



# Living Wage Report

## Caribbean coast of Colombia

Context: Banana sector

May 2018 (with an update to January 2020)

By: Lykke E. Andersen, Richard Anker and Martha Anker



Photo credit: Lykke E. Andersen

**Series 1, Report 20**

**Published May 2020**

**Prepared for: The Global Living Wage Coalition**

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



# Living Wage Report

## Caribbean coast of Colombia

Context Provided in the Banana Sector

Study date: May 2018

By: Lykke E. Andersen, Richard Anker and Martha Anker

### TABLE OF CONTENTS

- About the authors..... 4
- Acknowledgments ..... 5
- SECTION I. INTRODUCTION ..... 6**
  - 1. Background ..... 6
  - 2. Living wage estimate..... 7
  - 3. Context ..... 9
    - 3.1 Regional differences and similarities..... 11
  - 4. Concept and definition of a living wage..... 13
  - 5. How a living wage is estimated ..... 14
- SECTION II. COST OF A BASIC BUT DECENT LIFE FOR A WORKER AND HIS OR HER FAMILY ... 16**
  - 6. Food costs ..... 16
    - 6.1 General principles of living wage model diet ..... 16
    - 6.2 Living wage model diet..... 16
    - 6.3 Local food prices ..... 22
  - 7. Housing costs ..... 23
    - 7.1 Standard for basic acceptable local housing ..... 25
    - 7.2 Rent or user cost for basic acceptable housing..... 29
    - 7.3 Utilities and other housing costs ..... 32
  - 8. Non-food and non-housing (NFNH) costs ..... 33
    - 8.1. Step 1 of the NFNH calculations ..... 33
    - 8.2. Step 2 of the NFNH calculations ..... 35
  - 9. Post checks of non-food and non-housing (NFNH) costs..... 37
    - 9.1 Health care post check ..... 37
    - 9.2 Education post check..... 38
  - 10. Provision for unexpected events to ensure sustainability..... 38
- 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 and taking taxes and statutory deductions from pay..... 44

- 14. Calculation of the net and gross living wage..... 45**
- SECTION IV. ESTIMATING GAPS BETWEEN LIVING WAGE AND PREVAILING WAGES..... 47**
- 15. Prevailing wages for banana workers in Colombia ..... 47**
  - 15.1 The collective bargaining agreement for banana workers..... 47
  - 15.2 Recent wage trends..... 50
  - 15.3 Aguinaldo/prima and Cesantía ..... 51
  - 15.4 Prevailing wages and wage ladder ..... 52
- 16. Conclusions ..... 56**
- ANNEX: UPDATE TO JANUARY 2020 ..... 59**
- REFERENCES..... 60**

## ABOUT THE AUTHORS

Lykke E. Andersen is Executive Director of the Sustainable Development Solutions Network in Bolivia. She holds a Ph.D. in Economics from the University of Aarhus, Denmark. She has conducted research on development in Latin America for more than 20 years as Executive Director of INESAD, Scientific Manager at Conservation International - Bolivia, Chief Economist at the Bolivian Catholic University and as a consultant for the World Bank, Inter-American Development Bank, CAF – Development Bank of Latin America, United Nations and many other development institutions. She is a prolific writer with more than 300 publications, including a dozen books and more than 20 papers in peer-reviewed journals. She is a Fellow of the Bolivian Academy of Economic Sciences, and she is ranked among the top 5% of female economists in the World (REPEC, September 2018).

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 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*.

Martha Anker is an Independent consultant. She holds a Masters 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 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*.

## ACKNOWLEDGMENTS

The development of this living wage report would not have been possible without the help and collaboration of a great number of people in Colombia and beyond. First of all, the authors would like to thank the funders of this project, Fairtrade International and the Global Living Wage Coalition, for initiating the project and letting us carry it out. Alfredo Zabarain and José Fernando Marulanda from CLAC (Latin American and Caribbean Network of Fair Trade Small Producers and Workers) organized our visits to several small, medium and large banana farms in the banana producing regions of Magdalena, Guajira and Urabá.

Zuria Ariza Camargo kindly facilitated and accompanied us in all our meetings with representatives of seven Fairtrade certified cooperatives of small banana producers in the state of Magdalena (EMBREBANCOOP, COOBAFRIO, COOBAMAG, ASOBANARCOOP, COOMULBANANO, COODEMAG), all of whom efficiently collaborated in the organization of our visits to the farms and homes of some of their 600 members.

In Guajira, the staff of the large organic banana farm, Don Marce, part of the fruit company Tecbaco, patiently showed us every step of the production process in a modern, large scale banana operation, and they had also prepared presentations to respond to all our questions about the details concerning salaries and benefits of banana workers. The photo on the front cover is from their farm, as they showed us how bananas are harvested and transported by three-person teams.

In the Urabá region, we would like to thank the Association of Banana Producers in Colombia (AUGURA) for hosting a very useful initial meeting jointly with producers and the agricultural workers' union (SINTRAINAGRO). Thanks also to the producers who kindly invited us to their farms, showed us the business, and let us interview their workers. Special thanks to Alexander Burgos, Executive Director of Corporación Rosalba Zapata Cardona, for not only showing us a banana farm, Finca Madrigal, which was nothing short of stunning, but also for showing us -and for convincing even the most skeptical of us- just how big an impact the Fairtrade premium has in the long run, not only on workers, but on entire communities.

The work has benefited from the assistance of Werner Hernani-Limarino, who participated in all parts of the field work; Esteban Nina Baltazar of the Pontificia Universidad Javeriana, who provided technical support from Bogotá and facilitated interaction with the National Statistical Institute (DANE); Wilbert Flinterman, Carla Veldhuyzen, Alfredo Zabarain, and Silvia Campos who provided useful feedback and suggestions on draft versions of this report; and Daniel Bustillo Mac Lean, who translated the report into Spanish.

Finally, due to the very constructive feedback received at the two validation workshops with stakeholders in Rodadero and Carepa in June of 2019 and the three validation webinars held between December 2019 and January 2020, we obtained additional information that allowed us to make important improvements to this version of the report.

# Living Wage Report

## Caribbean coast of Colombia

Context: Banana sector

Study date: May 2018

By: Lykke E. Andersen, Richard Anker and Martha Anker

## SECTION I. INTRODUCTION

### 1. BACKGROUND

This report estimates a living wage for the banana growing regions of Colombia: Magdalena, Guajira and Urabá, located in Northern Colombia along the Caribbean coast.

The living wage concept refers to a salary that would allow a typical worker family to live a decent life. Decency includes access to a basic, nutritious diet in line with local preferences and possibilities; access to housing that complies with both national and international minimum standards; access to education for children through secondary school; access to health care when needed; and, finally, the living wage should be sufficient to allow the family to live together, rather than some members having to migrate and live apart to complement family incomes.

The study applied the methodology developed by Anker and Anker (2017). The Anker methodology has gained widespread acceptance among diverse stakeholders globally and has been used to estimate living wages in a wide variety of settings, such as the coffee growing area of Minas Gerais in Brazil, the banana growing region of the northern part of the Dominican Republic, the peri-urban flower growing regions of Kenya, and the sports ball producing region of North Eastern Punjab in Pakistan<sup>1</sup>.

Most of these studies have been commissioned by the Global Living Wage Coalition (GLWC), or its members, which include Fairtrade International, GoodWeave International, Rainforest Alliance (RA), and Social Accountability International (SAI), in partnership with the ISEAL Alliance and Richard Anker and Martha Anker.

The shared mission of the GLWC is to provide high quality and consistent knowledge and information about living wage levels, implementation, and impact necessary for stakeholders of all types to collaborate in a non-competitive environment toward wage increases globally. This

---

<sup>1</sup> All Living Wage Reports in this series can be downloaded from here: <https://www.globallivingwage.org/>.

work is designed to serve the vision of the GLWC, that workers around the world are able to afford a decent life for themselves and their families.

This particular study was made possible through the generous funding support of Fairtrade International.

The main principles of the Anker methodology (Anker and Anker, 2017) are the following:

- **Transparency:** The methodology clearly sets out the principles and assumptions behind the living wage estimate, so that readers understand, and have the possibility to question, what workers can afford on a living wage, and how the living wage differs from the national minimum wage and the national poverty line.
- **Normative basis:** The methodology estimates the living wage based on normative standards for nutritious food, healthy housing, adequate health care, and education of children through secondary school.
- **Time and place-specific estimates:** Since the level of development, the costs of living, and the expected standards of living vary not only over time, but also across space within a country, the methodology calls for time and place-specific living wage estimates.
- **International comparability:** The living wage estimates are comparable between countries, because they are based on the same principles everywhere.
- **Practical and modest cost:** The methodology uses a judicious mix of secondary data analysis and primary data collection and analysis, which results in reliable estimates at a modest cost.
- **Comparison with prevailing wages:** The methodology also develops principles and guidelines for measuring prevailing wages, so that it is possible to compare them with a living wage and determine gaps between prevailing wages and a living wage. All forms of remuneration including in kind benefits are considered.
- **Living wage reports are more than only a number:** Living wage reports do not just report a number, but also paint a picture of what it means to live on less than a living wage, and how the living standards would be for workers who would earn a living wage. This type of reporting facilitates effective stakeholder dialogue and value chain dialogue, and is expected to help improve conditions for the people who carry out the hardest part of the work in the value chain.

