April 2026

Fairtrade Living Income Reference Prices for Cocoa from Ghana & Côte d'Ivoire

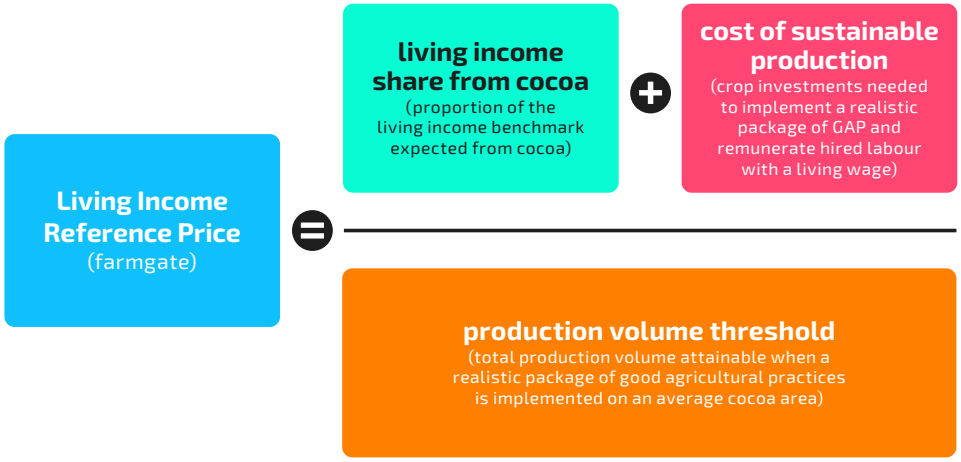
EXPLANATORY NOTE

1 Background & process

Critical stakeholder feedback following the **launch of updated Living Income Reference Prices for cocoa from Côte d'Ivoire and Ghana** in January 2025 triggered a **comprehensive analysis** of the foundations of the Fairtrade's Living Income Reference Price (LIRP) model. Fairtrade, supported by Agri-Logic, engaged key cocoa sector stakeholders in a thorough review of the underlying principles, with the aim to enhance the model, better reflect the farmer reality, and ensure the price benchmark remains fit for purpose.

An Expert Advisory Council (EAC) composed of key stakeholder representatives - including three producers, three civil society organizations, five market partners, a government and three independent experts - was set up as an independent sounding board to provide critical inputs and guidance throughout the process.

While stakeholder views differ in some areas, the amendments made to the model aim to reflect a reasonable middle ground (see box opposite).



Changes to the Living Income Reference Price model for cocoa

- **Farm size:** The reference price is now based on the average cocoa-growing area of Fairtrade farmers (instead of an extrapolated "viable farm size" for farmers to depend entirely on cocoa income).
- **Proportionality approach:** The diversified income reality of cocoa farming households is factored in by applying a "labour share" approach. This is the share of a living income that should be generated from cocoa based on the proportion of time dedicated to cocoa farming and upholds the principle of just remuneration for work as a human right: both household labour and hired labour effectively deployed in cocoa should be remunerated with a living wage.
- **Co-responsibility:** The LIRP model still builds on a principle of co-responsibility, in which farmers are responsible for adopting good agricultural practices (GAP). However, a more realistic expectation of farmers' adoption levels is determined and the current average productivity of Fairtrade farmers is considered as the corresponding attainable yield level.
- **Volume threshold:** The actual average total cocoa volume produced by Fairtrade farmers (rather than a yield target multiplied by a specific farm size), as well as the actual average total cost of production, is used as the leading volume threshold in the LIRP calculation, in order to offset the relatively high productivity that can be achieved on small farms with higher investment versus the lower yielding, low cost larger cocoa areas.
- **In kind income:** In-kind income from food produced on the cocoa farm is taken out of the equation to simplify the model.

The revised LIRP values for cocoa from Côte d'Ivoire and Ghana are grounded in research evidence, with generous data contributions from Fairtrade cooperatives and several partners, including Barry Callebaut, IDH, Rainforest Alliance and Agri-Logic, KIT and Tony's Open Chain, made available to Fairtrade for the analysis[1].

The data analysis was complemented by three iterations of focus group discussions with Fairtrade farmers in Ghana and Côte d'Ivoire, as well as a data deep dive workshop that brought together a group of data owners, producers and stakeholders to exchange and jointly interpret relevant data findings.

Validation Committees, comprised of four producer representatives per country, conducted final validation of the LIRP proposals.

This document presents the rationale and revised LIRP values for cocoa from Côte d'Ivoire and Ghana, to enter into force at the start of the upcoming cocoa season, in September or October 2026.

