



Living Wage Report

Rural Ecuador

Southern Coastal Zone

Focus on bananas

November 2016

By: Janette Ulloa Sosa, Víctor López, Patricio Sambonino,
Richard Anker, and Martha Anker



Photo Courtesy of ISEAL Alliance

GLOBAL
LIVING WAGE
COALITION

Series 1, Report 22

Published July 2020

Prepared for: Global Living Wage Coalition

Under the Aegis of Fairtrade International, Rainforest Alliance, and Social Accountability International, in partnership with ISEAL Alliance and Richard Anker and Martha Anker.

Table of Contents

About the authors (in alphabetical order)	4
Acknowledgements	6
SECTION I. Introduction	7
1. Background	7
2. Living wage estimate	8
3. Informal workers in banana sector	8
4. Context	9
5. How living wage is estimated	12
SECTION II. Cost of a Basic but Decent Life for a Worker and Her or His Family	14
6. Food costs	14
6.1 General principles of model diet	14
6.2 Model diet	15
6.3 Food prices	19
7. Housing costs	24
7.1 Standard for basic acceptable local housing	25
7.2 Rent for basic acceptable housing.....	28
7.3 Utilities and other housing costs	33
8. Non-food and non-housing costs	33
9. Post checks of non-food and non-housing costs	36
9.1 Health care post check	36
9.2 Education post check.....	37
9.3 Post check summary.....	38
10. Provision for unexpected events to ensure sustainability	39
SECTION III. Living Wage for Workers	40
11. Family size needing to be supported by living wage	40
12. Number of full-time equivalent workers in family providing support	41
13. Take home pay required considering possible income taxes and mandatory deductions from pay	43
SECTION IV. Estimating Gaps between Living Wage and Prevailing Wages	45
14. Prevailing wages	45
14.1 Formal and informal labor relations on banana plantations	45
14.2 Wages for workers with different contractual arrangements on banana plantations	45
14.3 Wages concepts in the wages code that affect wages on banana plantations for workers with a contract	46
14.4 Calculation of wages for workers who receive the SBU	47
14.5 In-kind benefits as partial payment of living wage	48
15. Living wage in context and compared to other wages	49
Conclusions	51
References	55
Internet References	56
ANNEX: Evidence that living wage for rural El Oro Province is representative of a living wage for entire coastal banana-producing region in Ecuador	58
A1. Background and introduction	58

- A2. Cost and price differences in three main banana-producing provinces59**
- A3. Differences in income levels in three main banana-producing provinces.....60**
- A4. Engel’s law and non-food non-housing (NFNH) to food ratio in three main banana-producing provinces61**
- A5. Poverty rates in the three main banana-producing provinces.....62**
- A6. Summary and conclusions63**

ABOUT THE AUTHORS (IN ALPHABETICAL ORDER)

Martha Anker MA

Martha Anker is an Independent consultant. She holds a Master's degree in Mathematics from the University of Michigan, Ann Arbor, USA. She retired from the World Health Organization after 25 years where she was an applied statistician. She was especially interested in developing rapid assessment methods for health assessments and investigating the relationship between gender and epidemic-prone infectious diseases. She is author or editor of 8 books and monographs and numerous articles and papers including on verbal autopsy, rapid assessment methodologies, and gender and infectious disease. Since retiring from WHO she has been working on living wages and living incomes. She is a founding partner in the Global Living Wage Coalition, and together with Richard Anker coauthored or supervised over 30 living wage studies, developed the Anker methodology for measuring living wages that is used in this report, and coauthored the book *Living Wages Around the World*.

Richard Anker PhD

Richard Anker is a Senior Research Fellow in the Political Economy Research Institute, University of Massachusetts, Amherst. He holds a PhD in economics from the University of Michigan, Ann Arbor, USA. He retired from the International Labor Organization after 30 years where he was a senior economist concerned with labor issues and the measurement of decent work. He was a member of the ILO's renowned World Employment Program, where he headed various projects including one of the first projects in the United Nations System to look at the relationship between work and gender. He is an author or editor of over 20 books, and numerous papers and articles on a wide range of topics including gender, rapid assessment methodologies, child labor, labor force activity, fertility, poverty, and living wage. He is a leading expert on living wages, a founding partner in the Global Living Wage Coalition, and together with Martha Anker he has co-authored or supervised over 30 living wage studies, and developed the Anker methodology for measuring living wages that is used in this report, and co-authored the book *Living Wages Around the World*.

Víctor López A. PhD (UB-Chile)

Co-founder and President at Pro-Ideas Corporation, responsible for the Knowledge Management and Information Systems Program, focus on learning innovation methodologies in rural areas, capitalize successful experiences in territorial management, monitoring of development projects and fair trade opportunities for local producers. Anthropologist, professor and social researcher (over 20 years' experience) with contributions to rural studies, especially in public policies monitoring (water, agro productive, energy and forestry). Advisor for international organizations and (FAO, IICA, COICA), national organizations (NGO and grassroots) and networks (RAISG, Climate Alliance, GLWC). Lecturer at postgraduate universities. Contact: <https://flacso.academia.edu/VictorLopezAcevedo>

Patricio Sambonino. Ing

Systems Engineer with expertise in institutional innovation, institutional planning, monitoring and evaluation of development projects, labor rights and strengthening and development of trade union organizations. His work experience in social processes has allowed designing strategies for projects in Latin America and other regions of the world.

Janette Ulloa S. MExc

Biologist, specialized in technology and environmental management. More than 20 years working with NGOs. Expertise in socio-environmental research, capacity building, local and strategic planning. Co-founder and Executive Director at Corporación Pro-Ideas. Member of the Coordination of Organizations for the Defense of Nature and the Environment, CEDENMA.

ACKNOWLEDGEMENTS

This report was commissioned by the Global Living Wage Coalition (GLWC), which encompasses the following organizations: Fairtrade International, Rainforest Alliance, and Social Accountability International (SAI), in partnership with the ISEAL Alliance and Richard Anker and Martha Anker. This study was co-funded by IDH and Fairtrade International, with the World Banana Forum and Fairtrade International as implementing partners. Fair Trade-CLAC, Rainforest Alliance, and Sustainable Agriculture Network (SAN) provided strategic support for the fieldwork and primary data collection.

The GLWC believes that the estimation and publication of living wage estimates are the first step in a process. It does not believe that the estimates should or can supplant the rights acquired through collective bargaining agreements; but instead they can serve as a tool to support social dialogue between workers and employers.

The authors wish to acknowledge the support of Michelle Bhattacharyya, the logistical support and local coordination provided by Conservación y Desarrollo Certified S.A., the managers of local Fairtrade International and Rainforest Alliance-certified businesses, the workers who kindly participated in the research, and all individuals and institutions that supplied information to this study. The authors are also grateful for contributions to the field research and data processing made by Cinthia Durán Larrea, a student at Skidmore College during her internship at the Pro-Ideas Corporation. We are also appreciative of the support and methodological guidance provided by Professor Alexandre de Freitas Barbosa (University of São Paulo) during the research, especially in analyzing data and applying the Anker methodology.

Living Wage Report

Rural Ecuador

Southern Coastal Zone

El Oro, Los Rios and Guayas Provinces

SECTION I. INTRODUCTION

1. BACKGROUND

This report estimates a living wage (LW) for rural areas of the main banana growing regions in Ecuador's southern coastal zone using a new methodology developed by Richard and Martha Anker and adopted by the Global Living Wage Coalition (GLWC) (Anker and Anker, 2017).

The GLWC definition of a living wage used in this study is:

“Remuneration received for a standard work week by a worker in a particular place sufficient to afford a decent standard of living of the worker and her or his family. Elements of a decent standard of living include food, water, housing, education, healthcare, transport, clothing and other essential needs including provision for unexpected events” (GLWC 2016, cited in Anker and Anker 2017).

The Anker methodology is based on international principles which are the same for all countries. This includes the need for a healthy diet consistent with local preferences, healthy housing consistent with local expectations, education of children through secondary school, access to adequate health care services, enough for all other essential needs based on expenditure patterns in the country, and 5% additional for unexpected events so that families experiencing an unexpected event are not thrown into poverty. Although the principles are the same for all countries, a living wage is time and place specific, so that specific foods in a model diet reflect local preferences and relative costs, and the acceptable local housing standard reflects local conditions as well as international minimum healthy housing standards.

This report is part of a series of living wage reports intended to provide internationally comparable living wage estimates across many different locations. It is important that living wage estimates in this series are internationally comparable and can be applied to banana sectors in many different countries, so that these internationally comparable living wage estimates can begin a process that leads to voluntary action to raise wages to a living wage by the entire banana value chain up to retail and consumers.

The Ecuadorian government calculates a *salario digno*, based on a basket of goods and services for a family with 4 persons and 1.6 workers. Although there are similarities between the

methodology used by the government for calculating the *salario digno*, and the Anker methodology for calculating a living wage, this report is not meant to replace the government *salario digno* which is the basis for calculating minimum wages in Ecuador. Instead, this report is meant to be part of a series of internationally comparable reports on living wages.

2. LIVING WAGE ESTIMATE

The estimated living wage for rural areas of Ecuador's southern coastal zone in November 2016 is US\$463 per month. It is worth noting that our living wage for 2020 would be very similar to this US\$463 given the very low inflation rate in Ecuador since 2016. It is also worth noting that no currency conversion is needed to determine a USD value for our living wage, because Ecuador has been officially dollarized since 2000.

This means that workers with a formal contract in 2016 with less than one year of tenure would need a monthly salary of US\$397 per month considering that they would also receive the 13th and 14th month bonus payments required by law; also, workers with a formal contract and more than one year of tenure would need US\$362 per month considering that they would receive the Reserve Fund bonus in addition to the 13th and 14th month bonuses.

Our living wage estimate (US\$463) is slightly higher than the estimated prevailing wage of banana sector workers with a formal contract who are part of the National Social Security System (IESS)¹ and who by law must receive the SBU basic wage plus 13th and 14th month bonuses. Our living wage is around 8% higher than the *salario digno* and the SBU for workers with formal contract and up to 1-year of tenure and around 1% higher than the SBU for workers with a formal contract and more than 1-year tenure. But it is important to keep in mind that many banana sector workers do not have a formal contract.²

3. INFORMAL WORKERS IN BANANA SECTOR

It is important to mention right in the beginning of this report that many banana sector workers do not have a formal contract. There are several different types of working relationships in the banana sector. This includes workers with a formal contract and workers with informal working relationship including workers who come as a gang (*cuadrillas*) where only the group leader is paid directly by the banana plantation owner or manager. There are two types of *cuadrillas*, one that works in harvesting, and another that works in packing. Although without conclusive evidence it is not known what proportion of banana sector workers are working in informality, it is widely accepted that many banana sector employees do not have a formal contract (e.g. FAO (WBF), Wage structure analysis in the banana industry of Ecuador, <http://www.fao.org/3/a->

¹ Wage-earners are persons who work for a third-party employer, in either the public or the private sector, and receive payment for their work in the form of a salary, a wage or day payment (INEC, 2016a).

² It is important to note that government passed a law in May 2018, Ministerial agreement No. MDT-2018-0074 (after our study was conducted) called the "Partial Discontinuous Special Work Contract for the Banana Sector". This entitles all workers to the prorated value of 13th and 14th month bonuses as well as other benefits. Workers must pay the IESE payroll tax and have a maximum of 36 hours work per week.

[bu013e.pdf](#)). Estimates of the proportion of banana employees with a formal contract vary and there is no official estimate and so no way of knowing this precisely. The National Union Federation of Men and Women Banana Workers of Ecuador, SINUTRABE, indicated to us in a recent personal communication that it estimates that they believed that around 40% of banana plantation workers do not have a formal contract.³ Regardless of what is the percentage of banana sector workers without a formal contract is in the banana sector, the issue of informality of labor relations in the banana sector is an important issue and is discussed in greater detail in section 14.

4. CONTEXT

Ecuador is a commodity-exporting country, in which bananas (including plantains) is its leading non-oil export product. In 2014, bananas were grown for export in 12 of the country's 24 provinces, although 94% of total production was concentrated in just three provinces of the southern coastal region: Los Ríos (3,103,632.96 tons/year); El Oro (2,195,949.18 tons/year), and Guayas (1,663,029.00 tons/year) (MCPEC, 2014; 89). As much as 95% of Ecuador's production is exported and this reaches 43 international markets (PRO ECUADOR, 2013). Map 1 indicates the distribution of banana production in Ecuador.

In 2012, banana exports represented 45% of the FOB value of Ecuador's traditional exports and more than 91% in volume (Banco Central del Ecuador). "Within the economy, banana exports also represent 2% of overall GDP, 26% of agricultural GDP, 8% of total exports, 27% of agricultural exports and 20% of non-oil exports" (PRO ECUADOR, 2013).

In 2015, "exports reached US\$2.706 billion (FOB)" (PRO ECUADOR 2016, p. 7). In 2016, "the banana and plantain sector became the leading export sector with a 28.77% share of total non-oil exports, followed by aquaculture with a 19.29% share; in third place is fishing with 11.67% and in fourth place cocoa and its derivatives with 8.78%" (PRO ECUADOR 2016b, p.9).

Ecuador was the world's largest fruit exporter in 2015. Small-scale farmers (cultivating less than 30 hectares) account for 86% of banana producers in Ecuador. El Oro is the province with the largest number of producers (3,467).⁴ Although there are many small-scale banana farmers, they owned less than one-quarter of the cultivated area in 2013 according to official reports (Table 4.1):

³ Our own rapid assessment of the sexual division of labour in the banana sector appeared to confirm the low participation of women workers in the banana sector indicated by the trade union. Our assessment was based on interviews with key informants. We found that women in the banana sector are mainly employed in administrative jobs, such as secretaries, accountants, doctors, although also found some women working in the field, including in activities where they might be exposed to pesticides and herbicides.

⁴ Press release published in El Telégrafo: <http://www.eltelegrafo.com.ec/noticias/economia/8/bananeros-tendran-un-salario-basico-y-afiliacion-al-iess>.