## 2. LIVING WAGE ESTIMATE

**The gross living wage for the banana growing regions of Colombia is estimated at COP 1,564,766 (USD 554) per month and the net living wage take home pay is COP 1,438,204 (USD 509).** This value was calculated for May 2018, with an exchange rate of 2,824 COP/USD. It should be noted that the exchange rate has since then changed significantly, so it is best to focus on the values reported in Colombian Pesos (COP) rather than USD, as the former are much more stable from the viewpoint of the workers in Colombia. Since two years have passed since the field work was carried out, **the Annex at the end of the report provides an update of the living wage to January 2020.** Note that since workers in Colombia receive by law a transportation subsidy (COP 88,111 per month) as well as *aguinaldo/prima* (13<sup>th</sup> month payment), this means that workers need to receive each month less than the COP 1,564,766 gross living wage to earn a living wage. Workers who receive their full *cesantíacesantía* bonus every year (equal to a 14<sup>th</sup> month) would need an even lower cash salary each month.<sup>2</sup>

The living wage covers the banana growing regions in the states of Magdalena, Guajira and Antioquia. It refers to the wages of agricultural workers required for decency for families who reside mostly in the municipal capitals (such as Ciénaga, Sevilla, Apartadó, Turbo, Carepa and Chigorodó), but also in smaller towns, and a few in rural areas. The gross monthly wage income needed to achieve a basic, but decent living standard is estimated at COP 1,564,766. This is the gross wage necessary for a typical family with 1.61 full-time equivalent workers and two children to pay for a nutritious diet, decent housing, health care, education, clothing and other essential expenses.

On average, banana workers in Colombia are close to earning a living wage, especially workers covered by the collective bargaining agreement (CBA) signed between the workers' union (SINTRAINAGRO) and the banana producers' union (AUGURA). However, since workers are paid for tasks completed, rather than by time worked, there is substantial variation in daily wages between farms, between workers, and from day to day for the same worker. Non-unionized workers are believed to earn less than the unionized workers, although it is difficult to establish exactly how much less.

Apart from many banana workers already earning a living wage or close to it, unionized banana workers in Colombia also enjoy high levels of job security. Since bananas are harvested every week of the year, the workload is pretty constant over the year, and almost all workers have indefinite contracts and make mandatory contributions to health and pension systems. Many of the workers we talked with had worked for the same banana farm for at least a decade<sup>3</sup>, and

---

<sup>2</sup> There is a difference of opinion among stakeholders over whether or not most banana workers are able to access their full *cesantía* benefit every year. The extent to which workers receive *cesantía* every year depends partly on the type of contract they have. Workers with less than a 1-year contract receive *cesantía* directly during the year. In contrast, workers with an indefinite contract do not receive *cesantía* directly. Instead, this is put into a *cesantía* fund in February and can be accessed for house improvement, purchase of a house, or tertiary schooling according to the law. There is a difference of opinion of trade unions and employers, however, about whether workers with an indefinite contract are able to access *cesantía* funds for general ongoing needs despite stipulations in the *cesantía* law.

<sup>3</sup> On the biggest banana farm in Colombia, Bananeras de Urabá S.A., the average worker had worked there for 11



this job-stability, combined with a salary that is very close to a living wage, means that practically all banana worker families by now have acquired decent housing, enjoy a nutritious and varied diet, have their children in school or university, and have health care coverage.

The independent small-holder banana producers we visited in the Santa Marta region considered that they were better off than banana workers, earning at least the same income, with more freedom. It is therefore possible that they are also close to earning a living income. However, we did not do the necessary investigation and calculations about their current net incomes to establish the gap to earning a living income. It is quite likely that their impression of earning sufficient to support a decent standard of living for their family fails to take into account some of the production costs, such as agricultural inputs, farm infrastructure establishment and maintenance and the value of their land. These costs would have to be added on top of the COP 2,519,273 (i.e. 1,564,766 per full-time worker x 1.61 full-time workers, assuming no other income) needed to cover the living expenses of the family.

**3. CONTEXT**

Colombia is the fifth largest banana exporter in the World (after Ecuador, Philippines, Guatemala and Costa Rica), exporting 1.75 million tons of bananas in 2018 (FAO, 2019), worth US\$869 million (AUGURA, 2019). About 50,000 hectares of export bananas are cultivated in Colombia, generating 35,000 direct jobs and 120,000 indirect jobs (AUGURA, 2019).

Colombia’s export bananas are all grown in just three states along the Caribbean coast. According to the latest agricultural census (Colombia, 2014), the production of export bananas is distributed in the following way across the three states:

*Table 1: Location, extension and production of export bananas in Colombia, 2013*

Location	Number of hectares with export banana	Tons of export bananas produced	Average yield (tons per hectare)
Antioquia (Urabá region)	34,011	1,209,148	35.6
Magdalena (Santa Marta region)	14,076	446,670	31.7
Guajira	1,856	55,568	29.9

Source: 2014 Agricultural Census (Colombia, 2014).

Export banana production in Colombia started in the state of Magdalena at the end of the 19<sup>th</sup> century with heavy investments made by the United Fruit Company (UFCO) in banana plantations, rail roads, port facilities, and steam ships. UFCO was so successful and demanded so many banana workers that people migrated to this previously neglected region of Colombia

years, and the worker who had been there the longest, had been there for 27 years. It is not a youthful industry, and its biggest challenge is to secure workers in the future, as the younger generation is usually not interested in working as banana workers.

in search of jobs with the international company, and the port city of Santa Marta experienced a substantial economic boom driven by the banana business (Bucheli, 2005).

The banana workers in Magdalena gradually started to unionize and demand better working conditions and salaries. There were frequent strikes, and one of these led to the infamous Banana Massacre in Ciénaga in 1928, when the Colombian government, in order to avoid a threatened military intervention by the US, opened fire against banana workers and their families and killed several people. The following years saw important social reforms that gradually improved the conditions of the workers (Bucheli, 2005).

**Five fun facts about bananas:**

- Bananas are the most popular fruit in the world
- More than 100 billion bananas are eaten around the world every year
- The word banana comes from the Arabic word “banan”, meaning finger
- The banana plant is not a tree; it is the world’s largest herb
- The inside of a banana skin can be used to calm an itchy mosquito bite.

*Source: BananaLink (<http://www.bananalink.org.uk/all-about-bananas>).*

After the crisis produced by the Second World War, and due to increasing pressure from workers’ unions, a changing political climate, and technological changes making vertical integration less important, UFCO decided to gradually sell their land holdings (and labor problems) in the Santa Marta region, and instead focus on the commercialization of bananas. To secure sufficient supply, they successfully convinced local elites in the Antioquia state to invest in banana plantations in the remote, jungle-covered Urabá region near the border of Panama, which soon became one of the most important banana-growing regions in the World (Bucheli, 2005).

In this way, Urabá has become the dominant banana growing region in Colombia, employing around 19 thousand banana workers, most of whom live in the city of Apartadó, and the rest in neighboring cities, such as Turbo, Carepa and Chigorodó.

While Urabá is dominated by medium to large banana plantations with hired workers, Magdalena is also home to a large number of small, independent banana producers united in a number of cooperatives.

The newest addition to the banana growing regions in Colombia is the coastal region of Guajira, close to Magdalena. The climate there is somewhat drier, which presents a problem for such a water-demanding crop, but the advantage is that it is outside the normal reach of the Sigatoka fungus, which plagues the other two producing regions and necessitates regular spraying with fungicide. This means that organic bananas can be grown in Guajira, satisfying a rapidly growing demand, especially in Europe.

---

### **3.1 Regional differences and similarities**

During the field work for this report we visited all three regions, and observed clear differences in production methods. In Santa Marta we visited independent banana producers from six different banana export cooperatives with Fairtrade certification (EMBREBANCOOP, COOBAFRIO, COOBAMAG, ASOBANARCOOP, COOMULBANANO, COODEMAG). These were all small family businesses each with just a few hectares of bananas and a small processing plant for washing and packaging the bananas. Bananas were only harvested once a week in these establishments, which meant that the processing plant was only used one day per week, and on the smallest farms indeed only a few hours per week. Labor was mainly provided by family members, with perhaps a bit of extra hired help for harvest day.

Most current small-scale producers had inherited their land, and banana production was a family tradition for them. A tradition under threat, however, for several reasons. First, the younger generation often has different aspirations, and when banana farmer parents retire or die, the younger generation may prefer to sell the land and move to the city. Second, large scale producers in the region attempt to consolidate and expand their businesses by buying up land from small producers, offering highly attractive prices. Very few of the small-scale producers we met felt that they could afford to buy more land, and they were therefore left to operate at an inefficiently small scale, with severely underutilized processing facilities. Fairtrade premiums currently help these small family businesses to be more viable, but there are no guarantees that Fairtrade premiums can be sustained over time.

In contrast to the small-holders of Santa Marta, the Guajira and Urabá regions are dominated by medium to large scale banana farms with hundreds of hired workers, and processing plants that operate around 48 hours per week. The farms in Guajira have specialized in producing organic bananas, since they don't suffer from the Sigatoka fungus. This explains the lower yields per hectare shown in Table 1, but this is compensated by higher prices received for ecological bananas.

Photo 1 contrasts small-scale processing plants of family businesses in the Santa Marta area (top row) with large scale processing plants from Urabá and Guajira (bottom row).

*Photo 1: Banana processing plants from small-scale producers (top row) and large-scale producers (bottom row).*



Source: Authors' photos.

While production methods were quite different between the regions, we found much fewer differences in living conditions and living costs. In both the Caribbean Region (which includes the states of Magdalena and Guajira) and the Antioquia state (which includes the Urabá region), more than three-quarters of the population live in municipal capitals, while less than a quarter live in smaller towns and rural areas according to the 2016 household survey. This distribution between municipal capitals, other urban, and rural seemed to be similar for banana workers in both areas. Thus, most banana workers live in apartments or small houses in municipal capitals, such as Santa Marta, Ciénaga, Sevilla, Apartadó, Carepa, Turbo and Chigorodó, and do their shopping in modern supermarkets, such as Olímpica. Even the minority who lives in rural areas, do most of their shopping in supermarkets in municipal capitals, and none have significant home production of food (apart from bananas and plantains).

We estimated food costs and housing costs separately for the two regions, but found that differences were minor. We also found that the size of a typical family was four in both regions, and that the number of full-time equivalent workers per household was similar in both regions. Since all the main variables that go into the calculation of a living wage were so similar across the regions, we decided that it was preferable to calculate one living wage for both regions. This decision was further supported by the fact that for non-food-non-housing expenditures, we

only had access to national level data, and thus could not estimate these separately by region.

