# Living Income CoP

The PPI and measuring income

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# The PPI® - A Simple Poverty Measurement Tool

- A statistically rigorous yet easy-toadminister poverty measurement tool
- Country specific, derived from National Income and Expenditure Surveys
- 10 questions and a scoring system
- Uses an indirect approach to poverty measurement
- Provides likelihood that respondent's household is living below poverty line
- Calibrated to national and international poverty lines
- Public good, available for free download at www.progressoutofpoverty.org

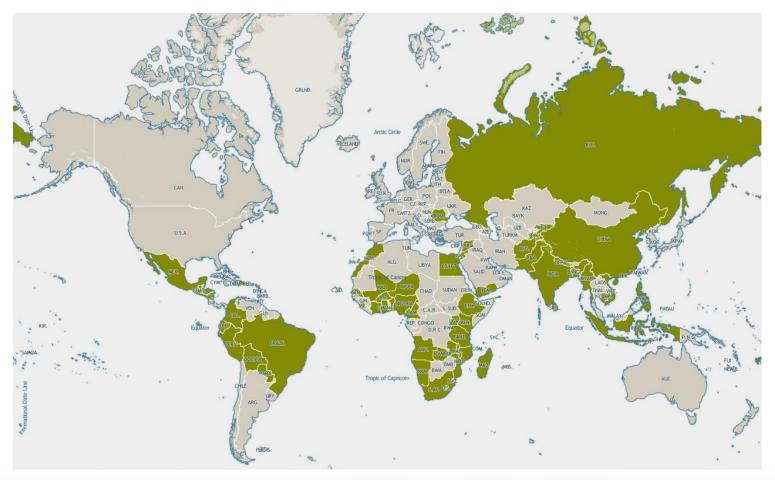




PPI Score	\$1.90/day 2011 PPP	\$3.10/day 2011 PPP	\$3.80/day 2011 PPP	\$4.00/day 2011 PPP
0 – 4	100.0	100.0	100.0	100.0
5 – 9	100.0	100.0	100.0	100.0
10 – 14	89.0	100.0	100.0	100.0
15 – 19	85.0	99.9	99.9	99.9
20 – 24	78.0	96.3	97.4	98.3
25 – 29	70.6	94.5	97.4	98.0
30 - 34	57.7	91.7	96.7	97.7
35 – 39	47.2	84.4	92.5	94.1
40 – 44	31.2	71.8	85.4	88.9
45 – 49	28.5	66.1	81.8	84.1
50 - 54	18.8	54.0	69.7	72.2
55 - 59	11.9	45.5	63.1	65.3
60 - 64	5.8	33.7	50.2	53.8
65 - 69	3.7	28.9	44.7	46.8
70 – 74	3.1	21.2	34.4	37.2
75 – 79	2.9	20.1	33.0	35.7
80 – 84	1.3	6.3	11.4	13.4
85 – 89	1.2	6.3	11.4	13.4
90 – 94	0.0	6.3	7.6	7.6
95 – 100	0.0	0.0	0.0	0.0

### The PPI's Global Reach Covers 90% of the World's Poor

The PPI is available for **60** countries, covering >90% of the world's population living below \$1.90/day (2011 PPP).



www.progressoutofpoverty.org/ppi-country

## The PPI has Become a Global Standard for Development

More than 500 organizations working at the BoP use the PPI for measuring poverty























































It has been incorporated into many impact investing and sector-specific measurement frameworks.







