Fairtrade Living Income Reference Price for Coffee from Honduras

EXPLANATORY NOTE

Introduction

This document explains the figures and validation process behind the Fairtrade Living Income Reference Price for organic arabica coffee from Honduras. Living Income Reference Prices play a pivotal role within Fairtrade's holistic **Living Income Strategy**. They are instrumental for raising awareness around the fundamental need for sustainable pricing as part of a mix of interventions to enable living incomes, and they inform price setting mechanisms for Fairtrade and other actors committed to sustainable trade.

Fairtrade began to develop the first Living Income Reference Prices for coffee in a context of historically low futures market prices. In March 2019, the World Coffee Producers Forum condemned these and called for immediate action to avoid a humanitarian crisis for some 25 million smallholder families around the world. They warned that by allowing the impoverishment of producers, the coffee industry was compromising its own future. Later that year, the International Coffee Organization (ICO) committed to foster responsible sourcing of sustainably grown and traded coffee, enabling a living income for coffee producers.

A technical work stream on Living and Prosperous Incomes was set up as part of the ICO public private task force to operationalize these commitments. Living Income studies were commissioned and are currently underway to define commonly agreed benchmarks for the main coffee growing origins.

Fairtrade builds on these benchmarks by establishing Living Income Reference Prices, in order to address the economic conditions for a sustainable coffee sector and to bring the true cost of socially just and environmentally sound production practices into the equation.

Following the completion of the multi-stakeholder price discovery processes in Colombia, Indonesia and Uganda, a Fairtrade Living Income Reference Price for organic coffee from Honduras was determined in collaboration with the technical roundtable, set up for this purpose.

The Price Model

A Living Income Reference Price indicates the price needed for a typical farmer household with a viable farm size and a sustainable productivity level to make a living income from the sales of their crop.

The model is derived from the universal human right for everyone who works to a just and favourable remuneration, ensuring an existence worthy of human dignity. Hence, a full-time farmer should be able to make a living income from their farm revenues.

A Living Income Reference Price is based on the following key parameters:

1. Cost of a decent standard of living (living income benchmark)
2. Sustainable yields (productivity benchmark)
3. Viable farm size (to fully employ the available household labour)
4. Cost of sustainable production (in order to achieve above mentioned yields)

A price that allows an average farmer household with a viable farm size and a sustainable productivity level to earn a living income can be calculated with the following equation:

$$\text{living income reference price} = \frac{\text{cost of decent living + cost of sustainable production}}{\text{viable land area} \times \text{sustainable yields}}$$

Establishing Living Income Reference Prices

In order to assess the farm economic metrics, Fairtrade introduced farm record-keeping books among coffee farmers to track their farm investments and outputs throughout a year. These baseline data served as a primary source for subsequent analysis and establishment of Living Income Reference Prices.

In Honduras, baseline data for organic coffee production were collected from a sample of approximately 300 farmers from eight cooperatives distributed across the coffee growing regions in the country during 2021-2022.

A technical roundtable was set up, comprised of national coffee experts representing producers, industry, NGOs and research institutions. After a virtual presentation of the baseline results, a two-day in-person workshop was held in September 2022 to analyse the baseline results, pool local knowledge and expertise and agree on the values for each of the variables in the price model.

Based on these variables, a Fairtrade Living Income Reference Price for organic arabica coffee from Honduras was established.

Variable 1: Living income benchmark

Living income is defined as **sufficient income generated by a household to afford a decent standard of living for the household members**. Elements of a decent standard of living include: a nutritious diet, decent housing, education, healthcare, transport, clothing and other essential needs, including a provision for unexpected events.

Our baseline data show a typical coffee farmer household to be composed of four members, with two to three working age adults and one or two children.

Since the ICO accredited living income benchmark study was not yet available at the time of the roundtable dialogue, the cost of decent living for a typical household in Honduras was estimated based on a comparative analysis of several other living income calculations for Honduras. All respective benchmark values have been updated to July 2022, applying official inflation rates. The below table shows an overview of the comparison.