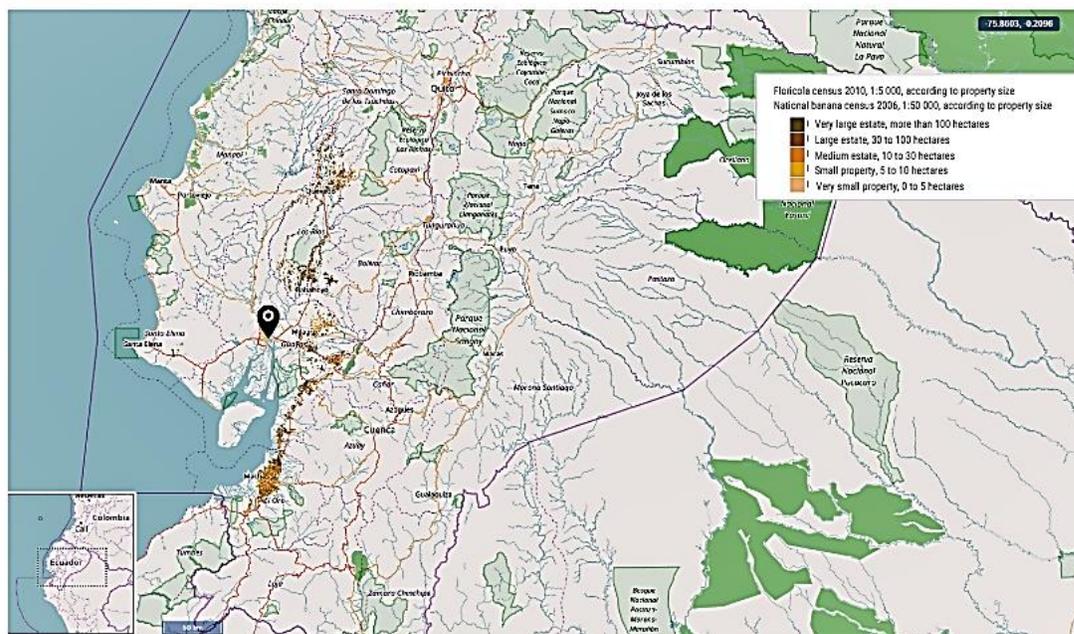
Table 4.1: Productive structure of banana cropping in Ecuador

Size of producer (in hectares)	% of producers	% of land area
Small (0-30 ha)	79%	25%
Medium (30-100 ha)	16	36
Large (> 100 ha)	5	38

Source: Banana Cadastre 2013, MAGAP. Prepared by the Trade and Investment Intelligence Department, PRO ECUADOR.

Since 2000, Ecuador’s economy has operated under a dollarized monetary arrangement that has afforded it macroeconomic stability and low inflation. None-the-less, structural inequalities exist with lower incomes in rural areas and for traditional and indigenous populations.

Figure 1. Map indicating locations of banana production in Ecuador

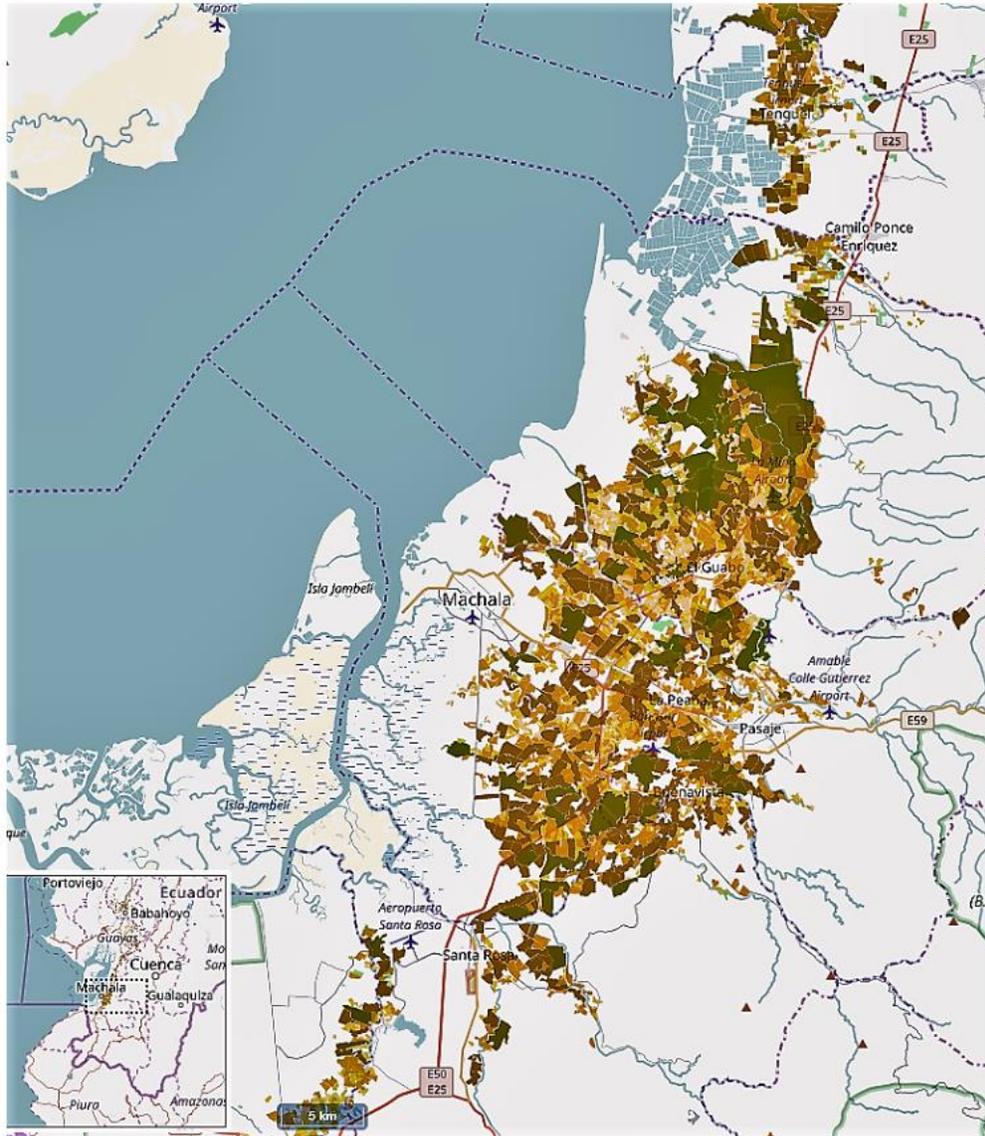


Source: MAGAP Geoportal

The primary data collection to determine local food prices and local housing costs took place in El Oro Province. The situation in El Oro Province is felt to be typical of the situation throughout the coastal banana producing region. The provincial capital of El Oro, Machala, has historically been recognized as “the banana capital”. Banana cropping represents 99.31% of permanent crops in El Oro Province (Decentralized Autonomous Government – GAD, El Oro Province, undated). Readers are referred to an appended separate paper indicating how similar the three main banana growing provinces are in terms of prices, income levels, etc. The secondary data

we used to estimate the cost of all non-food and non-housing needs were based on data for Los Ríos, Guayas, and El Oro Provinces combined.

Figure 2. Map of agricultural cadastre of the Province of El Oro banana production



Source: MAGAP Geoportal (<http://sinagap.agricultura.gob.ec/>).

Within El Oro Province, the cantons of Pasaje and El Guabo were selected for primary data collection, because they have a larger area planted with permanent crops, mainly banana and cocoa (23% in El Guabo and 22% in Pasaje). Another key criterion for choosing these cantons was their higher density of rural areas, which is the focus of this study in Ecuador. The chosen cantons also had certified banana plantations willing to cooperate in our research and data collection.

Banana producer organizations include the Association of Banana Producers of Ecuador (AGROBAN), the National Federation of Chambers of Banana Producers, and the following

exporter associations (PRO ECUADOR, 2013): Association of Banana Exporters of Ecuador (AEBE) and Banana Industry Association of Ecuador (ASISBANE). Banana sector workers are affiliated to several worker organizations, such as the National Federation of Agribusiness Workers; the El Oro Workers' Federation (FCTO); the Regional Union of Rural Peasant Organizations of the Coastal Zone (UROCAL); and a number of other unions and/or works councils. These organizations aim to address practices that violate the banana workers' human and labour rights.⁵

5. HOW LIVING WAGE IS ESTIMATED

The Anker methodology used to estimate a living wage in this report is based on: transparency in the calculation of living costs; normative criteria for defining local food and housing decency standards in accordance with international standards and local conditions; a combination of field research and secondary data analysis to ensure practical and analytical rigor; and consideration of the full remuneration package (all relevant forms of workers' compensation) to determine the gap to living wage. The living wage is always estimated to be relevant to a specific place and time.

Estimating the living wage using the Anker methodology entailed a judicious use of primary and secondary data (Anker and Anker, 2017). Visits were made to workers' homes and to the markets where they buy their food; focus group discussions and other discussions were held with farm workers, smallholders, plantation directors and owners, municipal officials, trade unionists, and officials from the Ecuadorian Institute of Statistics and Census (INEC) and the Ministry of Health, among others. Official and updated information from documents, reports and research statistics from state, regional and international agencies were also used.

The idea of a living wage is that workers and their families should not have to live in poverty. But the idea of a living wage is more than that - it should also allow workers to participate in social and cultural life and afford a decent standard of living. In other words, "wages should be sufficient to ensure that workers and their families are able to afford a decent basic life style considered acceptable by society at its current level of economic development" (Anker and Anker, 2017). Workers should receive a living wage in normal work hours without having to work overtime.

The figures below summarize the various stages of estimating an Anker methodology living wage. The cost of food is based on the cost of a low-cost nutritious model diet for a family which conforms recommendations of the Pan American Health Organization (PAHO) and the World Health Organization (WHO). Local food prices and consumption preferences are also considered, as observed in the field. Housing costs are based on international requirements for healthy housing and local costs for such housing. A small amount is added for unforeseen events such as illnesses and accidents, to ensure that common events such as these do not easily throw the worker into poverty. The estimated total cost of a decent but basic quality of life calculated for a typical-sized family in the area is divided by the average number of household members who

⁵ <https://lalineadefuego.info/2016/04/05/patrono-atento-contra-vidas-de-trabajadores-bananeros-solo-por-formar-sindicato-por-washington-orellana-farez/>.

have full-time-equivalent jobs. Finally, taxes required to be paid on a living wage are added to obtain the living wage.

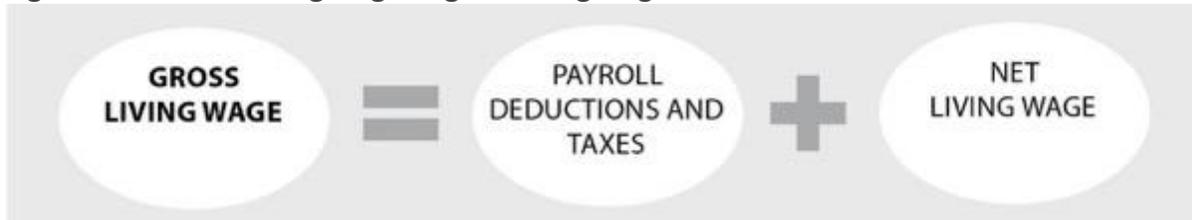
Figure 3: Components of a basic but decent life for a family



Figure 4: From cost of basic but decent life to net living wage



Figure 5: From net living wage to gross living wage



Source: Anker and Anker (2017).

SECTION II. COST OF A BASIC BUT DECENT LIFE FOR A WORKER AND HER OR HIS FAMILY

6. FOOD COSTS

Food costs were estimated using a low-cost nutritious model diet that is consistent with local preferences and local food prices determined through a survey of local food markets where workers shop. This section includes: (i) the principles that guided us in building an appropriate model diet, (ii) description of the model diet, and (iii) the local food costs that were used to estimate the cost of the model diet.

The cost of our model diet was estimated at US\$2.18 per person per day for our reference family size of two adults and two children. This is US\$265 per month for our reference family. The cost of this model diet was then reduced to US\$2.11 per person per day and US\$256 per month for our reference family, to take into account of the value of meals that do not need to be prepared at home because children in Ecuador between ages 3 and 15 years receive a free breakfast at school.

6.1 General principles of model diet

A model diet is developed to help estimate food costs. This model diet needed to: (i) meet WHO nutritional requirements, (ii) be consistent with local food preferences and Ecuador's level of development, and (iii) be low in cost for such a nutritious diet. Thus:

Number of calories is sufficient according to WHO standards (Schofield equations). It is determined by the physical activity levels of adults and children, average heights of adult males and females in Ecuador, and size and composition of reference family.

Percent of calories meets WHO recommendations for macronutrients. Between 10% and 15% of calories must come from proteins, between 15% and 30% of calories must come from fats, and between 50% and 75% of calories must come from carbohydrates. Also, according to WHO recommendations, proteins must come from a variety of sources, including some "higher quality" sources of proteins, such as beans and foods of animal-origin.

Milk (which is rich in calcium and high-quality protein) is included in the diet, especially for children as is some milk, yogurt or cheese for adults.

350 grams of fruit and vegetables per day (including beans and lentils) to ensure a sufficient variety of vitamins and minerals.

Maximum of 30 grams of sugar and 34 grams of oils per day as recommended by WHO to limit consumption of these foods.

Spices, salt, and condiments so that the model diet is palatable.

6.2 Model diet

A model diet for Ecuador was developed using the following steps (Anker and Anker, 2017). First, we started with an existing model diet for Ecuador to make sure that our eventual model diet is consistent with food preferences in Ecuador. We started with the poverty line diet for Ecuador. The Statistical Commission on Poverty defined the energy needs for the Ecuadorian population from the FAO Manual for planners and nutritionists (INEC, 2007, INEC 2015) based on “the estimation of basal metabolism and an adjustment for level of physical activity (NAF)”, differentiated by sex, age and weight.⁶ The following table shows the distribution by grams consumed by major food groups used for this official poverty line. This is a starting diet and not our model diet, as note, for example, that the number of grams of sugars and similar items (54.3 grams) shown in the table 6.1 is much higher than WHO recommendation of a maximum of 30 grams.