1 These data, as well as data from studies, were used to calculate the long-term weighted averages for key variables for Côte d'Ivoire (seasons 20/21, 21/22, 23/24, 24/25) and Ghana (seasons 22/23, 24/25). For Côte d'Ivoire the maximum sample size across all datasets for Fairtrade farmers was 30,255 and 8,837 for non-Fairtrade farmers. The maximum sample sizes for Ghana were 6,164 and 1,901 respectively for Fairtrade farmers and non-Fairtrade farmers.

2 Unpacking the reference price variables

2.1 Cocoa area, good agricultural practices & attainable yield

The new LIRPs are based on the actual cocoa area. The average cocoa area of Fairtrade farmers is **2.8 hectare in Côte d'Ivoire** and **1.3 hectare in Ghana**. These are smaller than the overall average cocoa farm size in both countries.

In focus groups, Fairtrade farmers discussed what good agricultural practices (GAP) are commonly being implemented on cocoa farms. An overview of these practices is presented in annex A. The analysis was compared with research data and discussed in the Expert Advisory Council. The general perception is that the defined package of good agricultural practices can be considered as "best practice" but it does not reflect the reality that is shown in the data. The actual GAP adoption is much lower and goes hand in hand with low farm investments (see following sections).

Côte d'Ivoire

The Ivorian farmers in the focused group discussions agreed that a yield of 600 kg/ha is realistically attainable in the short term. This coincides with the actual long-term average productivity of 597 kg/ha for Fairtrade farmers in the data analysis.

The average non-Fairtrade farmer has a slightly lower yield of 537 kg/ha, but farmers in company programmes with similar levels of GAP adoption achieve a higher average of 684 kg/ha, suggesting that a yield of 600 kg/ha is feasible also for committed farmers generally.

The data analysis further finds an average long-term total production volume of 1566 kg for Fairtrade farmers, compared to 1903 for non-Fairtrade farmers, who have larger cocoa areas on average.

Ghana

In the case of Ghana, farmers in the focus group discussions agreed that a yield of 625 kg/ha in feasible. This contrasts with the research data that show an actual average of only 465 kg/ha for Fairtrade farmers over the past two seasons. However, the average total cocoa volume produced by Ghanaian Fairtrade producers is 870 kg, which is much higher than the average cocoa area multiplied by the average yield. This confirms the assumption that smaller farms tend to be more productive than larger farms.

The average 1.3 ha cocoa area requires a high yield of 653 kg/ha to reach the 870 kg threshold, in line with what Fairtrade farmers in the focus group discussions deem realistically attainable. On the other hand, with an average yield of 465 kg/ha a larger cocoa area of 1.9 ha would be needed to produce 870 kg.

Non-Fairtrade farmers have lower yields still, but also significantly larger cocoa areas and higher total production volumes.

Volume thresholds

Below table summarizes the average values for Fairtrade and non-Fairtrade farmer groups. The total cocoa volume thresholds used in the LIRP calculation are equal to the actual average total production volume of Fairtrade farmers.

	Côte d'Ivoire		Ghana	
producer group*	Fairtrade	all	Fairtrade	all
average cocoa area (ha)	2.8	3.8	1.3	3.7
average yield (kg/ha)	597	537	465	423
average total production (kg)	1,566	1,903	870	1,288
LIRP volume threshold (kg)	**1,566**		**870**	

* Farmer data from various sources and seasons were analysed and combined. For Côte d'Ivoire the maximum sample size across all datasets for Fairtrade farmers was 30,255 and 8,837 for non-Fairtrade farmers. The maximum sample sizes for Ghana were 6,164 and 1,901 respectively for Fairtrade farmers and non-Fairtrade farmers. The data cover four cocoa seasons between 2020/21 and 2024/25 in case of Côte d'Ivoire and the seasons 2022/23 and 2024/25 for Ghana. The values shown are the average results during that period.

2.2 Cost of production

There are large differences between what farmers in focused groups defined as a package of good agricultural practices that is commonly adopted (see annex A) and what research data show: The actual farm investment, both in terms of inputs and labour, is much lower than what would be needed to implement this package.

Expert Advisory Council members argue that the package of GAP defined in the focus groups can be considered as "best practice" and would result in a significantly higher productivity than the actual level. But this does not reflect the current reality. The actual yield levels can be achieved without additional investment reflected in the actual average cost of production.

The actual production costs from the data analysis were corrected for inflation and the hired labour costs were increased to incorporate a remuneration at a living wage. The daily living wage is derived from the updated living income benchmark and is factored in at XOF 7419 for Côte d'Ivoire and GHS 132 for Ghana (see annex B).

The modelled production costs cover all costs related to the defined package of GAP, including hired labour paid at a living wage, on an average cocoa farm area. (see annex C).

