The SAVIX MIS Mobile data application: Setup and use
# Table of contents

<table>
<thead>
<tr>
<th></th>
<th>Background and application architecture</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Why a mobile application was developed</td>
<td>3</td>
</tr>
<tr>
<td>1.2</td>
<td>How the mobile application and the SAVIX MIS relate to each other</td>
<td>5</td>
</tr>
<tr>
<td>1.3</td>
<td>Basic architecture of the mobile application</td>
<td>7</td>
</tr>
<tr>
<td>2</td>
<td>Installation and linking the application to a project</td>
<td>10</td>
</tr>
<tr>
<td>2.1</td>
<td>Downloading and installing the application</td>
<td>10</td>
</tr>
<tr>
<td>2.2</td>
<td>Linking the application to a project and to a specific Field Officer</td>
<td>14</td>
</tr>
<tr>
<td>2.3</td>
<td>Downloading portfolios of single and multiple Field Officers and switching between them</td>
<td>18</td>
</tr>
<tr>
<td>3</td>
<td>Already registered Groups data entry and editing</td>
<td>23</td>
</tr>
<tr>
<td>3.1</td>
<td>Group list and static data editing</td>
<td>23</td>
</tr>
<tr>
<td>3.2</td>
<td>Adding cycle data and main dataset</td>
<td>28</td>
</tr>
<tr>
<td>3.3</td>
<td>Adding SDFs, UDFs and NDFs</td>
<td>32</td>
</tr>
<tr>
<td>3.4</td>
<td>Saving, Synchronising and viewing the Group performance report</td>
<td>35</td>
</tr>
<tr>
<td>4</td>
<td>Adding a new group</td>
<td>40</td>
</tr>
<tr>
<td>4.1</td>
<td>Creating a new group and entering static data</td>
<td>40</td>
</tr>
</tbody>
</table>
1 Background and architecture

1.1 Why a mobile application was developed
Reason 1

- The SAVIX MIS originally used paper data collection forms, which meant that for data to be entered into the system, they had to be physically transported to a data entry location, which might only be visited occasionally. This sometimes led to the loss of data in transit and late data entry and meant that where the data was questionable or badly written, the Data Entry Officer would have to spend time verifying by telephone, or waiting till the Field Officer visited the office.

A mobile application makes creation and transmission of paper data collection forms unnecessary and keeps the most recent data readily available in the field.

Reason 2

- Many projects operate in remote locations where internet connectivity is expensive and unreliable, often depending on the use of modems, which can be an expensive recurrent cost, especially since the user must remain online while entering or reviewing data.

The mobile application is able to operate as a stand-alone platform into which data can be entered offline and later synchronised using either an in-office ethernet or a local phone network.

Note: the MIS must first be set up online using an internet-enabled computer in order to create projects, create user-defined fields and to enter the names of Field Officers and Village Agents.

Note: if data is entered by a Field Officer it is less likely to be routinely reviewed by a Supervisor. This may lead to a drop in data quality unless steps are taken to institutionalise such reviews.
1.2 How the mobile application and the SAVIX MIS relate to each other
Relationship of the application to the SAVIX MIS

- The application does not exist on its own: *it is designed only to supply data to an MIS that is already configured by an MIS Administrator and managed by a Project Administrator and/or a Data Entry Officer*. The application replaces none of the setup and administrative functions of the MIS Administrator (which are carried out online on the SAVIX MIS), and only the data entry function of the Project Administrator.

Roles of MIS Administrator, Project Administrator and Field Officer

- The MIS and projects must be set up by the **MIS Administrator**, who must also create Standard defined fields and User-defined fields.
- The **Project Administrator** must create a list of trainers (Supervisors, Field Officers, Village Agents and Apprentices) and manage network requests (accept or reject).
- Only a **Field Officer** or a Supervisor, acting on behalf of the Field Officer can use the application. *The application is not designed to be used by Village Agents*. If data is being collected by Village Agents (sometimes called Community-based Trainers) it must be done on data collection forms that are collected by the supervising Field Officer, for data transcription at a later time and usually in another place. Thus, *when data is downloaded into the application, only the names of the Field Officer who input the data will be accessible*, but all groups created by the Field Officer’s Village Agents will appear when the Field Officer’s portfolio is requested.

**Note:** If a project uses Village Agents to collect data on data collection forms, it cannot use the automatic GPS data collection utility built in to the application unless the Field Officer is actually present at the meeting.
1.3 Basic architecture of the Mobile Application
Mobile `phone in use by single FO

The diagram on the left and the ‘phone screen on the right show a ‘phone with a downloaded FO’s portfolio (1). All the groups trained by the Field Officer have their most recent dataset synchronised with the SAVIX MIS (2). All the groups trained by VAs supervised by the FO will also have their most recent datasets synchronised with the SAVIX MIS (3).

