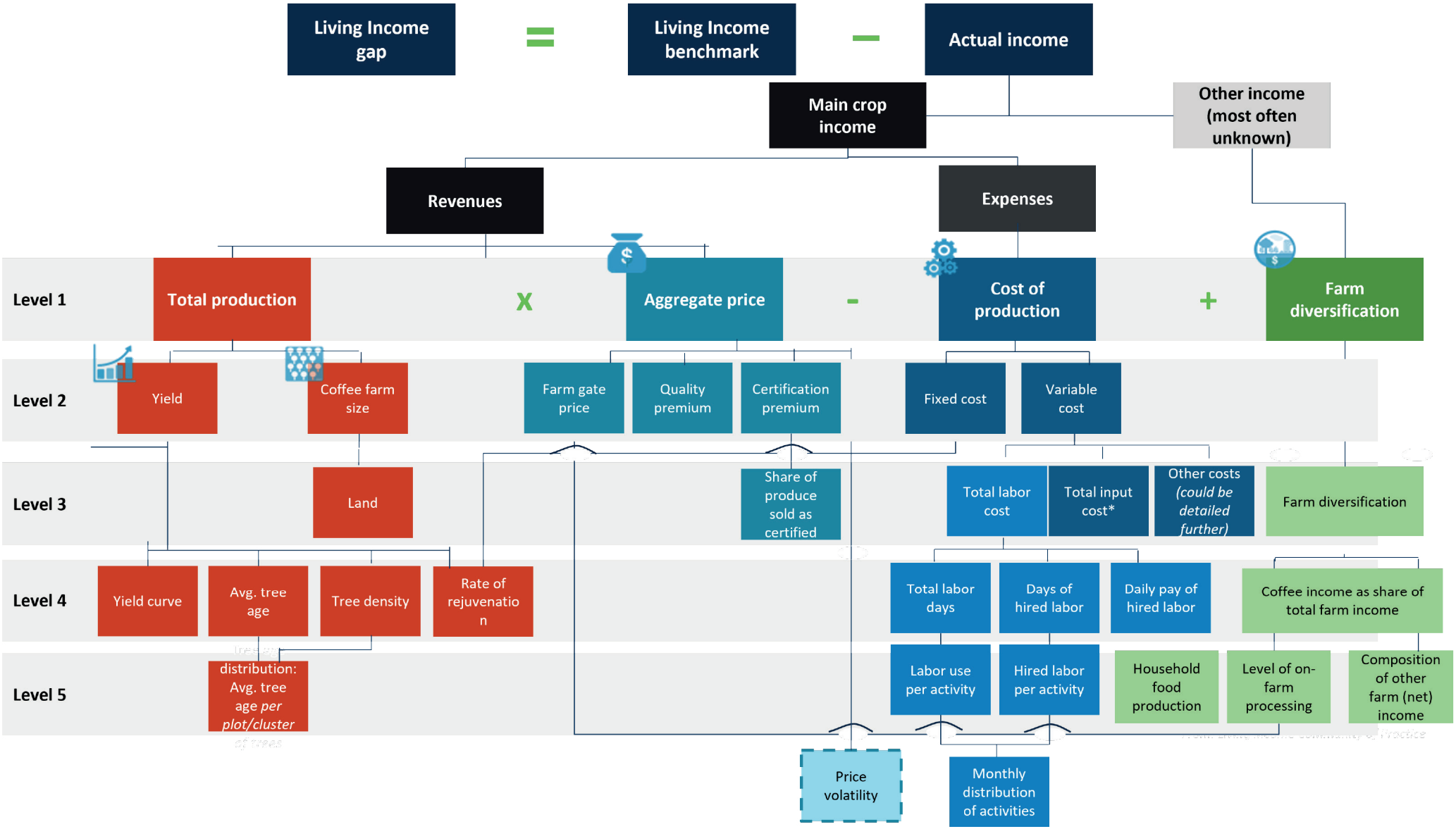
Step 5.1


Living Income gap
=
Living Income benchmark
-
Actual income
Main crop income
Other income (most often unknown)
Revenues
Expenses
Level 1
Total production
x
Aggregate price
-
Cost of production
+
Farm diversification
Level 2
Yield
Coffee farm size
Farm gate price
Quality premium
Certification premium
Fixed cost
Variable cost
Level 3
Land
Share of produce sold as certified
Total labor cost
Total input cost*
Other costs (could be detailed further)
Farm diversification
Level 4
Yield curve
Avg. tree age
Tree density
Rate of rejuvenation
Total labor days
Days of hired labor
Daily pay of hired labor
Coffee income as share of total farm income
Level 5
distribution: Avg. tree age per plot/cluster
Labor use per activity
Hired labor per activity
Household food production
Level of on-farm processing
Composition of other farm (net) income
Price volatility
Monthly distribution of activities

Step 5.1

 x  x  −  + 

1. INCOME DRIVER	Farm size (Ha)	Yield (kg/ha)	Price (LCU*/kg green)	Cost of production (LCU/ha)	Diversification (LCU/year)
Current: What are the current estimates for small farmers?					
Desired: What is desired, but achievable for each driver?					
Interventions: What are the ways to improve this income driver?					
Hypotheses, considerations and questions					

*LCU = Local Currency Unit

Step 5.1

	Income	=	**Land**	X	**Yield**	X	**Price**	−	**Cost of production**	+	**Diversified income**
	Total net income per household per year		Total productive coffee farm- land		Volume of green coffee produced per plot of land		Price per unit of (green) coffee at farm-gate level		Cost of producing coffee per plot of land		Total net income from non-coffee sources (on-farm and off-farm) per household per year