The table below compares the production cost figures. For Côte d'Ivoire, two scenarios are assessed: scenario a is based on the actual 4-year average farm investment (linked to the actual average yield level) and scenario b takes the average between the actual and the modelled costs (linked to a higher yield). For Ghana, the modelled costs are used, as these correspond to the higher yield on an average cocoa area of 1.3 hectare. The total cocoa farm investment is used for the LIRP calculation.

	Côte d'Ivoire		Ghana	
source	data analysis*	modelled**	data analysis*	modelled**
total cocoa farm investment (LCU)	550,134	744,840	7,315	10,810
cocoa investment per hectare (LCU)	196,500	266,000	2,200	3,251
LIRP total cost of production	**XOF 550,000 – 647,500*** **		**GHS 10,810**	

* Actual costs from data analysis are updated with inflation correction and including hired labour remunerated at a living wage.
** Costs based on the package of Good Agricultural Practices defined in focussed group discussions for an average cocoa area.
*** Rounded average value between the average costs from the data analysis and the modelled costs.

2.3 Labour use & income share expected from cocoa

The "labour share" equals the proportion of available household labour dedicated to cocoa production. **This approach** ensures that the time actually spent by household members on work related to cocoa farming is remunerated at a living wage.

75% of the working-age adults in a household are considered to be available for work, multiplied by 220 working days per year[2]. With an average of 4 adult household members in a typical Ivorian cocoa farming household, this means 660 days of available labour for Côte d'Ivoire. Ghanaian farmers have smaller households with 3 adults on average, resulting in 495 days of available household labour.

Research data consistently show that only a small proportion of the available household labour is dedicated to cocoa farming, resulting in a low labour-share percentage and thus a small portion of a living income to be expected from cocoa farming. However, Expert Advisory Council members recognize that the actual labour deployment is likely underreported. Some work tends to be invisible, such as activities performed by women, reciprocal community labour (in exchange for work on one's own farm) or training activities, and is often not accounted for.

In contrast, the modelled labour requirements based on the implementation of good agricultural practices as discussed in focus groups, would occupy a much larger share of the available labour in the household (see annex C).

2 220 days per year available for work was confirmed by cooperative representatives and is also based on ILO standards, see Fairtrade-Living-Income-Reference-Prices-Cocoa-Ghana-Cote-dIvoire-2025-explanatory-note

Côte d'Ivoire

Data analysis shows that Fairtrade farmers dedicate on average 37% of the available household labour to cocoa. The modeled labour needs for GAP implementation would occupy 72% of the available household labour on an average cocoa farm.

The two LIRP scenarios reflect these differences, with scenario a being based on the actual time dedicated to cocoa from the data analysis, but augmenting the percentage to 45% (equivalent to 54 days) to compensate for "invisible work".

Scenario b represents the middle ground between research data findings and the modelled labour requirements of 55%.

Ghana

Unfortunately, there was little labour data available for Ghana, and therefore more weight is given to the modelled labour requirements from the focus group discussions. With an actual labour share for non-Fairtrade farmers of only 18% dedicated to cocoa farming and no labour data available for Fairtrade farms, the modelled labour share of 44% is used in combination with the higher yield on an average cocoa area.

	Côte d'Ivoire		Ghana	
source	data analysis*	modelled**	data analysis*	modelled**
household size	7		5	
# working-age adults in household	3.3	4	3.1	3
# available household labour days	614	660	512	495
# household labour days used in cocoa	225	478	88	217
labour share (%)	**37%**	**72%**	**18%**	**44%**
% living income expected from cocoa in LIRP	**45-55%**		**44%**	
Living Income benchmark***	**XOF 4,896,816 (USD 8,647)**		**GHS 65,360 (USD 5,679)**	
net income expected from cocoa	**XOF 2,203,567 - 2,693,250**		**GHS 28,720**	

* Data on labour use from farmer field books and various studies were analysed to gain insights into the actual deployment of household labour in cocoa production. These correspond to Fairtrade farmers in case of Côte d'Ivoire and to non-Fairtrade farmers in case of Ghana.

** Modelled labour requirements are based on the outcomes of focussed group discussions with Fairtrade farmers, in which a package of good agricultural practices was defined and the labour days needed to implement these were calculated, see annex C.

*** Living Income benchmarks were updated with a correction for inflation, based on the latest available Consumer Price Index data to January 2026 (CDI) and February 2026 (Ghana), see annex B

3 LIRP calculation

The new Living Income Reference Prices are based on the **actual average total production volume** of Fairtrade farmers and a **labour share proportionality approach**.

Alternative LIRP scenarios were also assessed as part of the research and are presented in annex D for comparison.