Thus, a Field Officer using the application will see the groups showing up on a single list, as it appears on the right, comprised of FO and VA groups, identified by their code numbers and names.
Mobile phone usable by multiple Field Officers and Supervisor(s), in use by FO 1

This diagram shows group data of three different FOs (including VA supervised groups) downloaded onto the same ‘phone. It shows that the portfolio for FO 1 (shaded green) is active (1). Only one FO portfolio can be active at any one time and the user has to switch between FOs if entering data that falls in the portfolio of a different FO (2). Loading more than one FO’s data on the ‘phone is usually done by a Supervisor who may be visiting groups that are supervised by different FOs, or when a device is used for offline data entry in an office.
2 Installation and linking the application to a project

2.1 Downloading and installing the application
Step 1: Go to the Android Play Store and find the Savix Data Application
Step 2: Download and install the application

1. Download the SAVIX Data App from the app store.
2. Tap on "INSTALL" to install the application.
3. Tap on "OPEN" to launch the application.
Step 3: Open the application’s home page

1. Wait for the home page.
2. Then tap on the MIS NAME dropdown arrow.
2.2 Linking the application to a project and to a specific Field Officer
General information on liking the application to a project

- Remember that the application is solely intended for the purpose of data collection. It can only produce a single on-screen report on a single group‘s performance, for feedback in the field.

- Once the application is downloaded it needs to be linked to a specific project and to do this the user will need to know the user name and password of the Data Entry Officer, and can log on using either set of credentials. Although the application can be used with the Project Administrator‘s credentials, *It is strongly recommended that only the DEO‘s credentials are used, so that FOs using the system will not have access to the Project Administrator‘s configuration screen on the online MIS.*

- The application is linked only to a single project and not to an MIS. If the user wants to use the `phone to enter data for a different project (or MIS) it must be treated as a separate installation, with separate credentials (although possible on the same `phone).

- Once the application is installed, the user must then select the MIS and enter the DEO‘s credentials to be able to download a Field Officer‘s portfolio.
Step 1: Choose your language

- The user taps on the settings cogwheel at the top right hand side of the screen (1).
- A Language drop-down appears.
- The user taps on `Language` (2).
- The language selection screen then appears, offering the choice of 5 languages (3).
- The user makes their selection and then taps on `Confirm.` and then logs out by pressing on the bottom right hand corner of the `phone frame (4) (standard for Android).
- The home screen will then be displayed in the selected language.
Step 2: Identify and select your MIS

1. The user taps first on `MIS NAME` box and a dropdown list will appear. This is a list of all the MIS instances on the SAVIX MIS (1).

2. The user then types in the name or part of the name of the MIS and a list of MIS instances will appear that include the name (2).

3. In the example shown, the user has typed in ‘PROFIRA’ and a list of the 12 projects with ‘PROFIRA’ in their name that are on the SAVIX MIS appears.

4. The user then taps on the particular project for which they want to use the application. In this case the user selects ‘PROFIRA UG Mid-North MIS’ (3).
2.3 Downloading portfolios of single and multiple Field Officers & switching between them
Step 1: Select the Field Officer whose portfolio you wish to download into the ‘phone

- The user then types in the User name (1) and Password (2) of the project’s Data Entry Officer and presses `Log in´ (3)
- A list of Field Officer names will appear. The names of Village Agents will NOT appear, because their groups will automatically show up when entering data, under the name of the FO, in this case Odongo Ongom Alex (4).
- If the list of names is too long to see on a single screen, the user can scroll down or type the name or part of the name of the FO in the `Search´ box (5) and then tap on the name when it appears.

NOTE: You MUST first of all have entered the names of FOs and VAs in the online version of the MIS. They cannot be added or erased on the application.
Step 2: Downloading the Field Officer’s portfolio

- Once the FO name is tapped, the system requests the user to confirm that the name selected is correct (1 & 2).
- Once this is done the FO’s portfolio of groups is automatically downloaded, including the groups of Village Agents supervised by the FO (3).

Note: It may take as much as a couple of minutes to download large portfolios.

Note: It is far better to carry out the downloading of the portfolios in an office with a good ethernet. It is possible to do this over a `phone network, but it can take a long time and be expensive and will sometimes not complete.

