

Survey Solutions Manual for Forestry Modules

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I. Note

This manual is intended for individuals that have had previous training (e.g. one-week workshop or [online e-learning course](#)) with, or experience collecting data using, Survey Solutions. This manual will only cover the concepts related to the CAPI application of these Forestry Modules. Therefore, it should be used in conjunction with the [FAO National Socioeconomic Surveys in Forestry](#) questionnaires and manual that covers the survey content.¹

II. Complementary Resources

Please find below a list of resources available that will help you get started with the customization and deployment of the CAPI Forestry Modules. Also, below is a table summarizing the various components of the Survey Solutions program.

- [FAO National Socioeconomic Surveys in Forestry manual](#) for details on survey content.
- CAPI template applications found on [Survey Solutions Designer](#) (select [Public Questionnaires](#) > [Standard survey modules](#) > [Forestry](#)): [Community Modules](#) & [Household Modules](#).
- Survey Solutions [documentation site](#) for detailed how-to's on the mechanics of the software.
- Survey Solutions' [YouTube channel](#)—and the [Questionnaire Designer playlist](#) in particular.

Survey Solutions Software Suite				
Designer	Tester	Headquarters	Supervisor	Interviewer
Online component where questionnaires are designed.	Tablet application that is connected to Designer to test questionnaires.	Survey management component—manage data collection team, create interview assignments, review interviews approved by supervisor, and export data.	Survey management component—manage enumerators on supervisor team, allocate assignments to enumerators, and review interviews completed by enumerators.	Tablet application that is used to receive interview cases, complete interview cases, and send completed cases to the Supervisor/Headquarters.
Access at www.solutions.worldbank.org	Download from the Google Play store by searching for Survey Solutions Tester.	Access at the URL of your server using HQ credentials.	Access at the URL of your server using Supervisor credentials provided by HQ.	Download application using the link on the landing page of your server.

¹ FAO, CIFOR, IFRI and World Bank. 2016. *National socioeconomic surveys in forestry: guidance and survey modules for measuring the multiple roles of forests in household welfare and livelihoods*, by R.K. Bakkegaard, A. Agrawal, I. Animon, N. Hogarth, D. Miller, L. Persha, E. Rametsteiner, S. Wunder and A. Zezza. FAO Forestry Paper No. 179. Food and Agriculture Organization of the United Nations, Center for International Forestry Research, International Forestry Resources and Institutions Research Network, and World Bank.

III. Best Practices for Designing Surveys in CAPI

Testing

Testing CAPI applications is essential for successful CAPI data collection. Firstly, the forestry modules' templates are a starting point for survey designers. Each country should tailor the applications, in consultation with the FAO Forestry manual, to meet the objectives of their survey. Secondly, CAPI applications should be reviewed in careful detail to confirm that all the content from the PAPI survey (i.e., everything approved for inclusion during the survey design phase) is included in the CAPI application. Thirdly, survey designers need to test that the applications are working correctly mechanically, such as checking the validations, skips, navigation etc. And lastly, the CAPI application should be tested both in the office and in the field, before it is introduced for use during the project pilot and enumerator training. Field testing is especially important in order to catch any errors before going into the field and to test out synchronization in and out of the office setting. Review of exported data should also be incorporated into the testing phase to ensure the file structure and format is as desired.

Using Tester

Survey designers can utilize the Tester application from the Google Play store to test the questionnaire as they are making changes in real-time. For download instructions, please refer to this [article](#).

Comments in Survey Solutions - If and how to use

On the interviewer application, enumerators can add comments to any question in the questionnaire. If comments are to be used by the data collection team, please ensure that how, when, and why they should be used are covered in the enumerator training. For more information on comments, please refer to [this article](#).

Reporting Functions

Survey Solutions has several built-in reporting functions which should also be tested and reviewed as part of the field testing. Survey designers should work with the survey team leadership to ensure the desired content is included in the reports.