Côte d'Ivoire

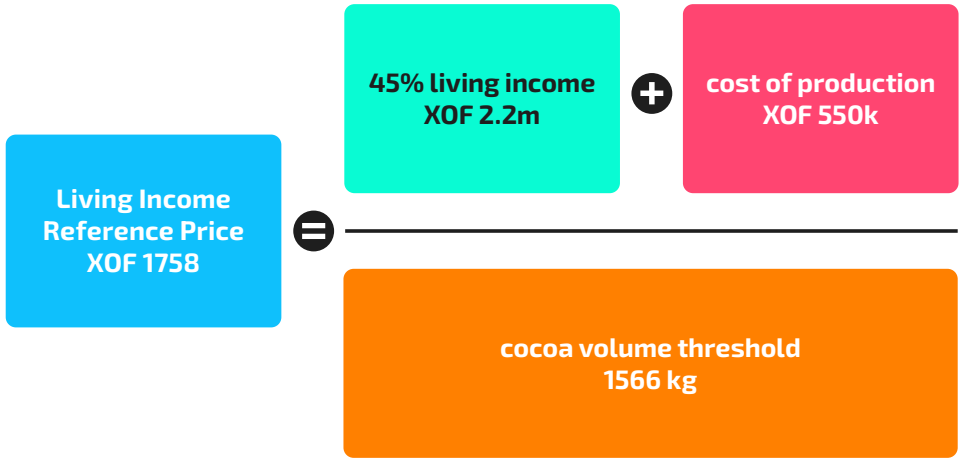
The following two scenarios were assessed:

a. Based on the actual average cocoa volume and total cost of production, with an increased labour share percentage of 45% to compensate for underreported labour.

b. Based on an intermediate labour share percentage of 55%, an average yield and average cost of production, between the actual data findings and the modelled best practice.

LIRP cocoa Côte d'Ivoire	2025	2026 scenario a	2026 scenario b
% cash income from cocoa	100%	45%	55%
% farm-grown food	30%	n/a	n/a
cocoa area (ha)	4.6	2.8	2.8
yield (kg/ha)	664	597	680
(A) total cocoa volume (kg)	3,070	1,566	1,900
(B) cost of production (XOF)	1,126,873	550,134	647,500
(C) income share from cocoa (XOF)	4,201,431	2,203,567	2,693,250
((B+C)/A) LIRP (XOF/kg)	**1,736**	**1,758**	**1,756**
LIRP (EUR/kg)	**2.65**	**2.68**	**2.68**
LIRP (USD/kg)	2.80	3.11	3.10

Both scenarios practically result in the same LIRP value, which suggests that this reference price allows farmers to earn a proportional share of a living income from cocoa based on their current effort, while they can also increase their income share from cocoa by investing more time in good agricultural practices. Therefore, **the new Fairtrade Living Income Reference Price for Côte d'Ivoire is set at XOF 1,758 or EUR 2.68 per kilo of cocoa at farmgate**. This represents a 1% increase compared to the 2025 LIRP value.

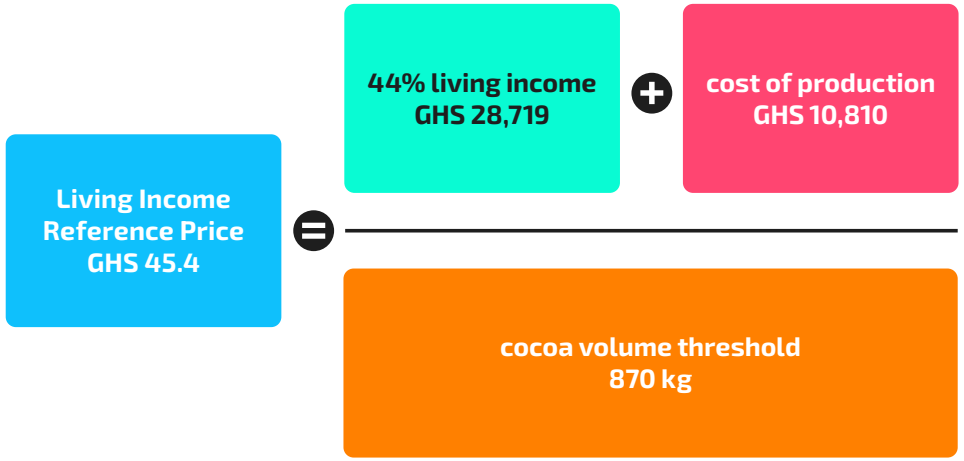


Ghana

The LIRP for Ghana is based on the **modelled labour share of 44%,** in combination with **the actual average total cocoa volume** produced by Fairtrade farmers. This volume threshold can be achieved on an average cocoa area with relatively high yields or with actual average productivity on a larger farm size, either way realistically attainable under current circumstances.