Note: Even if there is no data in the online MIS, there must at least be registered FOs (with their VAs and Apprentices, as applicable).
Step 3: Main menu and switching between Field Officers

- Once the downloading of the FO’s portfolio is completed, the main menu displays.
- Before opening an FO’s portfolio, the system allows the user to change the FO (1).
- When the user presses this button, the list of FOs will display again (not shown here).
- When the user selects another FO from the list displayed the system will first synchronise with the online MIS (2) to ensure that any changes already entered are registered on the SAVIX MIS.
- The application will then automatically load the new FO’s portfolio and revert to the main menu.
Step 4: Main menu and downloading additional FO's portfolios

- If the user is offline, and wants to change FOs, this is possible, but no synchronisation can take place until the user has access to a network.
- When the user presses the `Change FO` button, a message is displayed asking if the user wants to continue, and switch to another FO without synchronising.
- If the user agrees to this, they must press the `Continue` button (1).
- This means that data entered on the application will be stored in the `phone and will not show up in the system until synchronisation can take place.
- For this reason, a new group whose data is entered for the first time does not receive a sequential code number until synchronisation is complete.
3 Already registered groups data entry and editing

3.1 Group list and static data editing
Step 1: Main menu and opening an FO´s portfolio

- Once the FO has selected his/her name (in this case Okeng Fred), they must decide if they are adding data to an existing group, or adding a new group. In this case the user wants to add data to an existing (registered) group.

- The user taps on `Group List´ (1).

- All of the groups registered in the FO's portfolio will display, including those groups monitored by Village Agents that are supervised by the FO.

- In this example the user wants to work with an existing group, No. 003, Yik Owelo Piny (2).

- The user selects the group and taps on it. This will create a menu, permitting four choices.
Step 2: Opening up a group and editing static data

- The screen that opens offers 4 choices, as shown. They are self-explanatory.
- The first enables the user to edit static data (1).
- This opens up the Edit static data fields.
- The name of the trainer cannot be changed (indicated by the grey shading) (2), but all other fields can be edited.
- In addition, by tapping on the ‘Get location via GPS´ the user can automatically enter the group’s GPS location (3).
- For this to work the GPS utility on the Android `phone must be activated.

Note: This GPS automatic utility should only be used if data is entered by the FO at the group’s meeting place.
Step 3: Capturing GPS data (1)

- The screen then displays a message asking to allow the SAVIX MIS access to the devices location.
- `Deny` will be selected if the user is entering the data at a location that is different to where the group meets.
- If `Allow` is selected (1) the system checks to ensure that the GPS utility on the `phone is turned on (2). If not it should be activated.
Step 4: Capturing GPS data (2)

- Once the GPS utility is activated the system searches for the group’s location. If the user wishes, they can skip this step (1)
- The application then displays the static data fields
- Once the system has captured the GPS location, this data is displayed (2)
- The User presses `Save´ and the application returns to the list of groups (3)
3.2 Adding cycle data and main dataset
Step 1: Opening up a group and editing cycle data

- The user then taps on a group for which they wish to enter new data (not shown here). This assumes that the group is already registered, probably with an existing dataset.
- The user then selects `Add dataset` from the dropdown screen that will appear (1).
- This opens the Cycle data screen (2). The Static data screen is not opened because the group is already registered.
- The user chooses either to edit or confirm the data. The only change that is likely is the name of the person monitoring the group, or if there is an error.
- Cycle data is entered only at the start of the cycle, when it must be updated. In this case, since the cycle data has not changed, the user presses `Confirm`. 
Step 2: Entering a new main dataset (1)

- The dataset entry screen will then display,
- It will indicate that it is for the entry of a dataset (1).
- The white cells show the most recent data that is being entered (2).
- The grey cells show the data entered at the previous data collection (3).
- The second image is a continuation of the same dataset, showing new data.
- The two screens on this page and the two on the following page take the user through the entry of the standard dataset (i.e. after Static data and Cycle data).
Step 3: Entering a new main dataset (2)

- The two screens on this page are a continuation of the main data entry screen, scrolled down.
- Note that Dividends are ONLY ever entered in the case of savings groups that do not share out at the end of the cycle (1), and represent profits that are shared with the members.
- Once the fields are filled, the user taps on `Save´ (2).
- If there are no Standard-defined fields (SDFs), User-defined fields (UDFs) or Network defined fields (NDFs), the data entry process is complete.
- In the case of the example used here, there are SDFs and NDFs. Data entry for these is shown in section 3.3.
3.3 Entering SDFs, UDFs and NDFs
Step 1: Entering SDFs and UDFs