However, it should be noted that the interpretation and use of the living wage estimate differ between salaried workers and independent small-holder producers. For workers, it is the gross income they need to afford a decent standard of living, but for independent small-holders, it is the net income they would need to afford a decent standard of living, after having paid all farm operating costs, including non-family labor, irrigation, fumigation, fertilizers, materials, transportation, and the rental value of land and production facilities.

Another important difference between the regions is the degree of unionization. In general, the degree of unionization is very low in Colombia, with only 4.6% of all workers being members of a workers' union.<sup>4</sup> The rate is higher among banana workers, however, and it is exceptionally high among banana workers in the Urabá region, where almost all workers are unionized and work under an attractive collective bargaining agreement between the workers' union, SINTRAINAGRO, and the producers' union, AUGURA, which secures them decent working conditions and salaries. In the Santa Marta region, this is the case for less than half of the banana workers, as employers tend to be less collaborative, and some have been known to actively discourage unionization. The situation of confrontation between workers and employers tends to be the norm in Colombia, while the highly collaborative behavior observed in the Urabá region during the last couple of decades is an exception, both in time and in space (Parras Rojas, 2012).

#### 4. CONCEPT AND DEFINITION OF A LIVING WAGE

The idea of a living wage is that workers and their families should be able to afford a basic life style considered decent by society at its current level of development, without having to work overtime or migrate permanently to supplement their incomes.

The definition of a living wage applied by this study as well as the Global Living Wage Coalition is the following:

Remuneration received for a standard work week by a worker in a particular place sufficient to afford a decent standard of living for the worker and her or his family. Elements of a decent standard of living include food, water, housing, education, health care, transport, clothing, and other essential needs including provision for unexpected events. (Global Living Wage Coalition, 2016)

The idea of a living wage is neither new, nor radical. The International Labour Organization Constitution (1919) states that "Peace and harmony in the world requires provision of an adequate living wage", and the United Nations' Universal Declaration of Human Rights (1948) states that "Everyone who works has the right to just and favorable remuneration ensuring for

---

<sup>4</sup> <https://www.dinero.com/edicion-impresala-grafica/articulo/46-es-la-tasa-de-sindicalizacion-en-colombia/223012>

himself and his family an existence worthy of human dignity.”<sup>5</sup>

## 5. HOW A LIVING WAGE IS ESTIMATED

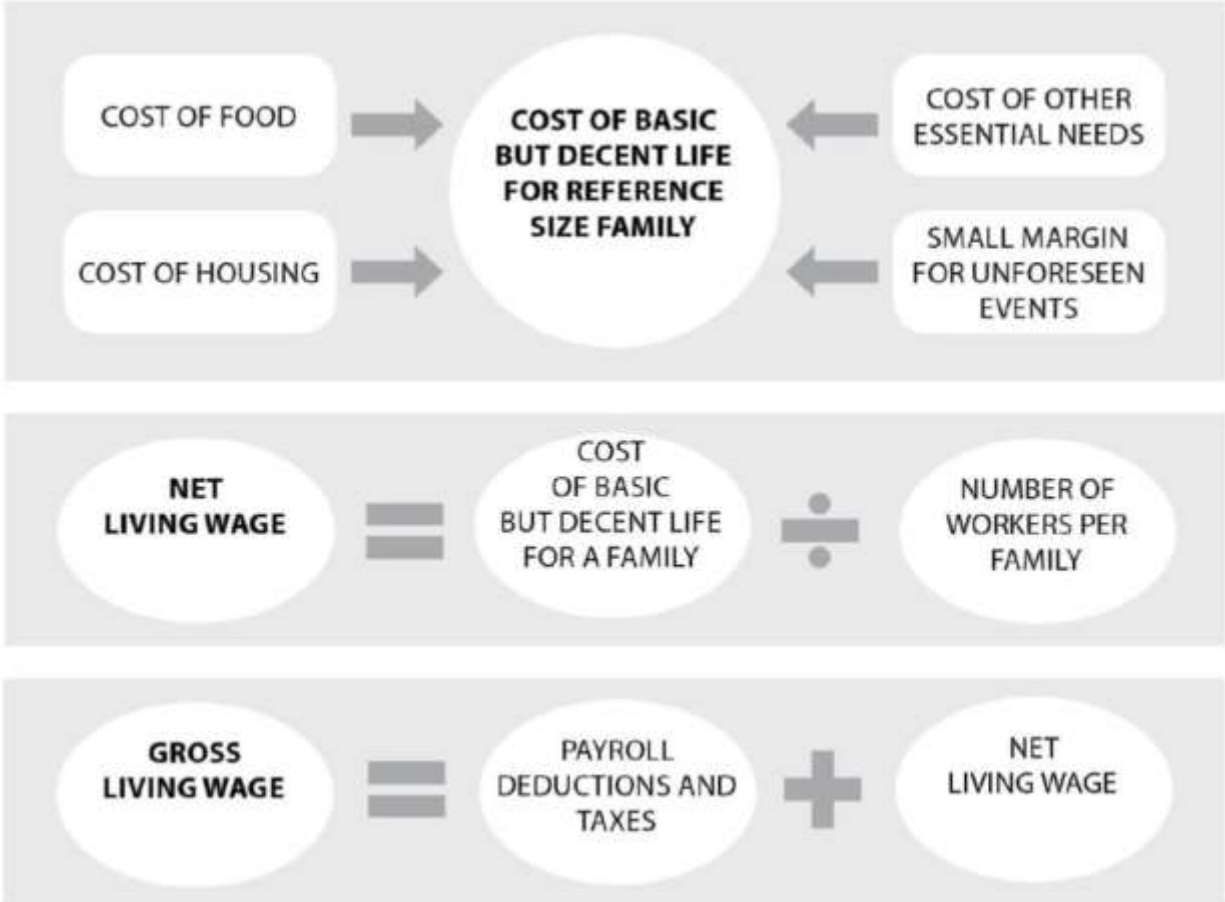
Figure 2 below gives a broad overview of the Anker methodology used to estimate the living wage. The main steps involved are the following:

- **Determine the size and composition of a reference family in the area of interest.** This is done using official information from the latest household and health surveys carried out by the National Statistical Institute.
- **Estimate the costs of a basic but nutritious diet for the reference family.** Since food is usually the main expenditure item for agricultural workers, this step receives the most attention. It involves two main tasks: 1) develop a model diet, which complies with international recommendations concerning nutrition, but which is adapted to local preferences and possibilities, and 2) estimate the costs of this diet, considering local shopping options and local food prices.
- **Estimate the costs of decent housing for the reference family.** Since housing is usually the second biggest expenditure item for families, this step is also a priority. The rental values for decent housing were estimated using secondary data from the National Statistical Institute, which fortunately was well-suited for the purpose.
- **Estimate the costs of all other essential needs and unforeseen events.** Since food and housing typically are the main expenditures in low- and middle-income countries, the remaining expenditures are estimated simply as a mark-up using household expenditure data gathered by the National Statistical Institute.
- **Determine the number of workers per family.** This is a number between one and two, depending mainly on local customs and local employment conditions. The number is calculated from the latest official household survey.
- **Estimate the Gross Living Wage,** taking into account payroll deductions, taxes, and payments in kind. This is done using official information about tax-brackets, as well as samples of payroll information for different types of workers in the banana industry.

---

<sup>5</sup> See Anker (2011) for more examples of how historical figures, international bodies, NGOs, governments and others describe the concept of a living wage.

Figure 2: Components of a living wage estimate, moving from the cost of a basic but decent life to net living wage, and moving from net living wage to gross living wage



Source: Anker and Anker (2017).

The subsequent sections provide the details of these estimations for the case of the banana growing regions of Colombia.

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

### 6. FOOD COSTS

Food costs for a reference family of two adults and two children were estimated by first developing a low-cost, nutritious model diet consistent with local food preferences, and then calculating the cost of this diet using local food price surveys in the towns and cities where banana workers told us they usually shop.

**The estimated cost of the model diet was COP 5,900 per person per day or COP 717,833 per family per month. This corresponds to USD 2.09 per person per day or USD 254 per family per month<sup>6</sup>.** Details on how these estimates were arrived at are provided below.

---

#### ***6.1 General principles of living wage model diet***

A model diet developed according to the Anker methodology should meet WHO/FAO recommendations on nutrition in the most economical way possible, while at the same time being palatable and consistent with local food preferences and possibilities.

Specifically, according to Anker and Anker (2017) based on WHO guidelines, a model diet for an upper-middle-income country, such as Colombia, should fulfill the following:

- The number of calories in the model diet needs to be sufficient to cover the energy needs of the family members.
- Approximately 13% of calories must come from proteins for an upper-middle-income country such as Colombia.
- Some dairy (which is rich in calcium and high quality proteins) should be included in the diet, especially for children.
- 15–30% of calories must come from fats.
- 55–75% of calories must come from carbohydrates.
- 350 grams of vegetables and fruits per day must be included in the model diet to help provide micronutrients and minerals.
- Maximum 30 grams of sugar per person per day.
- About 30 grams of oil per person per day.

---

#### ***6.2 Living wage model diet***

The development of a model diet starts by calculating the average daily calorie requirement per person in the reference household of four persons, which turned out to be 2370 calories per person per day. This was found using the following assumptions: The average height for adult

---

<sup>6</sup> The exchange rate used in this report is 2824 COP/USD, corresponding to mid-May 2018.



women in Colombia is 155.2 cm and for men 167.6 cm<sup>7</sup>. One adult is assumed to have a vigorous Physical Activity Level (PAL), due to strenuous farm work, while the other adult and the children are assumed to have a moderate PALs.

The diet was developed through an iterative process, facilitated by the Excel calorie requirement and model diet programs that form part of the Anker methodology and which are available on the Edward Elgar website<sup>8</sup>.

To choose the main food items that provide these calories, we started with the list of 51 food items that the National Statistical Institute of Colombia (DANE) uses to track inflation, and we ordered these by expenditure weight for middle-income households in order to identify the most important items. We then deleted items called “Other vegetables”, “Other seafood” and other “Others”, as well as spices and condiments, and items that contributed less than 0.05% of total household expenditure. This provided us with the list of the 26 most important food items in the Colombian diet shown in Table 2.

