

A Simple Poverty Scorecard for Bangladesh: Documentation for Data-Entry Software

© 2009 by Microfinance Risk Management, L.L.C.
2441 Tracy Avenue, Kansas City, MO 64108-2935, U.S.A.

This document, the data-entry software, and full scorecard documentation are available at <http://www.microfinance.com/#Bangladesh>

Introduction

The simple poverty scorecard is an easy-to-use tool that local pro-poor development programs in Bangladesh can use for targeting, for monitoring their participants' poverty rates, and for tracking changes in participants' poverty rates over time. Field agents visit participants in their homes and ask 10 simple, objective questions (such as “What type of latrine does the household use?” or “What is the main construction material of the roof?”). The responses are used to estimate the likelihood that the participant's per capita household expenditure is below any of a range of poverty lines. The results are comparable across service points or geographic regions (or countries, in the case of purchase-power parity lines).

This document tells how to apply the scorecard and use the data-entry software.

Structure of the Scorecard

Each scorecard includes identifying information at the top and 10 questions below.

Field agents first fill in identifying information. Some items—such as survey number and current date—can be filled in ahead of time. Each survey must have a unique survey number. The rest of the identifying information can be defined with default values that are automatically filled in, or they can be filled in ahead of time. The five user-defined fields can be given default values, filled out while waiting, or asked of the participant. “Type of service” is asked of the participant. The user-defined fields might include data on scorecard implementation (such as the language or the length of the interview), or tracking information for survey management (such as details on sampling and participant selection).

Just below the tracking information, there are 10 short questions, all with answer options that are pre-coded, close-ended, and restricted to No/Yes or multiple-choice.

Administering the Survey

The scorecard is administered in face-to-face interviews with participants at their homes. Data quality is key, and following the steps below helps to ensure high-quality data.

The first step is to prepare scorecards before the interview. In **User Definitions** (see below), the scoring manager can fill in default fields with identifying information that does not vary across participants. If the scorecards are done on paper, the scoring manager can then print out multiple copies and fill in the unique identifying scorecard numbers.

The second step is for the field agent to introduce herself and the scorecard to the participant. Be friendly, and begin the conversation with a script explaining the organization's interest in learning more about the participant and ensuring confidentiality of the responses. Ask for the participant's permission to start.

The third step is to administer the scorecard. The field agent should read each question completely and exactly as it is written.

If the participant asks for clarification (or if it is not clear to the field agent which response option corresponds to the participant's answer), then field agents should proceed based on their own best judgment.¹ For example, if the question asks whether the household owns a television, and if the respondent asks whether a broken television counts, then the field agent should advise the respondent according to the field agent's best judgment. For example, the field agent might judge that a television is a television, broken or not. Or the field agent might simply repeat the question, or gently probe for clarification. In a multiple-choice situation, the field agent might choose to mark the response option judged to be the closest to the participant's answer.

In all cases, field agents should record one response for each question by clearly drawing a circle around the entire response option (not just its letter) and its corresponding points on the paper scorecard. All 10 questions must be answered.

After double-checking that all 10 questions have a response marked, the field agents should thank the participants for their time, repeat that answers will be kept confidential, and inform them that the interview is over.

¹ In some cases, instructions from the original enumerator manual may be available. If so, then those instructions should guide the interpretation of questions and answers.

Most organizations will want to interview a representative sample of their participants. The simplest and most common ways to do this are:

- Interview all participants at all service points
- Interview all participants at a random sample of service points
- Interview a random sample of participants at a random sample of service points

Interviews could take place continuously, or for a period of time (say, one month). When taking a random sample of service points, the likelihood of drawing any given service point should be proportional to its share of all of the organization's participants.

Data Entry and Management

The Excel workbook has three worksheets visible to the user:

- `Data_Entry`
- `User_Definitions`
- `Results`

The user can modify `Data_Entry` and `User_Definitions`. `Results` is generated automatically from information entered in `Data_Entry` and `User_Definitions`.

The user navigates between sheets by using the named tabs at the bottom of the workbook or via the "Poverty Scoring" menu at the top of the screen.

There is also a `Database` worksheet which can be viewed by selected "View database" from the "Poverty Scoring" menu. If desired, this database can be copied or exported for more detailed analysis.

Data Entry

The data-entry interface allows scorecards to input and managed via four buttons.