- As noted in 3.2, all standard data (cycle and main dataset) must be entered before it is possible to save the dataset, but if there are SDFs, UDFs or NDFs that are mandatory, the user must also fill them out in order to be able to save the dataset.
- On setup of the online SAVIX MIS, the MIS Administrator can select Standard-data fields (SDFs) and create User-defined fields (UDFs). If the project is part of a network, there will also be Network-defined fields (NDFs). These will automatically display at the top of the application’s screen (1 & 2).
- In this case the MIS Administrator has selected some SDFs (1), but has not created any UDFs. Administrator had created UDFs these would also be displayed.
- The Project Administrator has also joined a network called PROFIRA CSCG (2).
- Once the screen is displayed and the data filled in the user can move to the next screen without pressing ‘Save.’
Step 2: Entering NDFs

• The final screen for data entry is for network data. If the project is a member of more than one network then more than one network screen will appear, if NDFs have been created.
• The screens on the left shows 10 of the 14 NDFs entered for the PROFIRA CSCG network.
• Once all the data is entered the dataset is saved.
3.4 Saving, Synchronising and viewing the Group performance report
Step 1: Saving (1)

- If there are no mandatory SDFs, UDFs or NDFs, and the user has saved the dataset, the list of the FO's groups appears.
- This shows that the data for the selected group is pending. This means that it is saved in the phone, but is not yet registered on the online MIS (1).
- By tapping on the bottom right hand corner of the Android phone frame, the home screen for the designated FO will appear (2).
- By tapping on 'Synchronise' (3) the new data will be sent to the online MIS and updated and the SYNC status will return to 'Completed'.

NOTE: The user does not need to update the system until they are back in an office with a good wireless or cable connection.
Step 2: Synchronising

• The synchronisation process can take a minute or more (1).
• Once this is completed the user taps on `Group list´ (2) and the list of the FO’s groups appears.
• The status of the group has now changed from `Pending´ to `Completed.´
• This indicates that the changes made on the application are now registered in the online system.
Step 3: Viewing Group Performance Report (1)

- If the user wants to look at group performance (either a pre-existing data set or the one just entered) they tap on the name of the group.
- A menu appears for the selected group and the user taps on `View Performance Report´ (1).
- The performance report appears for the selected group (2).
- It is a summary of the key ratios that appear on the Project Performance Report, but applied to a single group (3).
Step 3: Viewing Group Performance Report (2)

- The latter half of the Group Performance report includes a profit calculation table (1), based on the data that was entered previously and displayed in the Power Point.
- The ‘Profit calculation’ table displays the data that is used to impute profit from balance sheet data.
- If profit figures (2) are suspiciously large, or if losses are indicated, the FO should immediately review the data and, if correct, conduct an enquiry as to the reason for the results.
- The Group Performance Report is very useful to a Field Officer because (s)he will not have to wait for a computer print-out to determine profit or losses and can take corrective action in the field.
4  Adding a new group

4.1  Creating a new group and entering static data
It is normally the case that projects start out by entering data into the SAVIX MIS on a computer and later on switch to the mobile application.

In cases where a project switches to use of the mobile application, entering data on existing groups has been covered in section 3.

In the case of a new project it is important that all of the Field Officers, Village Agents and Apprentice names are entered in the online MIS.

First, open the home screen.
Then tap on the `Add Group´ button.
Step 2: Entering static data (1)

- Before any data can be entered, when a group is created, the system asks the user to decide if they wish to capture the phone’s location.
- If data is being entered in the field, at the meeting place of the group, the user presses ‘Allow’ (1).
- If the data is being entered at a different location (such as an office, when the phone is being used only as a data entry device) the user presses ‘Deny’ (2).
- If the user then wants to enter GPS data at a later date, this is done by opening up the group and tapping on ‘Edit static data’ and tapping on the ‘Get Location Via GPS’ Button (see slides 24-27).
- The user then starts to fill out the static data (3).
Step 3: Entering static data (2)

- When the user taps on the `Please select group trainer´ button the names that will appear will be the Field Officer (1 Okeng Fred).
- and all of the Village Agents that are being supervised by Fred (2)
- When all of the data is filled out the user presses the `Save´ button (3).
Step 4: Entering static data (3)

- The application then notifies the user that the group static data has been saved and then asks if the user wants to add a dataset. If the answer is no, the user taps on the `Don’t add dataset` button (1).
- Otherwise (and more normally) the user presses the `Add dataset` button (2).
- This will take the user into the normal data entry routine for creating cycle data, standard datasets, NDFs, UDFs and NDFs.
- The difference is that no previous data will show (see slides 30-31, where prior data is displayed) and the data will be entered directly into the blank cells.
- The next time data is entered for this group, the user follows the routine as per slides 30-31.