To obtain the initial quantities of each of those food items, we used the basic food basket for rural areas found in a report provided to us by DANE for that specific purpose (DNP & DANE, 2012). The report only stated the number of calories provided by each food item per person per day (see Column 3 of Table 2), not how many grams were consumed. But the Excel model diet program that forms part of the Anker & Anker (2017) methodology, includes a database of calorie contents per 100 grams of each food item, and using this information we could calculate the initial number of grams consumed per person per day of each of the main food items consumed in Colombia (see Column 4 of Table 2).

---

<sup>7</sup> The average height for women was calculated by the author from the 2010 DHS survey of women aged 15-49 because the 2015 DHS survey didn't measure women's height. For men, no estimate at all could be found, so we used the standard ratio of male/female height of 1.08 to estimate men's height suggested in Anker & Anker (2017).

<sup>8</sup> <https://www.elgaronline.com/view/9781786431455/9781786431455.xml>.

*Table 2: The 26 most important food items in the Colombian diet, according to the 2006-2007 national income and expenditure survey*

Basic expenditure item	Expenditure share for middle-income households (1)	Calories per day per person provided by each item, according to the Rural Basic Diet (2)	Grams consumed per person per day, according to the Rural Basic Diet (3)
Beef	2.28	72.9	39
Milk	1.57	16.2	27
Rice	1.41	574.2	159
Chicken	1.24	22.5	10
Vegetable oil	0.90	310.5	35
Bread	0.76	78.1	29
Eggs	0.67	51.1	36
Fish frozen fillets	0.58	4.0	4
Pork	0.52	10.5	6
Cheese (fresh)	0.51	6.1	2
Beans and lentils	0.38	125.9	36
Potatoes	0.36	111.0	144
Sugar	0.36	426.0	110
Coffee	0.28	6.4	-
Plantain	0.25	54.5	45
Chocolate	0.23	16.7	-
Pasta	0.22	58.7	16
Onions	0.18	6.2	16
Tomatoes	0.17	3.9	22
Green peas	0.14	21.2	-
Prepared cereals	0.11	20.4	-
Corn flour	0.10	29.1	8
Cassava (Yuca)	0.08	45.2	28
Carrots	0.06	4.2	-
Oranges	0.06	-	-
Bananas	0.06	-	-

*Notes:* - means the information is not available in the source documents.

*Sources:* (1) Extracted from the CPI expenditure weight for middle-income households.

(2) Appendix Table H1 of DNP & DANE (2012).

(3) Calculated using the calorie contents of each food item from the Anker & Anker (2017) Excel model diet program.

However, this is a national average, which does not take into account regional variation in product availability and preferences. In the banana growing regions along the Caribbean coast of Colombia, there are two food habits that are clearly distinct from the interior highlands of the country, where most people live. The most important difference is the high consumption of green bananas and green plantains. Since these regions have had easy access for more than a century to cheap green bananas, that were rejected for export, they have developed a variety of dishes

based on green bananas, and they are usually consumed in one form or another at every meal (See Photo 2).

Green bananas are nutritionally similar to plantains, and are prepared in the same ways (requires cooking), whereas they are different from mature bananas, which are less starchy and more sugary, and can be eaten raw. Thus, it makes sense for the model diet for this region to contain less potatoes (which is a highland starchy food) and more plantains than the national average. Yuca (cassava) is another starchy plant that is more commonly consumed in the Caribbean region than in the central highlands of Colombia, so we substituted some of the potatoes with yuca rather than plantains.

*Photo 2: Green bananas and plantains are key ingredients in the diet of banana workers and other inhabitants of the banana growing regions of Colombia. They are served in many different ways, such as: (a) cooked and mashed (Cayeye); (b) sliced and fried; (c) fried and flattened (Patacones); and (d) soup.*



Source: Authors' photos and Internet photos.

The second difference in the coastal region is that fish is more accessible, and is eaten more frequently, than in the interior of the country. Thus, we slightly increase the amount of fish

consumed in the model diet for the coastal region.

In contrast, the sugar contents in the Rural Basic Diet, at 110 grams per person per day, is almost four times the WHO maximum recommended value (30 grams per person per day), so we reduced that to the WHO maximum allowed. In order to include more nutritious sources of the missing calories, we added some corn flour and fresh cheese, as *arepas* (thick corn tortillas, a Colombian specialty) and grated fresh cheese are very common complements to many meals in the region. We also added more beans, as they are an excellent and cheap source of protein and calories. Finally, we increased the amount of milk to the one cup per day per child.<sup>9</sup>

To simplify the model diet, the Anker & Anker (2017) methodology recommends using equal amounts of a handful of common fruits and vegetables for the model diet. In reality, proportions and combinations of fruits and vegetables will differ and change over the year according to seasonal fluctuations in supply and prices, but the five fruits and vegetables are expected to help capture the average cost of obtaining the necessary vitamins and micronutrients from fruits and vegetables. Using this recommendation, we end up including 59 grams of each of the following fruits and vegetables: cabbage, onion, tomato, orange and bananas. When added to the 56 grams of beans, we meet the requirement of a total of 350 grams of fruits, vegetables and pulses (excluding green bananas).

In a second round of adjustments to develop our model diet, in order to make the diet a bit more economical, we substituted some of the relatively expensive cow meat with cheaper chicken.

Table 3 shows the detailed contents of our model diet, and the average daily cost per person. Section 6.3 below provides details on how prices were established.

To the costs of the 22 main ingredients, we added 2.7% for spices, sauces, condiments and salt<sup>10</sup>; 4% for spoilage; and 13% for variety, following recommendations of the Anker methodology.

---

<sup>9</sup> Daily consumption of milk or dairy is recommended in the food based dietary guidelines for Colombia see link <http://www.fao.org/nutrition/education/food-based-dietary-guidelines/regions/countries/colombia/en/>

<sup>10</sup> According to the CPI index for Colombia, based on the expenditure survey conducted in 2006-2007, salt, spices, dressings and condiments account for 0.34% of all expenditures for middle-income households, corresponding to 2.7% of food expenditure.

*Table 3: The contents and costs of our model diet for the banana growing regions of Colombia*

<b>Food item</b>	<b>Edible grams per person per day</b>	<b>Purchased grams per person per day</b>	<b>Median cost per kg (COP)</b>	<b>Average cost per person per day (COP)</b>
Rice	185	185	2,398	443
Maize flour	25	25	3,100	78
Bread (white)	25	25	6,993	175
Pasta	21	21	4,000	83
Potato	150	200	1,480	296
Yuca (cassava)	50	60	1,600	95
Plantains	100	154	1,400	215
Beans, pinto	56	56	5,900	330
Milk	120	120	2,247	270
Cheese	25	25	12,000	300
Egg	38	43	5,333	229
Beef	24	25	15,100	378
Pork	12	16	11,522	184
Chicken	61	89	5,650	504
Fish	24	24	10,750	261
Cabbage	59	75	1,840	135
Onion	59	65	2,040	131
Tomato	59	65	3,250	210
Orange	59	81	1,950	157
Banana	59	92	1,500	138
Oil	34	34	4,163	142
Sugar	30	30	2,200	66
Coffee	7	7	15,300	107
<b>Total cost of model diet excluding additional costs indicated below</b>				<b>4,929</b>
Percentage added for salt, spices, condiments, and sauces				2.7%
Percentage added for spoilage and waste				4.0%
Percentage added for variety				13.0%
<b>Total cost of model diet, including additional costs indicated above</b>				<b>5,900</b>

Source: Authors' calculations.

The nutritional summary of this diet is the following:

- 2,370 calories
- 12.7% from proteins
- 25.0% from fats
- 62.3% from carbohydrates
- 350 grams of fruits and vegetables and legumes per day

- 1 cup of milk per day for children
- 30 grams of sugar per day
- 34 grams of oil per day

It thus complies with all the WHO/FAO nutritional guidelines listed in Section 6.1.

### ***6.2.1 Deducting the value of free school lunch from cost of meals prepared at home***

Although there is supposed to be a school lunch program in Colombia, most of the workers we interviewed told us that the program is not really working, and that children usually have to bring their own lunch. To be on the safe side, we do not make deductions due to free school lunches.

---

## ***6.3 Local food prices***

According to our interviews with small scale banana producers and banana workers in Colombia, even small-scale banana producers with their own land typically buy all their food items in a supermarket in the nearest big city, as that is the cheapest and most convenient option. Growing bananas for export is much more profitable than growing food for own consumption, so there is virtually no auto-production, except maybe fruits from a few old trees on the property.

Thus, the prices of each food item in the model diet (see Table 2) were simply established as the median price in a survey conducted during May 2018 of 35 supermarkets and major local stores in cities and towns where banana workers live and shop. We found no systematic differences between prices in the Santa Marta region and the Urabá region, so we use the same prices for all.

### ***6.3.1. Seasonality in food prices***

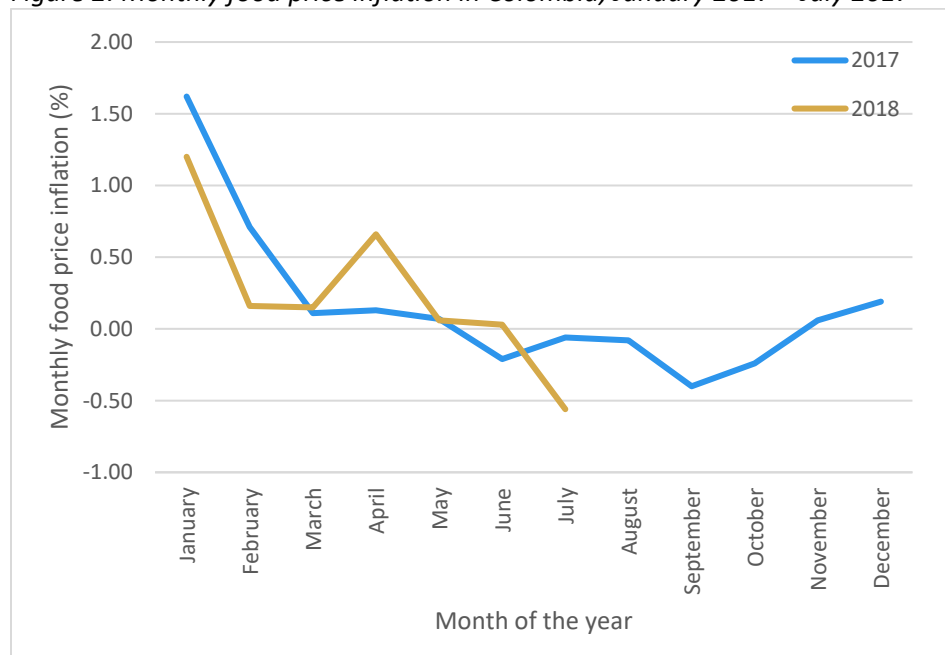
Since we carried out our food price survey in the month of May 2018, we checked that prices are not unusually high or unusually low in May due to seasonal variation. For that purpose, we checked the monthly food price variations reported by DANE<sup>11</sup>. Unfortunately, we could only find data for 2017 and 2018, but they do suggest some seasonal variation in food prices (see Figure 2).

