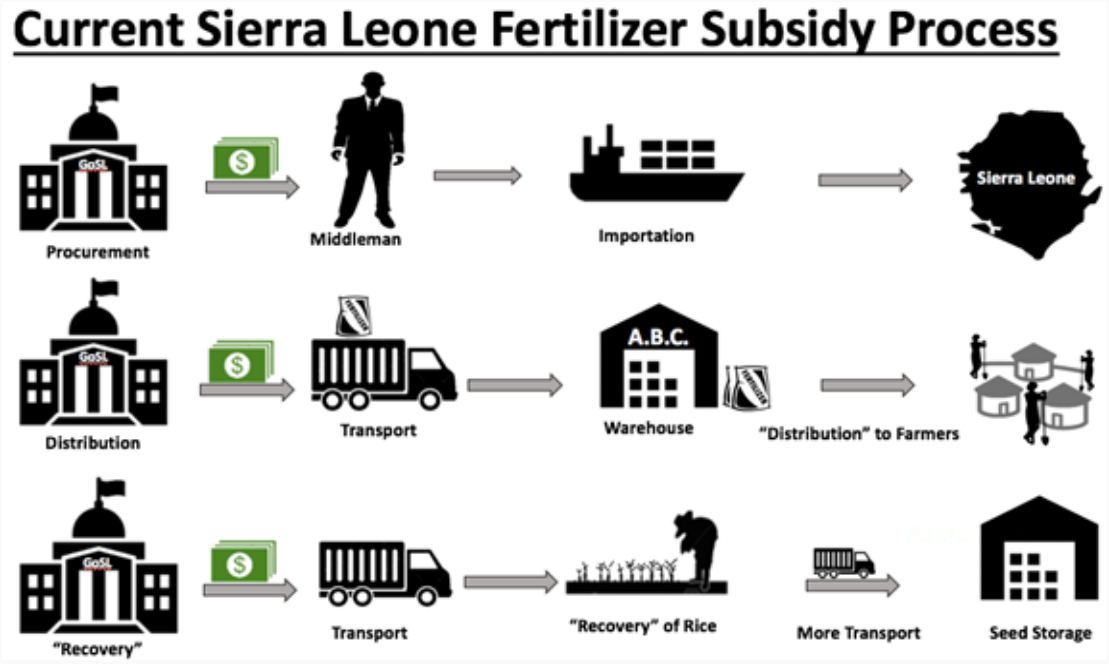
---

[1] As of the time of this writing, the Ministry of Agriculture, Forestry and Food Security (MAFFS) had concluded the first draft of a National Fertilizer Policy.
[2] Currently the GoSL requests payment in what they term "recovery" (post-harvest) of two 25kg bushels of rice seed for each 50kg bag of fertilizer. Ostensibly, this practice is to promote seed multiplication. In practice, much of the "recovery" seed is never collected and that which is, is deemed unsuitable for planting and is consumed.
[3] During meetings with MAFFS officials and the Honorable Minister, SOBA was informed that fertilizer procured by the GoSL during 2016 was at a landing cost of $60-$70/50kg bag (nearly double the global market price for the commodities.
[4] The current subsidy system disrupts market prices and dissuades suppliers from importing fertilizers and developing distribution systems and agent retail networks.

Figure 1: Sierra Leone's Costly Fertilizer Subsidy System

Accordingly, the GoSL and SOBA have been working to ensure a transition plan (from public to private sector) is in place which catalyzes the nascent, low capacity private-sector to take on the full responsibility of a market driven system.

SOBA carried out the 2017 Smart Subsidy Pilot and held multiple meetings with MAFFS' officials and the broader stakeholder community to open up discussions about the way forward.



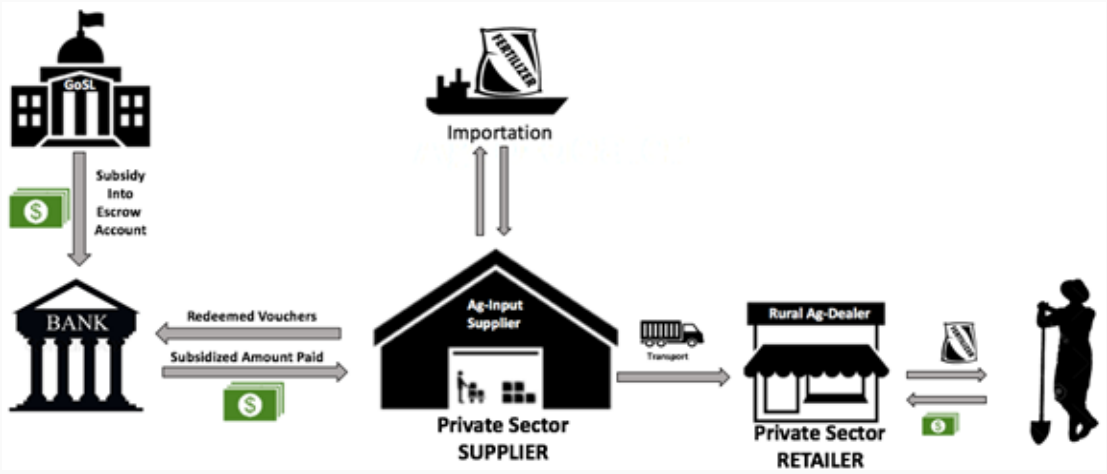


Figure 2: Proposed "Smart Subsidy" System

Overview of the 2017 Pilot Approach

The following is a high-level overview of the key elements of the 2017 Smart Subsidy Pilot. The objective of this section of the guide is to provide readers with information concerning SOBA's approach to the pilot, so that this approach can be reviewed and put in the proper context prior to designing a smart subsidy programme that operates at scale.

