Working towards a living income: Calculating living income reference prices

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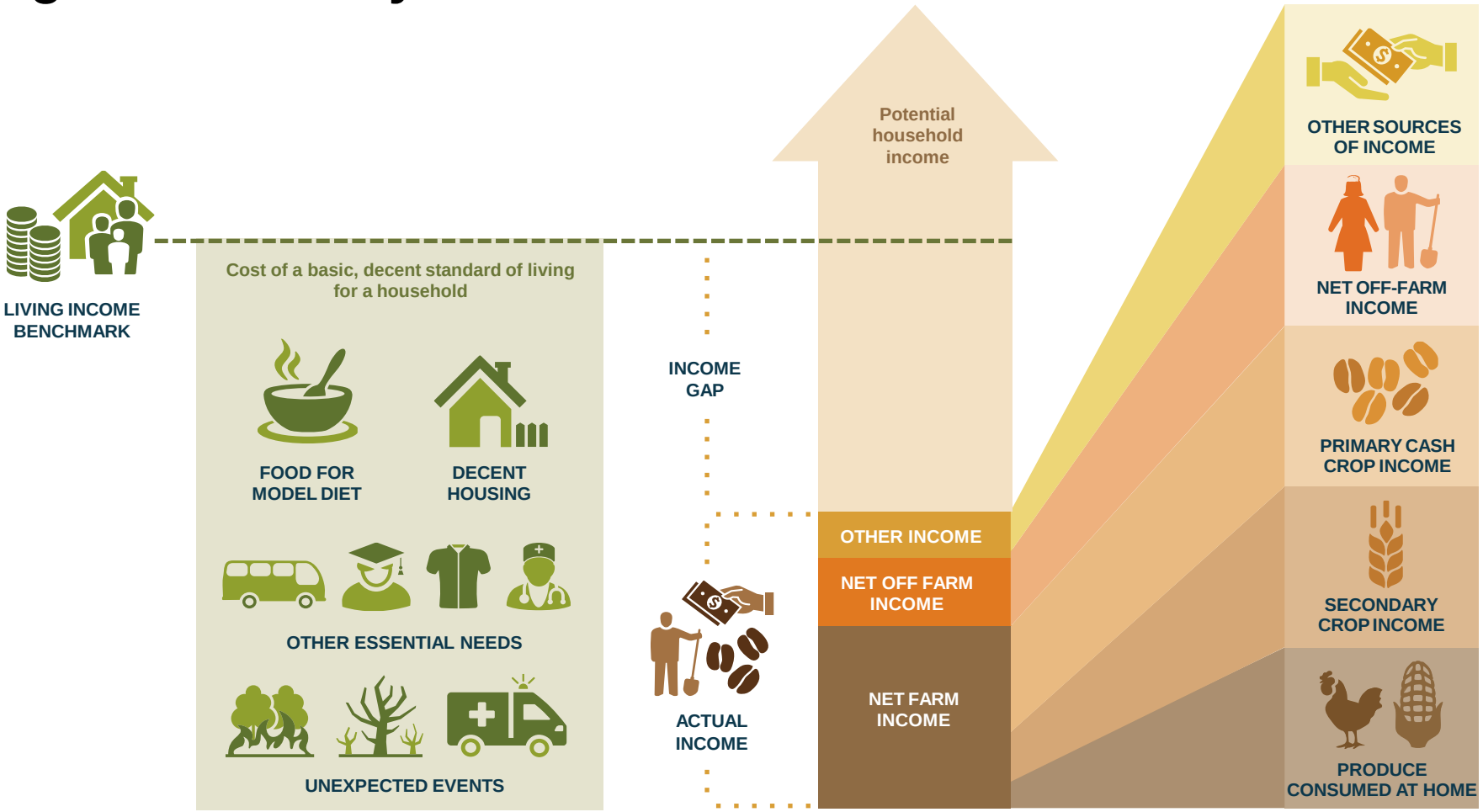
The Living Income Story