LIRP cocoa Ghana	2025	2026 scenario a	2026 scenario b
% cash income from cocoa	100%	44%	44%
% farm-grown food	25%	n/a	n/a
cocoa area (ha)	3.3	1.3	1.9
yield (kg/ha)	500	654	465
(A) total cocoa volume (kg)	1,657	870	870
(B) cost of production (GHS)	17,522	10,810	10,810
(C) income share from cocoa (GHS)	52,500	28,719	28,719
((B+C)/A) LIRP (GHS/kg)	**42.4**	**45.4**	**45.4**
LIRP (USD/kg)	2.68	3.95	3.95

This results in a **new Fairtrade Living income Reference Price of GHS 45.4 (USD 3.95) per kilo of cocoa at farmgate for Ghana**.



It is important to note that the GHS:USD exchange rate has remained relatively stable in the past year after fluctuating heavily in the years prior, when the Ghana Cedi strongly appreciated against the dollar. While the new LIRP value in USD has increased by 47%, this only represents a 7% increase in local currency. Farmers and other stakeholders recommend monitoring the exchange rate over the coming period and keep the LIRP in local currency as the guiding value.

4 Implementing Living Income Reference Prices

By establishing Living Income Reference Prices, Fairtrade quantifies the gap between market-based and living income-based prices at farmgate level and emphasises the need to address price as a crucial factor to attain sustainable supply chains that enable farmers to earn a living income.

At the start of each harvest season, Fairtrade establishes the applicable LIRP differential, based on the fixed farmgate prices announced by the Ivorian and Ghanaian regulators. The differential takes into account a potential Fairtrade Minimum Price differential when the minimum price at FOB level is above the regulated FOB price and 40% of the Fairtrade Premium, as these will be transferred in cash to farmers.

This LIRP review started when international cocoa prices were still high and the regulated farmgate prices in Côte d'Ivoire and Ghana were well above the LIRP level, but over the course of this process prices dropped suddenly, leaving cocoa farmers once again in despair. This volatility stresses the importance of long-term sourcing commitments with sustainable prices for farmers. A LIRP should serve as a guaranteed floor price, regardless of market fluctuations, to provide stability for farmers and secure a return on their crop investments. Price volatility makes farmers risk averse and prohibit the longer-term investments needed to improve productivity.

Payment of a Living Income Reference Price, embedded in long-term sourcing agreements, is an essential purchasing practice that buyers are responsible for to enable living incomes for farmers in their supply chains. At the same time, it is no guarantee that all farmers will earn a living income.

Moreover, a typical cocoa farming household does not depend entirely on cocoa revenues, but usually has diverse income sources. When farmers receive a LIRP for their cocoa they can earn a fair share of a living income in proportion to the time they dedicate to the crop. However, farmers will still need other livelihood activities to be equally remunerative to achieve a full living income.

The LIRP is not a standalone solution and it is most effective in combination with other interventions. Fairtrade certification forms a solid foundation, with strong, well-managed farmer organizations at the centre to drive complementary measures towards closing the income gap.

The mandatory **Fairtrade Premium** is an important source of income for cooperatives to cover operational costs, including adequate service delivery to their members. For instance, technical assistance to support adoption of good agricultural practices or the setup of well-equipped labour brigades that can provide quality pruning services are critical for rejuvenating farms and improve the productivity. Empowered producer organisations play a crucial role in supporting their members to increase yields, reduce costs, add value, diversify income sources and enhance farm resilience, all of which contribute to achieving living incomes. New Premium rules require 40% of the Premium to be distributed in cash to farmer members. Fairtrade recommends that the remaining Premium is paid on top of the LIRP to the producer organization.

Finally, most buyers do not purchase all the cocoa produced by a cooperative and thus the Living Income Reference Price will only be received for part of the sales. This means that the price differential will get diluted over the total volumes, if not all buyers commit to paying the Living Income Reference Price. **Hence, this is a call to the cocoa industry to jointly commit to Living Income Reference Prices, so that living incomes can become a reality for cocoa farmers**.

Annex A: GAP overview

Below tables show the outcome of three iterations of focus group discussions with Fairtrade farmers to analyse the adoption rates of good agricultural practices, the frequency these activities are carried out and by whom, in their organizations. The adoption rates were cross-checked to the extent possible with available GAP implementation data.

Côte d'Ivoire				
practice	% adoption FGD*	% adoption data**	frequency	by whom
Heavy pruning	49%	87%	partially done each year – 25% of farm yearly	pruning brigade or other form of hired labour, supported by the farmer
Sanitary pruning	71%		yearly on entire farm	50% household + 50% hired
Weeding	100%	99%	2x/year on entire farm	household
Fertilizer application	68%	44%	yearly application of 4 bags fertilizer/ha (8 bags/ha bi-yearly)	household
Pest management	96%	89%	0.5-1l/ha	specialized hired labour
Sanitary harvesting	84%		yearround activity	household
Mulching	38%	1%	not commonly done	n/a
Shade management	79%		yearround activity	household
Gap filling	75%	68%	1x/year needs based	household
Renovation	85%		needs based	50% household + 50% hired
Composting	41%	29%	partial application	household