Food prices seem to increase during December to April, flatten in May and then start falling during June to October. This means that prices tend to be relatively high in May. However, the differences are minor. In 2017, the level of food prices in May were just half a percent higher than the average for the whole year. Thus, we decided to accept our food prices collected in May as representative for the whole year.

---

<sup>11</sup> <http://www.dane.gov.co/index.php/estadisticas-por-tema/precios-y-costos/indice-de-precios-al-consumidor-ipc>

Figure 2: Monthly food price inflation in Colombia, January 2017 – July 2017



Source: DANE: [Variación mensual del \(IPC\), por grupos de bienes y servicios / 2017 - 2018 \(julio\)](#).

## 7. HOUSING COSTS

Housing costs for our living wage were estimated by adding together the rental/user costs of a basic acceptable dwelling and the utility costs (water, electricity, cooking fuel, and waste elimination).

**We estimated decent housing costs for a family of four in the banana growing regions of Colombia to be of COP 338,880, comprised of COP 254,160 for rental costs and COP 84,720 for utilities. This corresponds to a total of USD 120 per month per family.** The rest of this section explains how we have arrived at this estimate through the use of secondary data, but first we will describe our impressions from our visits to two dozen banana worker homes in both the Santa Marta region and the Urabá región.

Our visits to banana workers' and small banana producers' homes indicated that almost all of them comply with both national and international standards for basic acceptable housing. Most banana workers live in modest, but adequate apartments in the municipal capitals of the banana growing regions, especially Apartadó in the Urabá region.

One of the main reasons that almost all banana workers we visited now live in decent homes, is that the workers' union (SINTRAINAGRO) and the employers' union (AUGURA) many years ago agreed to end precarious on-farm housing and instead establish a jointly managed Housing Fund, with the objective of securing decent, affordable housing for banana workers in urban areas, where they would have access to schooling, health services, and other advantages of

urban living<sup>12</sup>.

About two-thirds of banana workers we visited have been able to finance their apartments through housing loans granted by this Housing Fund and many of the rest have secured house improvement loans from the same Fund<sup>13</sup>. Fairtrade premiums have strengthened this process by contributing substantial additional funds for housing developments and housing loans.

Photo 3 shows some typical banana worker houses in rural areas, small towns, and municipal capitals. By far most banana workers live in municipal capitals, in apartments that they have bought with financing from the Housing Fund, with loan payments being deducted directly from their fortnightly salary. The last photo is from a particularly nice urbanization in Apartadó, financed by Fairtrade premiums.

*Photo 3: Typical homes of banana workers in Colombia. The first is rural, the next two are small towns, and the last one is urban from Apartadó, where many banana workers in Colombia live*



Source: Authors' photographs.

All the banana worker homes we visited were modest, but decent. They were constructed of durable materials, and complied with minimum standards. They had electricity, piped water, a

<sup>12</sup> <http://www.bananalink.org.uk/es/sintrainagro-%E2%80%93-una-historia-de-%C3%A9xito-colombiana>.

<sup>13</sup> <http://www.bananalink.org.uk/colombian-workers-and-producers-conclude-agreement-record-time>.



toilet connected to the public sewerage system or a private septic tank, and they usually cooked inside the house using gas (piped or purchased in cylinders).

Photo 4 shows a few typical banana worker kitchens. They are modest, and often located in a corner of the living room, but they typically have piped water, a gas fired stove, and a refrigerator, so they easily comply with international minimum housing standards.

*Photo 4: Typical kitchens in the homes of banana workers in Colombia.*



Source: Authors' photographs.

The rest of this section explains first how we have determined the standards for basic acceptable housing and then proceeds to show how rental costs were calculated from the latest household survey carried out by the National Statistical Office in 2016.

**7.1 Standard for basic acceptable local housing**

The Living Wage should be sufficient to cover the rental costs of a home that satisfies both minimum international housing standards as well as national standards.

International standards are based on the following principles for adequate housing:

- Durable structure
- Sufficient living space

- Access to safe water
- Access to sanitary toilet and washing facilities
- Adequate lighting
- Adequate ventilation
- Adequate food storage
- Separation from animal quarters
- Protection from cold, damp, heat, rain, wind or other threats to health, structural hazards and disease vectors

As national standards, we use the criteria applied in the Unsatisfied Basic Needs (UBN) methodology used in Colombia to estimate the poverty line (DANE, 1987). Three of the dimensions in the UBN methodology reflects inadequate housing conditions due to crowding, lack of basic services, and inadequate construction materials.

Table 4 below tabulates a series of relevant housing quality variables for the Caribbean region and Antioquia (which covers all the banana growing regions). Only households with 2-7 members are included in the calculations, as this is the sample we consider relevant for the living wage estimate. The averages for each region cover municipal capitals, small towns and rural areas in the actual proportions found in each of the two departments (see the first section of Table 4). According to our fieldwork in the region, this distribution across areas of residence roughly reflects the distribution of workers in the banana sector as well.

The sample sizes are 2,514 homes in the Caribbean region and 2,454 homes in the Antioquia department. The last column of Table 4 explains what is considered adequate according to national standards.

*Table 4: Current housing conditions based on the 2016 ENCV survey*

Characteristics	Caribbean region (%)	Antioquia (%)	Acceptable standard according to the Colombia Unsatisfied Basic Needs methodology
<b>Area of residence</b>			
Municipal capital	76.12	79.03	
Other urban	14.50	5.50	
Rural	9.38	15.47	
<b>Roof</b>			
Zinc/concrete/tile	97.29	98.12	Only the first is considered acceptable.
Thatch	2.61	1.01	
Waste/other unacceptable	0.11	0.87	
<b>Floor</b>			
Carpet	0.22	0.30	All except the last are considered acceptable.
Polished wood/parquet	0.11	1.06	

Characteristics	Caribbean region (%)	Antioquia (%)	Acceptable standard according to the Colombia Unsatisfied Basic Needs methodology
Marble	0.27	0.58	
Bricks/tile	49.17	70.07	
Rough wood	0.72	1.15	
Cement	39.50	23.86	
Earth/other unacceptable	10.01	2.99	
<b>Exterior walls</b>			
Cement/stone/brick/polished wood	89.33	90.32	The first 5 categories are considered acceptable according to the UBN methodology.
Adobe/bahareque with finish	3.76	4.26	
Rough wood	3.10	3.93	
Prefabricated material	0.12	0.41	
Bahareque without finish	2.46	1.00	
Bamboo/sticks	0.61	0.03	
Other unacceptable	0.62	0.05	
<b>Electricity</b>			
Yes	98.09	99.78	Electricity required.
No	1.91	0.22	
<b>Piped water (Acueducto)</b>			
Yes	83.18	92.42	Piped water required.
No	16.82	7.58	
<b>Toilet facility</b>			
Toilet or latrine	93.94	98.40	Any kind of toilet or latrine connected to sewerage system or septic tank is acceptable. Nothing is not acceptable.
Nothing	6.06	1.60	
<b>Number of rooms</b>			
1	3.86	3.14	The UBN methodology does not specify a minimum number of rooms, but only the number of persons per room (see next).
2	13.98	11.98	
3	36.31	31.87	
4	31.70	30.89	
5+	14.15	22.12	
<b>Number of persons per potential sleeping room</b>			
0 to 2	92.96	95.58	According to the UBN methodology, the household should have no more than 3 people per room.
More than 2 to 3	4.76	3.04	
More than 3	2.28	1.38	
<b>Consumer durables</b>			

Characteristics	Caribbean region (%)	Antioquia (%)	Acceptable standard according to the Colombia Unsatisfied Basic Needs methodology
Washing machine	60.21	75.76	The UBN methodology does not include these items.
Refrigerator	80.75	94.78	
Water heater (for shower)	0.78	41.11	
Internet connection	34.08	55.07	
<b>Hazards experienced during the last 12 months</b>			
Flooding	8.02	4.37	The UBN methodology does not include these items.
Landslide	0.95	0.68	

*Notes:* The sample was limited to households in the Caribbean and the Antioquia region, and further limited to only include households with 2-7 members. All calculations in this table are made using the analytical weights provided by the National Statistical Institute (FEX\_C), to correct for non-proportional sampling of the survey.

*Source:* Authors' calculations based on the ENCV 2016 survey.

As can be seen from this table, the Caribbean Region (which encompasses the banana producing areas in the department of Magdalena) shows systematically lower housing quality than the Antioquia department (which encompasses the banana producing regions of Urabá).

However, in general, housing quality is quite good. The biggest problem is the lack of piped water, affecting around 17% of households in the Caribbean region, and to a lesser extent, the lack of toilet facilities (6% of households in the Caribbean region).

In Table 5 we combine national and international minimum standards, in order to develop a specific minimum housing standard for our study area.