Table 1: Comparative analysis of living income benchmark calculations for Honduras, updated to July 2022

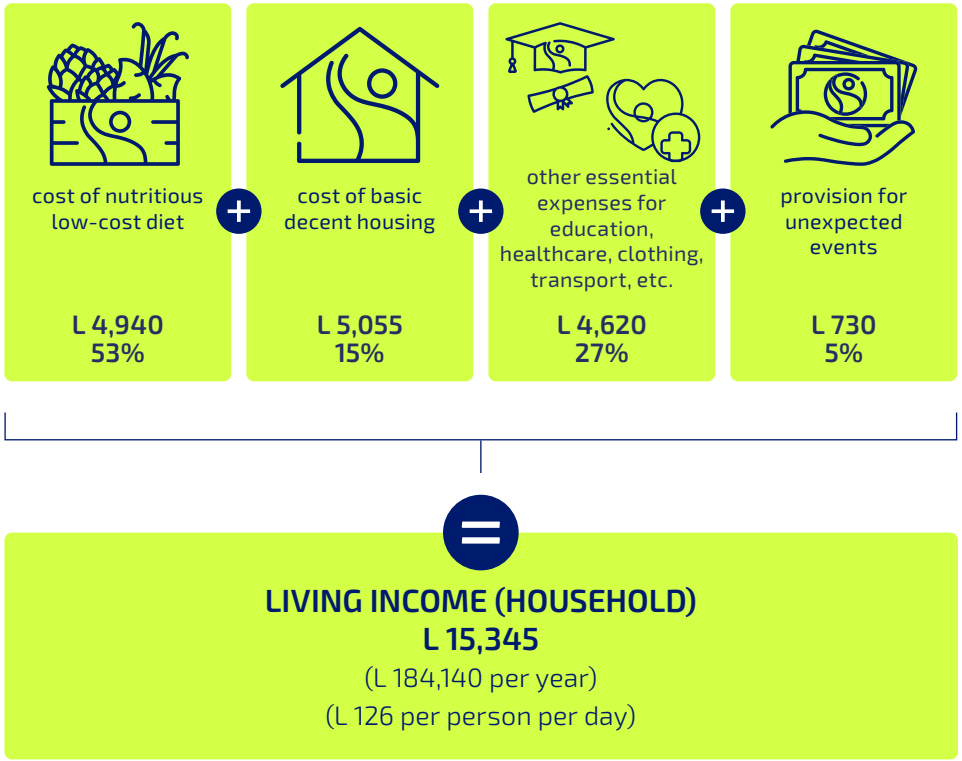
Living income benchmark	GLWC proxy	Wage Indicator	Heifer
Scope	Rural	Range for typical rural family	Range for several regions
Household size	4.5	4.5	4.5
# Working age adults in household	2	2	2
monthly cost of decent living			
Food costs		4,103 - 4,941	
Housing costs		4,162 - 5,054	
Other essentials		3,906 - 4,620	
Provision			
Total per household per month	12,017	12,170 - 14,614	9,917 - 10,747
Costs of decent living (pppd)	88	89 - 107	72-78
Total yearly cost of decent living	144,204	146,042-175,365	119,000-129,000
Derived daily Living Wage	345	349 - 419	285 - 308

The highest benchmark in range of 175,000 Lempira was put forward to the roundtable for preliminary use in the price calculation, to be adjusted once the ICO commissioned living income study would become available in 2023. However, the majority of roundtable experts considered this too low and it was agreed to add five percent for unexpected events as is standard practice for living income benchmark calculations. This resulted in a provisional **living income benchmark of 184,000 Lempira (US$ 7,619[1]) per year** for a four-member household, or a daily cost of living of 126 Lempira per person.