The 2017 Smart Subsidy Pilot was comprised of three phases: (1) Design; (2) Implementation; and (3) Post Pilot Assessment[5]. For the purposes of this guide we will focus on the Design and Implementation phases as well as the components of the Design Phase and the stages of the Implementation Phase.

1. Design Phase – includes careful thought on the following components:
   i. Geographic Scope;
   ii. Eligibility Requirements
   iii. Technology Use;
   iv. Budget;
   v. Selection of Lead Implementer and Service Providers;
   vi. Structure and Processes;
   vii. Trainings; and,
   viii. Assumptions and anticipated challenges.

2. Implementation Phase – includes stages such as:
   i. Awareness;
   ii. Registration;
   iii. Distribution (e.g. "coupons" and products/ services to be subsidized);
   iv. Redemption; and
   v. Reconciliation.

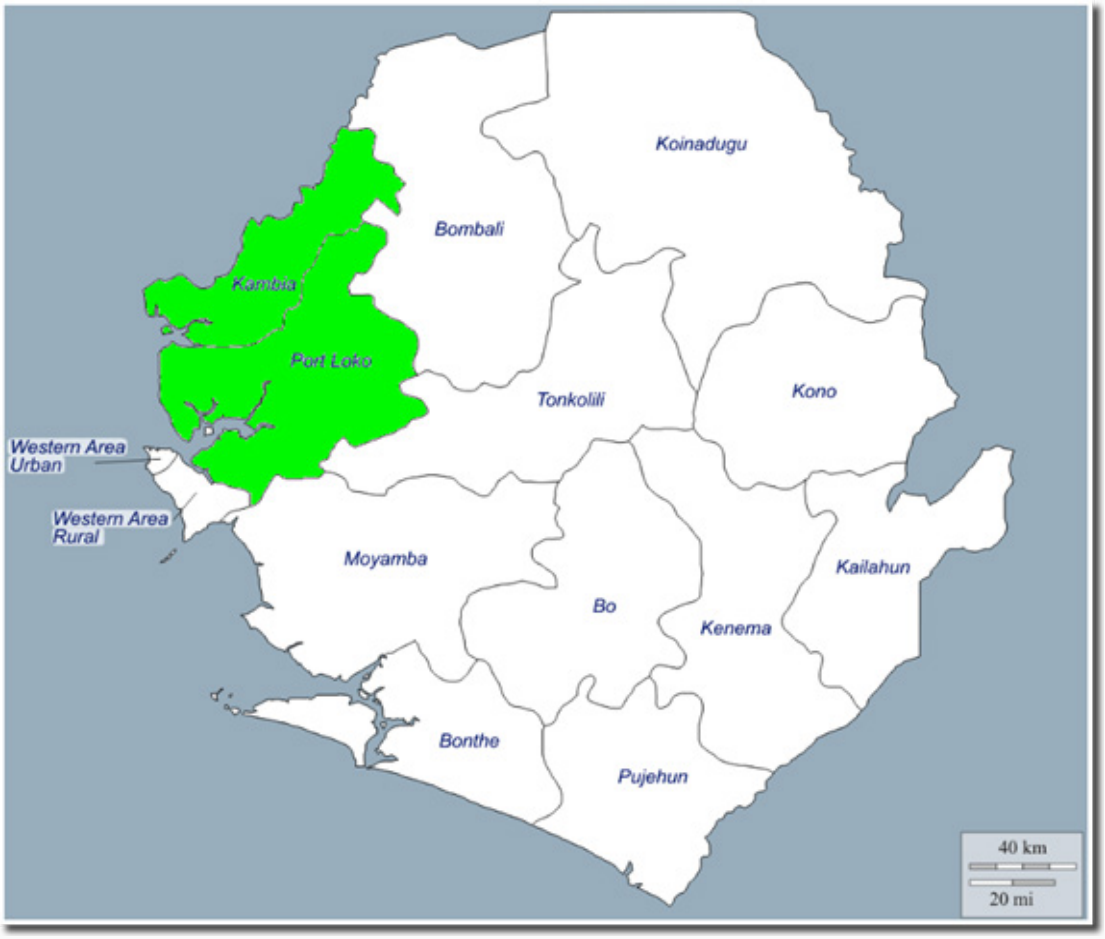
Note: Both the Design components and Implementation stages will be fleshed out in greater detail following this section (e.g. See Phase 1: Design).

[5] Please see the Post Pilot Assessment for additional information regarding this

Geographic Scope for the 2017 Pilot

Based on SOBA's project area and prior work with agrodealers, the pilot targeted farmers in two Districts: (1) Kambia; and (2) Portloko.

Figure 3: Pilot Smart Subsidy - Targeted Location



Headline Figures and Key Elements of the 2017 Pilot

Table 1: Key Elements of the 2017 Pilot

Private Sector Actors	Ag-input suppliers imported and distributed inputs to rural ag-input dealers on a cash, credit / consignment basis. Rural ag-input dealers promoted a "buy one get one free" limited time offer. Farmers presented their coupon, and remaining cash balance at the point of sale.
Product(s)	NPK & Urea (50kg bags)
Retail Price	250,000 Leones / 50kg bag
Subsidy Element:	50% discount off retail price of fertilizer Note; the higher the subsidy the greater the market distortion and incentive for fraud.
Registration Criteria	Smallholder farmer with an approved government ID, willing/able to pay 250,000 Leones cash for the non-discounted portion of the inputs.
Lead Implementer	SOBA
Service Providers	Nest Builders Incorporated
Stakeholders	Ag-input importer/supplier (TJAL), agrodealers, Smallholder farmers, MAFFS

Why Subsidize?