IV. Revising Questionnaires in CAPI

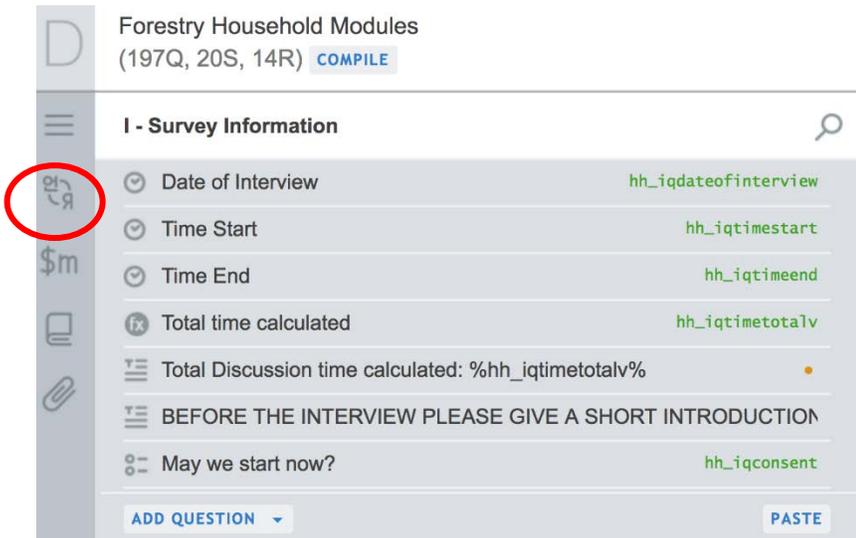
This section will cover the general instructions on how to make specific types of changes in Survey Solutions (the CAPI software). A review of areas specific to the Forestry Modules that should be revised in order to customize the module for your specific questionnaire is provided in the section that follows.

General Content Revisions

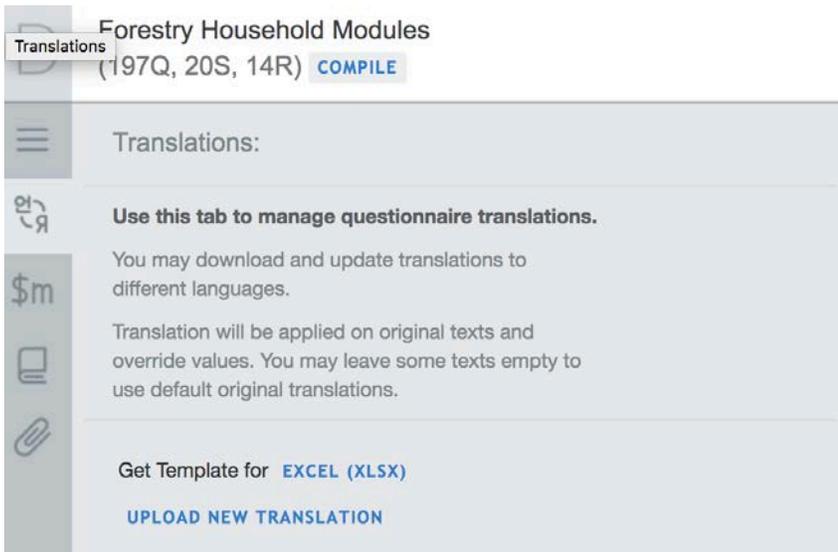
1. Translating

There are two methods for translating the CAPI applications into other languages.

[One method](#) is by using the auto generated Excel document from the Questionnaire Designer. To do this, click on the translation button on the left-hand panel.



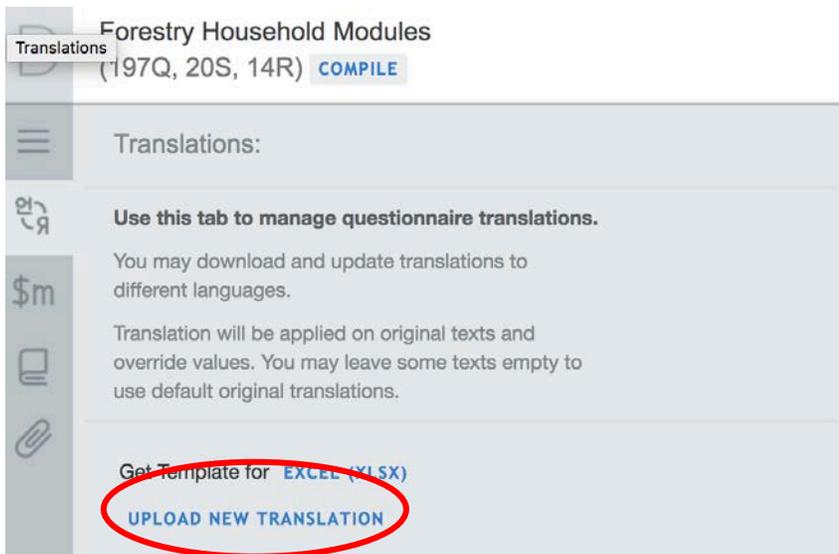
Then, click on the Get Template for Excel link.



An Excel file will be downloaded on your computer.

	A	B	C	D	E
1	Entity Id	Type	Index	Original text	Translation
	e03b8152f b7141048b 908bf1f5f3			I - Survey Information	
2	0340	Title		II - Basic Information on Household Members	
	92c570ba1 9628f8abf d5469dbcb				
3	79d70	Title		...	