1 Applied exchange rate 1USD = HNL 24.15 (Honduran Lempira)

The **living wage** for hired labour is derived from the living income benchmark by dividing the yearly cost of decent living by the number of full-time equivalent workers in a rural family. Assuming the equivalent of 1.5 full-time workers (this is 75% of the working-age adults in the average household) and 246 working days per year, the daily living wage is estimated at 440 Lempira (US$ 18.22).

Figure 1: Approximation of the cost of decent living for a 4-member rural household in Honduras



Variable 2: Sustainable yields

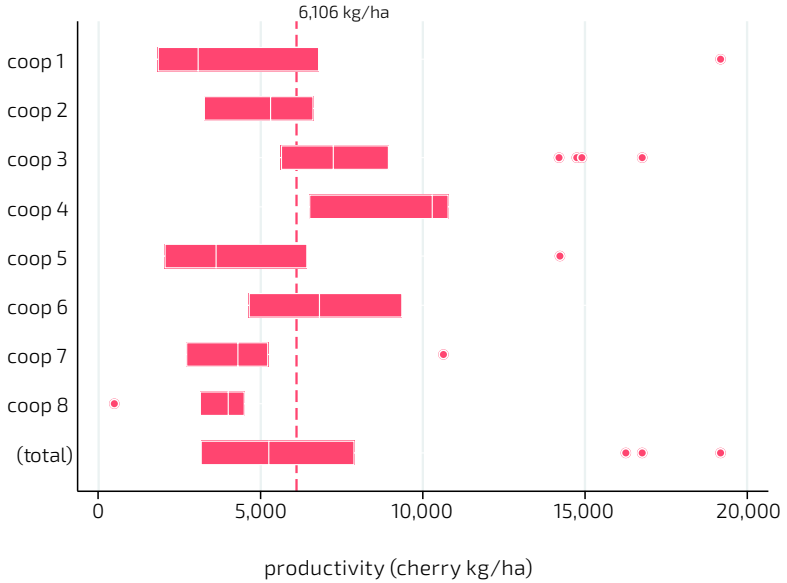
A sustainable productivity level is defined as a feasible target yield that can be attained when sustainable agricultural practices are implemented Both economic and environmental aspects have been considered. By balancing the economic benefits of high yields with the medium- and long-term effects on natural resources and climate resilience, an optimum productivity target is determined. For Honduras, we have focused on **organic farming practices**.

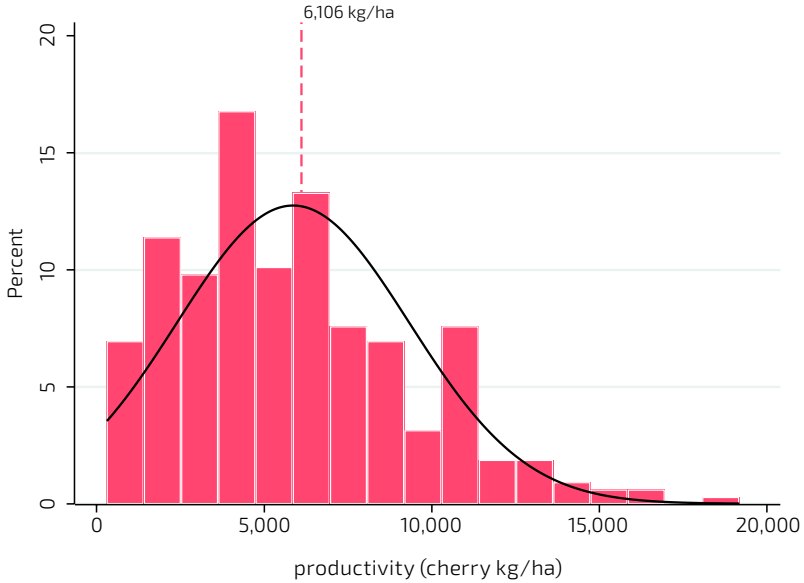
Key factors affecting productivity are the coffee variety, tree density and shade management, applied rehabilitation practices (pruning and replanting) and fertilizer use. The roundtable agreed on an optimal tree density of

As primary input, baseline results were analysed and best performing farmers within the sample were taken as a reference for determining realistic target yields. Below graphs show a broad distribution of the results, which means that productivity levels vary significantly from one cooperative to the next as well as within cooperatives. The differences are partly due to growing conditions, such as soil fertility, altitude, microclimates and hired labour costs which vary across the six main coffee growing regions of Honduras.