The following are some of the reasons why the GoSL and MAFFS may temporarily continue to employ subsidies for fertilizer or other products and services:

- Encourage private sector to invest in building their distribution networks to reach rural farmers.
- Encourage farmers to try new products or services that may be considered risky (e.g. hybrid seeds, alternative fertilizers) but will also return high value to farmers.
- Link farmers to agrodealers.
- Provide a stepping stone for particularly disadvantaged farmers Increase crop yields.

It is worth noting that even a "Smart Subsidy" approach disrupts markets and is ultimately unsustainable at scale. Accordingly, although it may be a more "market friendly" and transparent improvement over the current opaque subsidy system, the ultimate aim should be a fully functioning commercial ag-input market system, devoid of subsidies.

PHASE 1: Design

Discussions and eventual decisions around the following components are essential in shaping the overall design of the smart subsidy. In thinking

about each of the components below, it is best to contextualize each component and consider the types of stakeholders involved and their varying capacity levels.

A. Geographic Scope

The geographic scope of a smart subsidy programme is often a key element in determining how it is designed. While a small geographic area can usually be mapped out relatively easily by a small team -- as the size of that area expands, so do the required number of personnel and costs.

One way to contain costs (as well as maintain some semblance of order and monitoring) is to divide the geographic scope into zones. Accordingly, rather than take a "shotgun" approach across a vast region; by dividing it into zones, the implementation and monitoring teams can focus on one smaller region at a time.
Determining which specific locations the programme should operate depends on numerous factors: pre-existence of agrodealer shops; agrodealer shop's distance from farmers; capacity level of private sector; crops grown in that area; MAFFS' support; farmers' awareness, demand and willingness to purchase inputs; presence of other projects (giving away free inputs) in the area; among others.

The lead implementer needs to consider these factors carefully and work with other stakeholders to ensure that the programme locations are chosen wisely.

B. Eligibility Requirements

Eligibility requirements should be determined by the objectives of the programme balanced against the practicalities and burdens of implementing the smart subsidy.

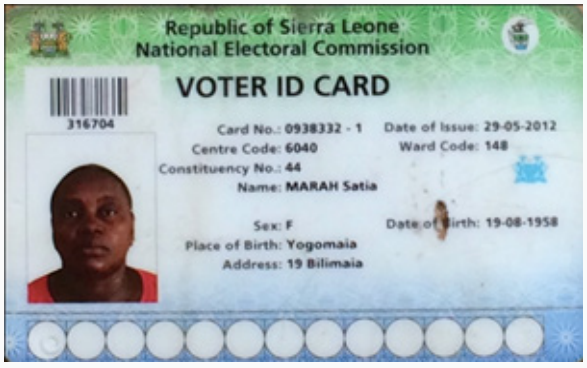
The following are examples of potential criteria that could be used in targeting farmers for the smart-subsidy. The lead implementer and other stakeholders will need to make a decision on what criteria should ultimately be utilized:

Farmer eligibility will be determined based on the following criteria:

1. Self-Proclamation as a small-holder farmer
2. Verification by local MAFF official (e.g. DAO/DCO) that the above is true
3. Valid Government Identification (demonstrating individual is 18+ years old)

a. Voter ID Card (2012 - present will be accepted)
b. National Identification Card
c. Driver's License
d. Passport

Photo 1: Example of a Voter ID Card



Note: Understanding the variables and the fields that are collected by the various governmental issuing agencies can be useful in designing the data collections features in the Registration software application / user-interface [6].

Ideally, if the Smart Subsidy permits individuals to register with different forms of identification

(e.g. Passport, Drivers License, Voter ID, National ID) then the registration should obtain information from as many of these forms of ID that the farmer has. By collecting multiple forms of eligible identification from each participant, you can cross reference data to identify whether individuals redeemed utilizing different IDs.

C. Technology Use

Although a "Smart Subsidy" need not be digital, analog (paper-based surveys, vouchers, receipts) systems are inherently less accurate, less efficient and more difficult to scale.

Accordingly, the 2017 Pilot focused on digital solutions to reduce data-entry errors, improve data access and usability (e.g. disaggregated report generation), and most importantly, increase transparency and accountability via digitally recorded transactions and biometrics (e.g. photographs of the farmer were captured at both registration and redemption as an additional means of verification).

Note: During the 2017 Pilot, all technologies and service providers were sourced within Sierra Leone.

Smart Subsidy systems should be custom tailored to the objectives they are designed to achieve.

Technology should not get in the way of obtaining those objectives, but rather, should be harnessed and utilized toward those ends. Determining which technologies to harness depends on understanding the unique (social, political, economic, geographic, infrastructural) context of the location(s) in which the smart subsidy will be administered.

Technology Use in Sierra Leone

Utilize technologies that work both online and offline. For example, data capture (e.g. Farmer Registration) should be digital but not dependent on mobile network coverage. In Sierra Leone, physical vouchers (rather than a mobile SMS message) are necessary during the Redemption Phase [7]. However, physical vouchers (such as the QR Codes used in the 2017 Pilot) can also be "smart" and leverage technology.

Figure 4: Types of "Voucher" System

[6] As of the writing of this Guide, Sierra Leones National Elections Committee NEC was in the process of registering and issuing updated Voter IDs in advance of the impending 2018 elections.

[7] Less than 40 percent of the population has access to a mobile phone or network.

The physical hardware (e.g. smart phone, tablet, etc.) must also be powered. When selecting a digital solution, ensure that the entire process is thought through. For example, if the battery on an enumerator's tablet computer is at 1% -- what can he/she do to ensure that they can continue working? Are there back-up power supplies? Solar chargers? Spare tablets / input devices?