*Table 5: Housing standard for study area, complying with both international minimum requirements and national standards according to the Unsatisfied Basic Needs methodology*

Housing characteristics	International minimum requirements	Housing standard for study area
<b>Materials</b>		
Walls	Durable material providing protection from elements	Durable material providing protection from elements (rough wood and adobe/bahareque without finish is not acceptable)
Roof	Durable material without leaks	Durable material without leaks (thatch not acceptable)
Floor	Durable material	Durable material (earth not acceptable)
<b>Amenities</b>		
Toilet	At least pit latrine with slab	Toilet or latrine connected to

		sewerage system or septic tank
Water	Safe water not far from home (maximum 30 minutes total collection time per day)	Piped water within property
Electricity	Generally yes, but not required if not common in study area	Electricity required
<b>Ventilation &amp; Lighting</b>		
Ventilation quality	Good ventilation. Especially important when cooking indoors	Good ventilation required since cooking is indoors
Lighting	Adequate	Electric lighting required
Number of windows	Sufficient for adequate lighting and ventilation	Sufficient for adequate lighting and ventilation
<b>Living Space</b>		
Number of square meters of living space	≥30 m <sup>2</sup> (increases with economic development)	At least 48 m <sup>2</sup> for a family of four given that Colombia is an upper-middle-income country
Number of rooms	≤ 2 persons per room excluding kitchen and toilet	≤ 2 persons per room excluding kitchen and toilet
Kitchen location	If kitchen is inside house, adequate ventilation for cooking needed	Kitchen inside house, with good ventilation
<b>Condition</b>	In good state of repair	In good state of repair
<b>Environment</b>	Not a slum No site hazards such as: surface water drainage, industrial pollution, danger of landslides, flood zone	Not a slum and no obvious site hazards

Source: Authors' elaboration.

## **7.2 Rent or user cost for basic acceptable housing**

In order to determine the rental/user cost for basic acceptable housing in the banana producing regions of Colombia, we combined the analysis of the 2016 household survey carried out by the National Statistical Institute with our own rapid assessments in the field. The official survey covered almost 5,000 single-family dwellings in the relevant regions, while we visited only about 25 families, so the official data is obviously much more reliable, and is therefore used for our rent calculations.

From the 2016 household survey, we chose a sub-set of houses for analysis based on the following restrictions:

- Households located in either the Caribbean region or the Antioquia department
- Households with two to seven members (excluding one-person households and multi-

family households).

- Houses with an imputed rent between USD 10 and USD 150 per month (less than USD 10 is considered clearly unrealistic for any kind of dwelling, and our field work indicated that USD 150 was clearly enough for decent housing).

For this sub-sample of 2,958 households, we analyzed compliance with minimum requirements in the following seven dimensions of decent housing (according to the standards explained in Table 5):

- Exterior walls OK
- Roof OK
- Floor OK
- Water access OK
- Toilet facilities OK
- Electricity OK
- Sufficient rooms (no more than 2 persons per potential sleeping room<sup>14</sup>)

Tables 6 and 7 shows the results for the Caribbean region and Antioquia, respectively. In Table 6, we can see that we have a sample of 1,669 modest<sup>15</sup> homes with 2-7 inhabitants in the Caribbean region, and that the median rent value for these is USD 52 per month. Slightly over half of these comply with the minimum requirements in all seven dimensions analyzed. Median rent for those that comply with all seven dimensions is USD 69 per month (COP 200,000), while the median rent for houses complying with only six of the seven dimensions is USD 42 per month. Typically, the lacking dimension for the latter is water access.

---

<sup>14</sup> This includes bedrooms, living rooms, and dining rooms, but excludes kitchens, toilets, baths, and storage rooms.

<sup>15</sup> We imposed an upper rent limit of USD 150 to make sure we only include modest homes. Our field work indicated the it was possible to get adequate housing for less than USD 150.

*Table 6: Estimated rent of houses in the Caribbean region by compliance with seven minimum standards (modest houses with 2-7 inhabitants)*

Number of dimensions of adequate housing fulfilled	Number of houses surveyed in the 2016 EMCV survey <sup>1</sup>	% with exterior walls ok	% with roof ok	% with floor ok	% with water access ok	% with toilet facilities ok	% with electricity ok	% with sufficient potential sleeping rooms	Median rent (USD/month)
1	12	0%	33%	0%	0%	8%	17%	42%	31
2	29	7%	48%	0%	0%	3%	66%	76%	21
3	60	27%	62%	7%	15%	45%	80%	65%	24
4	105	43%	74%	23%	32%	64%	89%	75%	35
5	184	73%	87%	49%	38%	76%	89%	88%	35
6	419	97%	97%	86%	37%	92%	100%	89%	42
7	859	100%	100%	100%	100%	100%	100%	100%	69
<b>Total</b>	<b>1669</b>	<b>87%</b>	<b>93%</b>	<b>81%</b>	<b>67%</b>	<b>89%</b>	<b>96%</b>	<b>92%</b>	<b>52</b>

Notes: <sup>1</sup> Only including households with 2-7 members and rent between USD 10 and 150 per month.

Source: Authors' calculations based on data from the 2016 EMCV household survey.

In Table 7 we can see that we have a sample of 1,289 modest homes with 2-7 inhabitants in the Antioquia department, and that the median rent value for these is USD 69 per month. 64% of these comply with the minimum requirements in all seven dimensions analyzed. Median rent for those that comply with seven dimensions is also USD 69 per month, while the median rent for houses complying with only six of the seven dimensions is USD 52 per month. Like in the other region, the last dimension to be lacking is water access.

*Table 7: Estimated rent of houses in the Antioquia department by compliance with seven minimum standards (modest houses with 2-7 inhabitants)*

Number of dimensions of adequate housing fulfilled	Number of houses surveyed in the 2016 EMCV survey <sup>1</sup>	% with exterior walls ok	% with roof ok	% with floor ok	% with water access ok	% with toilet facilities ok	% with electricity ok	% with sufficient rooms	Median rent (USD/month)
1	9	0%	11%	0%	0%	0%	88%	0%	28
2	21	0%	14%	0%	0%	5%	100%	81%	35
3	21	0%	33%	14%	19%	71%	100%	62%	35
4	60	8%	85%	30%	38%	75%	97%	67%	35
5	90	42%	91%	69%	43%	92%	99%	63%	35
6	262	80%	98%	94%	46%	98%	98%	85%	52
7	826	100%	100%	100%	100%	100%	100%	100%	69
<b>Total</b>	<b>1289</b>	<b>84%</b>	<b>95%</b>	<b>90%</b>	<b>79%</b>	<b>95%</b>	<b>99%</b>	<b>91%</b>	<b>69</b>

Notes: <sup>1</sup> Only including households with 2-7 members and rent between USD 10 and 150 per month.

Source: Authors' calculations based on data from the 2016 EMCV household survey.

Since reported rent values cluster around round numbers because people are making a guesstimate (most commonly COP 100,000; COP 150,000; COP 200,000; COP 250,000; COP 300,000, COP 350,000, COP 400,000 per month, and COP 450,000), the median rent value of COP 200,000 found for decent housing in both regions in table 7 is quite sensitive to our choices of number of residents and especially minimum and maximum rent cut-off values.

We therefore carried out a sensitivity analysis. Depending on the values of the upper and lower cut-off values, the median value for houses that meet all seven dimensions varies between COP 200,000, COP 250,000 and COP 300,000. Considering this sensitivity analysis, we feel that a value of COP 250,000 (USD 87) per month is a reasonable value for both study regions. This is the median value excluding houses with the lowest 20% (less than COP 100,000) of reported rental values that are probably deficient in some way and the highest 20% (COP 450,000+) of reported rental values that are probably above our basic decency standard. Furthermore, the two rental values with highest frequency are COP 200,000 and COP 300,000 with 35% of estimated rental values between COP 200,000 and COP 300,000. In addition, the reasonableness of COP 250,000 (USD 87) is also confirmed by our field work, where we found few rentals of COP 150,000 or less per month.

In reality, very few banana workers rent their home. Almost all are home owners. But there is a relationship between rental value and property value, and it depends partly on the mortgage interest rate. According to the 2016 household survey, most people use an interest rate between 6% and 12%, when assessing their rent and property values. The property value corresponding to a monthly mortgage payment of COP 250,000 for a 20-year mortgage at an interest rate of 12% would be between COP 20-25 million. These were indeed the kind of values we found in our own small survey. When asked at what price they would sell their home, the most typically reported value was COP 20 million. This adds to our confidence that a rental value of COP 250,000 (USD 87) in 2016 is a reasonable value for a decent home in our study regions, even though USD 87 is cheap for urban areas in an upper-middle-income country.

For the purpose of our living wage estimate, we therefore chose a **rental cost of decent basic housing for our model family of COP 250,000 in 2016, which corresponded to USD 87 per month in 2016, but which by May 2018 corresponds to COP 254,160 (USD 90) after adjusting for inflation.**

---

### **7.3 Utilities and other housing costs**

While the 2016 household survey included estimated rent for almost all homes, it did not include expenditure on utilities. However, from the 2006-2007 expenditure survey, we know that utilities amount to roughly one-third of rental costs, which would imply utility costs of about COP 84,720 (USD 30) per month.

This value is confirmed by our own housing survey, where typical values for water were in the COP 5,000 – 15,000 range, typical values for gas (without paying for the initial connection) were in the COP 15,000 – 30,000 range, and typical values for electricity were in the COP 35,000 –



70,000 range.

Thus, we chose **utility costs of COP 84,720 (USD 30) per month** for our living wage calculations.

## 8. NON-FOOD AND NON-HOUSING (NFNH) COSTS

While food and housing account for the main part of expenditures for a typical worker household on a living wage, there are other essential expenses that should be allowed for as well. Health and education are considered human rights, and people also need to spend money on clothing, personal hygiene, transportation, communications, and certain durable goods.

Whereas food and housing costs are estimated based on normative standards for a nutritious diet and healthy housing standards, non-food and non-housing (NFNH) costs are estimated as a mark-up based on an estimated ratio of NFNH costs to food costs according to secondary data.