1. *Submit Responses* checks the responses for completeness and consistency and then records the scorecard in the database
2. *Retrieve Survey* displays a specified scorecard from the database for viewing/modifying
3. *Clear Entries* resets all data-entry fields without recording anything in the database
4. *Delete Entry* deletes a specified scorecard from the database

Entering data

Fields for identifying information are at the top of *Data_Entry*. The fields accept text or numbers. Any default values should be defined in *User_Definitions*. The user must press <Enter> after inputting the unique scorecard number.

Just below the tracking information appear the 10 scorecard questions and their response options. The questions and responses—and their layout—match those in the paper scorecard. This eases the data-entry process and also allows for the possibility of field agents' entering scorecard answers into the database in the field in real time.

To input responses, the data-entry operator clicks the radio button next to the relevant response option. All 10 responses are recorded upon clicking *Submit Responses*. If any response is missing, an error message appears and the scorecard is not recorded in the database. Also, successful submission to the database requires having input a unique scorecard number and that no responses contradict each other.

Retrieving, modifying, and deleting data

Clicking *Retrieve Survey* leads to a prompt to type a scorecard number or select one from a menu. The template then populates the current worksheet with the responses recorded for that scorecard, and the user can modify responses or tracking information (including the scorecard number).

If, after making modifications, the user clicks *Submit Responses*, then the modified entry is stored in the database, overwriting any record with the same scorecard number. If the scorecard number already exists, a pop-up notifies the user and asks for confirmation.

To delete a record from the database, the user clicks *Delete Entry*, types or selects the scorecard number to be deleted, and then confirms the desire to delete.

User Definitions

User_Definitions allows users to define default values for the identifying fields at the top of the scorecard by typing them into the yellow cells. Those default values then appear in the appropriate fields in the data-entry worksheet.

To facilitate measuring change over time, it is strongly suggested that the following definitions be applied to four of the five user-defined fields:

1. Household size
2. Name and identification number of participant
3. Name and identification number of field agent
4. Date the participant joined the organization

Results

Results shows the number of scorecards in the database, the estimated poverty rate among those scorecards (for a range of poverty lines), and the estimated number of scorecards from respondents who live in households below the poverty lines. This offers a snapshot of the service point's outreach to the poor.

Database

As noted earlier, **Database** is hidden when opening the workbook, but users can view it by choosing *View Database* from the "Poverty Scoring" menu at the top of the screen.

Documentary details

Data

The scorecard is based on data from the 10,080 households in the 2005 Household Income and Expenditure Survey (HIES) conducted by the Bangladesh Bureau of Statistics.

Poverty lines

The lower national poverty line and the upper national poverty line by stratum were provided by Nobuo Yoshida of the World Bank.

The USAID "extreme" poverty line is defined as that line which divides those below the upper national poverty line into two equal-sized groups.

The USD1.25/day 2005 PPP, USD1.75/day 2005 PPP, and USD2.50/day 2005 PPP lines use 2005 purchase-power parity figures and are based on:

Sillers, Don. (2006) "National and International Poverty Lines: An Overview", Washington, D.C.: United States Agency for International Development, http://www.microlinks.org/file_download.php/Poverty_lines___An_Overview_1_4_06.pdf?URL_ID=12247&filename=11549869641Poverty_lines___An_Overview_1_4_06.pdf&filetype=application%2Fpdf&filesize=108185&name=Poverty_lines___An_Overview_1_4_06.pdf&location=user-S/, accessed 17 April 2009.

Details on the poverty lines appear in:

Chen, Shiyuan; and Mark Schreiner. (2009) “A Simple Poverty Scorecard for Bangladesh”,
http://www.microfinance.com/English/Papers/Scoring_Poverty_Bangladesh.pdf, accessed 17 April 2009.

Indicators

The 10 poverty indicators were selected based on the strength of their association with poverty, the likelihood of acceptance by users (as determined by simplicity, cost of collection, and “face validity” in terms of experience, theory, and common sense), sensitivity to changes in poverty status, variety among indicators, and verifiability. Points come from Logit regressions. The Logit coefficients were transformed into non-negative integers such that scores range from 0 (most likely below a poverty line) to 100 (least likely below a poverty line). Scores were divided into twenty ranges (0–4, 5–9, 10–14, etc.) and associated with poverty likelihoods via a look-up table.