Example 1: RFID embedded Smart Card

Smart Cards are contactless, plastic, dust and waterproof and contain a microchip and antennae that can be used to communicate with Near Field Communication (NFC enabled devices). Nearly all android based smart phones now contain NFC technology.

Figure 5: RFID Card

Note: These are the cards given out by hotels that allow you open your door just by putting the card close the handle.

Contactless Smart Cards are extremely durable. Accordingly, they could potentially be re-used from season to season, assuming the registered farmers who initially receive them, remain eligible for participation.

Example 2: QR Codes

Quick Response (QR) Codes are simply sophisticated barcodes. They can be custom-designed for individual, one-time use, or mass produced (like a coupon). For the 2017 Pilot, unique QR codes were printed for the total number of targeted farmers and laminated prior to distribution. Lamination is necessary to help assure the integrity of the code and increase the durability of the voucher.

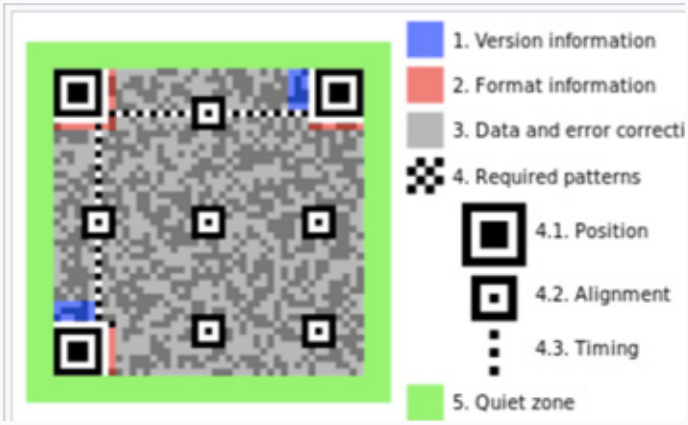


Figure 6: QR Code

Note: QR codes can be printed off any printer and are less expensive than Smart Cards, but also less durable and secure.

Recommendation: When using RFID cards or QR Codes (e.g. see section titled "Registration Stage"), make sure that the system is programmed to dynamically link the unique the card or QR-code with each Registered Farmer (e.g. generate a unique farmer ID for each registration record) at the time of registration. Once the link between the card and the farmer is created, you can give the farmer their QR-Code or RFID card.

This is both a time and cost-saving measure as it reduces the need for a separate "voucher distribution". In this case, the implementer would need to print (and laminate) unique QR codes for the total number of targeted farmers (plus 10% extra) and distribute them at the time of Registration.

Note: Some projects and programs spend considerable time and energy printing personalized cards (e.g. with the farmers' name and photo on the card). This is difficult to do at scale and often presents more problems than it solves.

Technology and Approach Used in the 2017 Pilot

All technologies utilized in the pilot were obtained locally in Sierra Leone. Each enumerator was equipped with an android mobile phone with a data collection application called SurveyCTO installed. SurveyCTO allows for customizable forms / questionnaires to be created and incorporates "friendly" User Interface (UI) features such as dropdown menus and radio dials in order to minimize errors and ensure data fidelity. Other features include the ability to incorporate photographs, GPS mapping, time stamps, secure logins, automatic syncing (when in networked coverage); QR-Code readability, among others.

Photo 2: Cellphone, Android Blu Advance ($70), SurveyCTO (subscription fee)

For more about SurveyCTO and its many features and uses, please see the following link: https://www.surveycto.com/index.html

In addition to utilizing the above hardware and software, the Registration process concluded with the distribution of coupons or vouchers containing QR-Codes (printed on paper and laminated in order to preserve the quality of the image).

Photo 3: Photo of QR-Coded "Coupon" or "Voucher"

D. Budgets, Payments and Reconciliation

Much of the design phase will be influenced by the budget. When fertilizer is involved in the design of smart subsidies, it often becomes the most expensive element of the smart subsidy. Fertilizer aside, there are other elements that require some deep thinking – especially in terms of budgeting: (1) team Structure and size; (2) transportation and lodging; (3) hardware; (4) software; (5) software engineer and on-going customer support; (6) trainings; (7) media related costs (e.g., radio, printing of manuals, banners, flag off events, etc.); (8) security; (9) ongoing Monitoring and Evaluation; and more.

In thinking through the process make sure to account for how the implementation will be paid (especially, if they will be required to remain in the field for long periods of time).

The design phase should also take into account the reconciliation process (see Reconciliation Stage below for more detail) and the following: (1) who will be paying for the subsidy; (2) when will it be paid; (3) what events trigger payment; (4) how should the process be structured?

Note: If the government is expected to pay a portion of the subsidy, then make sure that these funds are obligated and paid upfront and prior to the launch (viz. before the Registration Stage). For example, these government funds could be placed into an escrow account – as they will function as a guarantee and signal to the private sector ag-input importers/distributors that they will receive their payment.

E. Team Structure and Processes

The size and scope of the smart subsidy programme will also influence the team structure and processes that are developed for each implementation stage. Farmer Registration is usually the most important, time consuming and expensive stage of a well-run smart subsidy programme. If the budget is constrained and corners need to be cut, DO NOT CUT THEM DURING FARMER REGISTRATION. Why emphasize this point? The success of the smart subsidy programme depends on (1) who was registered; (2) the format in which the data was captured; (3) the data's accuracy; and (4) what insights and value can be gleaned from the information.

Regarding the above, take time to select a strong team (especially technologically skilled, quick and most importantly, accurate enumerators. Always emphasize accuracy of speed or you will confront a GIGO (Garbage In, Garbage Out).

Keep the number of data points (including bio data and questions) on the farmer questionnaire to a minimum (e.g. 40-50 data points at most) and try to avoid open-ended questions.