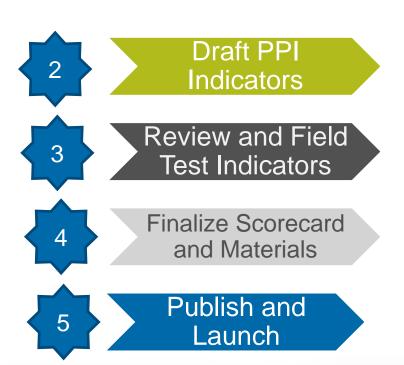


# Building the PPI Scorecard





Obtained from NSO, World Bank, other sources





# The PPI Scorecard - Uganda

Indicators		Responses	Score
1. How many members does the hou	usehold have?	A. Nine or more	0
		B. Eight	3
		C. Seven	4
		D. Five or Six	6
		E. Four	8
		F. Three	12
		G. Two	21
		H. One	28
2. Are all household members ages	6 to 12	A. No	0
currently in school?		B. Yes	2
		C. No one ages 6 to 12	5
3. Can the (oldest) female head/spor		A. No	0
write with understanding in any langu	uage?	B. No female head/spouse	0
		C. Yes	3
4. What type of material is mainly	A. Unburnt bri	cks with mud, mud and poles, or other	0
used for construction of the wall of the dwelling?		cks with cement, wood, tin/iron sheets, es, burnt stabilized bricks, or cement blocks	4
5. What type of material is mainly us	ed for A. T	hatch, or tins	0
construction of the roof of the dwelling	ng? B. Ii	ron sheets, concrete, tiles, asbestos, or other	5

Source: Uganda PPI (2012)

# The PPI Scorecard – Uganda (cont)

6. What source of energy does the	A. Firewood, cow dung, or grass (reeds)	0			
household mainly use for cooking?	B. Charcoal, paraffin stove, gas, biogas, electricity (regardless of source), or other				
7. What type of toilet facility does	A. No facility/bush/polythene bags/bucket/etc., or other	0			
the household mainly use?	B. Uncovered pit latrine (with or without slab), Ecosan (compost toilet), or covered pit latrine without slab				
	C. Covered pit latrine with slab	6			
	D. VIP latrine, or flush toilet	11			
8. How many mobile phones do me	mbers of your A. None	0			
household own?	B. One	7			
	C. Two	12			
	D. Three or more	22			
9. Does any member of your house	hold own a A. No	0			
radio?	B. Yes	7			
10. Does every member of the house	sehold have at A. No	0			
least one pair of shoes?	B Yes	9			

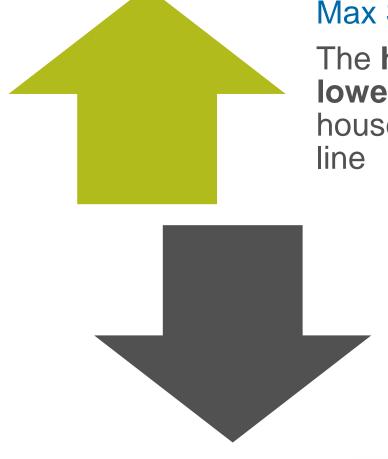
Source: Uganda PPI (2012)

# Computing A Household's PPI Score

Indicators	Responses	Soore
How many members does the household have?	A. Five or more	0
	B. Four	9
	C. Three	14
	D. Two	20
	E. One	23
. In the past calendar week, did the male	A. No	0
ead/spouse work for at least one hour?	B. No male head/spouse	- 6
	C. Yes	10
What is the mother tongue of the female	A. Something other than Spanish	0
nead/spouse?	B. Spanish	6
	C. No female head/spouse	10
How many rooms does the household occupy,	A. One or two	0
of counting bathrooms, kitchens, laundry rooms,	B. Three	2
garages, storage rooms, or rooms used for ouslness?	C. Four	5
usiness:	D. Five or more	7
. What is the main construction material of the	A. Dirt. or other	0
oors-of-the-residence?	B. Bricks, or cement	5
	C. Wood planks, hardwood floors or parquet, tile (mosaic, stone, or ceramic), or rug or carpet	11
. What type of toilet arrangement do the members	A. None/bush/field	0
f the household usually use?	B. Open-pit latrine (no solid floor), latrine with	5
-	solid moor, composting tollet, flush tollet or flush latrine, or other	
7. What is the main fuel or energy source used for cooking?	A Firewood, dung/manure, taqu/a, kerosene, or other	0
	B. LPG from a cylinder	7
	<ul> <li>C. Piped-in natural gas, electricity, or does not cook</li> </ul>	12
Does the household own, possess, or have the	A. No	0
ise of a refrigerator or freezer?	C. Yes	7
Does the household own, possess, or have the	A. No	0
ise of a television?	B. Yes	9
O. Does the household own, possess, or have the	A. No	0
ise of a motorcycle (for its personal use) or an automobile (for its personal use)?	B Yes	6
	Total Soore:	39

A household's PPI score is obtained by adding the points for individual response options. It is 39 in this case.