* Outcome of 3 iterations of focus group discussions with 25 cooperatives (5 members each) distributed across the country
** Data from sample of 1650 Fairtrade farmers

Ghana				
practice	% adoption FGD*	% adoption data**	frequency	by whom
Heavy pruning	20%	86%	20% of farm yearly	hired labour
Sanitary pruning	80%		yearround, combined with other farm activities	50% household + 50% hired
Weeding	90%	96%	2x/year	20% household + 80% hired
Fertilizer application	60%	54%	2 bags/acre/year	household
Pest management	90%	60%	3x/year	specialized hired labour
Sanitary harvesting	95%		yearround, combined with other farm activities	household
Mulching	10%	42%	not commonly done	n/a
Shade management	90%		yearround, combined with other farm activities	household
Gap filling	100%	58%	1x/year needs based	household
Renovation	35%		1x/year needs based	50% household + 50% hired
Composting		4%	not commonly done	n/a

* Outcome of 3 iterations of focus group discussions with 9 cooperatives (5 members each) distributed across the country
** Data from sample of 1303 Fairtrade farmers

Annex B: LI benchmark updates: Côte d'Ivoire

Côte d'Ivoire	August 2024 (XOF)	January 2026 (XOF)
Household size & composition	7 (4 adults + 3 children)	7 (4 adults + 3 children)
inflation rate		
Yearly Living Income	**4.9m**	**4.9m**
Of which: food costs	2.3m	2.3m
% food needs produced on farm	30%	n/a
Value of farm-grown food	698,200	n/a
Living income costs	4,2m	4,9m
% cash income from cocoa	100%	**45 - 55%**
Cash income expected from cocoa	4,2m	**2,2m - 2.7m**
Daily living wage	7,424	7,419

Living Income Benchmark Côte d'Ivoire			March 2018 (original study)		June 2024 (Anker update)		August 2024 (own update)		January 2026 (own update)	
	household size & composition	OECD equivalency	XOF	USD	XOF	USD	XOF	USD	XOF	USD
Monthly Living Income per household (original study)	6 (2 adults + 4 children)	2.7	262,056	454	323,941	531	324,240	532	324,054	572
Monthly Living Income per household	7 (4 adults + 3 children)	3.4	329,996	572	407,926	669	408,302	670	408,068	721
Yearly Living Income per household	**7 (4 adults + 3 children)**	**3.4**	**3,959,957**	**6,860**	**4,895,108**	**8,031**	**4,899,628**	**8,039**	**4,896,816**	**8,647**
of which food costs (47.5%)	7 (4 adults + 3 children)	3.4	1,880,980	3,259	2,325,177	3,815	2,327,323	3,818	2,325,988	4,108
Daily living wage per income earner	7 (4 adults + 3 children)	3.4	6,000	10.39	7,417	12.17	7,424	12.18	7,419.42	13.10
Consumer Price Index			*103.29*		*127.2*		*127.8*			
NEW Consumer Price Index							*105.05*		*104.5*	
Inflation rate					*1.236151815*		*1.237293058*		*0.99943*	
Exchange Rate to USD			*576.81*		*609.52*		*609.52*		*566.27*	

Annex B: LI benchmark updates: Ghana

Ghana	November 2024		February 2026	
Household size & composition	5 (3 adults + 2 children)		5 (3 adults + 2 children)	
inflation rate			1.08	1.49
currency	GHS	USD	GHS	USD
Yearly Living Income	**60,292**	**3,806**	**65,360**	**5,679**
Of which: food costs	31,171	1,968	33,791	2,936
% food needs produced on farm	25%	25%	n/a	n/a
Value of farm-grown food	7,793	492	n/a	n/a
Living income costs	52,500	3,314	65,360	5,679
% cash income from cocoa	100%	100%	**44%**	**44%**
Cash income expected from cocoa	52,500	3,314	**28,719**	**2,494**
Daily living wage	122	7.69	132	11.47

Living Income Benchmark Ghana			March 2018 (original study)		June 2024 (Anker update)		November 2024 (own update)		February 2026 (own update)	
	household size & composition	OECD equivalency	GHS	USD	GHS	USD	GHS	USD	GHS	USD
Monthly Living Income per household (original study)	5 (2 adults + 3 children)	2.4	1,464	329	4,305	300	4,638	293	5,028	437
Monthly Living Income per household	5 (3 adults + 2 children)	2.6	1,586	356	4,664	325	5,024	317	5,447	473
Yearly Living Income per household	**5 (3 adults + 2 children)**	**2.6**	**19,032**	**4,277**	**55,965**	**3,903**	**60,292**	**3,806**	**65,360**	**5,679**
of which food costs (51.7%)	5 (3 adults + 2 children)	2.6	9,840	2,211	28,934	2,018	31,171	1,968	33,791	2,936
Daily living wage per income earner	5 (3 adults + 2 children)	2.6	38.45	8.64	113.06	7.88	121.80	7.69	132.04	11.47
		Consumer Price Index	*76.99*		*226.40*		*243.9*		*264.4*	
		Inflation rate			*2.941*		*3.168*		*3.434*	
		Exchange Rate to USD	*4.45*		*14.34*		*15.84*		*11.51*	