Note: In terms of developing team sizes, a good rule of thumb to use is that one enumerator can usually register 25-35 farmers/day (assuming the farmers are on site and queuing).

Sometimes smart subsidy implementers receive pressure from the government to hire and use government personnel (e.g. extension agents) to implement the programme. Recommendation: Do not second or hire government personnel to carry out the programme. Why? There are a number of reasons, but perhaps the most straightforward answer is that you want to make sure that there are clear lines of accountability and communication within your team.

F. Trainings

Once the geographic scope, eligibility requirements, technology, structure and processes are decided on, training materials should be developed for each stage of the implementation process and for each role and responsibility (including the roles and responsibilities of other stakeholders involved in the programme – e.g. private sector, MAFFS, other projects, etc.). Make sure the trainers understand the processes. One way to ensure this, is to pair trainers with the individuals who developed the smart subsidy processes during the actual training days.

Training of Smart Subsidy Team Supervisors should precede that of their direct report (e.g. Registration Supervisors should be trained before the enumerators). Both trainings should take place immediately prior to the registration stage. Training Supervisors prior to enumerators helps imbue them with the knowledge, confidence and subject-matter authority necessary to help establish them as leaders during the Registration phase. In the absence of time, Supervisors and enumerators can be trained together on the same day.

Trainings need to include the key elements of the Smart Subsidy Processes. For example, trainings conducted in preparation for the Registration

Stage would likely include the following topics:

1. Purpose of the Pilot
2. Establishing a safe environment for registration
    i. Location selection
    ii. Crowd management
    iii. Use of security personnel
3. Community Support / Interaction
4. Farmer Eligibility Requirements
5. Registration Process (operationally how it works)
6. Data Collection (w/ emphasis on accuracy over speed)
7. Roles & Responsibilities
    i. Daily set-up and tear-down, working hours
    ii. Respecting the individuals
    iii. Responsibility for supplies
    iv. Reporting fraud, corruption, dishonest dealings

Similarly, training topics and manuals/guides should be fleshed out for each of the stages in the implementation phase.

G. Assumptions & Anticipated Challenges

During the design phase, it is important to list each assumption so that it is explicitly known and can be tracked and ground-truthed prior-to and/or during the implementation phase.

Assumption Example:
Awareness levels regarding the benefits and appropriate use of fertilizer vary greatly from farmer to farmer, location to location.

The assessment of the 2017 Pilot revealed that the majority of vegetable farmers in the targeted districts understood the value of fertilizers and were more likely to buy fertilizers for their vegetables crops than for rice or cassava. However, it was observed that knowledge on proper application (e.g. timing, quantities, etc.) was still lacking.

Anticipated Challenge Example:

Sierra Leone is a frontier market. Long-term direct delivery of "free" or highly discounted goods (including ag-inputs), effectively de-couples those items from their costs and value. Various organizations and projects continue their direct delivery of ag-inputs to "beneficiaries" and many of those beneficiaries expect this to continue. Thus, asking farmers to put some "skin in the game" may be challenging in some locations where a "relief mindset" has been established and hand-outs are expected. That being said, the Smart-Subsidy approach represents an opportunity to move farmers toward a more sustainable model that treats farming as a business.

H. Reinforce a Commercial Approach

In Sierra Leone, the key objective of the Smart Subsidy Programme is to transition the responsibilities of input procurement, distribution and sales from the public to private sector in a responsible and transparent manner. In order to begin this process, it is important to shift the mindset of both public officials and the general public (viz. the farmers) from seeing ag-inputs as a public good or "entitlement" to seeing them as a private-good and an investment.

How do we shift this thinking?

Emphasize Economic Value and Loss – what are the costs of not buying fertilizers or other important inputs (improved seed, crop-protection products)? In focusing on what could be lost (e.g. take the average yield of the crop with fertilizer minus without fertilizer and state the difference in both volume and monetary value), you can begin to shift the thinking from "What will it cost to buy this product?" to "What will it cost me if I do not buy this product?"

Use commercial terminology to talk about the subsidy. So, for instance, rather than a "subsidy" call it a "special promotion" or "limited time offer". Rather than issuing "vouchers" to eligible farmers, provide them with "coupons" redeemable at local agrodealers' shops.

De-Politicize the subsidy. Historically, fertilizer subsidies are political tools often wielded by a politician or party to obtain/maintain constituents' votes. However, if the government is serious about exiting the "fertilizer" business, then encourage them to adopt commercial terminology as well and to put the focus on the private sector ag-input importers/distributors/retailers rather than the public sector.

I. Targeting Individuals vs. Groups

Although targeting individuals is always more time-consuming and costly than targeting groups, direct farmer targeting places purchasing power support (e.g. the coupon) directly in the hands of the individual, rather than a "representative" who may not always have the individual farmer's best interests in mind.

PHASE 2: Implementation

A. Overview of the Stages of Implementation

Stage 1: Awareness

"Awareness" refers to the communication process of notifying communities about the Programme. Awareness campaigns should be conducted one or two days in advance of the Registration, in order to provide ample time for the farmers to prepare (e.g. determine their interest in registering, locate their ID cards, ensure a means of transportation to the registration center, etc.).

Stage 2: Registration

"Registration" refers to the formal process of collecting data on smallholder farmers who opt to participate in the Programme. Farmers should be informed that the process is voluntary and that the information they provide will be used to determine whether they are eligible to participate.

Stage 3: Distribution

In the context of Smart Subsidies, "Distribution" usually refers to the act of physically distributing coupons (aka – vouchers) as well as the act of distributing the products that are to be redeemed with the voucher/coupon. In some cases, "distribution" of coupons/vouchers may be done virtually (e.g. via an SMS or text message).