For more information and to join the community visit:
www.living-income.com

Contact: livingincome@isealalliance.org

Supported by the Federal Ministry for Economic Cooperation and Development

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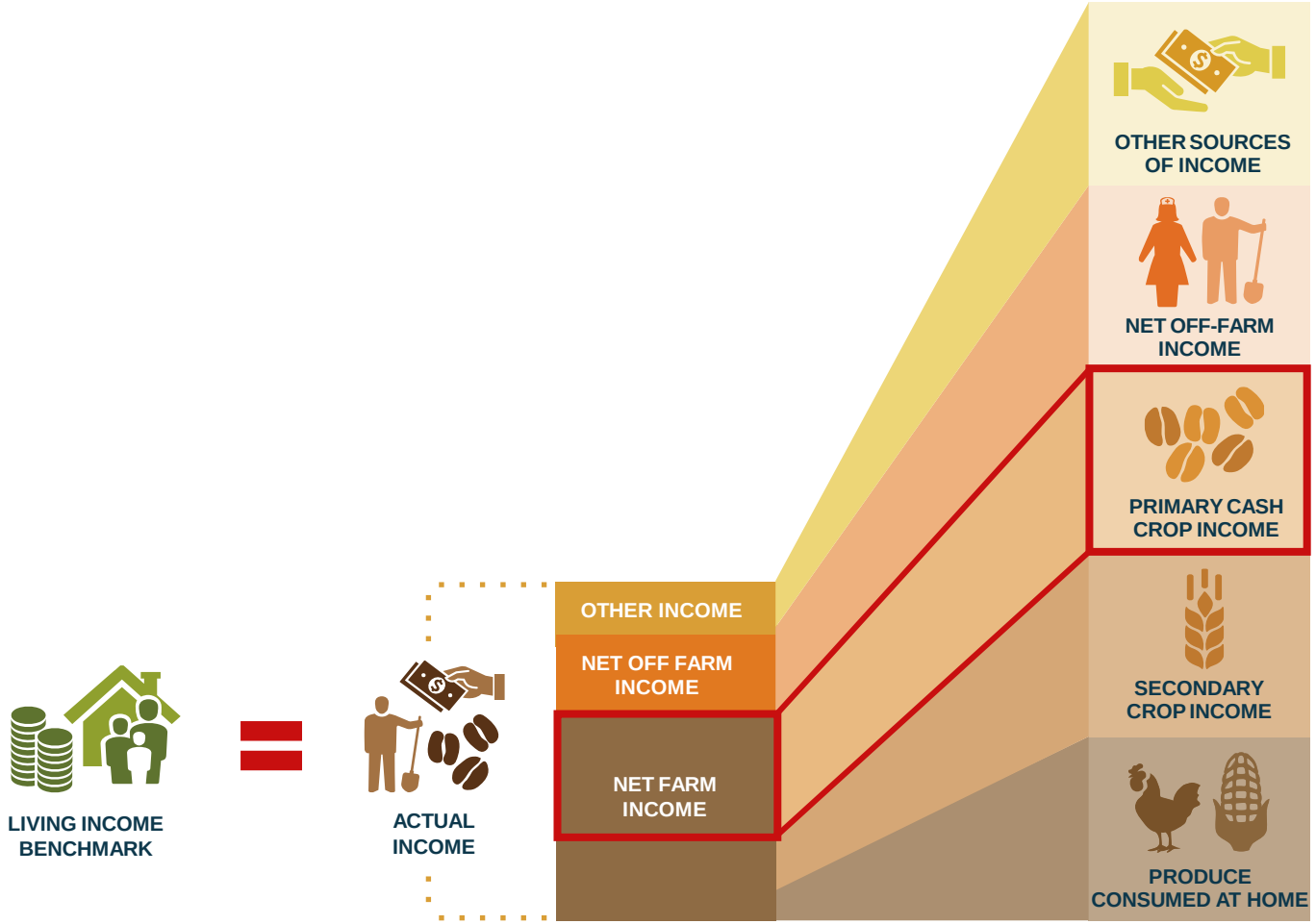
Price as one piece of the puzzle



Net income = Benchmark

Crop revenue – Costs = Benchmark

Price * Yield – Costs = Benchmark

$$LI\ Reference\ Price = \frac{LI\ Benchmark + Costs}{Yield}$$

Calculation approaches

$$LI\ Reference\ Price = \frac{LI\ Benchmark + Costs}{Yield}$$

Primary cash crop contributes X % to household **income**

→ adjusting by income share

$$LIRP = \frac{\frac{\boldsymbol{inc\ main\ crop}}{\boldsymbol{total\ income}} * LIB + C}{Y}$$

Primary cash crop demands X % of household **labor**

→ adjusting by labor aspects

$$LIRP = \frac{\frac{\boldsymbol{deployed\ HH\ labor}}{\boldsymbol{available\ HH\ labor}} * LIB + C}{Y}$$

$$LIRP = \frac{LIB + C}{Y * \boldsymbol{fully\ employed\ land\ size}}$$

Data requirements

$$LI\ Reference\ Price = \frac{LI\ Benchmark + Costs}{Yield}$$

	Approach 1	Approach 2	Approach 3
Principle	Consider **income share** of focus product	Consider **labor share** invested in focus product	Consider **fully employed land size** with focus product
Data requirements			
Similarities	• Benchmark • Yield levels • Production costs		
Differences	• Total HH income • Income derived from focus product	• HH labor capacity • Labor input into focus product	• HH labor capacity • Land size that would fully absorbe HH labor • Assumptions on other crops produced (labor demand)

How to feed the equations?