## Understanding A Household's PPI Score



#### Max Score = 100

The **higher** the score, the **lower** the likelihood that a household is below a poverty line

The lower the score, the higher the likelihood a household is below a poverty line

Min Score = 0

# Estimating A Household's Poverty Likelihood

PPI Score	\$1.25/day 2005 PPP	\$2.00/day 2005 PPP	\$2.50/day 2005 PPP	\$5.00/day 2005 PPP	\$8.44/day 2005 PPP
0 - 4	100.0	100.0	100.0	100.0	100.0
5 - 9	75.9	96.8	97.6	100.0	100.0
10 - 14	67.3	77.3	83.9	100.0	100.0
15 - 19	50.9	64.1	76.6	91.1	100.0
20 - 24	36.4	53.9	63.3	84.9	94.4
25 - 29	24.0	38.4	56.4	84.5	94.4
30 - 34	13.6	22.9	38.5	81.5	94.4
35 - 39	7.3	16.2	25.7	67.3	90.5
40 - 44	4.8	14.1	18.8	57.6	83.0
45 - 49	3.7	11.5	15.9	47.4	78.3
50 - 54	2.0	4.7	8.5	40.0	72.7
55 - 59	2.0	4.3	6.7	35.3	69.3
60 - 64	1.5	2.8	4.4	23.7	55.4
65 - 69	1.4	2.2	3.4	15.8	44.4
70 - 74	1.4	2.2	3.4	12.3	36.3
75 - 79	1.4	2.0	2.9	7.2	23.0
80 - 84	0.6	0.6	0.6	2.1	16.4
85 - 89	0.0	0.0	0.0	1.7	10.7
90 - 94	0.0	0.0	0.0	0.0	3.0
95 - 100	0.0	0.0	0.0	0.0	0.0

The PPI look-up table converts the PPI score to a likelihood that the respondent's household is living below various poverty lines. Here, the household that scored 39 has a 25.7% probability that its consumption is below the \$2.50/day 2005 PPP line.

#### The PPI is Not Just a Scorecard



Indicators		Responses			
1. How many household members are 18	8-years-	A. Six or more	0		
old or younger?		B. Five	2		
		C. Four			
		D. Three			
		E. Two			
		F. One	17		
		G. None	28		
Are all household members ages 6 to 18 currently in school?		A. No	0		
		B. Yes	3		
		C. No members ages 6 to 18	6		
3. What is the main building material	A. Baked b	icks	- 0		
used for the walls of the main building?	B. Poles an	d mud, grass, sun-dried bricks, or other	6		
	C. Stones, cement bricks, or timber				
4. What is the main building material used for the		A. Grass/leaves, mud and leaves, or other			
roof of the main building?		B. Iron sheets, tiles, concrete, or asbestos	6		
5. What is the main fuel used for	A. Firewood, coal, solar, gas (biogas), wood/farm		0		
cooking?	residuals, or animal residuals				
	B. Charcoal, paraffin, gas (industrial), electricity,		9		
6. Does your household have any televis		private source, or other A. No			
<ol> <li>Does your nousenoto have any televis</li> </ol>	ions?		0		
		B. Yes	15		
<ol><li>Does your household have any radios.</li></ol>	4	A. No	0		
cassette/tape recorders, or hi-fi systems'		B. Yes			
8. Does your household have any lantern	16?	A. No	0		
	200.100	B. Yes			
9. Does your household have any tables	3	A. No			
		B. Yes	.4		
10. If the household cultivated any crops			0		
months, does it currently own any buils, i		ers, B. No crops, and cattle			
heifers, male calves, female calves, or or	xen?	C. Crops, but no cattle			
		D. Crops, and cattle			

This PPI was creded in June 1016 using Targamo's 2011/12 Household Budget Surveyby Mark Schweiner of Microfinance Risk

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55 - 59	2.0	4.3	6.7	35.3	69.3
60 - 64	1.5	2.8	4.4	23.7	55.4
65 - 69	1.4	2.2	3.4	15.8	44.4
70 - 74	1.4	2.2	3.4	12.3	36.3
75 - 79	1.4	2.0	2.9	7.2	23.0
80 - 84	0.6	0.6	0.6	2.1	16.4
85 - 89	0.0	0.0	0.0	1.7	10.7
90 - 94	0.0	0.0	0.0	0.0	3.0
95 - 100	0.0	0.0	0.0	0.0	0.0

Ghana 2012 PPI® Interpretation of Indicators

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This short gales provides guistone on administering the Criman PPI and Institution to enter development of control and extension from such from Card Statistics Service (2012) "Extensioner's Sunney" ("Tiple Nameal) and Chinan Statistical Service (2012) "Extensional Coastonmain, Paris A and B: Chinan Living Gladeants Survey" (Tiple Coastonmain): Suggestions are down from the experiences and challenges faced during field testing conducted in Chana in January and February 2015.