A four-step approach was used to estimate NFNH costs for the living wage. First, we used the very detailed Consumer Price Index (CPI) expenditure weights that DANE has calculated for poor, vulnerable, middle-income, and high-income households in Colombia based on a year-long household expenditure survey carried out by the Colombia statistical office (DANE) in 2016-2017. In Step 2, we adjust some of the expenditure categories in order to be consistent with the Anker methodology (Anker and Anker, 2017). This basically means excluding expenses considered unnecessary for a living wage (e.g. tobacco and lottery tickets), while moving part of restaurant expenditures and alcoholic beverages out of food and into the NFNH category because they are not included in our model diet. In Step 3, we calculate the NFNH costs for our living wage by multiplying the adjusted NFNH to Food expenditure ratio by the cost of the living wage model diet. Step 4 of the Anker methodology requires a rapid post check for health care and education costs, to ensure that sufficient funds are available for these crucial items that are considered human rights. Fortunately, in Colombia, both health care and education are publicly provided and largely free, so no adjustments were needed.

In summary, we find the NFNH expenditures for the banana producing regions of Colombia to be 1.60 times food expenditures. This ratio is not unusual for predominantly urban areas of an upper-middle-income country (Anker & Anker, 2017).

Since food costs were estimated at COP 717,833 (USD 254) per month per family, a mark-up of 160% means that **NFNH costs amount to COP 1,148,533 (USD 407) per month per family**. The remainder of the section provides details on how these estimates were arrived at.

---

### 8.1. Step 1 of the NFNH calculations

National Income and Expenditure Surveys are huge undertakings that are carried out approximately once every decade in order to understand changes in expenditure patterns, and update the expenditure weights in the Consumer Price Index (CPI). Fortunately, a new National Income and Expenditure Survey was carried out in 2016-2017, and released just in time for this

living wage report.

Since the weights vary considerably by level of income, the National Statistical Office (DANE), has calculated CPI weights for four different household groups, depending on income level: Poor, vulnerable, middle-income, and high-income households.

The 2019 version of the CPI includes 443 different expenditure items, but in Table 8 we have added some of them together in larger groups, while maintaining detail for some specific items, necessary for the adjustments in Step 2.

*Table 8: CPI expenditure shares, by income group (2016-2017)*

<b>Expenditure</b>	<b>Poor</b>	<b>Vulnerable</b>	<b>Middle-income</b>	<b>High-income</b>
Food and non-alcoholic beverages at home	23.78	22.24	15.80	8.16
Food out	7.22	8.13	9.35	9.69
Alcoholic beverages	1.57	1.69	1.57	1.49
Rental costs (imputed or actual)	31.67	27.94	25.50	22.49
Basic Services (water, sanitation, electricity, gas, waste collection)	8.49	8.39	7.63	7.94
Health (including medicines)	1.51	1.40	1.52	2.34
Education (including school material)	1.64	1.74	4.29	6.55
Private transportation	1.84	3.50	7.01	11.25
Public transportation	5.24	6.57	5.99	3.86
Tobacco	0.25	0.19	0.15	0.04
All other expenditures items	19.90	18.21	21.19	26.19
<b>Total expenditure</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>

Source: Authors' calculations based on the CPI weights derived from the National Income and Expenditure Survey, 2016-2017 (<https://www.dane.gov.co/index.php/estadisticas-por-tema/precios-y-costos/indice-de-precios-al-consumidor-ipc/ipc-actualizacion-metodologica-2019/ipc-ponderadores>).

As would be expected, Table 8 shows that the food share of household expenditures decreases with income level. Rental cost share also decreases by income level. While the rental share of household expenditure is unusually high for poor and vulnerable households from an international perspective<sup>16</sup>, this has no effect on our estimate of NFNH or housing costs, because NFNH costs and housing costs are estimated separately in the Anker methodology based on a different source (see previous section)<sup>17</sup>. This is one of the advantages of the Anker methodology.

The item that varies most by income group, is private transportation. After rental costs, private vehicle-related costs are the next biggest item on the monthly budget of high-income

<sup>16</sup> It is possible that this unusually high rental share for poor and vulnerable households is due to how the income and expenditure survey measured "rent" for owner occupied dwellings. They asked owners to estimate how much their house or apartment would rent for if it were rented out.

<sup>17</sup> Rental costs for our living wage are based on 2016 EMCV household survey data and are lower than what would be implied by CPI rental expenditure weights.

households, amounting to 11.25% of their total monthly spending. Poor households spend much less on private transportation (1.83%), but they spend 5.24% of their budget on public transportation. This is much less than it used to be just a decade earlier, because the Colombian government has implemented a system of transportation subsidies, requiring employers either to organize transportation for their workers, or to pay a transport subsidy. For 2018, the minimum wage was fixed at COP 781,242 per month while the transport subsidy was set at COP 88,211 (11.3% on top of the minimum wage)<sup>18</sup>. This subsidy is taken into account in the prevailing wage and living wage calculations in Section 13 below.

---

## **8.2. Step 2 of the NFNH calculations**

Some adjustments to these expenditure patterns are needed in order to calculate the NFNH/food ratio according to the Anker Living Wage methodology.

The first adjustment is to remove tobacco (mostly cigarettes) from consumption altogether, as it is neither necessary, nor desirable. According to the CPI, tobacco consumption in Colombia is very limited, reaching a maximum of 0.25% for poor households, and amounting to only 0.04% for the high-income group. This expenditure is moved to a category of eliminated items.

The most important adjustment is to move alcohol and the service and profit part of food eaten away from home from the food expenditure group to the NFNH expenditure group. We do this because these expenses are not part of the model diet developed in Section 6, but neither do we want to rule them out altogether.

According to the CPI data, alcoholic beverages account for 1.69% of expenditures for vulnerable households, and a bit less for the other three income categories. These are moved from the food group to the NFNH category “All other expenditures”. More important is the share spent on take-away food and meals and drinks consumed outside the house. According to the CPI, this amounts to around 8% of total expenses for vulnerable households and around 9% of total spending for middle income households. Some of this expenditure is indeed for food, but part is for services (such as cooking, washing dishes, serving) and other costs (such as rent and electricity) and profit. According to Anker and Anker (2017), the food share constitutes about 50% of the costs of meals away from home in Costa Rica and other middle-income countries, and we adopt this share for our calculations. Thus, we transfer half of the food eaten out shares to the NFNH category “All other expenditures”.

The final adjustment we make is for private vehicle ownership, which is not considered necessary for decency. Following Anker and Anker (2017), we assume that people with a private vehicle could save about 50% by switching from a private vehicle to public transportation. This means that we transfer half of private transportation to the eliminated category “Excess private vehicle costs”.

---

<sup>18</sup> <https://www.bluradio.com/nacion/salario-minimo-en-2018-sera-de-781242-y-subsidio-de-transporte-de-88211-164643>

Table 9 shows the adjusted expenditure shares for the four income groups.

*Table 9: Adjusted expenditure shares and NFNH/food ratios, by income group (2016-2017)*

Expenditure	Poor	Vulnerable	Middle-income	High-income
<b>Food (at home and half of food out)</b>	<b>27.39</b>	<b>26.31</b>	<b>20.48</b>	<b>13.01</b>
<b>Housing</b>	<b>40.16</b>	<b>36.33</b>	<b>33.13</b>	<b>30.43</b>
Rental cost	31.67	27.94	25.50	22.49
Utilities	8.49	8.39	7.63	7.94
<b>Non-Food Non-Housing expenditures</b>	<b>31.28</b>	<b>35.43</b>	<b>42.74</b>	<b>50.90</b>
Half of food out	3.61	4.07	4.68	4.85
Alcoholic beverages	1.57	1.69	1.57	1.49
Health (including medicines)	1.51	1.40	1.52	2.34
Education (including school material)	1.64	1.74	4.29	6.55
Half of private transportation	0.92	1.75	3.51	5.63
Public transportation	5.24	6.57	5.99	3.86
All other expenditures	16.79	18.21	21.19	26.19
<b>Eliminated expenses</b>				
Cigarettes	0.25	0.19	0.15	0.04
Excess cost of private vehicle compared to public transportation	0.92	1.75	3.51	5.63
<b>Ratio NFNH/food</b>	<b>1.14</b>	<b>1.35</b>	<b>2.09</b>	<b>3.91</b>

Source: Authors' calculations based on the CPI weights derived from the National Income and Expenditure Survey, 2016-2017.

Clearly, the NFNH/food ratio varies quite a lot by income level. For the living wage estimate, we should use the ratio for families that have enough income for a decent, but frugal standard of life. This means that we should not use the ratio found for “poor” households. It is not obvious a priori, however, if we should use “vulnerable” or “middle-income” households, because this depends on how they are defined. DANE uses internationally defined limits, measured in Purchasing Power Parity adjusted international dollars (Lopez-Calva and Ortiz-Juarez, 2011) for their definitions. Vulnerable households have per capita incomes between 4 PPP\$ and 10 PPP\$, while middle-income households have incomes between 10 PPP\$ and 50 PPP\$. (with one PPP\$ equal to COP 1411.59 in 2018 for the World Bank 2011 private consumption PPP series. This works out to be an income range from around COP 700,000 to around COP 1,700,000 for vulnerable households with 4 members, and from around COP 1,700,000 to around COP 8,600,000 for middle class households. Given that living expenses for our family of four is at least 2,100,000 (if we use the NFNH/food ratio for vulnerable households), it is clear that the vulnerable group is not appropriate for calculating NFNH costs for a living wage, as its income level is too low. At the same time, it is also clear that the middle-income group is also not appropriate as its income range is too high. **We therefore decided to use the weighted average of the NFNH/food ratios calculated for the vulnerable income group (2/3) and the middle-income group (1/3), since income of vulnerable group is closer to our living wage expenses than**

**the income of the middle-income group. This weighted average is 1.60, and it represents a frugal mark-up-factor, reflecting necessary NFNH expenditures for families at income levels just around the estimated living wage.**

## 9. POST CHECKS OF NON-FOOD AND NON-HOUSING (NFNH) COSTS

According to Table 8, health care costs accounts for less than 2% of household expenditure and education accounts for around 2-4% of household expenditure for vulnerable and middle-income households. These are low percentages from an international perspective and are undoubtedly due to their being publicly provided for free in Colombia. The purpose of the present section (Step 4 of the NFNH calculations) is to verify that this spending indicated by the secondary data is indeed enough to secure decent health care and education services, since we consider these to be human rights.