Benchmark

- Anker Living Income benchmark
- Best alternative benchmark

Yield & Cost of production

- Production system

Primary / secondary data

Prevailing production system

- "Business as usual" using average data on yields and costs

Best prevailing production system

- "Best business as usual" using average data of the most profitable farmer cluster

Model data

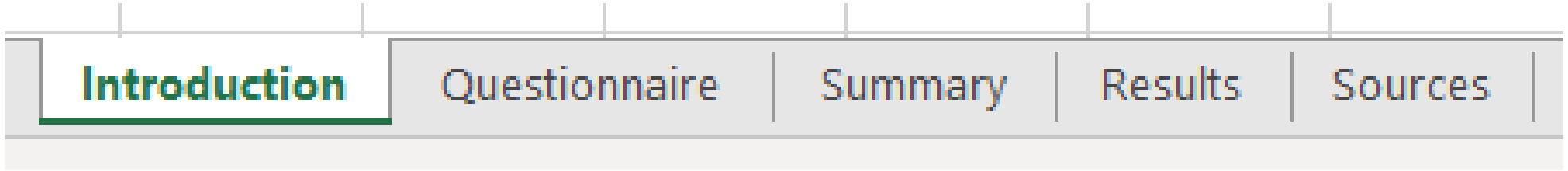
Model production system

- "Good agricultural practices" using validated information of potential yields and costs

Reference Price Calculator (v0.3)

General information

- Excel-based tool to calculate reference prices for a given agricultural commodity (crop) in relation to different benchmarks, incl. Living Income
- Focus on calculation approach 1 (income share) and approach 2 (labor share)
- Gross margin calculations for three production scenarios
- Data input in “questionnaire“ sheet
- Provides results table and figure on reference prices and price gaps



Reference Price Calculator – questionnaire

Questionaire

		Questions			
General Information	1	Please select country	Ethiopia		
	2	Region / locality	Nono Sale		
	3	Commodity of interest	Semi-garden coffee		
	4	National currency (e.g. USD, EUR, etc.) and exchange rate to 1 USD	ETB	23	1 USD

		Questions	Unit	Production scenario		
				Prevailing	Best quartile	Good agricultural practice
Sample information	5	Please enter total number of farmers (sample size)	N	158	40	
	6	Please enter average houshold size	N	5	5	
	7	Please enter average number of adult household members	N	3	3	
	8	Please enter total household labor capacity of an average household.[1]	workforce	1,65	1,65	
	9	Please enter total number of working days per year for one worker.[2]	days / year	250	250	
Revenue	10	Please define reference land size (e.g. ha, total).	ha	1	1	1
	11	Please insert average yield per year per defined land area.	kg	194,00	412,00	
	12	Please insert average price paid per kilo.	ETB / kg	22,00	22,00	
B		Please insert the Living Income benchmark per houshold per month of this region.[3]	ETB / HH /m	4.858,00		58.296,00

Production scenario

Prevailing	Best quartile	Good agricultural practice
200	50	
5	5	
3	3	
1,65	1,65	
250	250	

0,00
0,00
0,00
69,88
05,00
16,00

Notes	1	To determine the household workforce, please refer to Chapter 13 in Anker and Anker (2017); if not available, household size multiplied by 0.3 may be used as a first proxy
	2	250 working days may be used as a rule of thumb for rural smalholder households
	3	Please indicate here the poverty line per year and household. You can find the data on the World Bank website. Multiply the daily line by the size of the household and by 365.
	4	Please obtain the data from official sources of the country e.g. the Statistical Office
	5	Please obtain the data from official sources of the country e.g. the Statistical Office or the Ministry of Labour
	6	Please refer to official Living Income benchmarks or proxies determined by the calculation method of Martha and Richard Anker.

General information

Sample information

Gross-margin calcualation
- Revenue
- Cost of production

Benchmark information

Reference Price Calculator – results (table)