Stage 4: Redemption

"Redemption" occurs when the registered farmer brings his/her QR-Coded Coupon to the designated participating agro dealer and provides the ag-input retailer with the cash balance in order to "redeem" the inputs. For example, during the Pilot, the farmer presented the QR-Code which was distributed at registration. The agro dealer (or assigned agent) then used an android smartphone to scan the QR code and verify the farmer's identity, eligibility and entitled discounts. Finally, the farmer paid the agro dealer the retail price for one 50kg bag (Le 250,000) and the agro dealer provided the farmer with a second bag at no additional cost.

Stage 5: Reconciliation

Reconciliation is the process of verifying the validity of each redemption in preparation for making payments to the private sector (viz. reimbursing the private sector for the subsidized portion of the inputs).

Reconciliation's verification processes vary according to implementer requirements, technology, robustness of the data, commitment of resources (personnel and time). Many processes can be automated (a quick check for duplicate IDs #, phone numbers, etc. can be conducted in a few minutes) while some require more attention to detail.

B. Awareness

In the context of a Smart Subsidy Programme, "Awareness" refers to the communication process of notifying communities about the Programme. Awareness campaigns should be conducted one or two days in advance of the Registration, in order to provide ample time for the farmers to prepare (e.g. determine their interest in registering, locate their ID cards, ensure a means of transportation to the registration center, etc.).

Awareness campaigns should utilize multi-media and mass communication when appropriate and

take into account cultural norms and sensitivities. Usually, the most effective approaches operate through a variety of communication channels (e.g. traditional leaders, lead farmers, politicians, MAFFS, Private Sector, town criers, radio, etc.) in order to ensure that the message and programme requirements, locations, dates and times are understood.

C. Registration

Location Selection

Registration ideally takes place in a central, easy to find location. Usually this will need to be a covered structure that can accommodate several tables and chairs, as well as queue of farmers. Note, for privacy and safety reasons, it is often best to have the majority of individuals queue outside or at least some distance (10 feet) from the enumeration table. School buildings, government offices, warehouses, or other covered buildings have been used in the past.

Data Collection

At its core, farmer registration is about data collection. Before the process begins, the lead implementer needs to determine what information will be collected during the registration process. This usually begins with a decision around Farmer Eligibility (discussed above) as establishing the bare minimum requirements. Even these bare minimum requirements often require 10-20 data points (aka "fields")

1. Type of ID Card
2. Date Issued
3. Unique Identifier (aka "ID #")

Some ID cards contain multiple numbers. Accordingly, make sure the team is familiar with which number is the correct one to enter!

4. First Name or "Given Name"
5. Last Name or "Family Name" or "Surname"
6. Middle Name [optional depending on culture]
7. Title (e.g. Alhaji, Pastor, Dr.) [depending on culture]
8. Year of Birth
9. District
10. Town
11. Chiefdom

Recommendation: to train the enumerators to enter the information exactly (even if there's a typo on the ID card) so as to ensure the data matches the corresponding ID document.

Additional information might include:

12. Mobile Number
13. Type of crops grown
    a. Primary Crop
    b. Subsistence (aka personal consumption)
    c. Commercial (selling to friends, relatives, markets)
    d. Do you use fertilizer on this crop?
        i. If yes, what kind
        ii. If no, why not
    a. Not available
    b. Too expensive
    c. Crop does not need fertilizer to grow
    d. Secondary Crop
    e. Crop does not need fertilizer to grow
14. Have you received MAFFS fertilizer in the past?

This list can go on and on.

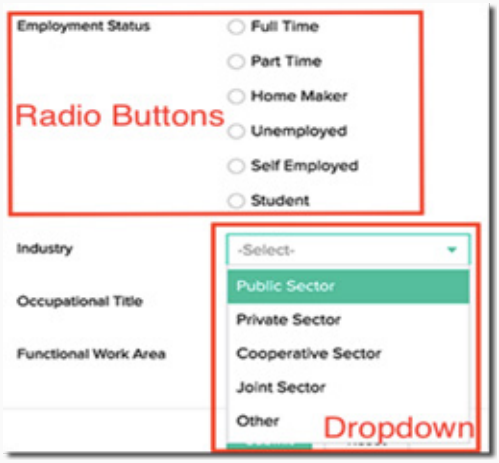
Recommendation: Keep this registration process focused and try to only include the essential questions that are needed (e.g. bio-data and

questions re: identity). The more fields there are, the longer the process takes!

Please see ANNEX

Data Collection Tools (Tablets or Paper?)
Emphasis should be placed on electronic registration and direct entry of data (e.g. onto a tablet or smartphone). Drop-down menus and radio buttons should be maximized to reduce manual data-entry and expedite the registration process.

Figure 8: Example of User Interface Features



By utilizing well established technologies (smart phones and/or tablets) you can eliminate the need for a second round of data-entry (where additional errors often occur). Moreover, many tools now include beneficial features, such as: geo-caching and GPS coordinates of each entry; time-stamps; entry logs (that permit you to identify which enumerator captures the data); prompts (e.g. error messages that guide the enumerator to correct mistakes like entering today's date as the person's date of birth).

Creation of Registration Roster

During the Farmer Registration, the implementer may want to create a hardcopy roster (viz. a list of farmers who registered) in order to provide an additional backup of information in the case of a technology mishap (e.g. broken or misplaced tablet, software bug, or virus).

Roster 1: Registered Farmers List
Roster 1 is a simple pared down list of the farmers' bio data and usually includes those minimum requirements like geographic location, first name, last name, sex, age, type of Government issued ID card and that cards unique ID #. Again, the purpose of this information is simply to provide a back-up in case the data collected on the tablet or smart phone is compromised.