The average productivity level was 6,106 kg (133 quintals) of cherry per hectare, equivalent to approximately 1,350 kg (30qq) of dried parchment coffee. A quarter of all farmers in the baseline sample produced at least 7,910 kg (172qq) of cherry or 1,755 kg (39qq) of dried parchment per hectare. On the other hand, half of the farmers produced only 5,175 kg (115qq) of cherry or 1,170 kg (26qq) of dried parchment per hectare or less.

Figures 2 & 3: Baseline distribution of coffee yields per in kilos of cherry per hectare





Tree density

The optimal tree density for a sustainable production system was discussed. For organic Coffee production, a density of 3500 to 4000 trees per hectare was considered adequate, allowing for agroforestry schemes.

Crop renovation

In order to maintain the coffee crop in healthy conditions, it was agreed that 10% of the trees (of 3,500 trees per hectare) would need to be renovated annually. This means that 350 trees should be replanted each year.

Sustainable target yield

Barriers to improving coffee productivity were also analysed in order to define a realistic target productivity level. The main obstacles faced by Honduran producers are related to adaptability to climate change and the associated pests and diseases; the mixture of unsuitable varieties, which affect quality and productivity, as well as the lack of a younger generation to work in coffee due to the high incidence of migration, resulting in a shortage of labour and high labour costs.

The socio-political context was also mentioned as a constraint, as it does not encourage or support the development of small-scale producers and therefore of the crop. The high cost of agricultural inputs and the difficulty to access finance, as many producers do not have real guarantees to apply for credit due to the lack of land titles.

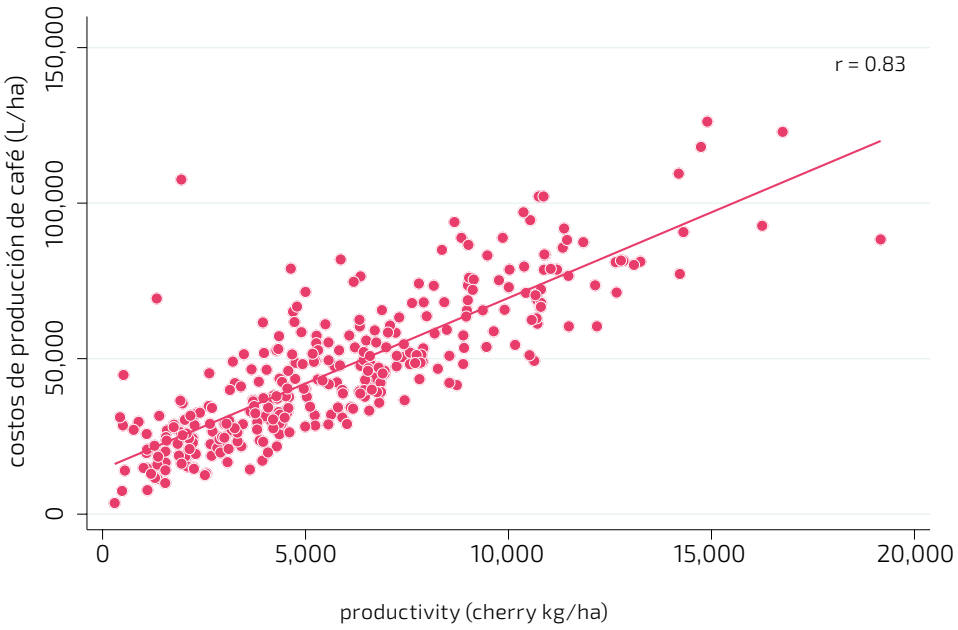
Based on the above, it was determined that by implementing good agricultural practices it is feasible to achieve a **yield of 33 quintals (1,500 kg) of dried parchment coffee per hectare**, as a realistic target sustainable productivity level for organic coffee.