Table 6.1: Poverty line diet in number of edible grams by food group for rural Ecuador (south coast) according to INEC 2007 and 2015

Food Groups	Food item	Number of edible grams
Cereals and derived products		264.1
Cereals	Rice	167.2
	Other cereals	41.2
Prepared cereals	Bread	37.6
	Noodles	15
Roots and tubers	Potato	71
	Yucca	13
Plantains		74.4
Beans and lentils		13.6
Dairy		
	Milk	121.8
	Cheese	13.6
Eggs		20.4
Meats		55.1
Fish and shellfish		17.8
Vegetables		96.2
Fruits		182.8
Fats and oils		31.5
Sugar		46.5

⁶ ENSANUT indicates a diet for the Ecuadorian population in the “Food consumption” chapter of the “National Health and Nutrition Survey ENSANUT-ECU, 2012” published by the national authority (INEC, 2012). However, this document does not refer to a basic diet. Like other countries in the Andean region, Ecuador nutritionists focus more on promoting a diet based on natural foods prepared at home rather than processed and ultra-processed foods.

Next, we estimated the number of calories required per person for our reference family of 4 using Schofield equations recommended by WHO and information on: (i) average height of rural adult males (1.64m) and rural adult females (1.51m) (ENSANUT-ECU, 2012)⁷; (ii) reference family size of 4 with 2 adults and 2 children; and (iii) physical activity levels of family members. We assumed that one adult member engages in vigorous physical activity (the banana plantation worker) and her or his spouse as well as children engage in moderate physical activity. This resulted in 2,345 calories per person required for our reference family of 2 adults and 2 children (more calories for adults than for children). We then adjusted the number of grams of each food item in the poverty line diet so that the diet had our required 2345 calories. To ensure this, we increased number of grams for each food item by the ratio of 2345 calories required to 2033 calories in the poverty line diet.

Subsequently, we adjusted this model diet with 2345 calories in three ways. First, we adjusted it so that it meets WHO standards, and is consistent with the situation for a typical upper-middle income country such as Ecuador in terms of number of proteins. This meant that percent of calories from macro-nutrients had to be in WHO recommended ranges; number of edible grams of fruits, vegetables and pulses had to be 350 grams; maximum of 30 grams of sugar and maximum of 34 grams of cooking oil; and percentage of proteins had to be at least 12% in keeping with Ecuador’s development level. Second, we selected specific foods to represent each food group based on information collected in a local market survey of food prices per kilo in places where workers shop (see next section on local food prices) with less expensive food items selected when they are considered palatable locally, commonly consumed, and widely available locally. Third, we adjusted quantities to acceptable less expensive alternatives within major food groups when this made sense (e.g. increased quantity of chicken and reduced quantity of beef); and adjusted quantities to common sense numbers of grams when this made sense (e.g. to number of rolls of bread, number of eggs, and number of portions of meat and fish). In the end because of these changes, our model diet includes more chicken than beef and fish, because chicken is less expensive than beef and fish; more beans and lentils because they are an inexpensive source of proteins; less potato and more plantain in keeping with coast diet; more milk for children; more grams of vegetables and fewer grams of fruits in keeping with need for more variety in fruits and vegetables; and less sugar and cooking oil in keeping with WHO recommendations.

Table 6.2: Model diet in edible grams and total daily cost in dollars

Food groups	Specific food product	Edible grams per person per day	Cost per kilo (US\$)	Daily cost per person (US\$)
1.A Cereals and grains	Rice	245	0.95	0.23
1.B Prepared cereals	Bread	45	2.22	0.10

⁷ ENSANUT indicates average weight and height for the Ecuadorian population in Chapter VI “Nutritional status based on anthropometric indicators” chapter ENSANUT-ECU, 2012” published by the national authority (INEC, 2012), p. 213) https://www.ecuadorencifras.gob.ec/documentos/web-inec/Estadisticas_Sociales/ENSANUT/MSP_ENSANUT-ECU_06-10-2014.pdf

Food groups	Specific food product	Edible grams per person per day	Cost per kilo (US\$)	Daily cost per person (US\$)
	Pasta	17	1.32	0.02
2.A Roots and tubers	Potato	30	0.52	0.02
	Cassava	15	0.52	0.01
2.B Fruits and vegetables	Plantain	86	0.48	0.06
3. Legumes and grains	Red kidney beans	14	2.20	0.03
	Lentils	14	2.20	0.03
4. Dairy	Milk	180	0.87	0.16
	Cheese	28	4.05	0.11
5. Eggs	Eggs	19	2.30	0.05
6. Meat and fish	Beef	12	6.09	0.09
	Chicken	85	2.95	0.37
	Fish	24	3.55	0.14
7A. Green vegetables	Green leafy vegetable	54	0.60	0.04
7B. Other vegetables	Carrot	54	0.55	0.03
	Onions	54	0.53	0.03
	Tomato	54	0.67	0.04
8. Fruits	Orange	54	0.59	0.04
	Banana	54	0.60	0.05
9. Oils and fats	Oil	34	2.05	0.07
10. Sugar	Sugar	30	0.92	0.03
11. Non-alcoholic beverages	Coffee	6	3.8	0.02
TOTAL				1.85
Salt, spices and condiments				2% additional
Food spoilage and wastage				4% additional
% added for variety of foods				12% additional
Total				2.18

Source: Prepared by the authors on the basis of Anker and Anker (2017).

Table 6.3 below describes our model diet in easily understandable portions per day, without considering the waste of husks or other inedible parts of food products. The inedible percentages of each food item in our model diet (which are used to calculate the cost of our model diet) were drawn from the USDA NAL database (viewed in December 2016 at: <https://fdc.nal.usda.gov/>).

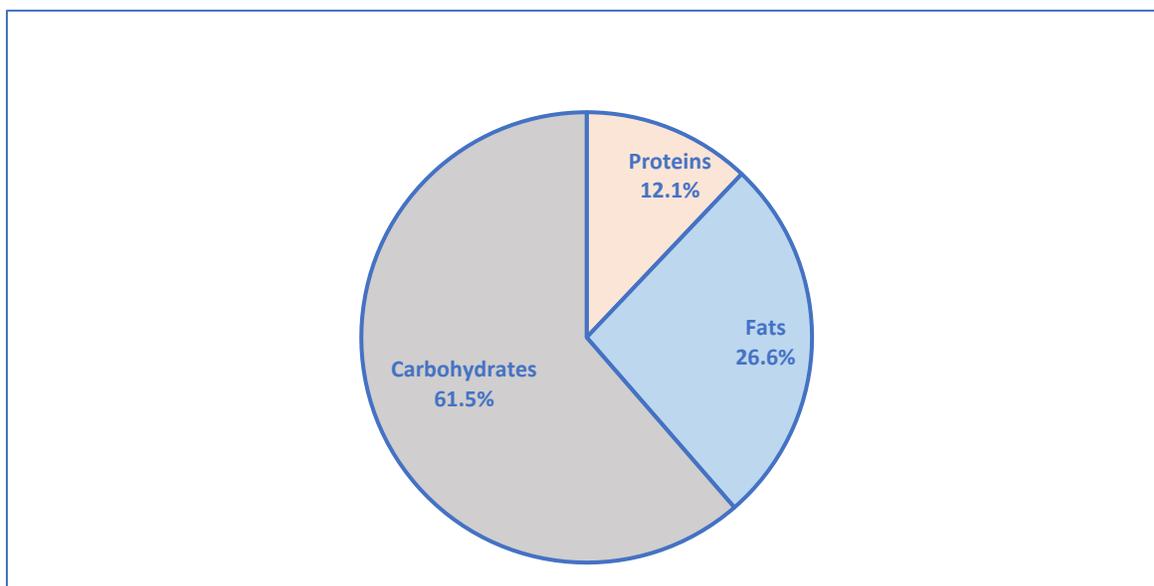
Table 6.3: Composition of the model diet per person per day in easily understood portions

1 1/4 cups of rice per day
1 bread roll per day
1 portion of pasta per week
Small amount of potato or cassava in soup or sauce per day
1 small plantain per day
1 oz of beans or lentils per day
1 oz of cheese per day
1 1/2 cups of milk per child per day
3 eggs per week
10 servings per week of: beef (1), chicken (7), or fish (2) (considering serving as 3 oz)
1 small banana or orange per day
1 small carrot, tomato and onion per day
7 teaspoons of sugar per day
2 1/2 tablespoons (or soup spoons) of vegetable oil per day
2 cups of coffee per adult per day

Source: Prepared by authors on model diet in table 6.2.

Rice is the cereal par excellence consumed in Ecuador and serves as the daily food staple. Potatoes and cassava are tubers that are eaten locally in the main course or soup. Legumes such as beans and lentils with high caloric and protein content are appreciated locally in soups or vegetable stews. Small portions of beef, chicken or fish complements the diet. Note that in order to ensure that our model diet is reasonably low in cost for a nutritious and palatable model diet, pork was eliminated from our model diet and amount of chicken was increased and amount of beef decreased because chicken is much less expensive than beef, fish and pork. Fruit in our model diet consists of bananas and oranges. Bananas are relatively inexpensive around the year. Vegetables such as onions, carrots, green leafy vegetables and tomato are part of the model diet because they are common and relatively inexpensive. Our model diet includes two cups of coffee per day for adults and 1.5 glasses of milk per day for children.

Figure 6. Distribution of macronutrients from the model diet



Source: Prepared by the authors.

The percentage distribution of calories in our model diet consists of 12.1% proteins, 26.6% fats, and 61.5% carbohydrates — a distribution which is within the ranges recommended by WHO (Figure 6). Note that the Ecuador poverty line we started with was composed of 10.0% proteins, 24.0% fats, and 66.0% carbohydrates. The foods that make up the largest percentage of expenditure in our model diet are meats and fish (32.6% of total food expense), followed by rice, bread and pasta (19.3%), dairy products (14.6%), vegetables (8.8%), and fruits (5.1%).

6.3 Food prices

Field visits were made to the rural parishes of Pasaje and El Guabo in El Oro Province to collect local food prices. To record local food prices, the research team developed a data collection form, which was adapted during fieldwork to improve the data collection process. Focus group discussions with workers helped to determine: (i) a list of food products that could possibly be included in our model diet to represent each major food group (i.e. food items that are locally available and often bought by workers), (ii) quantities in which each food item is typically purchased by workers, and (iii) shopping venues frequented by workers (see Table 6.4).

With the participation of workers, visits were made to the Pasaje Fair (*Feria de Pasaje*), the San Antonio market (*Mercado de San Antonio*), the Aki supermarket (*Supermercado Aki*), the Don Alipio grocery store (*Tienda de Abarrotes Don Alipio*), the La Granja Fair (*Feria de La Granja*) in Machala, the El Guabo market, and the Rosimarket supermarket (*Supermercado Rosimarket*) in El Guabo. Prices were obtained to identify the cheapest brands while maintaining acceptable quality. The cheapest locally available brands and foods of acceptable quality were chosen to include in our model diet.

At least 12 prices per food item were collected whenever possible. In markets or outdoor establishments, information was collected from three or more providers where possible. To establish the cost per edible gram for foods sold by the bag, piece, or bunch, these food products were weighed on site.

Workers from Pasaje typically do their shopping once a week and consider that the lowest prices are to be found at the Feria, where it is common for products to be sold by the bag. Workers from Pasaje reported that the lowest prices were in the Pasaje Fair (*Feria de Pasaje*). Workers from El Guabo typically shop at the La Granja Fair (*Feria de La Granja*) in Machala, and also at the El Guabo market and the Rosimarket supermarket in El Guabo. Prices tended to be lower at the La Granja Fair, and where there is great diversity and fresh food.

Table 6.4: Venues where workers typically buy food

Places	Type of food purchased	Days purchased	Comments
Pasaje Fair	All foods	Sundays and Mondays	
San Antonio Market	All foods	Everyday	
Don Alipio Grocery Store	Groceries	Everyday	
Aki Supermarket	All foods	Everyday	Workers tend not to shop at Aki because it is more expensive. For this reason, we did not use prices in this market.
La Granja Fair	Various foods	Sundays	
El Guabo Market	Various foods	Everyday	Bread not bought here
Rosimarket Supermarket	Specific food products purchased	Everyday	Bread not bought here

Source: Prepared by the authors on the basis of field work.

Photos of venues where workers buy food

San Antonio Market



Pasaje Fair



La Granja Fair



Rosimarket Supermarket



The cost of the model diet of \$1.85 in table 6.2 is increased in three ways. First, some additional variety in the model diet is provided for (12% is added to the cost of the model diet for additional variety) so that workers do not always have to buy the cheapest foods, can occasionally eat a larger portion of a preferred food, and can sometimes consume a more expensive variety. Second, 4% is added to take into consideration the reality of a minimum amount of waste and spoilage. Third, 2% is added for salt, spices and condiments, such as chicken or beef broth to make the diet palatable. To be consistent with the concept of a nutritious low-cost diet, the model diet does not include soft drinks, sweets, or cakes.

6.3.1 Free school meals

Estimated food costs for preparing meals at home for a family of 4 is US\$8.72 per day. This assumes that three meals each day are prepared at home for all family members.

However, children in Ecuador receive free meals at school. Ecuador’s School Meals Program provides breakfast for children in in pre-primary and primary schooling during the 200-day school year.

The free school breakfast means that families have fewer meals to prepare at home and for this reason we deduct this avoided cost from the cost of our model diet using a formula suggested in Anker and Anker (2017). For this calculation, we assume that the free school breakfast represents 20% of children’s total calories needs per day. This implies \$0.29 per day is saved by our reference family. Therefore, the monthly food costs for our reference family size becomes \$256.

Table 6.5: Food cost per day of our model diet, estimated value of free breakfast provided at school, and total monthly food costs for reference family (in dollars)

Category	Food cost
Cost of model diet per person per day for family of 4	2.18
Value in cost of meals avoided at home because of free breakfast for 2 children for 200 days per year	0.29
New daily cost per person of food for the reference family (2.18 – 0.29/4)	2.11
Adjusted monthly expenditure on food for the whole family	256

Source: Prepared by the authors.

7. HOUSING COSTS

Housing costs are calculated by summing the costs of: (i) renting a decent basic dwelling; and (ii) utilities, other housing costs and basic maintenance. To quantify these costs, workers’ homes were visited and the conditions and costs of their homes were discussed. Also, local officials from the Ministry of Urban Development and Housing were consulted.