Fill in the translation of the text in the translation column and upload the completed file to Questionnaire Designer. You can upload as many languages as you like. The enumerator will be able to change the language of the questionnaire after opening the survey case on their tablet device.



The second method is manually change the question text in Questionnaire Designer. Click on each object in Questionnaire Designer to revise the associated text.

2. [Hiding disabled questions](#)

By default, when questions are disabled, they are greyed out. Optionally, questions may be hidden when disabled. To do this, first click on the question. Then, check the box in the right-hand panel labeled hide if disabled.

Question text

2_2_oth. Specify the other practice.

Pattern (?)

ADD INTERVIEWER INSTRUCTION

● Enabling condition (?) Hide if disabled (?)

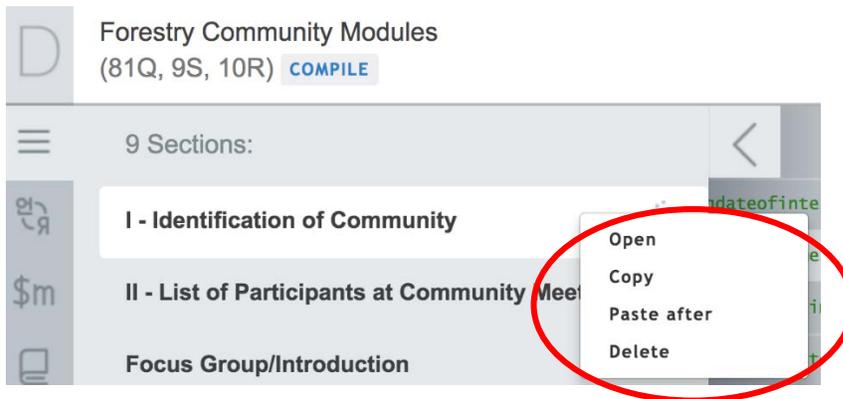
@rowcode==99

ADD NEW VALIDATION RULE

SAVE CANCEL DELETE MOVE TO ▲

3. [Deleting sections, copying and pasting section to/from other questionnaires](#)

Any item in a questionnaire—such as a section, subsection, question, etc.—can be deleted, or copied and pasted within or from/to another questionnaire. To do so, right click on the item. Then choose, an option from the popup menu. Select “Copy” to copy the item, and select “Delete” to remove the item.



To paste a copied item, right click on the item that should precede it. And select, Paste after.

4. Adding variable label

By default, the question text is exported as the variable label in the data. For example, the question shown below would have “Time Start” as its variable label by default. However, as a Survey Designer you can add a custom phrase instead of having the question text as the label in the export file. To do this, click on the question and fill in the variable description box. Then, save the changes.

Question type

Date

Variable name(?)

c_iqtimestart

Variable label(?)

Question text

Time Start

Current time (?)

5. Revising text

To edit a question text, click on the question in the navigation pane on the left-hand side. Then edit the text under the question text box. Lastly, save the changes. If your questionnaire has multiple translations available, be sure to update translations in Designer.

Question type

Text

Variable name(?)

hh_a1q1_20

Variable label(?)

Question text

1_20.What is the unit of collection?

Pattern (?)

6. Revising the maximum number of list elements

A maximum number of list elements must be defined for list questions that are linked to a roster. To edit this number, click on the list question and revise the number under the maximum number of list elements text box. Then, save the changes.

Question type Variable name(?)

Variable label(?)

Question text

Maximum number of list elements

7. Revising options in a multi-select question

There are two ways to revise answer options in multi-select/single select questions. One method is use the generic interface, as shown below. Revise the code in the left most column, the label in the middle column, and the delete using the red "X".

A1 CONT'D - INCOME FROM FOREST AND ENVIROMENTAL PRODUCTS /

Question type Variable name(?)

Variable label(?)

Question text

101	sawn wood	X
102	charcoal	X
103	wooden furniture	X
104	other wooden tools/implements(e.g. spoons, bowls, hoe handle	X

The second method is to edit under the show strings option. Click on the show strings link at the bottom of answer options.

145	storage snee	✗
146	veranda of house	✗
147	wall of house	✗
148	clothes	✗

ADD OPTION SHOW STRINGS

Then, revise the answer option list by following this format: Option label...code

Question type: **Categorical: Multi-select** Variable name(?): `hh_a1q1_15b`

Variable label(?):

Question text:

1_15b. Select all products that you or any member of your household processed for either your own use or sale, in the last 12 months.

```
sawn wood.....101
charcoal.....102
wooden furniture.....103
other wooden tools/implements(e.g. spoons, bowls, hoe handles)...104
woodcraft(e.g. figurines, cultural and symbolic artefacts).....105
rattan furniture.....106
other rattan products.....107
bamboo furniture.....108
```

8. Revising a question to single/multi-select question

To change the question type, select the question then click on the “Question type” menu and select another type from the list.