Example*	*268,884 LCU*/year*	=	*1.66 hectares*	X	*156 kg/ha*	X	*824 LCU/kg*	−	*47,989 LCU/ha*	+	*135,249 LCU/year*

*LCU = Local Currency Unit

Step 5.2

Characteristics

	Archetype 1 *Conventional*	Archetype 2 *Conventional with product value recognition*	Archetype 3 *High value consumer experience*	
Description	Coffee sold in ground blend with minimal importance of brand name to end consumer. Traded in long value chain, via middlemen, without any direct relation with producers and no transparency.	Mainstream – often certified coffee – where product qualities and transparency are (partly) being valued. Roasters work with few dedicated traders, often in longer term relationships.	Aiming at single-serve market segment, importance is paid to brand name and inherent sustainability strategy. Traceability and long-term relations play important role.	Specialty coffee catering high-value consumer market, mostly sold in cafes. Roasters performing direct trade or with minimal actors, offering future contracts and often supporting on-farm improvements.
Market segment	*Pure commodity* — *Specialty*	*Pure commodity* — *Specialty*	*Pure commodity* — *Specialty*	*Pure commodity* — *Specialty*
Sourcing relations	*Short-term* — *Long-term*	*Short-term* — *Long-term*	*Short-term* — *Long-term*	*Short-term* — *Long-term*
Value chain structure	*Short VC* — *Long VC*	*Short VC* — *Long VC*	*Short VC* — *Long VC*	*Short VC* — *Long VC*
Recognition of quality and sustainability	*Separate* — *Integrated*	*Separate* — *Integrated*	*Separate* — *Integrated*	*Separate* — *Integrated*