7.1 Standard for basic acceptable local housing

To estimate the cost of basic but decent housing for rural areas of the banana producing region for our reference family of 4 persons, we first set a local healthy housing standard. We did this by taking into consideration minimum international norms (see Anker and Anker, 2017) and minimum conditions of decent housing in rural Ecuador according to Ministerial Agreement No. 216 (September 24, 2013).

Healthy housing has the following characteristics according to World Health Organization recommendations on healthy housing, International Labor Organization Recommendation Concerning Worker's Housing, UN-Habitat definition of slum housing, and United Nations International Covenant on Economic, Social and Cultural Rights (Anker and Anker, 2017):

- Durable structure
- Sufficient living space
- Access to safe water
- Access to sanitary toilet and washing facilities
- Adequate lighting
- Adequate ventilation
- Adequate food storage
- Separate from animal quarters
- Protection from cold, damp, heat, rain, wind, or other threats to health, structural hazards, and diseases vectors

In addition, acceptable housing cannot be located in:

- Slum
- Unsafe area
- Hazardous area
- Area without site drainage

Ecuador's Ministerial Agreement No. 216 (September 24, 2013) specifies the following necessary conditions for housing, which are similar in nature to international recommendations:

- functionality
- security
- privacy
- feasibility of home expansion
- at least 36 m² of floor space
- two bedrooms, living area, kitchen and toilet
- core infrastructure services or a means of water supply and sewage disposal
- electrical installation

We used data from the 2010 Population Census to decide on the specific characteristics for our healthy housing standard for the three main banana producing provinces that meet the above

Ecuador and international general recommendations (table 7.1). According to the 2010 Census, housing conditions in rural Ecuador are in general good. Almost 100% rural houses in the three main banana producing provinces have electricity; 80% of houses have a zinc roof; 89% of houses have a tile or wood floor; 88% of houses are connected to the public electric service; 66% have brick or cement walls; 63% have a toilet connected to the public network (13%) or to a septic tank (50%); 33% have less than 2 persons per bedroom and 36% have 2-3 persons per bedroom. In El Oro Province, 81% cook with gas, 30% boil water, and 42% buys bottled water (INEC, 2010). The workers we interviewed during our fieldwork said that they did not buy bottled water. Instead, they boil their water to reduce costs and ensure its quality, since bottled water is not always felt to be safe.

Table 7.1 also indicates our local healthy housing standard in the last column. The only possibly debatable issue for our local healthy housing standard concerns amount of living space. We feel that the Ecuador government standard of 36m² is too small for an upper-middle-income country like Ecuador. As shown in Anker and Anker (2017), 48-60m² of floor space is a much more typical living space standard for an upper-middle income country such as Ecuador. For this reason, we use 48m² living space for our local healthy housing standard.

Table 7.1: Housing conditions in Ecuador based on 2010 Population Census and which characteristics are considered acceptable for local healthy housing standard

Characteristics	Rural Ecuador (%)	Rural 3 main banana producing provinces (%)	Our local healthy housing standard
STRUCTURE			
Roof			
Cement	16.1	4.6	Cement, zinc, and tile acceptable.
Asbestos	17.1	8.2	
Zinc	48.6	80.3	
Other (tile, palm, other)	18.2	6.8	
Floor			
Wood/parquet	33.3	33.2	All acceptable. Earth not acceptable.
Tile	69.5	55.5	
Cement, bricks	17.1	11.3	
Exterior walls			
Cement	3.9	4.5	Cement, brick, and well joined wood acceptable.
Brick	58.7	61.6	
Bahareque/wood	23.9	9.4	
Bamboo/cane/other	13.5	24.6	

Characteristics	Rural Ecuador (%)	Rural 3 main banana producing provinces (%)	Our local healthy housing standard
ACCESS TO SAFE WATER			
Piped water			
Public service	45.9	32.2	Public service or covered well acceptable. River, or canal, or uncovered well not acceptable.
Well	23.0	45.7	
River/canal	24.9	17.1	
Other	6.2	5.0	
ACCESS TO SANITARY FACILITIES			
Toilet facility			
Public network	28.0	13.3	Toilet or latrine connected to public network, or connected to septic tank, or connected to well drained latrine without septic tank are acceptable. Nothing is not acceptable.
Latrine with septic tank	36.8	49.5	
Latrine without septic tank	24.3	23.7	
River or latrine	10.8	13.5	
SUFFICIENT LIVING SPACE			
Number of persons per bedroom			
None	6.5	10.2	Living wage standard is 48 square meters of living space. A number of persons per bedroom standard would depend on ages and sexes of the children - although 4+ would not be acceptable.
Less than 2	39.0	32.8	
2-3	36.2	36.2	
4-5	13.8	15.9	
More than 5	4.6	5.0	
Average	2.2	2.2	
ADEQUATE LIGHTING AND VENTILLATION			
Number of windows			Usually 1+ per room.
Electricity			
Yes	98.09	99.78	Electricity required.
No	1.91	0.22	

Characteristics	Rural Ecuador (%)	Rural 3 main banana producing provinces (%)	Our local healthy housing standard
CONDITION OF BUILDING			In good state of repair.
SITE ENVIRONMENT			
Not slum			Not slum
Safe			Safe
No site hazard such as: surface water drainage, industrial pollution, danger of landslides, flood zone			No site hazard

Source: 2010 Population Census.

7.2 Rent for basic acceptable housing

To determine the cost of local basic acceptable rural healthy housing, we visited nine dwellings of banana workers during our fieldwork in rural El Oro Province (see table 7.2). We also contacted the local office of the Ministry of Housing (MIDUVI). Homes built by the government were visited in the company of a MIDUVI official. Six of the rented homes we visited did not satisfy our above decent housing standard and three did.

One reason why the homes we visited were not considered acceptable was because of their location, since some were in neighborhoods that the inhabitants and workers we spoke to considered as unsafe. Another frequent problem was poor ventilation despite the existence of windows, because roofs were made of zinc sheets and were not very high. To solve this problem, some houses had glass windows, but this lets in disease vectors such as those that cause Chikungunya, Dengue or Malaria. In some places, water and electricity supply were subject to interruptions as indicated above.

The cost of renting basic acceptable rural healthy housing in the study area is estimated at US\$100 per month. This is an approximately the average of rent found in the homes we visited that satisfied our above housing standard (table 7.2). The approximate cost of an acceptable basic dwelling was calculated at US\$139 per month including utilities (see next section). This includes US\$100 for rent and US\$35 for utilities consisting of US\$25 for electricity, US\$5 for cooking gas, US\$5 for water, and US\$4 for minor repairs/maintenance.

Table 7.2: Description of houses visited in rural El Oro Province

Acceptable standard?	Rent (in US\$)	Size (floor space in m²) and types of rooms)	Comments
No	60	27 m ² , ceiling 3.5m. 3 rooms (2 bedrooms, 1 joint dining and living room)	Too small. Safe neighbourhood. Average construction conditions. Bathroom outside and in appalling condition. Septic tank. Garbage collection. Piped water (no water supply one day a week). Permanent electricity. 2 windows.
No	70	48 m ² , ceiling 3m. 3 rooms (2 bedrooms, living room, kitchen, and 1 joint dining and living room)	Unsafe neighbourhood. Good condition. Indoor bathroom. Septic tank. Garbage collection. Piped water. Electricity. 3 windows.
No	80	42m ² , ceiling 2.5m. 3 rooms (1 bedroom, 1 living room, kitchen, and 1 joint dining and living room)	Unsafe neighbourhood. Good condition. Indoor bathroom. Sewage collection. Garbage collection. Piped water. Electricity. 3 windows.
No	80	54m ² , ceiling 3.5m. 3 rooms (1 room, 1 kitchen, living room and dining room together)	Unsafe neighbourhood. 1 window. Average condition. Indoor bathroom. Sewage collection. Garbage collection. Piped water and/or well pump. Electricity.
No	80	38m ² , ceiling 3.5m. 3 rooms (1 bedroom, 1 kitchen, 1 joint dining and living room)	Too small. Safe neighbourhood. Good condition. Garbage collection. Well water. Electricity. 4 windows. Outside bathroom in good condition.
No	90	27m ² , ceiling 3.5m. 3 rooms (2 bedrooms, 1 joint dining and living room)	Too small. Unsafe neighbourhood. Average condition. Septic tank. Garbage collection. Piped water (no water once a month). Electricity. 2 windows. Outside bathroom in good condition.
Yes	90	63m ² , ceiling 4m. 3 rooms (2 bedrooms, kitchen, joint dining and living room)	Safe neighbourhood. House in good condition. Bathroom indoor and in good condition. Sewage system. Garbage collection. Piped water. Permanent electricity (2 hours a month without electricity). 4 windows.

Acceptable standard?	Rent (in US\$)	Size (floor space in m ²) and types of rooms	Comments
Yes	100	72m ² , ceiling 3.5m. 4 rooms (2 rooms, kitchen and joint dining and living room)	Safe neighbourhood. Good condition. Outside latrine. Septic tank. Garbage collection. Piped water. 4 windows.
Yes	120	54m ² , ceiling 4m. 3 rooms (1 room, 1 kitchen, joint dining and living room)	Safe neighbourhood. Good condition. Outside bathroom in good condition. Sewage system. Garbage collection. Piped water. Electricity. 4 windows. Water supply sometimes fails for up to 12 hours a day.

Source: Prepared by the authors.

Photos of dwellings that do not satisfy our local healthy housing standard



Photos of dwellings that meet our local healthy housing standard



Photo of prototype rural home promoted by the government



7.3 Utilities and other housing costs

Information on basic electricity, water, and gas was collected through focus groups with El Oro banana workers, and secondary data from official government sources. Electricity cost, at roughly US\$25 per month, seems high considering that most rural families do not have electrical equipment such as electric cookers, fans, microwaves, washing machine or others, but just the basic electrical appliances, such as a refrigerator and television. Homes have access to piped water from the public grid, but not to drinking water. Nearly everyone boils water before using it to make it safe. This increases cooking gas costs. The cost of the piped water service is roughly US\$5 per month. There are sometimes restrictions on availability ranging from a drop in water pressure to outage for 12 hours a day (4 pm to 4 am) or for a day or more per month. Families of four members who cook at home use about two gas canisters per month which cost US\$2.50 for a canister. In one of the settlements we visited, the neighborhood received piped gas which has been subsidized by the government for a year, and this will continue for one more year according to local informants.

Table 7.3: Housing and utility expenses

Item	Housing costs US\$
Rent	100
Water, electricity and cooking gas	35
Maintenance and routine expenses	4
Family housing costs	139

Notes: Maintenance costs relate to exceptional situations, such as a water leak, roof damage, or any serious situation that might occur during the year.

Source: Prepared by the authors.

8. NON-FOOD AND NON-HOUSING COSTS

Non-food and non-housing (NFNH) costs are estimated using government INEC income and expenditure survey data. These data are used to estimate all costs except for food and housing costs (which are estimated separately, see previous sections) based on normative standards for housing and food to ensure that workers can afford a low-cost nutritious diet and basic healthy housing.

Estimating NFNH costs is done in a four-step process. First, we obtained data from the INEC 2011-12 household expenditure survey (latest available) on the distribution of household expenditures. This was done for the second quintile (i.e. 20-40th percentile or around the 30th percentile of this distribution) for rural households for the main three banana producing provinces. The second quintile of the income distribution was used, because this was felt to be a reasonable part of the income distribution for measuring living costs for a living wage in rural banana producing areas of Ecuador given poverty rates in Ecuador. Second before using these data, we excluded some expenditure which we did not feel are necessary for decency. Thus, we eliminated household expenditures for tobacco and lottery tickets as being unnecessary. We also considered additional costs associated with owning and operating private vehicles compared to

use of public transportation as unnecessary, because our fieldwork and discussions with workers revealed that workers use the public transport services and they consider this to be acceptable. Thus, 2.19% in total was excluded from NFNH expenditures. Third, we moved a portion of the spending of households for food purchased away from home to the food expenditure group, because part of the cost of meals purchased away from home is for the food in these meals. We assumed that one-half of the cost of meals purchased outside the home is for the food in these meals and one-half of the cost is for services (e.g. cooking, cleaning, and serving), overheads and profit, since this is what has been found to be typical in developing countries (Anker and Anker, 2017). Thus, 1.56% was transferred from the NFNH expenditure group to the food expenditure group. Fourth, a preliminary estimate of NFNH costs was, then, made by multiplying the calculated adjusted NFNH/Food ratio (last column in table 8.1) by the cost of our model diet to get a preliminary estimate of NFNH costs. This is considered to be only a preliminary NFNH estimate, because we want to make sure that sufficient funds for children’s education and health care are included in this preliminary NFNH estimate, because we consider adequate health care and children’s education through secondary school to be human rights. The next two sections investigate this, and we find that our preliminary NFNH estimate is indeed sufficient to provide for adequate health care and children’s education, and so post check adjustments to our preliminary estimate of NFNH costs are not needed.

After the above adjustments, the NFNH/Food ratio for the three main banana producing provinces was estimated to be 1.00 (i.e. 47.24/47.20). See table 8.1. NFNH expenses per month were estimated as \$256 (1.00 NFNH to Food ratio x \$256 cost of food).⁸ It is worth noting that this adjusted NFNH/Food ratio of 1.00 is almost exactly the same for rural Coast region (0.99) and lower than for rural Ecuador as a whole (1.14).

Table 8.1: Estimation of NFNH/Food ratio for second quintile of household expenditure distribution for rural areas of the three main banana provinces

Major expenditure group	Sub-major expenditure group	% of household expenditure in secondary data	Explanation of adjustments	% after adjustments
Food		45.64	Increased by 1.56% (½ of amount for restaurants and hotels)	47.20

⁸ It is interesting to note that although housing expenditures of rural households in the second quintile for banana producing region indicated in INEC statistics is only 3.4% of housing expenditure, which clearly is unrealistically low, this problem with INEC data has no affect on our estimate of living costs. This is because we estimate housing costs separately based on a healthy housing standard and visits to local housing.

