Progress out of Poverty Index (PPI) Data Requirements

This document attempts to summarize the basic requirements needed to begin the process of incorporating the PPI into an organization's current information system. Grameen Foundation recommends that an organization work with its technology (MIS) provider/vendor, unless the system is an in-house developed system, to ensure a successful streamlined integration process and ongoing support. While most requirements are identified, there may be more depending on the organization. Most user requirements are dependent on the organization's PPI collection, encoding and reporting process. For instance, if an organization is currently entering loan transactions in a batch entry process, the PPI data entry process could mirror this batch encoding process. Another organization may choose to have the PPI data entry process be a step in the loan application process.

What does the PPI look like?
The PPI is country specific scorecard. Each PPI includes questions, responses, values that make up the scorecard and corresponding poverty line lookup tables. (See examples below.) The PPI refers to the scorecard and lookup table unless noted otherwise. For more information on the PPI and what it does, please visit www.progressoutofpoverty.org.

Scorecard   *Lookup Table*

PPI =

+

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Characteristics of the Basic PPI Properties/Requirements

Example PPI Scorecard (Questions, Responses, and Points)
The PPI scorecard is comprised of 10 questions (text) and close ended responses (text). The number of responses ranges from 2 to 15 (currently the maximum number is 7) choices for each question. Each response relates to a numeric value. For example, if the household does not have any children, the interviewer would select the "no children" response. The "no children" response means the client receives 23 points.

	Indicator/Question	Response					Points
1	Do all children ages 6 to 17 attend school?	No, or 5 or more children	Yes, 3 or 4 children	Yes, 2 children	Yes, 1 child	No children	
		0	**10**	**15**	**20**	**23**	

Each response associates a point value, which is summed up for all 10 questions. All total PPI scores (summation of points for all 10 questions) will fall between 1 to 100.

Example Poverty Likelihood Lookup Table (Percentages)
The poverty line lookup tables vary from country to country but mirror the same structure. Each lookup table includes the same range (*See below*) from 1 – 100 by increments of 5 (20 rows). Each country has a different number of poverty lines (see column headers). There are 1 – 20 different poverty lines. Each poverty line has 20 percentages (poverty likelihoods), one percentage for each range of PPI scores.

PPI Score	Poverty Line 1	Poverty Line 2	Poverty Line 3	Poverty Line 4	Poverty Line 5	Poverty Line 6	Poverty Line 7
0-4	41.7%	77.0%	54.3%	93.7%	98.5%	100.0%	100.0%
5-9	34.3%	58.5%	43.5%	78.8%	92.7%	95.5%	99.1%
10-14	24.7%	51.2%	32.2%	68.4%	88.1%	95.3%	97.5%
15-19	21.0%	35.5%	20.8%	58.0%	82.0%	95.3%	98.9%
20-24	14.0%	28.7%	18.0%	53.3%	78.7%	90.2%	98.0%
25-29	9.2%	21.3%	11.8%	37.5%	65.2%	84.4%	94.9%
30-34	9.2%	18.9%	9.3%	29.7%	55.8%	74.3%	93.7%
35-39	7.6%	14.9%	7.9%	23.1%	45.4%	62.8%	84.7%
40-44	4.5%	10.0%	4.0%	14.8%	32.9%	50.5%	77.8%
45-49	1.3%	4.5%	1.0%	5.8%	24.0%	48.0%	79.0%
50-54	1.3%	5.1%	1.0%	5.0%	17.4%	34.5%	64.0%
55-59	1.3%	5.7%	1.0%	3.0%	16.0%	38.7%	69.9%
60-64	2.2%	6.1%	1.2%	3.3%	12.2%	22.7%	55.2%
65-69	0.7%	3.7%	0.0%	0.8%	8.5%	21.8%	50.0%
70-74	0.2%	1.5%	0.1%	0.3%	6.4%	16.3%	42.9%
75-79	0.4%	1.6%	0.0%	1.1%	2.1%	7.9%	27.3%
80-84	0.2%	0.7%	0.0%	0.2%	0.7%	3.6%	15.5%
85-89	0.5%	1.2%	0.0%	0.0%	1.9%	4.0%	12.9%
90-94	0.0%	0.0%	0.0%	0.0%	0.1%	1.7%	8.3%
95-100	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	4.4%

General System and User Functionality Requirements

The following section outlines some general system and user requirements/functionalities. Organizations should work closely with their vendor or IT team to outline the functionalitiesand to ensure ongoing support. Most user functionalities depend on how an organization plans to encode and use the PPI information. It is recommended that each organization's IT department arrange interviews with all possible users and business units to ensure their unique PPI information needs are identified before designing the PPI interface and backend. The following functionalities serve as a basis or an outline of options an organization can explore when deciding how to effectively incorporate the PPI information collection and reporting into its system.

Basic System Requirements and Functionalities

The basic **system functionalities** recommended are:

- Facility to store all PPI information, including:
    - Each PPI response (selection by user from a list of options)
    - PPI score between 0 – 100 (calculated or entered by user)
    - Corresponding likelihoods for each poverty line (automatically calculated or stored at the point of entry or reporting, depending on the system)
- Ability to capture unique client identification numbers (IDs) that match or link to the same client ID used for all client information, loan/savings tracking and any client transaction
- Ability to store multiple PPI scores and corresponding poverty likelihood percentages for each client. Another option is to calculate the poverty likelihood when reporting, but this would need to be determined by the IT personnel taking into consideration the amount of data and reporting functionalities.
    - Example, client one has three PPI scores and likelihoods over three years
- Ability to capture a time stamp:
    - For data entry date (automatic)
    - For date of PPI survey taken (manual entry)
    - And/or allow user to tag the PPI to an event or transaction (example, loan disbursement)
- Ability to include data encoding validation checks
    - All questions must be answered
    - Two responses cannot be selected per question
    - Certain basic client information must be provided (to ensure PPIs are not entered without required client information
- Option to export raw data alongside client demographics and financial transaction details
- Ability to edit and delete historical PPI responses/scores/likelihoods and client information
- Ability to allow for automatic or manual synchronization of PPI information from branches to headquarters, including a validation check on duplicates or inaccurate entries.
- Option to perform automatic validation checks for duplicate PPI entries
    - For example, the validation check can run based on client and date (no PPI should be entered with X amount of time between each entry).