Example: Ethiopia, semi-garden coffee

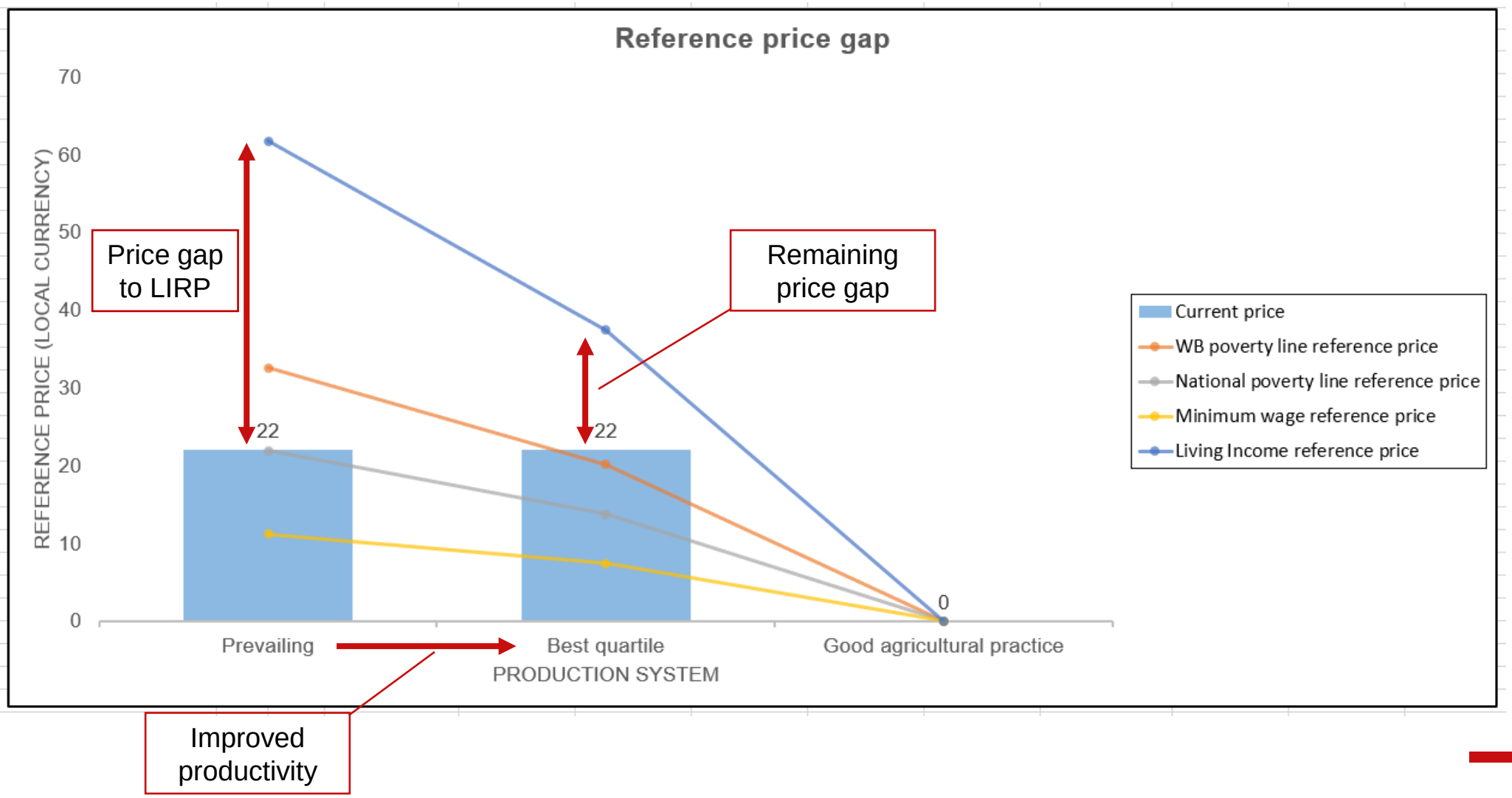
Reference price

Price gap in %

Results												
Production system		Prevailing			Best quartile			Good agricultural practice			Benchmark	
Reference price for	Unit	Current price	Reference Price	%-difference	Current Price	Reference Price	%-difference	Current Price	Reference Price	%-difference	Household with a laborforce of	1,65
World Bank Poverty Line	ETB / kg	22,00	**32,56**	48%	22,00	**20,09**	-9%	0,00	**#DIV/0!**	#DIV/0!	29.459,88	
National Poverty Line	ETB / kg	22,00	**21,87**	-1%	22,00	**13,76**	-37%	0,00	**#DIV/0!**	#DIV/0!	18.905,00	
National Minimum Wage	ETB / kg	22,00	**11,15**	-49%	22,00	**7,40**	-66%	0,00	**#DIV/0!**	#DIV/0!	8.316,00	
Living Income	ETB / kg	22,00	**61,74**	181%	22,00	**37,40**	70%	0,00	**#DIV/0!**	#DIV/0!	58.296,00	

Notes:
The benchmarks refer to the values for an average sized household with the respective labor force.
Laborforce is estimated using 0.3 labor equivalents per household member

Reference Price Calculator – results figure



Reference Price Calculator (v0.3)

Using the tool: how it promotes your work

- Refine pricing strategies adjusted to specific project context
- Understand the linkages between farm based interventions (GAP) and pricing strategies within a holistic living income approach

Let us collaborate to test and further develop the tool to make it practical and powerful

- The current beta version is available for testing
- Questions, suggestion and comments are most welcome!