Living Wage Rural Ecuador, Southern Coastal Zone, El Oro, Los Rios and Guayas Provinces

Major expenditure group	Sub-major expenditure group	% of household expenditure in secondary data	Explanation of adjustments	% after adjustments
Housing		3.4	Not relevant for NFNH	0
Alcohol and tobacco		1.49	Reduced by 0.22% to eliminate tobacco	1.27
Restaurants and hotels		3.12	Reduced by 1.56% and transferred to food group	1.56
Clothing and footwear		7.56	No adjustment	7.56
Household contents and electrical appliances		6.70	No adjustment	6.70
Health care		6.86	No adjustment	6.86
Education		0.36	No adjustment	0.36
Transport		8.83		7.05
	Purchase of private vehicles	1.26	Workers expected exclusively to use public transportation, which is assumed to be half as expensive as private transportation	0.63
	Operation of private vehicles	2.30		1.15
	Passenger public transport	5.27	No adjustment	5.27
Communication		2.18	No adjustment	2.18
Recreation and culture		2.90	No adjustment	2.90
Miscellaneous goods and services		11.19	Reduced by 0.19 to eliminate gambling and lottery	11.00
TOTAL NFNH		50.77		47.24
Preliminary NFNH/Food ratio		1.11		1.00

Source: INEC 2012. Prepared by the authors on the basis of Anker and Anker, 2017.

9. POST CHECKS OF NON-FOOD AND NON-HOUSING COSTS

This section investigates whether amounts for health care and education included in the preliminary estimate of NFNH costs are sufficient to ensure that workers can afford adequate health care and education for children through secondary school. This is important to investigate, since we consider these to be human rights. This is done by comparing how much these cost based on data we collected in fieldwork from workers and key informants to amounts for these included in our preliminary NFNH estimate.

Based on the secondary survey data in table 8.1, amounts per month for health care and education included in our preliminary NFNH estimate are:

Health care = US\$37.18 per month included in our preliminary NFNH estimate (i.e. 6.86% for health care/47.24% for NFNH to give proportion of NFNH x \$256 for preliminary NFNH).

Education = US\$1.96 per month in our preliminary NFNH estimate (0.36% for education/47.24% for NFNH to give proportion of NFNH x \$256 for preliminary NFNH).

9.1 Health care post check

Most workers and their families use the universal public health system provided by public clinics and hospitals, or by the social security service to which they are affiliated, as the case may be. Despite this, there are considerable out of pocket health care expenses for families in Ecuador (Ortiz-Prado et al, 2016)⁹. Typical out of pocket household health care costs include the cost of medicines not covered by the public insurance and when not provided for free in government facilities; cost of private consultations and simple laboratory tests; and medicines purchased from private pharmacies for less serious illnesses. Based on discussions with workers, we determined typical cost per visit to public and private facilities. For these calculations, we assumed that there were 4 visits per year for illnesses (i.e. every three months), with 2 visits to public facilities, 1 visit to a private doctor or clinic, and 1 visit is to a private pharmacy.

Estimated typical out of pocket health care costs per month was US\$21.67 for our reference family of 4 (table 9.1). This is less than the US\$37.18 included for health care in our preliminary NFNH estimate. Accordingly, amount included for health care in our preliminary NFNH estimate is sufficient, and therefore a post check adjustment is not needed.

⁹ According to Ortiz-Prado et al (2017) "Populations from the bigger cities have more access to health care services than smaller rural cities. ... Despite efforts of the current government, health access remains uneven as indicated by drug access and out of pocket of expenses per family".

Table 9.1: Routine health care costs for a family of 4 persons

Type of provider	Cost per visit per person for typical illness	Number of visits per year per person	Total cost per year for reference family (Number of visits per person per year x Cost per visit x Reference-family size)
Public provider			
Consultation fees/co-payment	0	2	0
Medicine co-payment	0	2	0
Cost of medicine when has to be purchased privately	10	1	40
Cost of laboratory test/co-payments	0	0	0
Private provider			
Consultation fee	30	1	120
Medicines	10	2	80
Laboratory tests	5	1	20
Annual total cost			260
Monthly total cost			21.67

Source: Prepared by the authors.

9.2 Education post check

According to the National Institute of Educational Assessment, in 2015, the initial primary school gross enrolment rate for rural areas was 34.1%; the lower secondary school gross enrolment rate (5 to 14 years of age) was 102.3%; and the upper secondary school (equivalent to unified general bacheloriato, *bachillerato general unificado* or BGU in Spanish) gross enrolment rate was 82.4%. The BGU dropout rate was 3.1%.¹⁰

Public schools in Ecuador are considered by workers to be of good quality and for this reason, we assume that it is acceptable for children to attend public school. Public schools in Ecuador do not have fees or funds that parents must contribute to. Public schools provide students with school uniforms and bag, and some books (although parents must cover some of the cost of some books). Parents need to buy exercise books and other school materials and a snack for older children is common (US\$0.50 per day). Using the data we collected through discussions with workers and key informants (Table 9.2), we estimated the monthly cost on education per child at US\$3.61, which corresponds to US\$7.22 for our reference family with 2 children. This is US\$7.05 more than the US\$1.96 included in the preliminary NFNH calculation. Given the small difference and the approximate nature of our post check calculations and that most if this

¹⁰ See: http://www.evaluacion.gob.ec/wp-content/uploads/downloads/2016/12/CIE_ResultadosEducativos-RetosExcelencia201611301.pdf.

difference is for meals and snacks, we decided not to make a post check adjustment for education.

Table 9.2: Typical annual costs to family per student in public school by school level

Expense type	Primary (Initial education 2 grades)	Lower secondary (1st – 10 th grade)	Upper secondary (<i>bachillerato</i> , 3 years)
School fees	Free	Free	Free
School funds such as Construction Fund or General-Purpose Fund	0	0	0
Uniforms	0	0	0
School bag			0
Learning materials (e.g. books)	18	18	18
School supplies (e.g. notebooks, pencils)	5	5	50
Exam fees	0	0	0
Meals and snacks	0	0	100
Total cost	23	23	168
Number of years in each level	2	10	3
Total cost x Number of years	46	230	504
Average cost per child per year assuming parents are responsible for children for 18 years			43.33
Average cost per child per month			3.61

Source: Prepared by the authors.

9.3 Post check summary

In summary, amounts estimated for adequate health care and children's education through secondary school based on our field research discussions with workers and key informants are similar to the amounts included for these in our preliminary NFNH estimate, especially when it is considered that most of these additional education costs is for food (table 9.3). For this reason, no post check adjustments were made to the preliminary NFNH estimate of US\$256.

Table 9.3: Comparing costs per month for adequate health care and children’s education through secondary school based on field visits and discussions with workers and key informants to amounts included for these in our preliminary NFNH estimate

Expense	In preliminary NFNH (in US\$)	Fieldwork data (in US\$)	Difference	Post check adjustment
Health care	37.18	35.63	-1.55	None
Education	1.96	9.03	7.05 (mostly for food)	None

10. PROVISION FOR UNEXPECTED EVENTS TO ENSURE SUSTAINABILITY

Five percent is added to living costs for decency for contingencies in the Anker methodology to ensure that unforeseen events and emergencies do not easily throw families into poverty. Therefore, 5% (US\$33) is added to the sum of the cost of food, housing, and NFNH. The total cost for our reference family of 4 persons thus becomes US\$684.

SECTION III. LIVING WAGE FOR WORKERS

11. FAMILY SIZE NEEDING TO BE SUPPORTED BY LIVING WAGE

Given that a living wage is a family income concept (Anker and Anker, 2017), an appropriate reference family size needs to be determined for rural areas of Ecuador’s banana producing Coastal region. Two independent pieces of information are used to determine a reference family size: (i) total fertility rate¹¹ adjusted for child mortality which indicates the typical number of surviving children women in Ecuador have; and (ii) average household size for households with children that are not extended families with more than two possible adult workers. Information from government sources and international organizations are used to determine the value of these variables for rural Ecuador.

Data from the 2010 Population Census on the distribution of rural households by number of members are used to estimate average household size (table 11.1). This was done after excluding single person households (because do not have children and living wage is a family wage) and especially large households (with eight or more persons because they are very likely to include extended families with more than two adult earners and we assume in next section that there are fewer than 2 full-time workers in our reference family). Average household size for rural households with 2-7 persons according to 2010 Population Census data is approximately 4 persons. This is 3.96 for rural Ecuador; 3.93 for the three main banana producing provinces of El Oro, Guayas, and Los Rios; and 4.03 for Coast region.¹²

Table 11.1: Average household size and percentage distribution of rural households by number of members in household

Number of members	Rural Ecuador (%)	Rural 3 main banana producing provinces (%)	Rural Coast region (%)
1	12.4	13.5	12.0
2	15.5	15.0	14.3
3	18.6	19.6	18.5
4	19.5	20.1	19.5
5	14.2	14.7	15.1
6	8.5	8.3	9.3
7	4.9	4.3	5.3

¹¹ Total fertility rate is “The number of children who would be born per woman (or per 1,000 women) if she/they were to pass through the childbearing years bearing children according to a current schedule of age-specific fertility rates.” https://www.measureevaluation.org/prh/rh_indicators/family-planning/fertility/total-fertility-rate

¹² Given the fact that around one-quarter (25.1%) of households in Ecuador are female-headed and most have one adult according to Lui et al (2016), it is logical to think that this would substantially reduce average household size. Surprisingly, this does not turn out to be the case. Average household size for male-headed households with 2-7 members is 4.07 for rural Ecuador; 4.08 for rural Coast; and 4.01 for the rural three main banana producing provinces.

Number of members	Rural Ecuador (%)	Rural 3 main banana producing provinces (%)	Rural Coast region (%)
8	2.9	2.2	2.7
9	1.6	1.1	1.5
10+	1.8	1.2	1.7
Average	3.89	3.76	3.95
Average 2-7 members	3.95	3.93	4.03

Source: 2010 Population Census.

Second, a mortality-adjusted total fertility rate was calculated using secondary data. The total fertility rate for Ecuador is around 2.4 according to INEC (Análisis Revista coyuntural, 2012) and 2.5 according to the World Bank World Development Indicators. The rural total fertility rate is somewhat higher at 2.7 than the urban total fertility rate according to INEC (Análisis Revista coyuntural, 2012).¹³ The child mortality rate for Ecuador is fairly low at around 15 deaths per 1,000 births according to World Bank World Development Indicators, and around 16 according to INEC ENSANUT 2012. One would expect this rate to be higher in rural areas.

Using a rural total fertility rate of 2.7 and a rural child mortality rate of 20, the child mortality adjusted total fertility rate is around 2.6 for rural Ecuador. This implies that a nuclear reference family of around 4.5 persons (2.5 children and 2 adults) would be appropriate.

Thus, there is an inconsistency between the mortality adjusted rural total fertility rate implied reference family size of around 4.5 and the adjusted rural average household size of around 4 according to data on rural average household size. It is not obvious which of these two reference family sizes should be used. To be conservative, we decided to use a reference household size of 4. This is the adjusted average household size for rural areas in Ecuador as well as for rural banana producing provinces. A family size of 4 is also the median rural household size excluding single person households.

12. NUMBER OF FULL-TIME EQUIVALENT WORKERS IN FAMILY PROVIDING SUPPORT

This section estimates the number of full-time equivalent workers in the reference family providing economic support. The Anker methodology assumes that more than one parent works to sustain the family, which means that it is necessary to estimate the number of full-time equivalent workers for each couple. This was done using the labour force participation rate (LFPR), the unemployment rate, and the part-time employment rate for persons ages 25 and 59

¹³ Total fertility rate is much higher according to Encuesta Nacional de Salud y Nutrición- ENSANUT 2012 at 3.0 for Ecuador with 2.9 for urban areas and 3.2 for rural areas. We did not use this total fertility rate, since it is at odds with other reported values as well as being older for 2007-2012.

years, which is a typical prime working age group.¹⁴ Official INEC (2016b) data for rural Ecuador were used to measure these. Calculations were done for March 2016 and December 2015, with these values averaged to reduce seasonal effects from the result (table 12.1). The labor force participation rate was 79.8%; the unemployment rate was 1.9%; and the part-time employment rate was 42.9%.

Several calculations were needed to estimate the part-time employment rate for rural Ecuador, because the conceptual framework INEC uses for classifying part-time employment is complicated. First, INEC divides underemployment into two categories: (i) employed persons who, during the reference week, worked less than 40 hours, and (ii) employed persons who received income below the minimum wage during the reference period and are available and willing to work additional hours. We are concerned with (i) and not with (ii) here. In addition to this form of part-time employment, there is another important form of part-time employment which is when workers voluntarily work less than full-time and do not wish to work additional hours of work. We estimated this other form of part-time employment in the following way. We started with what INEC calls 'other non-full-time employment' which includes people with jobs who do not wish to work additional hours and who either worked less than 40 hours during the reference week or who, in the month prior to the survey, received income below the minimum wage. To determine how much of this 'other non-full-time employment' category is attributable to voluntarily working less than full-time, we multiplied the ratio of underemployment due to insufficient hours and total underemployment (around 0.80) by 'other non-full-time employment'.

We, then, used the following formula (which assumes for simplicity that part-time employment is half-time), to estimate the probability that an adult between 25-59 years of age in rural Ecuador works full-time. This is 0.61. This means that there are 1.61 full-time workers per family in rural areas providing economic support to sustain the family when one family member is a full-time worker such as in the banana sector.

$$\text{Number of full-time workers in reference family} = 1.0 + [\text{Labour force participation rate ages 25-59} \times (1 - \text{Unemployment rate ages 25-59}) \times (1.0 - (\text{Part-time employment rate} / 2))]$$

It is worth noting that when government estimates its *salario digno*, it uses 1.60 wage recipients per family (INEC, 2016c). This is almost the same as our 1.61 number of full-time equivalent workers. How government arrived at its 1.60, however, is different. It used the 2011-2012 Income and Expenditure Survey and data for persons who receive income from wages and are dependent on formal urban employment. It did this for urban areas defined as comprising the nine cities with the highest percentage of consumption spending nationwide: Quito, Guayaquil, Cuenca,

¹⁴ Because INEC data are reported for ages 25-64 (25 to 34, 35 to 44, and 45 to 64) and not for ages 25-59, we assumed that values for ages 45-59 and 45-64 are the same when estimating values for ages 25-59. This assumption has very little effect on results.