Variable 3: Viable farm size

The baseline results show a direct relation between the level of productivity and the cost of production per hectare: the yield per hectare increases with higher investment in the crop and particularly with adequate fertilizer application. The cost of production per kilo of coffee decreases with improved productivity, resulting in a higher profit margin.

The costs of production were calculated based on the crop investments needed in order to reach the target yield. The roundtable experts identified the following required sustainable production practices, following the agronomic calendar of activities:

Table 2: Overview of sustainable production costs and labour requirements per hectare



- Nursery establishment with certified seed of suitable varieties;
- Land preparation for planting with terracing, combined with living barriers;
- Adequate nutrition, based on soil analysis and soil conservation practices;
- Weed control with cover crops and melliferous plants;
- Shade and tissue management;
- Annual crop renewal of 10%;
- Optimal selective harvesting.

The requirements in terms of agricultural inputs, labour and other costs for each task were determined in order to calculate the production costs. Hired labour remuneration is factored in at a living wage, so that the Living Income Reference Price not only allows coffee farmers to earn a living income, but also to pay their workers a living wage. The below table provides a breakdown of the costs of sustainable production per hectare.

Variable 4: Viable land size

In accordance with the universal right to remuneration for work that provides a decent living,[2] a hired worker is entitled to a 'living wage'. Consistent with this logic, self-employed farmers should earn the equivalent of a living wage for their work on the farm. Hence, full-time farmers should be able to make a living income from their farm proceedings. Following this guiding principle, a farm that is big enough to fully absorb the available household labour should generate a living income. This is considered a viable farm size or a 'full-employment farm size'.

Table 2: Overview of sustainable production costs and labour requirements per hectare

Cost of sustainable production (organic)					
Required practice		Agri inputs (L/ha)	labour (days/ha)	Other variable costs (L/ha)	Fixed costs (L)
Fertilization	compost application: 210 qq/ha liquid fertilizer: 12 lt/ha soil improvers	30,160	19	1,890	-
Pest management	Beauveria: 600 gr/ha borer traps: 20/ha M5; apiche; sulphocalcic broth cricket traps: 10/ha	2,300	17.5	-	-
Weed control	Manual weeding: 3x	-	26	-	-
Rejuvenation	sanitary pruning tissue management shade regulation	-	16	-	-
Harvest	cherry picking: 33 qq/ha @L45/lata transport of harvesters	-	88	3,840	-
Post-harvest	wet milling by organization	-	0	3,300	-
Replanting	replanting: 350 plants/ha (10%) @L10/plant	-	10	3,500	-
Admin & misc	soil analysis financial costs depreciation equipment	-	12	100	15,000
Total number of days x hectare		32,460	188.5	12,630	15,000

2 The Universal Declaration of Human Rights establishes: "Everyone who works has the right to just and favourable remuneration ensuring for himself and his family an existence worthy of human dignity."

Likewise, producers with smaller plots of land would earn a share of a living income proportional to their time invested in farm work. In those cases, the household would have time available to supplement their income with other activities.

The viable or full-employment coffee area is calculated by dividing the available household labour by the time household members need to spend working on an hectare of land. With two working-age adults in the household the available household labour is considered to be equivalent to 1.5 full time workers. In other words, there would be a household labour force of 1.5 x 246 = 369 working days per year.

For the discovery of a price that allows a "full-time" coffee farmer to earn a living income from their coffee sales, the focus is on those producers who primarily make use of family labour for the work on their farms and for whom coffee is their main source of income.