Question type: **Categorical: Multi-select** Variable name: `hh`

- Categorical: Single-select
- Categorical: Multi-select
- 12** Numeric
- Date
- AB Text
- GPS
- List
- Barcode
- Picture
- Audio
- Area

103 wooden furniture

Programming Revisions

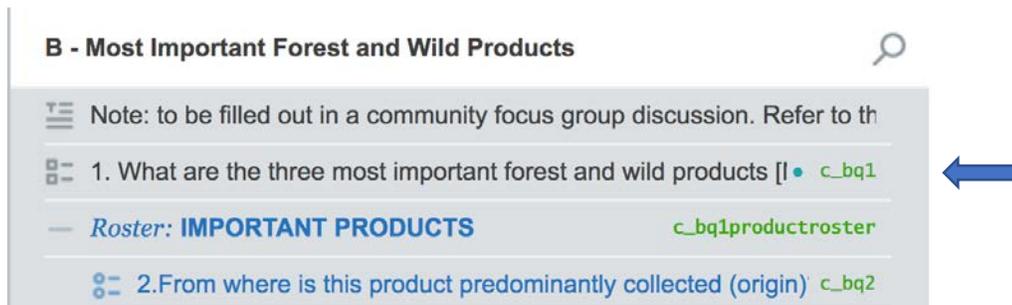
9. Revising and/or incorporating additional validations

Validation conditions are defined in the validation condition text box in sections, questions, rosters, and subsections.



The image shows a dialog box for configuring a validation rule. It has a title bar with a blue dot and the text "Validation condition 1 (?)". Below the title bar is a large empty text input field. Underneath that is a label "Error message (?)" followed by another empty text input field. At the bottom left of the dialog box is a blue link that says "ADD NEW VALIDATION RULE".

Their location can be easily identified by following the blue dots in the navigation pane.



For more general information on validations, please refer to [this article](#). For information and details on syntax, please refer to the syntax guides that can be found by searching for “Syntax Guide” on the support site linked [here](#).

10. Filter Conditions

Filter conditions can be added to categorical questions (single and multi-select), so that unlikely answer options are not shown to the interviewer. For example, you can filter the answer options presented based on the type of food the respondent has reported to have consumed. So, if the questions are regarding “Milk” consumed, the units presented in the unit question will be the volume units used for liquids.

Type the filter code, in the Filter text box below the answer options.

For information on the [syntax](#), and a [more detailed example](#) please refer to the linked pages.

11. Adding a pattern

A pattern can be added to any text question. This would require the enumerator to enter the answer in a specific format. Use the symbols below to define the pattern in the text box labeled pattern.

- ~ One alpha character (A-Z, a-z)
- # One numeric character (0-9)
- * One alphanumeric character (A-Z, a-z, 0-9)

For example, if a phone number is expected to be entered in this format (000) 000-0000. Add the following in the pattern field: (###) ###-####.

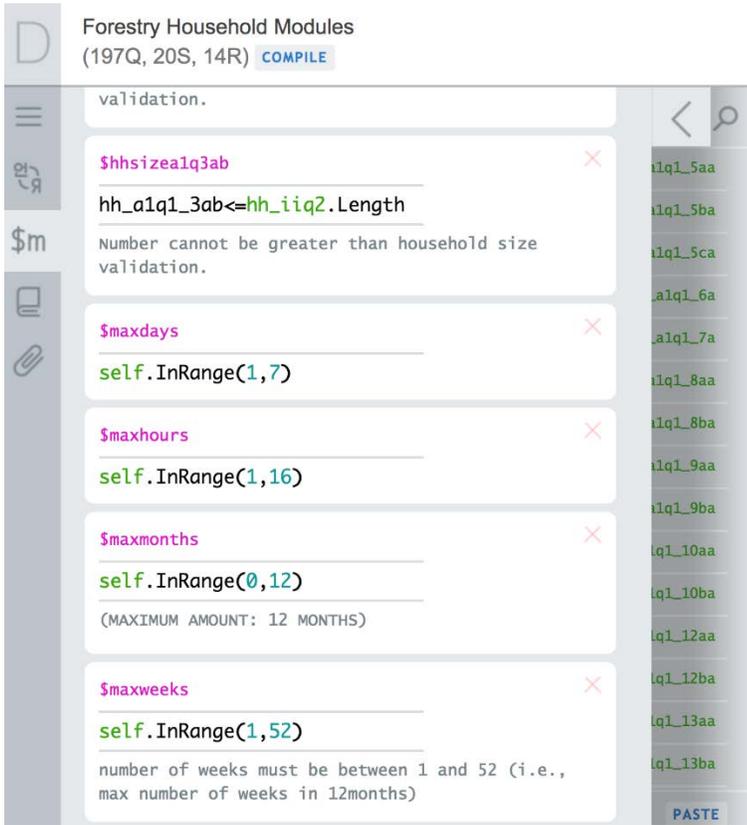
12. Adding variables and accompanying static texts as checks