Machala, Santo Domingo, Loja, Esmeraldas, Ambato and Manta.¹⁵ We used INEC data for rural areas; in addition, we took into consideration part-time employment and it is not clear how government treated part-time employment.

Table 12.1: Labor force participation rate, unemployment rate, and part-time employment rate for ages 25-59 for rural Ecuador

Date	Labor Force Participation Rate	Unemployment Rate	Part-time Employment Rate
March 2016	82.21	1.94	44.44
December 2015	77.29	1.92	41.41
Average of December and March	79.75	1.93	42.92

Source: INEC (2016b).

13. TAKE HOME PAY REQUIRED CONSIDERING POSSIBLE INCOME TAXES AND MANDATORY DEDUCTIONS FROM PAY

Workers in Ecuador must pay a 9.45% social security tax contribution. This tax is, however, not paid on the 13th month bonus, 14th month bonuses, or Reserve Fund. This means that the net living wage (i.e. take-home pay) needed to support our basic but decent living standard needs to be increased by mandatory payroll deductions and income tax that would be due on a living wage to ensure that workers earning a living wage have sufficient take home pay. Income tax would need to be paid on a living wage.

Since our net living wage for the banana producing region and Coast region is US\$425 per month, this means that US\$38 payroll taxes would need to be paid on this by formal sector workers with up to 1-year tenure, and consequently the gross living wage is US\$463 taking into account that the 9.45% social security contribution on monthly pay. Since social security tax would be US\$2.5 less per month for workers with a formal contract and more than 1-year tenure who receive Reserve Fund that is not subject to tax, their tax would be US\$2.5 lower at US\$35.5 per month and so their gross living wage would be US\$460.5 per month. For the purposes of exposition in this report, we use the US\$463 gross living wage for formal workers who do not have more than 1-year of tenure.

It should be noted that the employer's contribution to social security of 11.15% is not considered here, because this is not received by workers.

The above noted gross living wage (aka living wage) is not actually the pay which workers need to receive each month, because workers with a formal contract in Ecuador must by law also receive a 13th month bonus and a 14th month bonus (as well as Reserve Fund when they have more than one-year of service with their employer). Taking into account the prorated monthly

¹⁵ <http://www.eltelegrafo.com.ec/noticias/economia/8/el-ingreso-familiar-supero-el-costo-de-la-canasta-por-primera-vez-en-2014>

value of the 13th and 14th month bonuses means that workers with a formal contract actually need to receive US\$397 each month, and workers with a formal contract and more than one-year length of service who also receive the Reserve Fund need to receive US\$361.5 each month.

SECTION IV. ESTIMATING GAPS BETWEEN LIVING WAGE AND PREVAILING WAGES

14. PREVAILING WAGES

14.1 Formal and informal labor relations on banana plantations

There are two types of workers on banana plantations: (i) employees with a formal contract; (ii) employees without a formal contract which includes “*cuadrilla*” (gang) workers who are a group of casual workers with a gang leader. Many Ecuador banana sector employees do not have a formal contract and although this percentage is not known it appears that many banana sector employees have only a de facto employment relationship. It is worth noting that in May 2018 after this study was conducted, government passed a law called the “Partial Discontinuous Special Work Contract for the Banana Sector” for banana sector workers not covered by a formal contract with coverage under the labor code. This new law entitles workers to the prorated value of 13th and 14th month bonuses as well as other benefits. Workers need to pay the IESS payroll tax and there is a maximum of 36 hours of work per week (Ministerial agreement No. MDT-2018-0074).

The “*cuadrilla*” (gang) is a group of casual workers, usually informal, who usually work once or a few times a week on any particular plantation. The owner or manager contacts a “team leader” and they agree on payment conditions, hours of work, and costs. This relationship is based on a verbal contract rather than an employment relationship. The gang leader calls a work team together. There are two separate types of gangs that engage in harvesting and packing. Because gang workers do not have a formal employment relationship they are said to often demand a higher rate of pay per day. Important problems for gang members are that the amount of work they are able to find over the year is uncertain and how much they receive each workday depends on their relationship with the gang leader. This model is said to be common, even for certified plantations (Flores et al, 2012). In many cases, gang workers also receive food and transportation.

14.2 Wages for workers with different contractual arrangements on banana plantations

Workers who have a formal contract are normally paid at least the monthly minimum SBU wage plus legal benefits including 13th and 14th month bonuses.

Some banana workers are hired in gangs known as the “*cuadrilla*” (gang leader, gang members). A daily wage is paid to the gang. This is done through informal recruitment as reported by several official sources (IESS, MAGAP) and pay is per day worked. On larger plantations, the gang often works between three and four days a week and on smaller farms and plantations only one day per week (according to conversation with Lianne Zoetewij, manager of the Guabo Association of Small-scale Producers, September 2017). It was not possible to ascertain the number of days per year or per month that they actually work, due to a lack of official information or conclusive studies on this subject, so it is impossible to establish a monthly wage received in this case.

14.3 Wages concepts in the wages code that affect wages on banana plantations for workers with a contract

In Ecuador, there are three wage concepts defined and included in the Labour Code:

Unified basic wage (*Salario Básico Unificado – SBU*)

Decent wage (*Salario Digno*, Production Code, 2012)

Sectoral wage (*Salario Sectorial*)

SBU is the minimum wage that a person in Ecuador must receive from her or his employer for their work, and it is the reference used in the banana sector as we found in our fieldwork. SBU is set each year by the government. It was US\$366 per month in 2016, plus legally prescribed benefits (13th month bonus and 14th month bonus, and Reserve Fund after the first year of work with an employer).¹⁶

The Government of Ecuador defines a “Decent Wage” (*Salario Digno del Gobierno de Ecuador – SDE*), as an income enabling households to improve their wellbeing. The SDE was originally defined in the 2012 Production Code. It should be noted that Objective 9 of the National Plan for Good Living 2013-2017 “promotes the recognition of the supremacy of labour over capital, and work as an end of the productive process ... guaranteeing remuneration that is fair, according to the worker’s abilities and qualifications, and decent in terms of enabling the basic needs of the population and their families to be satisfied” (INEC, 2015b).

The Organic Code of Production, Trade and Investment states that the government’s *salario digno* should cover the working person’s basic needs, at least, together with those of his/her family, and that firms may not distribute profits until 100% of their workers are receiving that “decent wage”. The Ministry of Labour defines decent wage in terms of purchasing power relative to the basic family shopping basket, divided by the number of household income recipients. The amount of the SDE is calculated using the government’s methodology, by dividing the value of the basic family shopping basket for urban areas by 1.6 wage recipients, which is the average number of people who receive an income in an Ecuadorian household according to official sources (INEC). The family size used was 4¹⁷.

¹⁶ Beginning January 1, 2020, the SBU was increased to \$400 to take into consideration both inflation and increased productivity (<https://www.statista.com/statistics/451251/inflation-rate-in-ecuador/>).

¹⁷ According to INEC, the SDE, the *salario digno* set by Ecuador government is calculated by using the value of a family consumption basket value in 1982, updated to 2016 by inflation according to the consumer price index (see INEC. Canastas Analíticas. December 2016). Information is not provided on what are food and non-food costs. This is different than the living wage calculated in this report which uses the Anker methodology, which estimates food costs using actual food prices gathered through fieldwork in 2016 and a low cost nutritious model diet; plus housing costs using a basic healthy housing standard together with information collected in fieldwork on actual housing costs in 2016; plus non-food non-housing costs using secondary household expenditure survey data which are post-checked to make sure that sufficient funds are provided for adequate health care and education for children through secondary school; plus 5% for emergencies.

The SDE calculation also adds in the 13th and 14th month bonus wages (SDE divided by 12 for each of these to get a prorated monthly value), plus the Reserve Fund also divided by 12 when this applies. Other income that the workers receive such as profit shares, commissions and bonuses are also added. For 2016, the gross SDE per month was determined as US\$430.¹⁸

Lastly, the sectoral wage is defined through a tripartite dialogue between government, workers, and employers. However, we found during our fieldwork that this is not used as a reference by employers in the banana sector.

14.4 Calculation of wages for workers who receive the SBU

In this section, we calculate the monthly wages of workers who receive the Unified Basic Wage (SBU) which is the amount that workers in the banana sector with a formal contract receive. However as explained above, this wage only applies to banana-sector wage workers with a formal contract. The SBU is the minimum pay that a person with a formal contract in Ecuador must receive for their work. It is set every year following a technical analysis of basic factors, such as the cost of a basic shopping basket, change in the consumer price index (CPI), and productivity and employment, among other considerations. In addition to paying the SBU, the employer is required to pay 13th and 14th month bonuses, and after the first year of employment with the same employer, workers receive the Reserve Fund equivalent to a 15th month bonus. This means that workers who had their first formal contract within the past year do not receive the Reserve Fund, and so their wage is lower compared to the wage of those who have been in their job longer than one year.

The prevailing wage according based on the SBU plus legal benefits and cash allowances for wage-earners in the banana sector with a formal contract is shown in Table 14.1. During the fieldwork, access was gained to the payrolls of a small banana company which confirmed the information in table 14.1.

Table 14.1: Prevailing wage (PW) earned per month by banana-sector workers with a formal contract (in US\$)

	PW for workers employed for more than 1 year	PW for workers employed for less than 1 year
Unified basic wage (SBU)	366	366
13th month bonus	30.5	30.5
14th month bonus	30.5	30.5
Reserve fund	30.5	0
In-kind benefits (see next section)	0	0
Total	457	427

Source: Prepared by the authors.

¹⁸ After completion of this report, the government updated the *salario digno* to \$447.41 for 2019 in MDT-2020-078 issued March 23, 2020 (<https://fabara.ec/blog-es/salario-digno/>).

14.5 In-kind benefits as partial payment of living wage

In kind benefits are a common form of remuneration. To estimate the value of in-kind benefits as partial payment of the living wage, it is necessary to decide on which in kind benefit should be considered as a partial payment of a living wage as well as the value of each of these. For an in kind benefit to be considered as partial payment of a living wage, it needs to be: (i) of value to workers or their families and for personal use; (ii) customary in banana plantations; (iii) meet a minimum standard to be consistent with the concept of decency underlying a living wage; and (iv) received regularly by workers so that they can count on receiving the in-kind benefit on a regular basis. Common and acceptable in-kind benefits as partial payment of living wage according to Anker and Anker (2017) include: meals at work; food rations or food commodities given for free or sold at concession rates to workers; housing, including electricity, water, and fuel; transport to and from work and/or to town on weekends from agricultural estates; child care; school for children of workers; medical clinic and medical care not required by law; and medical insurance not required by law. Thus, it is necessary to do the following to estimate the value of in kind benefits (Anker and Anker 2017):

- Decide on which in-kind benefits should be considered as partial payment of living wage.
- Estimate a fair and reasonable monetary value for each acceptable in-kind benefit.
- Ensure that the total estimated monetary value for all in-kind benefits is less than 30% of the living wage as this is the maximum percentage(s) allowed for in-kind benefits.

In visits to banana plantations, we identified two possibly acceptable in kind benefits as partial payment of living wage: meals and transport to and from the plantation. We decided not to include the value of either of these in kind benefits in prevailing wages for the banana industry in this report for reasons explained below. In the case of transport, it does not satisfy the criteria for an in-kind benefit under the Anker methodology, since it is not customary in banana plantations for most workers. We found in our fieldwork that most banana plantations provide transport to work only to gangs. In addition, the mode of transportation provided did not always meet what we feel are minimum quality standards. For these reasons, we do not include transport as an in-kind benefit as partial payment of living wage for the entire banana sector in this report.

In the case of free meals, we found that some banana plantations provide free meals only to workers who come in a gang. We also found that some banana plantations provide free meals to all workers. The latter generally contract the service from a restaurant which serves the lunch (soup, main course, and juice) which is prepared and presented with the minimum standard of decency. According to information we obtained from one banana plantation, the daily cost of each lunch to them is US\$2.50. Note that in our fieldwork we found that US\$2.50 is around the cost of a quality lunch that workers could buy in the area. The cost of a nutritious lunch prepared at home for a vigorously active adult using the food prices in our model diet, however, is US\$1.30.

In this report, we do not include the value of in-kind benefits when calculating the prevailing wage for the banana sector, because providing a free lunch and/or free transport to workers with

a formal contract is not a customary practice throughout the banana sector. However, it is important to keep in mind that when a particular plantation or farm is audited for certification by Fairtrade International or others, a fair and reasonable value for free meals (which we estimate is \$1.30 per day¹⁹) and/or free transport provided to all workers regardless of contract (up to a 10% maximum percentage of living wage) could be considered as partial payment of the living wage for such farms or plantations.

15. LIVING WAGE IN CONTEXT AND COMPARED TO OTHER WAGES

Figure 7 and following paragraphs compare our gross living wage for the banana producing region (and the Coast region) using the Anker methodology (US\$463) with various wage comparisons. This includes the following comparisons:

- Average gross amount of the SBU per month (US\$427) including prorated value of legal 13th and 14th month bonuses for workers who have a formal contract and up to 1-year tenure, and US\$457 for workers with more than 1-year tenure.
- *Salario digno* (SDE) (US\$430) which includes legal bonuses.
- Poverty line wages (national and World Bank international).²⁰

¹⁹ It is important to note that a lunch at \$2.50 per workday would be \$55 per month assuming 22 workdays per month which would exceed the 10% maximum of a living wage allowed in the Anker methodology.

²⁰ Since poverty lines are expressed in per capita per day values, they were multiplied by 30.42 (number of days per month) and 4 (our living wage reference family size) and then divided by 1.61 earners (our living wage number of full-time workers in reference family) to get a poverty line wage. The World Bank international poverty line was also multiplied by .6066 (purchasing power parity for Ecuador) and 5.50 (number of PPP for an upper-middle income country such as Ecuador).