Note: This list may also be used during the Awareness Stage as a means of informing the community who is eligible (viz. "registered") to participate.

Awareness Stage

The lead implementer or a contracted Service Provider will be responsible for informing community leaders, the District Agricultural Officer (DAO) and lead farmers of the dates and times for the Registration (and coupon/voucher distribution), the requirements for participation, the intended period of redemption and the agrodealer/agent locations where the farmers can redeem their coupons

Team Training

In addition to technical training, Enumerators must be trained on their roles and responsibilities regarding the farmer's identification (e.g. NO PROXIES are permitted which means each farmer must show up in-person), properly photographing farmers (recommend setting-up a white background (bed sheets work as does flip-chart paper) in a well-lit location (this can be outside or inside), issuing the "coupons" and ensuring the unique identifier on the coupons are linked to the farmer's record.

Note, Enumerators must also familiarize themselves with the objectives, rules and regulations of the program. This can be done by providing each enumerator with a formal "Roles & Responsibilities" sheet, which should be signed and dated by each enumerator. This document helps to convey the seriousness of the position and encapsulates the key responsibilities (e.g. including fraud prevention and a duty to report any questionable activity that is witnessed).

D. Distribution (i) Subsidy Coupons (aka "vouchers"); & (ii) Ag-Inputs

(i) Distribution of Subsidy Coupons (aka "vouchers")

Ideally, Coupon Distribution is done concurrently with registration. So, if a farmer is deemed eligible and registers, then he or she gets their coupon/voucher (for future use). This method becomes much easier to do when the smart subsidy system and corresponding coupon is medium-to-high tech. Why? Because then the coupon need only contain its own unique identifier (this might be something so simple as a code or a serial number) that is dynamically linked to the specific farmer who is registered. This was the approach taken by the 2017 Pilot.

Note re personalizing coupons/vouchers: In most cases, a concurrent distribution means that the coupons cannot be personalized in a formal way (e.g. as it is usually too costly, time-consuming, or impractical to do same-day printing on location). However, the coupons can be pre-printed (e.g. QR codes, or RFID cards) – and, so long as they have unique ID #s that can be dynamically linked to each farmer record, they can be issued to the farmer at the conclusion of the registration process. In this case, it is permissible and even encouraged to allow the farmer to place an identifying mark on his/her coupon. For example, the name could be written on a piece of masking tape and affixed to the plastic or laminated coupon. This helps ensure that the individual's coupon could be re-identified if it were lost or dropped or mixed in with other coupons.

Note re: mobile phones and "e-coupons": There are still large swaths of land without mobile network coverage and many smallholder farmers still do not own a mobile phone. For those that do, the phones are often older models with very little storage capacity for SMS messages (and often the "Inbox" is already filled.

Accordingly, delivering e-coupons or mobile vouchers to smallholder farmers phones is not a recommended path. This is one of the main reasons the 2017 Pilot focused on technologies that could be utilized in an out-of-network setting.

Distribution of Coupons: Who and How Long Should It Take?

Coupons/vouchers should be distributed by the lead implementer staff or an appointed (and accountable) service provider.

As mentioned above, ideally, coupons are distributed by enumerators as the final act of the registration process. This reduces program costs as well as the costs the farmers incur for transportation and time away from their farms or other jobs.

However, should an independent distribution be necessary, the speed and duration of the process depends on a number of outside factors: additional community awareness, number of farmers coming out to participate; weather; preparedness and speed of the staff etc.

Location / Distribution Points

Ideally, coupon/voucher distribution will take place at the same time and place as the Registration. Usually, public buildings or other covered, well-lit gathering points can function as designated registration points. Take care to choose a central location if there are numerous surrounding villages.

In the rainy season, this location must be covered and be able to accommodate large numbers of people. The community should also be asked to provide a table and two chairs (enumerator and farmer) for each Team Member.

Security

No Smart Subsidy programs are perfect. There will always be individuals who attempt to subvert the rules for extractive financial gain. However, with supervision, training, a well-designed programme, specifically targeted farmers, and a decent pool of honest agrodealers, then usually more than ninety percent of fraud can be avoided and much of the other 10% can be detected (with proper measures in place).

Team Structure

The Registration / Coupon Distribution team largely depends on the size and scope of the smart subsidy system. For example, if the programme is registering more than 100,000 people, you may want 10 smaller teams comprised of 10 individuals in order to register that many people. Ideally, the smaller teams will be no fewer than three individuals (e.g. two enumerators and 1 supervisor) and no more than 10 (9 enumerators and 1 supervisor).

Recommendation: Never send just one person into a community to conduct enumerations.

(ii) Fertilizer Distribution

Role of Ag-input Suppliers & Agrodealers ("agents")
Ag-input suppliers and participating ag-retailers play key roles in building and strengthening the private sector's distribution channels. Suppliers who seek to expand their distribution and agent networks (e.g. TJAL) invest time, energy and money to identify and build the capacity of retail agents with whom they can work.

In addition to their supplier's requirements (to be an agent), Participating agrodealer agents **must be able to adhere to the requirements** of the Smart Subsidy and must be able to safely and properly

store enough product in order to provide the anticipated number of farmers with fertilizer for the pilot.

Agrodealer Selection

Selection of agrodealers (retail agents) shall be done through the joint effort of the Lead Implementer and participating suppliers. In order to participate, these agents must:

a. Be willing to participate;
b. Receive training on product knowledge and business skills;
c. Demonstrate their commitment by signing an agrodealer "Roles and Responsibilities" form, including a promise not to engage in any fraudulent self-dealing (e.g. paying cash-strapped farmers a small portion for their coupon in order to "redeem" the fertilizer at the discounted price).