Variables are typically used to compute a value based on answers given in multiple questions. These variables can be used as validation checks by programming static texts to be enabled/disabled based on the computed value. These have been implemented in a few places in the Forestry Module CAPI templates, for example in the computation of the total interview duration. For more details, regarding variables please refer to [this article](#).

13. Revising macros

Macros are used to simplify the updating of frequently used content in a questionnaire—for example, recall periods provided by fixed events (e.g., rainy season 2017) or enablement/validation conditions. In the Forestry Modules, we have a number of them for setting validations for maximum number of hours, household members, etc.

To access these macros and revise the condition syntax, click on the “\$m” in the left-hand panel to open the Macros panel. Click on the syntax text box to make the necessary edits, and then save the changes.



V. Proposed Revisions to the Forestry Modules

The forestry modules have been designed to fit into a wide variety of contexts. Some customization of the modules is necessary to tailor the application to your specific survey. Below, the recommended customization revisions to the Community and Household modules are explained.

Community Modules

I: Identification of Community

- In the [static text](#) beginning with “Before the discussion...”, replace placeholders with the name of the organization conducting the questionnaire, the organization’s objective, number of villages selected, and the name of the village.

A: Seasonal Calendar

- [c_ag1a](#). Product list is a placeholder, please refer to the complete product list in the [FAO National Socioeconomic Surveys in Forestry](#) and choose the products that are relevant in your context.

B: Most Important Forest and Wild Products

- [c_bq1](#). List of products implemented as placeholder. Please revise the product list to match the one implemented in Section A: Seasonal Calendar.

C: Units and Pricing

- [c_cq1c](#). Consider adding a filter to only show relevant unit codes for each product (i.e., add a [filter condition](#) in the “Filter” field [here](#)). This will help to minimize the number of invalid data points collected.

F1: Perception of Climate Change

- [c_f1q1](#), [c_f1q2](#), [c_f1q4](#). Instead of having these questions open-ended, consider using pre-coded answer options instead, as noted in the paper questionnaire.

Household Modules

I: Survey Information

- In the [static text](#) beginning with “Before the interview...”, replace placeholders with the name of the organization conducting the questionnaire, the organization’s objective, number of villages, and the number of households.

II: Basic Information on Household Members

- [Consider revising the maximum number of household members that can be listed.](#)
- [Add definition of household in placeholder.](#)

III: Identification of Principal Respondents

- [hh_iiiq2a](#), [hh_iiiq2b](#). Consider adding a pattern for the contact information that will be entered to match a specific format.

A1: Income from Forest and Environmental Products

- [hh_a1q1_1ba](#). Refer to the [FAO National Socioeconomic Surveys in Forestry](#) and implement a product list relevant in your context.
- [hh_a1q1_7a](#), [hh_a1q1_10ba](#). Consider adding unit codes.

- 1.11 , 1.14, 1.24, 1.27. These calculations are omitted from the CAPI design. Two options: (1) Use Stata to calculate these values after data collection; (2) Once unit codes for the above questions are implemented, use variables to compute the value and static text to display the value, which can be used as an on-site validation check.
- [hh a1q1 20](#), [hh a1q1 23b](#). Consider adding unit codes.

B1: Forest Resource Base

- [hh b1q1 1ab](#). Consider adding unit codes.

C1: Food Shortage

- [hh c1q1 5](#). Product codes for harvested products from the wild (including forests) – in the raw (1-100) have been implemented. Revise if needed.

C2: Shocks and Crises

- [hh c2q2 4](#). If there is a fixed set of products, this should be an ordered multi-select rather than a list question.

D2: Forest Clearance

- [hh d2q2 2b](#), [hh d2q2 4b](#), [hh d2q2 5b](#), [hh d2q2 7c](#), [hh d2q2 10b](#), [hh d2q2 17b](#). Consider adding unit codes.