**POVERT** 

General advice for conducting the interview

When an issue artises that is not addressed here, its resolution should be left to the unaided judgment of the enumerator, as that apparently uses the practice in Channa's 20 (21) Living Standards Survey. That is, an origination using the PPH should be promisigate any definitions or tales (other than those in these "Guidelines") to be used by at its field agents. Anything not explicitly addressed in these "Guidelines" is to be left to the unaided judgment of the inholicular enumeration.

Fill out the scorecard header and the "Back-page Worksheef" first, following the directions on the "Backpage Worksheef": In particular, do not last the first two scorecard indicators directly, Instead, use the information recorded on the "Back-page Worksheef" to determine the proper responses for the first two individuos.

#### 10-question PPI scorecard

First Name	Age	How many months of the past 12 has <name> been away?</name>	househo	name> a old member? ly rules)	If <name> is a household member 5- and 17-years-old, is he/she currently in school?</name>			
1.			No	Yes	Not 5–17 or not member	No	Yes	
2.			No	Yes	Not 5-17 or not member	No	Yes	
3.			No	Yes	Not 5-17 or not member	No	Yes	
4.			No	Yes	Not 5–17 or not member	No	Yes	
5.			No	Yes	Not 5–17 or not member	No	Yes	
6.			No	Yes	Not 5-17 or not member	No	Yes	
7.			No	Yes	Not 5-17 or not member	No	Yes	
8.			No	Yes	Not 5–17 or not member	No	Yes	
9.			No	Yes	Not 5-17 or not member	No	Yes	
10.			No	Yes	Not 5-17 or not member	No	Yes	
11.			No	Yes	Not 5-17 or not member	No	Yes	
12.			No	Yes	Not 5-17 or not member	No	Yes	
13.			No	Yes	Not 5-17 or not member	No	Yes	
14.			No	Yes	Not 5-17 or not member	No	Yes	
# Members:				#"Yes"				

#### **Back-Page Worksheet**

#### Look-Up Table Interview Guidance

Figure 2 (Myanmar): Poverty lines, and poverty rates at the household-level and person-level by urban, rural, and all

		Poverty lines and poverty rates (%)							
		National				USAID	Intl. 2005 PPP		
Region	Line/rate	Food	ood 100%	150%	200%	'extreme'	\$1.25	\$2.50	
Rural	Line	718	982	1,473	1,964	843	753	1,506	
	Rate (households)	4.2	24.7	74.4	94.3	11.9	28.7	91.9	
	Rate (people)	5.6	29.2	78.7	95.9	14.6	35.9	95.3	
Urban	Line	798	1,091	1,636	2,182	912	837	1,674	
	Rate (households)	1.9	12.0	49.7	76.2	6.1	14.1	72.2	
	Rate (people)	2.6	15.7	57.2	81.1	7.8	20.4	79.8	
All	Line	739	1,010	1,515	2,021	861	775	1,550	
	Rate (households)	3.6	21.3	67.8	89.4	10.3	24.8	86.6	
	Rate (people)	4.8	25.7	73.1	92.0	12.9	31.9	91.3	

Source: 2009/10 Integrated Household Living Conditions Assessment.