Simple Poverty Scorecard for Bangladesh (without points)

Date: _____ Survey No.: _____ User field 1: _____
 Organization: _____ Province: _____ User field 2: _____
 Service delivery point: _____ District: _____ User field 3: _____
 Org. ID, delivery point: _____ Community: _____ User field 4: _____
 Type of service: _____ Household size: _____ User field 5: _____

Indicator	Value
1. How many household members are 11-years-old or younger?	A. Four or more B. Three C. Two D. One E. None
2. Does any household member work for a daily wage?	A. Yes B. No
3. What type of latrine does the household use?	A. Open field B. <i>Kacha</i> latrine (temporary or permanent), <i>pacca</i> latrine (pit or water seal), or sanitary
4. How many rooms does the household occupy (excluding rooms used for business)?	A. One, two, or three B. Four C. Five or more
5. What is the main construction material of the walls?	A. Mud brick, hemp/hay/bamboo, or other B. C.I. sheet/wood C. Brick/cement
6. What is the main construction material of the roof?	A. Tile/wood, hemp/hay/bamboo, or other B. C.I. sheet/wood C. Cement
7. What is the total cultivable agricultural land owned by the household?	A. None, or less than 0.5 acres B. More than 0.5 acres, but less than 1 acre C. More than 1 acre
8. Does the household own a television?	A. No B. Yes
9. Does the household own a two-in-one cassette?	A. No B. Yes
10. Does the household own a wristwatch?	A. No B. Yes

Simple Poverty Scorecard for Bangladesh (with points)

Date: _____ Survey No.: _____ User field 1: _____
 Organization: _____ Province: _____ User field 2: _____
 Service delivery point: _____ District: _____ User field 3: _____
 Org. ID, delivery point: _____ Community: _____ User field 4: _____
 Type of service: _____ Household size: _____ User field 5: _____

Indicator	Value	Points	Score
1. How many household members are 11-years-old or younger?	A. Four or more	0	
	B. Three	9	
	C. Two	12	
	D. One	19	
	E. None	31	
2. Does any household member work for a daily wage?	A. Yes	0	
	B. No	10	
3. What type of latrine does the household use?	A. Open field	0	
	B. <i>Kacha</i> latrine (temporary or permanent), <i>pacca</i> (pit or water seal), or sanitary	5	
4. How many rooms does the household occupy (excluding rooms used for business)?	A. One, two, or three	0	
	B. Four	7	
	C. Five or more	11	
5. What is the main construction material of the walls?	A. Mud brick, hemp/hay/ bamboo, or other	0	
	B. C.I. sheet/wood	2	
	C. Brick/cement	8	
6. What is the main construction material of the roof?	A. Tile/wood, hemp/hay/ bamboo, or other	0	
	B. C.I. sheet/wood	2	
	C. Cement	13	
7. What is the total cultivable agricultural land owned by the household?	A. None, or less than 0.5	0	
	B. More than 0.5 acres, but	4	
	C. More than 1 acre	6	
8. Does the household own a television?	A. No	0	
	B. Yes	7	
9. Does the household own a two-in-one cassette?	A. No	0	
	B. Yes	5	
10. Does the household own a wristwatch?	A. No	0	
	B. Yes	4	

Microfinance Risk Management, L.L.C., <http://www.microfinance.com>

Total score:

**Simple Poverty Scorecard for Bangladesh:
Look-Up Table Associating Scores with Poverty Likelihoods**

Score	Poverty Likelihood (%)					
	Upper National	Lower National	USAID Extreme	Intl. 2005 PPP (USD)		
				1.25/day	1.75/day	2.50/day
0–4	100.0	100.0	100.0	100.0	100.0	100.0
5–9	85.7	71.6	71.6	94.6	100.0	100.0
10–14	88.7	74.5	57.2	91.7	100.0	100.0
15–19	86.9	64.3	53.8	92.8	98.4	100.0
20–24	73.1	49.5	36.7	85.0	98.6	100.0
25–29	63.2	37.6	27.5	74.7	97.1	99.6
30–34	49.7	29.7	23.3	67.3	94.8	99.3
35–39	35.7	18.8	15.7	49.8	85.9	96.6
40–44	27.2	9.9	6.8	39.9	77.3	95.1
45–49	21.6	9.6	5.9	31.3	66.8	92.7
50–54	12.4	4.7	2.9	19.9	59.7	85.1
55–59	8.7	4.0	2.9	13.9	45.5	76.6
60–64	7.3	2.8	0.3	9.4	35.5	63.6
65–69	2.2	0.4	0.0	4.2	32.0	64.9
70–74	1.4	0.0	0.0	1.4	23.5	50.0
75–79	0.0	0.0	0.0	1.6	16.6	47.5
80–84	0.0	0.0	0.0	0.0	5.2	30.7
85–89	0.0	0.0	0.0	0.0	1.8	27.1
90–94	0.0	0.0	0.0	0.0	0.0	4.6
95–100	0.0	0.0	0.0	0.0	0.0	26.1