Figure 7: Wage ladder for living wage and other wage comparisons, 2016 in USD

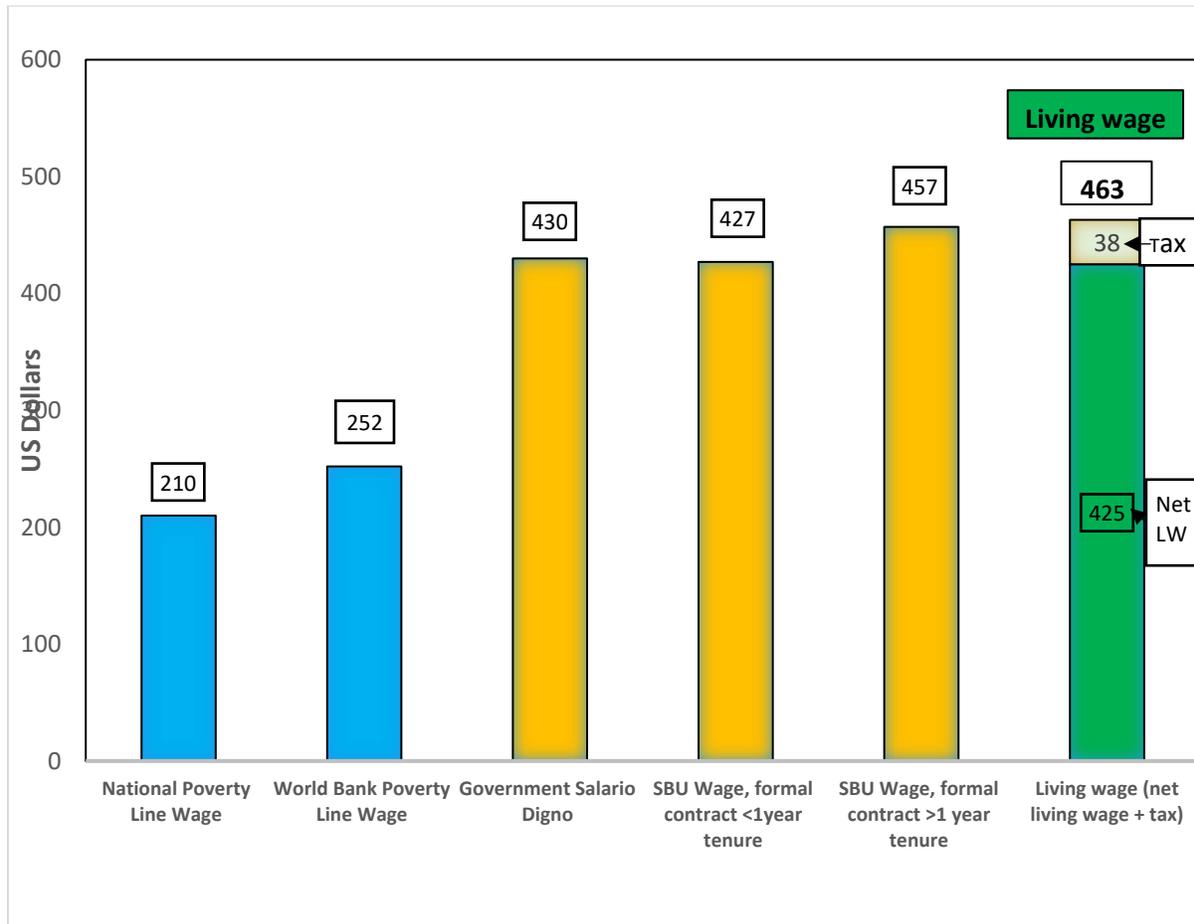


Figure 7 shows that our living wage is around 8% higher than the SBU prevailing wage for banana plantation workers who have a formal contract and work year around and have been with the same employer for up to 1-year and around 1% higher for workers with a formal contract and more than 1-year tenure with the same employer. It is not known how big the gap to a living wage is for the many banana sector workers who do not have a formal contract - although presumably this percentage difference is higher. Our living wage is only around 8% higher than Ecuador's *salario digno*. Our living wage is much higher than (more than double) than Ecuador's national poverty line wage and the World Bank international poverty line wage for Ecuador (by 84%).

CONCLUSIONS

This report estimated a living wage for rural areas of the main three banana producing provinces in Ecuador (El Oro, Guayas, and Los Rios) using the widely accepted Anker methodology (Anker and Anker, 2017). More than 90% of banana cultivation and production in Ecuador is concentrated in these three provinces.

The Anker methodology uses mixed methods. It combines primary data collected in El Oro Province on local food prices, local healthy housing costs, local school costs, and local health care costs together with secondary data from large government household surveys on household expenditures, household size, labor force activity, etc. We also engaged with Ecuador stakeholders and workers getting their inputs and knowledge while maintaining our independence. The final result of this effort we feel is a convincing and solid estimate of a living wage for the rural areas of the banana producing area of Ecuador.

The living wage estimated in this report for November 2016 for rural areas of the banana producing region of Ecuador is UD\$463 per month.²¹

Table 16.1 summarizes how we estimated our living wage which is believed to be representative for rural areas of the entire coastal region of Ecuador. It is worth noting that the pay required per month to ensure a living wage for workers with a formal contract is lower than US\$463 because formal contracted workers receive by law 13th and 14th month bonuses; in addition, workers with a formal contract with more than one year of tenure also receive Reserve Fund which is similar to a 15th month bonus. Considering these bonuses, our living wage per month for workers with a formal contract would be US\$397 or US\$362 depending on whether or not they have at least one-year tenure.

Our living wage is much higher than Ecuador poverty line wages. It is more than double the national poverty line wage for Ecuador and 84% higher than the World Bank international poverty line wage for Ecuador. This indicates that poverty lines for Ecuador are clearly much too low for decency.

On the other hand, our living wage is only around 8% higher than the Ecuador government's *salario digno* (SDE) of US\$430 and the SBU prevailing wage for workers with a formal contract and up to 1-year tenure^{22, 23}. It is only 1% more than SBU for workers with a formal contract and more than 1-year tenure. This means that some banana plantations may be paying a living wage and some banana workers may be receiving a living wage. At the same time, it is important to

²¹ Our living wage for 2020 would be very similar to US\$463 if only inflation is considered because Ecuador has had very low inflation rate in recent years, but would be somewhat higher if increases in household income are also considered.

²² After completion of this report, the government updated the *salario digno* to \$447.41 for 2019 in MDT-2020-078 issued March 23, 2020 (<https://fabara.ec/blog-es/salario-digno/>).

²³ Beginning January 1, 2020, the SBU was increased to \$400 to take into consideration both inflation and increased productivity (<https://www.statista.com/statistics/451251/inflation-rate-in-ecuador/>).

keep in mind that many banana sector workers in Ecuador (close to a majority according to trade unions) do not have a formal contract although they do have coverage under the labor code.²⁴ Therefore presumably, the gap to a living wage is higher for workers without a formal contract such as those who work in groups. Unfortunately, it is not possible to know the size of the gap to the living wage for these types of workers, because data are not available on this. One major issue for them is the number of days of work available per year, since it appears that these other types of workers are often paid at least as well per workday as workers with a formal contract. Further research into the prevalence and pay of banana workers without a formal contract and its consequences is needed.

²⁴ Government passed a law in May 2018 (after our study was conducted) called the “Partial Discontinuous Special Work Contract for the Banana Sector” MDT-2018-0074 to cover workers without a formal contract and coverage under the labor code. This entitles workers to the prorated value of 13th and 14th month bonuses as well as other benefits. Workers must pay the IESS payroll tax and there is a maximum of 36 hours of work per week

Table 16.1: Summary table to calculate monthly living wage (in US\$ as Ecuador is dollarized)

PART I. FAMILY EXPENSES		
Food cost per month for reference family (1) = 1C x family size x days pm	256	
Food cost per person per day when all meals prepared at home (1A)	2.18	
Value of free school meals per person per day(1B)	0.07	
Food cost per person per day (1C) = 1A - 1B	2.11 ^a	
Total housing costs per month (2) = 2A + 2B	139	
Rent per month for basic healthy housing (2A)	100	
Utility costs and minor repairs per month (2B)	39	
Non-food non-housing (NFNH) costs per month taking into consideration post checks (3) = 3A + 3B + 3C	256	
Preliminary NFNH estimate (3A)	256	
Health care post check adjustment (3B)	0	
Education post check adjustment (3C)	0	
Additional amount (5%) for sustainability and emergencies (4)	33	
Total costs per month for basic but decent living standard for reference family (5) = (1) + (2) + (3) + (4)	684	
PART II. LIVING WAGE		
Net (take home) living wage per month (6) = (5) / # full-time workers	425	
Statutory deductions from pay (7) ^b	38 ^d	
Gross living wage per month (8) = (6) + (7)	463 ^d	
PART III. GAP BETWEEN LIVING WAGE AND PREVAILING WAGE IN BANANA SECTOR FOR WORKERS WITH A FORMAL CONTRACT ACCORDING TO TENURE		
Tenure with employer ^c	< 1 year	1+ years
Value of common in-kind benefits in the banana sector (9A)	0	0
Value of monthly prorated common cash allowances (9A) ^c	66	93
Net living wage in the industry, considering customary cash allowances and in-kind benefits in industry (10) = (6) – (9A) – (9B)	359	333
Gross living wage in banana sector considering customary in-kind benefits and cash allowances in the industry (11) = (8) – (9)	397	362 ^d

Notes: ^a Cost of the model diet per person per day (US\$2.18) for meals prepared at home was reduced to take into account the value of the free school breakfast for children aged 3 to 15 years.

^b The social security tax is 9.45%. This tax is not paid on 13th month bonus, 14th month bonus, or Reserve Fund.

^c Payments of 13th and 14th months bonuses required by law for workers with a formal contract. Reserve Fund bonus equal to one month pay is also required when worker with a formal contract has been with her or his employer for 1 or more years.

^d Tax is US\$2.5 less per month for workers with a formal contract and more than 1-year tenure who receive Reserve Fund that is not subject to tax. This means that gross living wage for such workers is US\$2.5 lower at US\$460.5 and that the gross living wage needed per month considering bonuses are paid is US\$361.5.

Source: Prepared by the authors on the basis of Anker and Anker, 2017.

Table 16.2: Key values and assumptions

PART I. VALUES AND ASSUMPTIONS	
Date of study	November 2016
Location (industrial sector)	Southern coast of Ecuador/Banana sector
Exchange rate from local currency to US\$	1.00 (USD used in Ecuador)
Number of days of full-time work per month	22
Number of full-time equivalent workers per couple (recipients)	1.61
Reference family size	4
Number of children in the reference family	2
Ratio of non-food and non-housing (NFNH) costs to food costs	1.00
Additional percentage for sustainability and emergencies	5%
Local currency	US\$

REFERENCES

Anker R. and Anker M. 2017. *Living wages around the world: Manual for measurement*. Edward Elgar Publishing. Cheltenham and Northampton.

Anker R. and Anker M. 2013. *Report: Living Wage for rural Dominican Republic with Focus on Banana Growing Area of the North*. Global Living Wage Coalition.

Anker, R. 2011. "Estimating a living wage: A Methodological Review", in *Conditions of Work and Employment Series* No. 29. Geneva: ILO.

Código Orgánico de la Producción y Comercio e Inversiones. Artículo 10. 2012. Quito.

Confederación Sindical de las Américas, CSA-TUCA. 2012. *Sindicalización y densidad sindical en las Américas*.

De Freitas Barbosa A., Marina Barbosa e Silva, João Paulo Candia Veiga and Murilo Alves Zacareli. 2016. "Parâmetro Global de Salário de Bem Estar Brasil Mesorregião Sul e Sudoeste de Minas Gerais", *Agricultura Cafeeira* SÉRIE 1, RELATÓRIO 5.

FAO (WBF). Wage structure analysis in the banana industry of Ecuador. <http://www.fao.org/3/a-bu013e.pdf>

Flores et al. 2012. *Análisis de estructura salarial en la industria bananera del Ecuador*. INCAE. Costa Rica.

Freire WB., Ramírez-Luzuriaga MJ., Belmont P., Mendieta MJ., Silva-Jaramillo MK., Romero N., Sáenz K., Piñeiros P., Gómez LF., Monge R. (2014). *Tomo I: Encuesta Nacional de Salud y Nutrición de la población ecuatoriana de cero a 59 años. ENSANUT-ECU 2012*. Ministry of Public Health/ National Institute of Statistics and Censuses. Quito-Ecuador. 213 pp.

INEC. 2016. Encuesta de Superficie y Producción Agropecuaria Continua. ESPAC 2016. Instituto Nacional de Estadísticas y Censos (INEC). Quito.

INEC. 2016a. Metodología para la medición del empleo en Ecuador. September 2016. Instituto Nacional de Estadísticas y Censos (INEC). Quito.

INEC, 2016b. Tabulados Encuesta Nacional de Empleo, Desempleo y Subempleo (ENEMDU) Diciembre 2016. Instituto Nacional de Estadísticas y Censos. Quito.

INEC. 2016c. Informe ejecutivo. Canastas Analíticas Familiares básicas y canasta familiar vital de la economía dolarizada. Diciembre 2016. Instituto Nacional de Estadísticas y (INEC). Quito.

INEC. 2015. Institute of Statistics and Censuses- *Indicadores Laborales, March 2015*.

INEC. 2015 b. *El Salario Digno en Ecuador y otras políticas salariales*.

INEC. 2014. *Encuesta de Condiciones de Vida*. National Institute of Statistics and Censuses. Quito.

INEC, 2014a. Encuesta Nacional de Salud y Nutrición- ENSANUT 2012. table 6.2 in pg. 109, vol II.

INEC. 2010. *VII Censo de Población y VI de Vivienda - 2010*. National Institute of Statistics and Censuses. Quito.

INEC. 2012. *National Household Income and Expenditure Survey-ENIGHUR 2011-2012. Resumen metodológico*. National Institute of Statistics and Censuses. Quito.

INEC. 2007. *Cálculo de una norma kilocalórica, construcción de una canasta de alimentos en: Metodología de construcción del agregado del consumo y estimación de línea de pobreza en el Ecuador*. 2015. Quito.

Ministry Coordinator of Production, Employment and Competitiveness, Ministry of Electricity and Renewable Energy (MCPEC). 2014. *Atlas bioenergético del Ecuador*. Ministry Coordinator of Production, Employment and Competitiveness, Ministry of Electricity and Renewable Energy, National Institute of Pre-investment. Quito.

Ministry of Public Health /INEC.2012. *Encuesta Nacional de Salud y Nutrición- ENSANUT-ECU 2012*. National Institute of Statistics and Censuses. Quito

Ortiz-Prado. 2017. Analysis of health and drug access associated with the purchasing power of the Ecuadorian population. *Global Journal of Health Science*. vol 9, no 1.