The full-employment coffee area is determined based on the previously identified labour requirements for the different tasks and the share of this work that can be carried out by family labour in case of maximum deployment of household labour (see table 3).

When the use of family labour is optimised, only 35% of the work would need to be contracted, mainly for harvesting. In this scenario, a **full-employment coffee would be 369/121.5 = 3 hectares**. This is close to the median coffee area of 2.8 hectares in the baseline.

However, it should be noted that in reality on many farms most of the work in coffee is carried out by hired labour. This is partly due to the high migration rates of young people and, as a consequence, the advanced age of the average coffee farmer.

On the other hand, many farmers occupy their time on other income-generating activities on and off-farm, while hiring workers to look after the coffee. Common diversified income generating activities include for example the production of micro-lots; commercial activities - including buying and selling coffee; production of other agricultural products such as banana, maize, lemon, avocado; paid labour or exploitation of real estate.

In this prevailing scenario, where most of the labour force is hired (66%), a producer would need 6 hectares of coffee to occupy all available family labour.

Table 3: Overview of labour requirements to produce the target sustainable yield of 1500 kg of dried parchment coffee per hectare

Household labour utilization			
	Required practice	Family labour (days/ha)	Hired labour (days/ha)
Fertilization	Application of compost, soil improvers & liquid fertilizer	10	9
Pest management	Borer control	7.5	10
Weed control	Manual weeding 3x/year	26	0
Rejuvenation	Sanitary pruning; tissue management & shade regulation	12	4
Harvest	Cherry picking with support of hired labour	44	44
Replanting	Yearly replanting of 350 plants/ha (10%)	10	0
Admin & misc	General supervision	12	0
Total number of days x hectare		121.5	67

Living Income Reference Price modelling

With the variables defined in the previous chapters, Living Income Reference Prices at farm gate were modelled for organic coffee from Honduras.

The following table summarizes the agreed key parameter values of the price model and the respective Living Income Reference Prices with varying farm sizes and corresponding labour distribution and level of income dependency on coffee. Four scenarios were compared:

i. Prevailing labour distribution (66% is outsourced) and full employment coffee area of 6 ha for full income dependency on coffee

ii. Prevailing labour distribution with 50% of household income dependent on coffee and viable coffee area of 3 ha

iii. Maximized household labour use and full employment coffee area of 3 ha for full income dependency on coffee

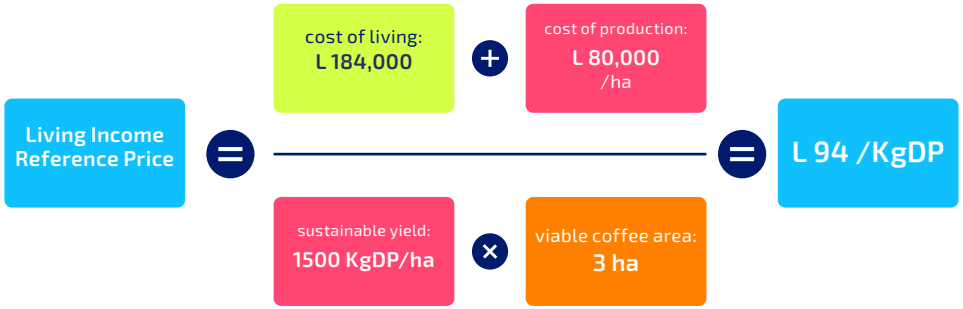
iv. Maximized household labour use and 50% of household income dependent on coffee with a coffee area of 1.5 ha.

Table 4: Living Income Reference Price modelling for organic coffee with varying crop areas depending on distribution of labour between household and hired and respective percentage of living income to be generated from coffee sales. *hired labour cost @440 Lempira per day.