Annex C: Modelled cost of production & labour requirements

COSP Côte d'Ivoire	input costs per hectare		other variable costs		labour requirements per hectare				fixed costs	
	input requirements	cost/ha	tools, materials & other expenses	cost/ha	labour activity	household labour days/ha	hired labour days/ha	cost/ha @ LW of 7,419 per day	non-area related costs	fixed cost
crop maintenance						26	12.5	92,738		26,200
weeding			3 machetes @2,500; 5 limes @1,500	15,000	2 rounds of weeding with machete of 5 days/ha	5	5	37,095	2x boots @6,000	12,000
fertilization	2 x 4 bags of synthetic fertiliser @25,000, applied every second year	100,000			2 applications per year	10			transport of fertilizer: 2 trips per year @6000	12,000
pruning					sanitary pruning	5			2 pruning scissors @5,000 per 5 years	2,000
					heavy pruning by fully equipped labour brigade (25% of total area yearly)		2.5	18,548		
pest management	0.5-1l of pesticide per ha	10,000			2 days of spraying (fully equipped labour brigade); sanitary harvesting (done yearround, in combination with other activities)		2.0	14,838		
shade management	25 shade trees (one-off set up cost) - provided by cooperatives for free				general maintenance	3			transport of seedlings by tricycle @5000, one-off cost, divided by 25yr	200
rejuvenation	gap filling of old or diseased cocoa trees - 5% of trees yearly: 66 seedlings (based on crop density of 1320 trees/ha) @100 per seedling + bag + soil	6,600			replanting 6 days	3	3	22,257		
harvest & post harvest				9,100		132				65,000
harvest & pod breaking					18 harvest rounds per year / 6 cycles of pod breaking	18			catering for community support for pod breaking: 10,000 x 6 cycles; 2 baskets @3000 per 3 yr; 3 buckets @1000	65,000
fermentation					3 days per harvest round (6 days of fermentation requiring stirring every 2nd day)	54				
drying			2 bamboo mats for drying @5000 per 3 yr + tarpaulins 5m @1000 per 3 yr	8,200	7 days of drying per harvest round for entire farm (divided by 2.8 ha)	42				
bagging & transport			3 jute bags @300	900	3 days for bagging and transport to collection centre per harvest round for entire farm (divided by 2.8ha)	18			transport to collection centre, covered by the cooperative	
admin & misc				-	**total per farm**	36				
administration					6 days for administration, meetings, trainings, etc	6				
food crops					30 days of reciprocal community labour	30				
total		**116,600**		**24,100**	**total days/ha**	**171**	**12.5**	**92,738**		**91,200**
					total days per average cocoa area of 2.8 ha	**478**				

COSP Ghana	input costs per hectare		other variable costs		labour requirements per hectare				fixed costs	
	input requirements	cost/ha	tools, materials & other expenses	cost/ha	labour activity	household labour days/ha	hired labour days/ha	cost/acre @LW of 132 per day	non-area related costs	fixed cost
crop maintenance		1,310		115		11	6.6	928		616
weeding			1 cutlass @54; 1 sharpening stone @32 per 2 yrs	43	2 rounds of weeding with machete of 3 days/acre	3	3	396	boots	184
fertilization	2 bags of granular fertilizer per acre per year on average	1,000	spraying equipment, protective gear (rented @22 per day)	22	fertilizer application once a year	2			transport of fertilizer @108	108
pruning					heavy pruning by fully equipped labour brigade 3 days/acre @ ~500/acre (20% of total area yearly)		0.6	100		
integrated pest management					scouting for pest & diseases, phytosanitary pruning & sanitary harvesting throughout the year	4			standard pruner	324
spraying	2 rounds of pesticide application @150 per round	300	fuel for spraying	50	2 days of spraying per acre by fully equipped brigade @150/acre		2	300		
shade management	12 shade tree seedlings (one-off set up cost, divided by 25 yrs)	10			planting and maintenance of shade trees	1				
rejuvenation	seedlings for gap filling provided by govt for free				mostly gap filling (renewal of old or diseased trees)	1	1	132		
harvest & post harvest				216		44				1,058
harvest & pod breaking			2x basket @108 per 3yr; 2x harvesting hook per 5yr @32; 3x cutlass for pod breaking @38 per 5yr		6 rounds of 3 days for harvesting, pod gathering and pod breaking per year	18			community labour is used for pod breaking in exchange for food&drink: 6 rounds x 10p per farm @16 per person	972
fermentation					6 harvest cycles x 3 days for fermentation	18				
drying			drying mat @324 per 3yr		6 days of drying per harvest round for entire farm (36 days in total for farm)	6				
bagging & transport			jute bags (provided for free)		1 day for bagging and transport to collection centre per harvest round per farm	2			transport to collection centre	86
admin & misc					**total per farm**	**36**				**660**
administration					administration & training 6 days per year	6				660
food crops					work on neighbouring farms in return for community labour	30				
total		**1,310**		**331**	**total days/acre**	**66**	**6.6**	**928**		**2,334**
					total days per average cocoa area of 3.3 acre (1.3 ha)	**218**				