PRO ECUADOR. 2013. *Análisis del sector Banano*. Dirección de Inteligencia Comercial e Inversiones. Pro Ecuador. Quito.

PRO ECUADOR. 2016. *Análisis del sector Banano*. Department of Trade and Investment Intelligence. PRO ECUADOR. Quito.

PRO ECUADOR. 2016b. *Boletín Mensual de Comercio Exterior. Marzo-Abril 2016*. Ministry of Foreign Trade. PRO ECUADOR. Department of Trade and Investment Intelligence. PRO ECUADOR. Quito.

Reglamento que norma el Sistema de Incentivos de Vivienda Rural. Acuerdo Ministerial No. 216, 24 September 2013.

INTERNET REFERENCES

https://www.ecuadorencifras.gob.ec/documentos/web-inec/POBREZA/2016/Diciembre_2016/Reporte%20pobreza%20y%20desigualdad-dic16.pdf

<https://educacion.gob.ec/programa-de-alimentacion-escolar/>

<https://fabara.ec/blog-es/salario-digno/>

<http://www.planv.com.ec/investigacion/investigacion/alimentacion-escolar-58-centavos-cada-nino>

<http://www.eltelegrafo.com.ec/images/cms/DocumentosPDF/2016/Tables-Salarios-minimos-sectoriales-2016-.pdf>

[http://app.sni.gob.ec/sni-link/sni/PORTAL SNI/data sigad plus/sigadplUS\\$documentofinal/0760000180001 PDYO T-PROVINCIA%20EL%20ORO-14-08-2015 14-08-2015 18-31-46.pdf](http://app.sni.gob.ec/sni-link/sni/PORTAL SNI/data sigad plus/sigadplUS$documentofinal/0760000180001 PDYO T-PROVINCIA%20EL%20ORO-14-08-2015 14-08-2015 18-31-46.pdf)

<https://www.statista.com/statistics/451251/inflation-rate-in-ecuador/>

<http://www.eltelegrafo.com.ec/noticias/economia/8/el-ingreso-familiar-supero-el-coste-de-la-canasta-por-primera-vez-en-2014>

<http://iusenasrocas.blogspot.com/2016/03/contrato-de-trabajo-para-el-sector.html>

<http://www.ecuadorencifras.gob.ec/documentos/web-inec/EMPLEO/2017/Marzo/032017 Presentacion M.Laboral.pdf>

ANNEX: EVIDENCE THAT LIVING WAGE FOR RURAL EL ORO PROVINCE IS REPRESENTATIVE OF A LIVING WAGE FOR ENTIRE COASTAL BANANA-PRODUCING REGION IN ECUADOR

By Richard Anker, Martha Anker and Ian Prates

A1. BACKGROUND AND INTRODUCTION

The Global Living Wage (GLWC) Living Wage report for Ecuador estimated a living wage for rural areas in the banana-producing region of Ecuador. The primary data collected on food prices and housing costs to help estimate food costs and housing costs were collected in rural El Oro Province (which is one of the three main banana-producing areas of Ecuador along with Guayas Province and Los Rios Province). El Oro was chosen, because as indicated in the living wage report, the authors believed that “The situation in El Oro Province is felt to be typical of the situation throughout the coastal banana producing region”.

According to the living wage report:

“In 2014, bananas were grown for export in 12 of the country’s 24 provinces, although 94% of total production was concentrated in just three provinces of the southern coastal region: Los Ríos (3,103,632.96 tons/year); El Oro (2,195,949.18 tons/year), and Guayas (1,663,029.00 tons/year).”

The question naturally arises whether the living wage estimated in part based on food and housing costs for El Oro Province is indeed representative of the living wage for the entire main banana-producing coastal area which also includes Guayas Province and Los Rios Province. This annex addresses this question using available secondary data.

Before addressing this question, it is important to keep in mind that it would be unworkable to have greatly different prevailing wages for each of the three provinces where banana production is concentrated, because workers are able to move around in this relatively small area. For this same reason, it would not make sense to base action to raise wages on different living wages in these three provinces – unless, perhaps, living costs are greatly different in these three provinces. Reinforcing the need for one living wage is that the prevailing wage for workers with a formal contract in the banana-producing region in all three provinces is similar to the government Unified Basic Wage (SBU) minimum wage.

To answer the question at hand, we look in this paper at differences in household consumption, cost of government basic family basket, Engel’s law, and poverty rates between rural areas of El Oro Province, Guayas Province, and Los Rios Province. This analysis is based on knowledge that a living wage for a location differs with costs and prices (positively), income levels (positively), Engel’s percent (negatively), and poverty rates (negatively). The following analysis focuses on determining if differences by province in these measures are similar enough to conclude that

living wages are similar for rural El Oro Province, rural Los Rios Province, and rural Guayas Province. Small differences between provinces in these variables are not of particular concern.

A2. COST AND PRICE DIFFERENCES IN THREE MAIN BANANA-PRODUCING PROVINCES

A living wage should be higher (lower) in areas with higher (lower) prices. Information on cost of the government's basic family basket (CFB) is available from INEC (Instituto Nacional de Estadísticas y Censos) for major capital cities of provinces. Information is available for Machala for El Oro Province and Guayaquil for Guayas Province. Information on cost of the basic family basket is not available for Los Rios Province, because Los Rios does not have a major city. Table A1 indicates that in December 2018, cost of the CFB was 5.2% lower in the capital of El Oro Province (Machala) compared to the capital of Guayas Province (Guayaquil). However, since Machala is a smaller city (241,506 population in 2010 Census) than Guayaquil (2,291,000 population in 2010 Census), the cost difference between these two provinces is probably smaller and perhaps nonexistent. In summary, based on available information on cost of the government's CFB, it appears that there is at most a small difference in costs between El Oro Province and Guayas Province with no information available for Los Rios Province.

Table A1: Cost of the Basic Family Basket (CFB)^b for Ecuador, Coastal region, and capitals of El Oro Province (Machala) and Guayas Province (Guayaquil) in December 2018, base year 1982

Area	Cost of Basic Family Basket (in USD)
National	715.16
Coastal region ^a	702.50
Machala (capital El Oro Province)	683.86
Guayaquil (capital Guayas Province)	720.78

Notes: “The Basic Family Basket (CFB) is a set of goods and services that are essential to satisfy the basic monthly needs of the typical household composed of 4 members with 1.6 income recipients, who earn the unified basic remuneration. Calculation of the cost of this basket is necessary for the analysis of the relationship between wages and inflation” (INEC, 2018).

^a Data also available for three other cities in Coastal region: Esmeraldas (Esmeraldas Province), Santo Domingo (Santo Domingo Province), and Manta (Manabi Province). Costs were 714.02, 663.35, and 730.49 respectively.

^b Family includes 4 people with 1.6 active workers.

Source: Instituto Nacional de Estadísticas y Censos (INEC).

<http://www.ecuadorencifras.gob.ec/canasta/> (accessed January 8, 2019).

A3. DIFFERENCES IN INCOME LEVELS IN THREE MAIN BANANA-PRODUCING PROVINCES

A living wage should be higher in areas with higher incomes, because living costs and expectations regarding what people consider to be decent should be higher in areas with higher incomes; it is also likely that prices are higher in areas with higher incomes. Table A2 provides values for rural and urban areas of the three banana-producing provinces for what the World Bank calls a “welfare ratio”, which is a normalized measure of household consumption per capita (defined as household consumption per capita divided by the national poverty line). Welfare ratios are similar for rural areas of El Oro Province, Guayas Province, and Los Rios Province – although very slightly higher in El Oro Province (1.17) than in Los Rios Province (1.12) and Guayas Province (1.06). Interestingly, urban areas of Los Rios Province (1.39) are much poorer than urban areas of El Oro Province (1.88) and Guayas Province (1.79) which are fairly similar.

Table A2: Welfare ratio (household consumption per capita divided by national poverty line) for rural and urban areas of the banana-producing provinces of Ecuador

Province	Urban	Rural
El Oro	1.88	1.17
Guayas	1.79	1.06
Los Rios	1.39	1.12

Source: Lopez-Acecedo and Tinajero (2009). **Poverty in Latin America: Sources of welfare disparities in Ecuador.** World Bank working paper 5104. Table 6. October 2009.

A4. ENGEL'S LAW AND NON-FOOD NON-HOUSING (NFNH) TO FOOD RATIO IN THREE MAIN BANANA-PRODUCING PROVINCES

Engel's law (1857) stipulates that the % of expenditures of households for food falls with income – the higher the income the lower the percent spent for food. Recent analysis of household expenditures of more than 100 countries from around the world confirm that Engel's law remains relevant today (Anker, 2011). A variant of Engel's law used in the Anker living wage methodology is the ratio between non-food and non-housing household expenditures (NFNH) to food expenditures. To summarize, the higher the % households spend for food or the lower the NFNH/Food expenditure ratio, the lower the income level and therefore the lower the living wage.

Table A3 indicates results for rural areas of the three main Coastal banana-producing provinces. Values for % food and NFNH/Food ratio are indicated for households in the second quintile of the national income distribution (which is approximately the 30th percentile).

% food (Engel's law) is similar for the three banana-producing provinces, although very slightly lower for rural El Oro Province. This implies that income levels and so living wage should be similar in the three provinces, although possibly slightly higher in rural El Oro Province.

Results for the NFNH/Food ratio are similar to those for % food. They again imply that income levels – and therefore living wages – should be similar in the three provinces although possibly slightly higher in rural areas of El Oro Province compared to rural areas of Los Rios Province and Guayas Province.

Table A3: Percent households spend for food (% food) and non-food and non-housing to food ratio (NFNH/Food) for rural areas of Coastal region for households in second quintile (approximately 30th percentile) of national household expenditure distribution

Province (rural areas)	% food	NFNH/Food ratio
El Oro	35.7%	1.46
Guayas	38.0%	1.29
Los Rios	36.9%	1.39
Coastal	36.2%	1.40

Notes: % food is reported value without any adjustments. NFNH/Food ratio was estimated in a way so that it is consistent with Anker methodology. Thus, it excludes tobacco expenditure as unnecessary; moves one-half of restaurants expenditure to food (assuming that one-half of the cost of food taken away from home is for the food in these meals and one-half of the cost is for services, overheads and profit as found in Anker and Anker, 2017); and reduces transport expenditure by 2% (assuming that exclusive use of public passenger transport is acceptable).

Source: Special tabulations of Encuesta Nacional De Gastos De Hogares Rurales Y Urbanos, 2011.

A5. POVERTY RATES IN THE THREE MAIN BANANA-PRODUCING PROVINCES

A living wage should be negatively related to the poverty rate in an area, because the higher the poverty rate the lower income in the area is likely to be given that all areas in Ecuador use the same poverty line. Table A4 indicates poverty rates for urban and rural areas of the three main banana-producing provinces as well as for Coastal, Sierra, and Oriental regions. Poverty rates are similar in rural areas of the three provinces – although poverty rates are slightly lower in rural El Oro Province compared to rural areas of the two other main banana-producing provinces. This implies that income is similar in rural areas of these three provinces and so living wage should be similar.

Table A4: Poverty rates for rural and urban areas of banana-producing provinces and main regions of Ecuador

Area	Urban	Rural
<u>Banana-producing provinces</u>		
El Oro Province	20.2%	41.0%
Guayas Province	22.2%	46.9%
Los Rios Province	33.0%	44.0%
<u>Regions</u>		
Sierra	12.5%	49.8%
Coastal	23.0%	48.6%
Oriente	16.5%	68.7%

Source: Lopez-Acecedo and Tinajero (2009). **Poverty in Latin America: Sources of welfare disparities in Ecuador.** World Bank Working Paper 5104. October 2009.

A6. SUMMARY AND CONCLUSIONS

This annex looked into the issue of whether the living wage estimated in the Global Living Wage Coalition (GLWC) living wage report is relevant for all three of the coastal provinces in Ecuador where banana-production is concentrated (El Oro Province, Los Rios Province, and Guayas Province). We looked at differences by province in cost of the government basic family basket, % of household expenditures spent for food (Engel's law), household non-food and non-housing to food expenditure ratio, normalized household consumption per capita, and poverty rate. We found that differences by province, especially for rural areas of these provinces, are uniformly small. This implies that living wages should be similar for the three main banana-producing provinces in Ecuador. The general conclusion, then, is that the living wage estimated in the GLWC living wage report for Ecuador which is based in part on food prices and housing costs data collected in rural El Oro Province is relevant for the entire banana-producing area. Table A5 provides a summary of the above secondary data analysis used in this note to investigate this issue and come to this conclusion.

Table A5: Summary of results of analysis of differences between rural El Oro Province, rural Guayas Province, and rural Los Rios Province in costs, incomes, Engel’s law, and poverty rates - with implications for living wage (LW)

Measures	Relationship to living wage	Results for 3 banana-producing provinces	Comments
Cost of basic family basket	+	5% lower for Machala (capital of El Oro Province) compared to Guayaquil (capital of Guayas Province). Data not available for Los Rios Province (as no major city).	Cost likely to be similar for rural El Oro Province and rural Guayas Province with possibly lower costs in rural El Oro Province compared to rural Guayas Province, because Guayaquil is a big city where prices are likely to be high.
Welfare ratio (household consumption to poverty line)	+	Similar for rural areas of 3 provinces.	Implies similar LWs for 3 provinces.
% household spend for food	-	Similar for 3 provinces.	Implies similar LWs for 3 provinces.
Non-food non-housing/Food ratio	+	Similar for 3 provinces - although slightly higher for rural El Oro and slightly lower for rural Los Rios (rural Guayas in between).	Implies similar LWs for 3 provinces with possibly slightly higher LW for rural El Oro and slightly lower LW for rural Guayas.
Poverty rate	-	Similar for 3 provinces - although slightly lower for rural El Oro and slightly higher for rural Guayas (rural Los Rios in between).	Implies similar LWs for 3 provinces - with possibly slightly higher LW for El Oro and slightly lower LW for Guayas.
Summary		Three main banana-producing provinces of Ecuador similar on the five measures investigated, especially for rural areas, of these 3 provinces.	Implies similar LWs for 3 provinces.