Additionally, if agrodealer /agents are receiving products on credit/consignment they will likely need to enter a contractual agreement with their wholesaler/supplier, promising to transact business (properly receive the cash and coupons from eligible farmers) and to reimburse the supplier for the sale of each product.

Physical Distribution/Transportation of the Ag-Inputs (e.g. Fertilizer)

The private sector assumes responsibility for the distribution of the products and services (informing farmers of the proper and safe use and application of the product -- e.g. participating agrodealers should be trained on product knowledge and proper handling/usage and encouraged to share information with farmers on how to safely store and apply products on their various crops).

Period of Fertilizer Distribution

The suppliers' (e.g. TJAL) delivery of product to agrodealers' and/or storage facilities located near the agrodealer's shop or the farmer group – should take place after Registration and shortly before Redemption Phase.

The idea is to utilize the knowledge (e.g. each location's number of registered farmers) learned from the Registration to inform the suppliers about how much product (e.g. how many bags of fertilizers) they should deliver to the various distribution points. While a smart subsidy program is much more structured than actual market signaling, this knowledge (re: how many people registered for the smart subsidy) helps inform the private sector of the approximate demand and correlated quantities of product that needs to be distributed.

Since most locations in Sierra Leone will be accessible by vehicle within a 24 hours period of time, the distribution period is somewhat flexible. However, proper supply chain management can go a long way to reducing the number of disputes and problems made by disgruntled customers who may have spent hard earned money and time to travel to the agent's shop (only to find it empty of goods).

Training of Agro-Dealers

Agrodealer/agents should be trained by wholesaler/suppliers and the lead implementer in order to ensure they best understand their roles & responsibilities in the program.

Training topics:

1. How to document the receipt of the fertilizer from TJAL

i. e.g. A "waybill" is a document issued by a carrier giving details and instructions relating to the shipment of a consignment of goods
2. How to store the fertilizer
3. Re-packaging requirements (if any?)
4. How to weigh the fertilizer (note: scales should be provided by distributors to each agrodealer/ agent – as a value-added trust building exercise). Agrodealers could also encourage farmers to weigh the 50kg bags as way of building trust with their customers.
5. How to conduct the coupon and cash transaction
    i. How to verify farmers identity, collect cash, issue receipt, etc.
6. How to correspond with the farmers and authorities regarding product quantities, cash, and transportation of goods.

E. Redemption

"Redemption" occurs when the registered farmer brings his/her QR-Coded Coupon to the designated participating agro dealer and provides the ag-input retailer with the cash balance in order to "redeem" the inputs. For example, during the Pilot, the farmer presented the QR-Code which was distributed at registration. The agro dealer (or assigned agent) then used an android smartphone to scan the QR code and verify the farmer's identity, eligibility and entitled discounts. Finally, the farmer paid the agro dealer the retail price for one 50kg bag (Le 250,000) and the agro dealer provided the farmer with a second bag at no additional cost.

Note: Larger private sector suppliers/distributors (e.g. TJAL) permitting fertilizers to be sold on consignment via their agents need to be very clear that their agents do not have a right to the cash collected – as it owned by the larger distributor, until purchased by the farmer – at which point, the distributor has the majority interest in the value of the coupon. This clarity would best be realized by agreements between the lead suppliers and each agrodealer. However, the implementer may need to facilitate the creation of such an agreement.

During the pilot, NBI trained staff were posted at each participating agro-dealer's redemption point, in order to provide guidance, support and supervise the redemption process.

Farmer's Failure to Redeem Coupon within Stated Time Period

The period for redemption (the actual purchase of the fertilizer from the agrodealer shops) should be clearly stated and communicated to each community. If carried out well, the awareness campaign can encourage a more rapid redemption process by permitting farmers with enough time to raise the funds they need and creating a sense of urgency regarding the "limited time offer" of the coupon.

If a farmer fails to redeem his/her coupon during this time, then the value of the coupon is forfeited and the coupon is considered null and void.
Note: it is best not to put dates on the physical coupons/vouchers since these may be able to be used in subsequent years.

Coupon Tracking / Collection

"Coupon tracking" means collecting information about each coupon that has been redeemed. In an electronic system, this will be done automatically (each redemption is tracked in the application in

multiple ways – e.g. 1. the QR code is recognized and recorded; the farmer's photo is taken for a 2nd time) 2; in a paper-based system, each coupon/ voucher usually must be physically collected and recorded (and sometimes thumbprints are taken as a security deterrent).

Recommendation: Each day when coupons are redeemed, the appointed Fertilizer Supervisor (a member of the Implementing staff or partner service provider) and the agro-dealer should maintain separate records of who redeemed their coupons. The agrodealers records may simply be the carbon copies of the receipts they've written. If that is the case, make sure they are legible. The Supervisors "Redemption List" may be generated on their tablet computer or may be a written list containing essential details like the farmer's name, age and gender as well as the unique number (designated by the Pilot Implementer). At the end of each day, these lists should be compared for accuracy.

F. Reconciliation

Reconciliation Committee

Normally, the primary purpose of the Reconciliation Committee is to certify when the criteria for payment are met. This certification, immediately triggers payment (e.g. from the escrow account to the ag-input supplier account). Secondary purposes include reviewing reports, investigating anomalies, and mediating disputes (e.g. between government and private sector).

The lead implementer and other key should determine whether an official committee will be necessary and if so, who comprises the committee. Should any disputes arise, emphasis should be placed on Alternative Dispute Resolution (ADR) methods such as mediation.

Recommendation: Keep the committee small, make sure all members understand the purpose and ensure that the committee is comprised of respected, decision-make.