Scenario		I	II	III	IV
Labour distribution		prevailing	prevailing	maximized household labour use	maximized household labour use
Household income from coffee		100%	50%	100%	50%
(A) Viable coffee area	ha	6.0	3.0	3.0	1.5
(B) Sustainable yield	KgDP/ha	1500	1500	1500	1500
cost of agricultural inputs	HNL/ha	32,460	32,460	32,460	32,460
non-harvest hired labour cost*	HNL/ha	24,440	24,440	10,350	5,280
harvest labour cost*	HNL/ha	27,300	27,300	19,375	19,360
other variable costs	HNL/ha	12,630	12,630	12,630	12,630
total variable costs per hectare	HNL/ha	96,830	96,830	74,815	69,730
fixed costs	HNL	15,000	15,000	15,000	15,000
(C) Cost of sustainable production	HNL	595,980	305,490	239,445	119,595
(D) living income	HNL	184,000	92,000	184,000	92,000
*at a daily wage	HNL/day	440	440	440	440
(C+D/AxB) LIRP	HNL/KgDP	87	88	94	94

The resulting reference prices for scenarios I and ii with a large share of outsourced labour are lower than for the scenarios iii and iv for farmer families primarily utilizing their own labour. With a focus on smallholder farmers whose livelihoods depend mainly on coffee production and who dedicate most of their time to coffee production, these latter two scenarios are considered most relevant. Based on the previously agreed viable farm size of 3 hectares, the **Fairtrade Living Income Reference Price for organic coffee from Honduras is established at 94 Lempira (US$ 3.89) per kilo of dried parchment** at farmgate.

In summary, the target values for each variable in the Living Income Reference Prices model for organic coffee from Honduras are established as follows:



Implementing Living Income Reference Prices

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

During the past year when the baseline data were collected, the international coffee market prices have been exceptionally high. Coffee farmers in Honduras received farmgate prices of 80 to 100 Lempira per kilo and the baseline average net income of nearly 300,000 Lempira was well above the living income benchmark. Nonetheless, this average gives a distorted picture as it is driven up by few producers with relatively large farm sizes. Half of the sampled farmers have only 2.8 hectares of coffee or less and the average net income of these famers was only 153,000 Lempira, which is insufficient for a decent standard of living.

The corresponding FOB (Free on Board, or export) prices will depend on the particular situation and cost structure of each producer organization and will have to be negotiated between seller and buyer, in order to factor in all relevant costs incurred by producer organizations, so they can pay their members a Living Income Reference Price at farmgate.

Fairtrade integrates voluntary payment of the Living Income Reference Prices in living income pilot projects with committed buyers and their supply chain partners. By implementing the holistic living income strategy on a controlled scale, Fairtrade seeks to demonstrate its effectiveness and validate the price component as a critical driver to achieve living incomes.

It must be stressed that the Living Income Reference Price is just one tool, which - in combination with other interventions - is needed to close the income gap. Therefore there is no guarantee that all farmers will earn a living income, even if they are paid that price. Nonetheless, payment of a Living Income Reference Price, along with long-term sourcing agreements, are considered essential purchasing practices that buyers are responsible for to enable living incomes for farmers in their supply chains. On the other end, farmers are equally responsible for implementing the sustainable agricultural practices to meet the productivity target.

Fairtrade recommends that the mandatory Fairtrade Premium is not counted towards the Living Income Reference Price, but is paid on top to the producer organization. The Fairtrade Premium is an important source of income for producer organizations to cover operational costs, including adequate service delivery to their members. Empowered producer organizations play a crucial role in supporting their members reach target yields, reduce costs, add value, diversify income sources and enhance farm resilience, all of which contribute to achieve living incomes.

Finally, most buyers do not purchase all the coffee produced by a producer organization 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 coffee industry to jointly commit to sustainable prices, so that living incomes can become a reality for coffee farmers.**

The Living Income Reference Price model makes up an integral part of Fairtrade's Living Income Strategy. Fairtrade is constantly testing and improving its model in order to develop a standardized approach for establishing sustainable price levels for smallholder farmers, applicable to a wide range of commodities and regions. We welcome your feedback in this process.

For more information or comments, please contact:

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