Annex D: Alternative LIRP scenarios

During the research a broad range of LIRP scenarios were assessed. Below tables illustrate several alternative scenarios, based on actual research data findings, purely on modelled assumptions or a combination of both.

For Côte d'Ivoire

alternative LIRP modelling Côte d'Ivoire	Scenario b	Scenario c	Scenario d	Scenario e
	Fairtrade famers	Fairtrade farmers	Fairtrade farmers	All farmers
	LIRP 2026	actual labour share x actual production volume x actual production cost	modelled labour share x actual cocoa area x high yield x modelled production costs	actual labour share x average actual production volume x actual production cosy
% cash income from cocoa	55%	37%	72%	24%
cocoa area (ha)	2.8	2.8	2.8	3.8
yield (kg/ha)	680	597	800	537
(A) total cocoa volume (kg)	1,900	1,566	2,240	1,903
(B) cost of production (XOF)	647,500	550,134	745,000	446,102
(C) income share from cocoa (XOF)	2,693,250	1,811,822	3,550,000	1,1175,236
((B+C)/A) LIRP (XOF/kg)	1,756	1,508	1,917	853
LIRP (EUR/kg)	2.68	2.30	2.92	1.30
LIRP (USD/kg)	3.10	2.66	3.39	1.51

Scenario c: A LIRP purely based on actual average recorded labour days and other average values of Fairtrade farmers would be significantly lower than the current LIRP. It can thus be assumed that the new LIRP allows for increased farm investment to gradually improve productivity.

Scenario d: A LIRP purely based on modelled assumptions does not sufficiently reflect the producer reality and would not be considered credible, as it is not grounded in data evidence. The much higher LIRP value would also risk loss of market uptake.

Scenario e: A LIRP based on actual average values of all farmers has the lowest outcome due to the very low actual household labour investment and is not considered relevant for the Fairtrade LIRP as this is not based on Fairtrade farmers.

For Ghana

alternative LIRP modelling Ghana	Scenario b	Scenario c	Scenario d	Scenario e
	Fairtrade famers	Fairtrade farmers	Fairtrade farmers	All farmers
	LIRP 2026	intermediate labour share x actual production volume x modelled production cost	augmented actual labour share x actual cocoa production volume x actual production cost	actual income share x actual cocoa production volume x actual production cost
% cash income from cocoa	44%	35%	25%	46%
cocoa area (ha)	1.3	1.9	3.7	3.7
yield (kg/ha)	654	465	423	423
(A) total cocoa volume (kg)	870	870	1,288	1,288
(B) cost of production (GHS)	10,810	10,810	12,070	12,070
(C) income share from cocoa (GHS)	28,719	22,876	16,340	30,066
((B+C)/A) LIRP (GHS/kg)	45.4	38.7	21.1	32.7
LIRP (USD/kg)	3.95	3.36	1.92	2.84

Scenario b: A LIRP based on an intermediate labour share percentage (35%, in between the modelled labour requirements and the actual labour use of all farmers from data analysis, as in scenario b for CDI) would result in a lower LIRP than the 2025 value which was not considered viable by the validation committee.

Scenarios c & d are based on all farmer data, due to the limited availability of Fairtrade farmer data. The average Ghanaian farmer has notably lower yields than the average Fairtrade farmer, but also larger farm sizes and higher total production volumes, while the production costs per area unit are much lower than the modelled costs.

Scenario c: A LIRP based on the labour share approach, but adding 40 days to account for invisible labour and increase the labour share percentage from 18 to 25%, results in the lowest LIRP value, due to the very low recorded actual household labour investment and is not considered relevant for the Fairtrade LIRP as this is not based on Fairtrade farmers.

Scenario d: A LIRP applying the average income share of 46% (comparable to the 44% labour share in the new LIRP) would also result in a lower LIRP value and is not considered relevant for the Fairtrade LIRP as this is not based on Fairtrade farmers.

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