Step 5.2

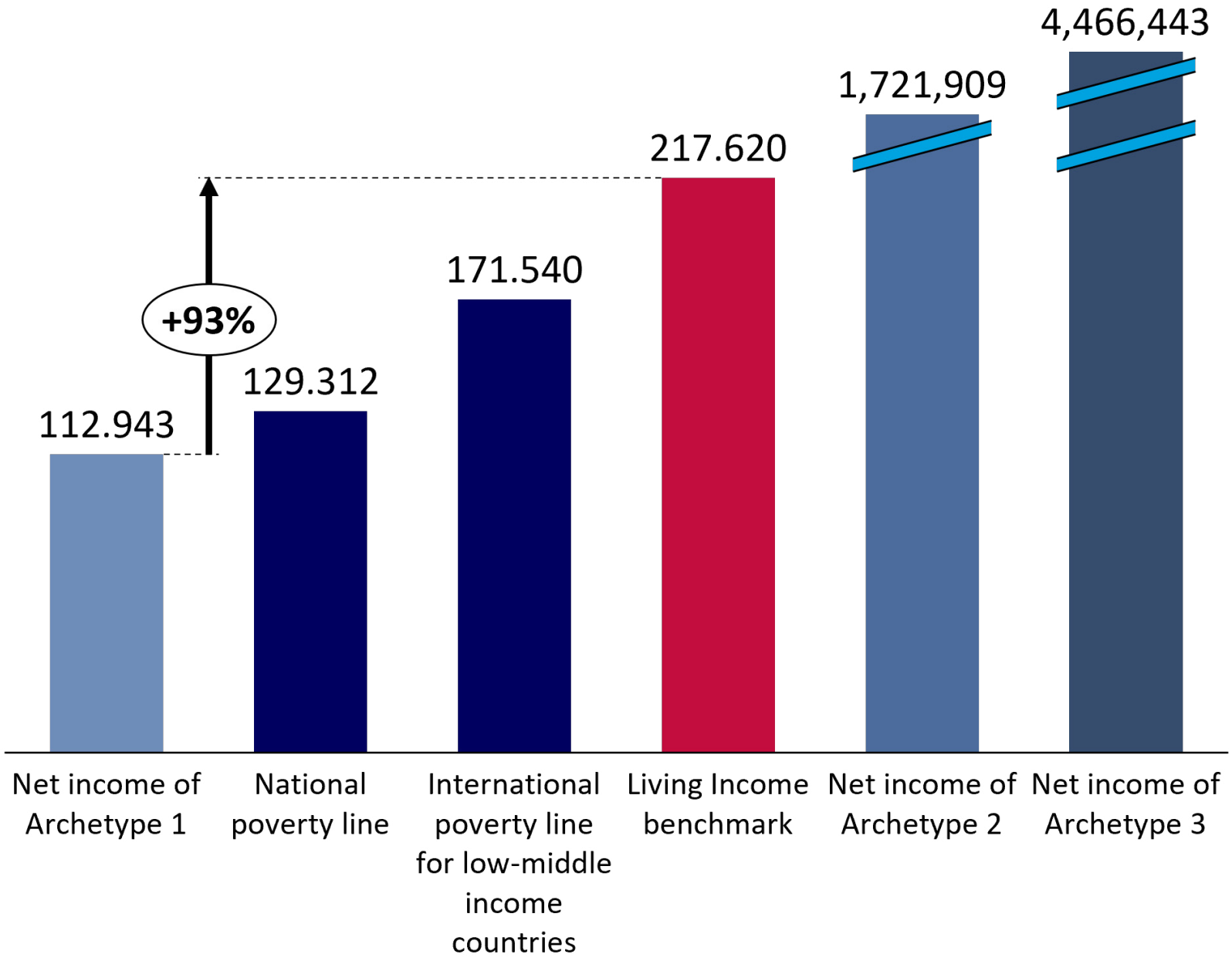
	Archetype 1 *Smallholders* How many are they in your context? What is the average number of hectares that they own? What percentage of coffee national production they are responsible for?	Archetype 2 *Mid-sized farms* How many are they in your context? What is the average number of hectares that they own? What percentage of coffee national production they are responsible for?	Archetype 3 *Large farms* How many are they in your context? What is the average number of hectares that they own? What percentage of coffee national production they are responsible for?
Area (ha)*			
Yield (kg/ha/year)*			
Price (LCU/kg)*			
Cost of production (LCU/ha/year)**			
Diversification (LCU/year)*			
Net income (LCU/year)			