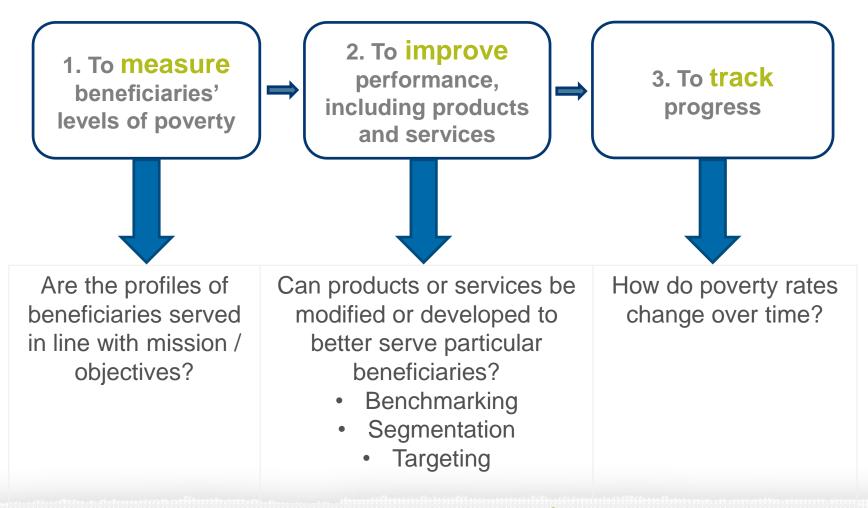
#### **Design Documentation**

Documents published on PPI country page - <a href="http://progressoutofpoverty.org/country">http://progressoutofpoverty.org/country</a>

# PPI and Income

- ▶ The PPI does NOT measure income levels
- The PPI was created because household income itself is so hard to capture accurately
- Consumption is generally considered to be a better measure of poverty or welfare than income
- The PPI provides an easy way to obtain a consumption-based poverty estimate
- ► The PPI estimates consumption compared to a poverty line
- ▶ If household consumption is low (e.g. below or close to the \$1.90 PPP poverty line), consumption and income will be very similar
- Relationship to Living Income: Could possibly add a 'living income' line to PPI look-up tables

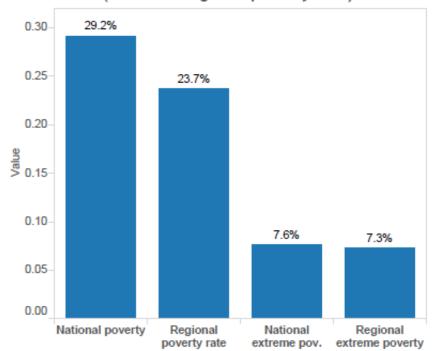
# PPI Has 3 Primary Use Cases



# Example - Coffee Project in Colombia

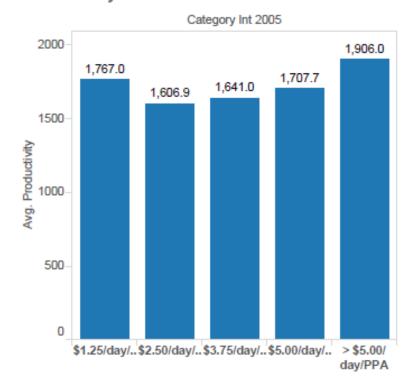
Illustrative example with poverty data from 3500 farmers in Andes Region of Colombia

#### Penetration (Andes vs Regional poverty rate)



Benchmarking project poverty rate vs regional and national poverty rates

#### Productivity vs International 2005



Comparing farmer productivity by poverty segments

# How has PPI been tested for use in Ag Supply Chains?

- ► Food Lab study with Unilever in Kenya (2013)
- COSA study comparing economic indicators (2013)
- Starbucks and Grameen Foundation (ongoing)
- ► Others??

# Limitations and Challenges

The PPI indicators are sourced from a <u>national</u> expenditure survey.

Thus, some questions may be less applicable and the PPI results less accurate in sub-national areas with specific socio-economic characteristics

The PPI's accuracy may decrease with increase in time between when the national survey was conducted and when the PPI is applied.

**Reminder**: The PPI should be used within a robust impact assessment in order to make any conclusions about the causality of changes in poverty.

# Questions?

#### Thank you!

#### Stay informed about the PPI:

- Create an account on progressoutofpoverty.org
- Sign up for the PPI newsletter
- Follow PPI on Twitter @povertyindex
- Contact me: jpeachey@poverty-action.org



# Learning Resources On PPI Website

Practical advice and instructions for new PPI users.

For <u>trainers educating</u>
<a href="https://doi.org/10.2007/journal.com/">others</a> on the use of the PPI

Standards of Use

Checklist of best practices to ensure PPI data remains accurate and relevant

Piloting and implementing the PPI

Data Management and Analysis

Resources to compute and interpret poverty data

PPI Trainer Toolkit

Case Studies and Reports

Studies on how various organizations have used the PPI

## **PPI User Support Services**

ppi@poverty-action.org ppihelpdesk@poverty-action.org Provided by IPA and Regional Support Partners

Help Desk

Support Services

Self-reported trainers who have passed the PPI Knowledge Test

Trainer Registry

PPI Certification Administered by participating rating agencies

Data Collection

Free data collection tools