- Ability to allow for PPI versioning (every couple of years the PPI scorecard and lookup table contents are updated). The update follows the same structure but the old scores must correspond to the old lookup table and the new scores with the new lookup table.
  - o Include facility to upload a PPI survey definition that contains all questions, potential answers, and information needed to calculate the PPI score and information needed to look up the percentage of likelihoods per poverty line
  - o If the uploaded survey definition does not meet the requirements for a valid PPI survey, the upload should be rejected (i.e. potential score must be between 0 and 100, exactly 10 questions, etc.)

    Important Guideline for PPI Analysis with Multiple Versions of the PPI
    Each PPI score refers to a specific corresponding lookup table. It is important not to mix up PPI scores from one PPI version to the next. For example, when using the 2005 PPI, an organization must ask the questions from the 2005 PPI and use the likelihoods from the 2005 PPI lookup table. When an organization has used two PPI versions over a period of time (2005 and 2009) it must use the 2005 PPI scores with the 2005 lookup table and the 2009 PPI scores with the 2009 lookup table. When analyzing longitudinal data the historical and new probabilities (likelihoods) are compared when reporting poverty levels over time. It is NOT appropriate to compare the PPI scores from two PPI versions (2005 and 2009). The scores must be translated to probabilities first and then those probabilities can be compared.

    When conducting analysis between versions, it is also important to ensure the comparison of the probabilities between the same corresponding poverty lines ($1/day/PPP with $1/day/PPP). Over time poverty lines are adjusted for inflation and purchasing power parity numbers are updated by the World Bank. Each time these adjustments come, they will be reflected in the new PPI version. These poverty lines will need to be linked within the system. Sometimes there will be new poverty lines that appear only in version 2 and not version 1, so the new poverty lines cannot be used for longitudinal reports or panel data.

    See the following diagram for a visual depiction of PPI versioning.
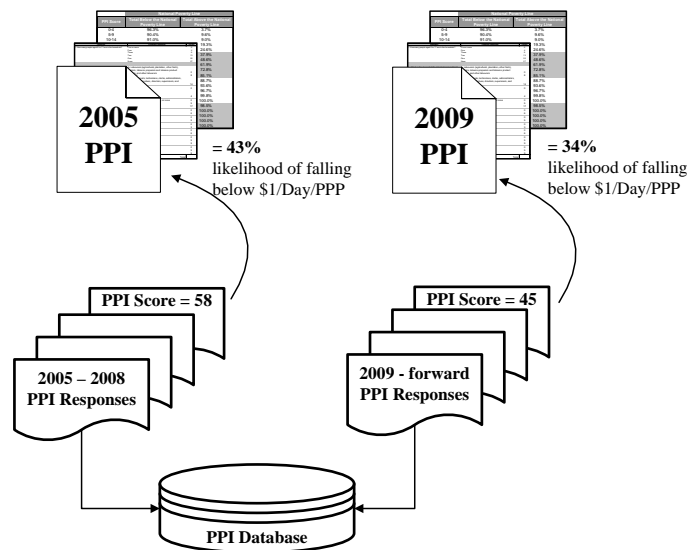
This demonstrates how the organization can:

o Link the poverty lines from multiple versions. For example, $1/day/PPP of the 2005 PPI would link to $1/day/PPI for the 2009 PPI. This means reports would include information across multiple versions
o Determine the PPI version based on the survey date (not the entry date in the event that data entry is behind schedule)

User Requirement and Functionality Considerations

User functionalities

When designing its information system, an organization should consider how to address the capture, storage and analysis of PPI information. Organizations should work closely with their vendor or IT team to outline the desired user functionalities and to ensure ongoing support. These decisions will depend on the preferences of field and operational staff. The organization can include:

• Option to enter PPI information in batches (especially PPI responses) with a validation check included
• Data entry interface that optimizes for efficiency (using either tab, enter or the mouse to click through responses)
• PPI data entry process embedded in loan application, renewal, and exit client interviews (depends on how the organization is collecting the PPI)
• Manager approval of data entry (possible validation check)
• Function to allow for data validation or quality control check depending on MFI process
• Enhanced search functions to find client PPI information
• Function to print blank and completed PPI forms
• Multiple user profiles (Data Entry, Administrator, Manager, etc.) depending on the needs of the various departments and staff

- Data entry user recorded so errors and entry rates can be determined per data entry staff
- Option to have one version of the PPI in multiple languages depending on the operations of the organization

PPI Reporting

Standards in PPI reporting continue to develop. This section is a work–in-progress and will be expanded in the coming months to reflect the innovative work by PPI partners across the globe. Organizations should work closely with their vendor or IT team to outline the desired reporting functionalities and to ensure ongoing support. At a basic level, PPI reporting should include:
- Ability to export PPI information alongside all client information (demographic, financial and transactional). This export can be used in Excel or software to analyze further.
- Ability to collect monitoring reports
- Total percentage of clients below various poverty lines
- Longitudinal analysis
- Ability to create PPI reports crossed or linked to any client and transaction information located in the information system (product, financial, transaction, and demographic information)