*LCU = Local Currency Unit

Step 5.2

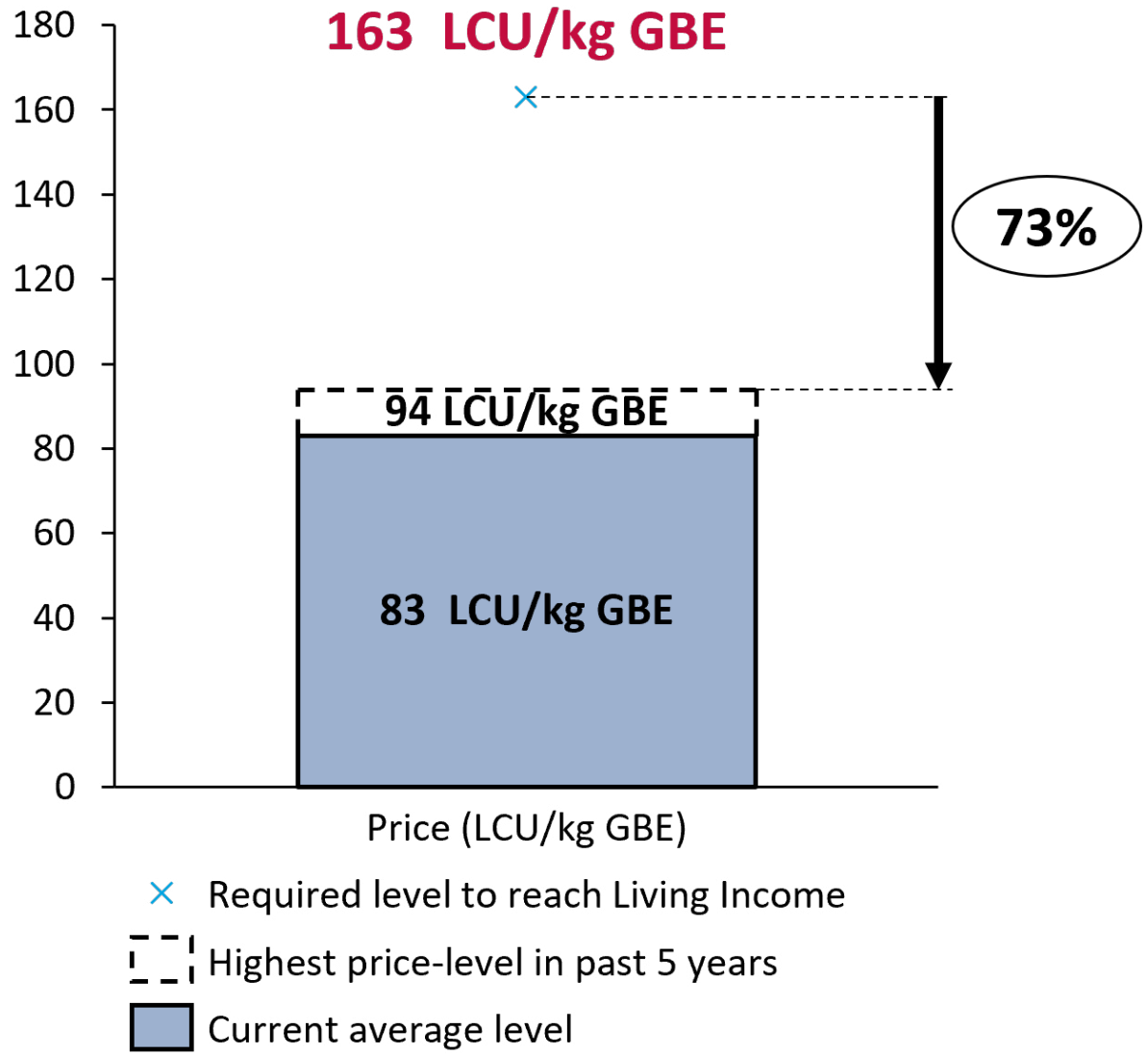
Indicative analysis	Archetype 1 *Smallholders* In Country X, 94% of farmers are smallholders, owning 7 hectares of coffee land or less. These individuals collectively produce 64% of the national coffee production.	Archetype 2 *Mid-sized farms* Nearly 6% of the farmers are 'mid-sized' farmers, holding 7-35 ha of land and producing 29% of the national coffee production.	Archetype 3 *Large farms* ~300 farms in Country X are 'large' farms with area above 35 ha. 7% of the national coffee volume is produced on these farms.
Area (ha)*	2.4	18.7	35
Yield (kg/ha/year)*	662	1080	1555
Price (LCU/kg)*	94	94	94
Cost of production (LCU/ha/year)**	34,819	34,819	34,819
Diversification (LCU/year)*	48,838	491,470	588,712
Net income (LCU/year)	112,943	1,721,909	4,466,443

Step 5.3


4,466,443
1,721,909
217.620
171.540
+93%
129.312
112.943
Net income of Archetype 1
National poverty line
International poverty line for low-middle income countries
Living Income benchmark
Net income of Archetype 2
Net income of Archetype 3

Step 5.4

Indicative analysis



Step 5.5

Indicative analysis

Yield (kg/ha) (% change in yield)

Productive coffee farm-land (in ha) (% change in land)

		-15%	0	15%	30%	45%	60%	75%	100%
		562.7	662	761.3	860.6	959.9	1059.2	1158.5	1324
-50%	1.20	56,171	66,088	76,005	85,922	95,839	105,757	115,674	132,202
0	2.40	70,585	90,419	110,253	130,088	149,922	169,757	189,591	222,648
15%	2.76	74,909	97,719	120,528	143,338	166,147	188,957	211,766	249,782
30%	3.12	79,233	105,018	130,803	156,587	182,372	208,157	233,941	276,916
45%	3.48	83,557	112,317	141,077	169,837	198,597	227,357	256,116	304,049
60%	3.84	87,882	119,617	151,352	183,087	214,822	246,557	278,291	331,183
75%	4.20	92,206	126,916	161,626	196,336	231,046	265,757	300,467	358,317
100%	4.80	99,413	139,082	178,750	218,419	258,088	297,757	337,425	403,540

Step 5.6

	Current average values	Scenario 1	Scenario 2	Scenario 3
Key improvements		*Increasing yields and prices but with a small farm size*	*Increasing yields incrementally whilst doubling farm-size*	*Increasing farm-size and yields whilst keeping prices steady*
Price (LCU*/kg)	83	**97**	**80**	85
Yield (kg/ha/year)	662	**950**	**875**	**920**
Farm size (ha)	2.4	**1.5**	**5**	**7**
Cost of production (LCU/ha/year)	34,819	34,810	34,817	**50,000**
Diversification (LCU/year)	41,757	**131,125**	41,756	20,220
Net annual income (LCU/year)	90,419	217,620	217,620	217,620
Living Income gap (LCU/year)	*127,201*	*0*	*0*	*0*

Step 5.7

Income driver: Which income driver is affected by the intervention? (Select 2 maximum)	**Intervention**: What intervention can help improve this income driver?	**Enabling action**: What action can help put the intervention into practice?	**Stakeholders and intervention**: Which stakeholders should do what – does this intervention help them achieve their goals, and in what way?
Size (Ha)			
Yield (kg/ha)			
Price (LCU*/kg green)			
Cost of production (LCU/ha)			
Diversification (LCU/year)			
Your strategy: How does it contribute to your existing strategy?			

Step 5.7

Interventions

Incentivize regenerative agricultural practices through:

Enabling environment:
- Train farmers
- Subsidize organic inputs
- Provide guidelines

Supply-chain level:
- Price premiums
- Buy carbon credits

Farm-level:
- From chemical to organic inputs (e.g., fertilizer)
- From monocropping to intercropping and diversification
- From burning of organic 'waste' to use for mulching

Effect on each income driver

Enable impact at almost each driver by enhancing revenues (price, yield, diversification) and decreasing costs

	Effect per income driver	Explanation
Price (LCU/kg)	+5%	Higher quality product
Yield (kg/ha/year)	+15%	Soil improvement noticeable after 3 years
Farm size (ha)	0	No noticeable change
Cost of production (LCU/ha/year)	-10%	Cost of inputs such as fertilizer reduces due to use of organic inputs
Diversification (LCU/year)	+20%	Sales of other crops and ecosystem services

Effect on income increase

Reach +33% net income increase, raising farmers out of poverty