### 9.1 Health care post check

With Law No. 100 of December 1993, Colombia made a big step towards a universal health care system. According to the latest Demographic and Health Survey (2015), 94.5% of the population is covered by the public health care system, and the percentage is similar between men and women, between rural and urban areas, and between poor and rich households (ENDS, 2015).

The system has two modalities: i) contributive and ii) subsidized. Employees, such as banana workers, are in the contributive system, which means that a compulsory 4% of their salary is deducted and paid to the health care system. The employer pays an additional 8.5%. These relatively high health care contributions from employers and employees are used to subsidize health services for the rest of the population.

Due to this almost universal health care system, the limited additional expenses on health (less than 2% of expenditures of poor, vulnerable and middle-income households) according to CPI expenditure weights seems realistic, and we find no reasons to make adjustments. All banana workers we talked with were covered by the public health care system, and some even had additional private health insurance, which is not necessary, but which provides a more convenient service with less waiting time.

The results of this universal health care system are quite good. Although Colombia's GDP per capita is slightly under the world average, most health indicators are well above world average. More than 99% of births in Colombia are attended by skilled staff, in comparison to 78.5% in the world. Thus, the infant mortality rate is only 1.3% in Colombia compared to 3.1% in the world and the maternal mortality rate is 64 per 100,000 live births in Colombia compared to 216 in the world<sup>19</sup>.

Although the situation has improved substantially in recent years, Colombia still suffers from a

---

<sup>19</sup> All information extracted from the World Bank's World Development Indicators.

lot from violence. According to the Global Burden of Disease data, inter-personal violence is the main cause of death and disability in Colombia, causing 8.9% of all Disability Adjusted Life Years (DALYs) lost<sup>20</sup>. Still, Life expectancy in Colombia is 76 years, compared to the world average of 74<sup>21</sup>.

---

## **9.2 Education post check**

Colombia's education system has improved considerably over the last couple of decades, both in terms of quantity, quality and equity. However, like most education systems in Latin America, students still perform poorly compared to OECD countries and Asian countries. 15-year-old Colombians are about three years of learning behind the OECD average, and 41% of them have repeated at least one grade (OECD, 2016).

Government expenditure on education has increased substantially, from 1.7% of GDP in 1980 to 4.5% in 2016. About 80% of students, both at primary and secondary levels, attend public school<sup>22</sup>.

According to our discussions with banana workers, initial, primary and secondary education is free, with only some modest expenses related to school uniforms and school materials at the beginning of the school year. These expenses are more than off-set by the conditional cash-transfer that families with children aged 4-18 receive every two months through the program *Más Familias en Acción*<sup>23</sup> if the children attend school.

Thus, the amount for education of vulnerable and middle-income households included in NFNH is more than enough to cover education expenses through secondary school, and so no adjustment is needed for NFNH. The 5-6% expenditure of households on education found in the CPI weights is explained by expenditures of high-income households on private schools and university. This percentage is only 1.6%, 1.7%, and 4.3% for poor, vulnerable, and middle-income households. Among banana workers, we found that they felt that it is important to send their children to university and that it was not unusual for them to do so, and these families reported that university expenses were indeed an important expense. For that reason, many of the Fairtrade certified banana farms has programs to help pay university expenses for the workers' children.

## **10. PROVISION FOR UNEXPECTED EVENTS TO ENSURE SUSTAINABILITY**

Unforeseen events and expenses can quickly throw workers living at a basic life style into poverty and debt from which it is difficult to recover. For this reason, it is common when estimating a living wage to add a small margin above the cost of the basic quality life allowed for by a living wage. Without such a margin, a living wage is not sustainable (Anker and Anker,

---

<sup>20</sup> <https://vizhub.healthdata.org/gbd-compare/>

<sup>21</sup> All information extracted from the World Bank's World Development Indicators.

<sup>22</sup> According to the World Bank's World Development Indicators for 2016.

<sup>23</sup> <http://www.dps.gov.co/que/fam/famacc/Paginas/default.aspx>.

2017).

The Anker and Anker (2017) methodology recommends adding 5% to the costs of living in order to cover unexpected events. Using this recommended value, we add **COP 110,262 (USD 39) per month per family to cover unexpected events and discretionary spending.**

## SECTION III. LIVING WAGE FOR WORKERS

### 11. FAMILY SIZE NEEDING TO BE SUPPORTED BY LIVING WAGE

The living wage is a family concept, and, for decency, a living wage should be sufficient to support a family in the location where they work. The larger the size of the family, the larger a living wage would be needed to support it (Anker and Anker 2017).

In this report we have chosen a **reference family size of four (two adults and two children)**. This choice is based on three pieces of information.

First, slightly more than two children per woman (implying a nuclear family size of 4) is required to sustain a population over time, and it is thus a minimum reference family size of 4 is generally permitted by the Anker methodology (Anker and Anker 2017).

Second, total fertility rate according to the 2015 Demographic and Health Survey is 2.0 for Colombia. It is slightly lower than 2 in urban areas (1.8) and above 2 in rural areas (2.6); it falls with wealth quintile being 2.3 for second quintile and 1.9 for median (2.8, 2.3, 1.9, 1.5, 1.3); and it falls with women's education (3.0 for women with primary education, 2.1 for women with some secondary education, and 1.6 for more than secondary). All of this implies a total fertility rate of around 2 for workers earning a living wage and so a reference family size of around 4. Taking into account the low child mortality rates in Colombia (2.9% in Magdalena and 1.4% in Antioquia) has only a small effect on the mortality-adjusted total fertility rates.

Third, according to the latest Colombian household survey (2016), three and four-person households are by far the most common in the banana growing regions of Colombia (see table 10 below). When we exclude one-person households (which are not relevant for the living wage, which is a family concept) and especially large households with more than seven members (which are probably extended families), we find an average household size slightly under four in both regions. In total for the banana growing regions, we find an average household size of 3.75 persons (see Table 10 below).



*Table 10: Household sizes in the banana growing regions of Colombia*

# persons in household	% of households		
	Caribbean	Antioquia	Both regions
1	10.52	14.33	12.12
2	14.82	19.25	16.68
3	21.76	24.82	23.04
4	22.34	22.43	22.38
5	14.12	10.26	12.5
6	7.44	5.51	6.63
7	4.45	1.38	3.16
8	2.21	0.79	1.62
9+	2.34	1.22	1.87
<b>Average household size</b>	<b>3.83</b>	<b>3.29</b>	<b>3.61</b>
<b>Average household size excluding 1 person households and households with more than 7 members</b>	<b>3.89</b>	<b>3.55</b>	<b>3.75</b>

*Source:* Authors' calculations based on the ENCV 2016 household survey.

*Note:* All calculations in this table are made using the analytical weights provided by the national statistical office (FEX\_C), to correct for non-proportional sampling of the survey. Only the Caribbean region and the Antioquia region are included.

Taken together, the above information on mortality adjusted total fertility rate and adjusted average household size imply a reference family size of around 4, especially considering that a nuclear family size of slightly more than 4 is required for continued population reproduction.

It should be noted that although we use a reference family consisting of a father, a mother and two children for the purpose of the living wage calculations, in reality the family compositions are often much more varied and complex.

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

Since the living wage is a family concept, there may be more than one income earner in the family, and the costs of a decent living standard would be shared by these workers. The larger the number of full-time equivalent workers in the family, the smaller the required living wage.

For our reference family of two adults and two children, we follow the Anker & Anker (2017) methodology and assume that one adult in the family works full-time, that the spouse works part-time, and that none of the children work. Children below the age of 18 are assumed to be in school, and a living wage should be sufficient to avoid child labor.

We consider full-time work to be 48 hours per week, because that is the most common number

of hours worked in Colombia, and also the maximum allowed by law<sup>24</sup>. Hours in excess of that, or outside normal working hours (6 am to 10 pm) requires overtime pay. The 48 hours are usually worked between Monday and Friday (10 hours per day Monday – Thursday, and 8 hours on Friday). In the banana industry in Colombia, the collective wage bargaining agreement stipulates that workers receive 25% overtime pay if they work Saturdays, and 75% overtime pay if they work Sundays.

Since one adult in the family is assumed to work full-time on a banana farm, the main challenge in this section is to determine how much the other adult works. According to the Anker & Anker (2017) methodology, the analysis has to be made on men and women of prime working age (25-59 years old), and has to take into account labor force participation rates, unemployment rates and part-time work rates.

The Anker methodology requires us first to calculate the proportion of full-time equivalent work per prime age working age adult (P), which is defined as:

$$\begin{aligned} & \textit{Proportion of full-time equivalent work per prime working age adult} \\ & = \textit{Average adult LFPR} \\ & \times (1 - \textit{unemployment rate}) \\ & \times (1 - [\textit{part-time employment rate} \div 2]) \end{aligned}$$

where LFPR is the LFPR for people of prime working age (25-64). This proportion should be calculated separately for men and women, and then averaged to obtain the final proportion. We use ILOSTAT data for Colombia for 2017<sup>25</sup> (shown in Table 11) to calculate P for men and women separately, as follows:

$$\begin{aligned} P_{\text{male}} &= 0.808 \times (1 - 0.069) \times (1 - 0.063/2) = 0.729 \\ P_{\text{female}} &= 0.577 \times (1 - 0.115) \times (1 - 0.105/2) = 0.484 \\ P_{\text{average}} &= (0.729 + 0.484)/2 = 0.607 = 60.7\% \end{aligned}$$

Assuming that one adult in the family works full time, and applying the average proportion to the second adult in the family, we find that the number of full-time equivalent workers per family is 1.61.

*Table 11: ILOSTAT data for Colombia, 2017*

	<b>National</b>
--	-----------------

<sup>24</sup> <https://www.justlanded.com/english/Colombia/Colombia-Guide/Jobs/Legal-regulations-in-the-Colombian-job-market> and <https://tusalario.org/colombia/Portada/ley-laboral/trabajo-y-salario/jornada-laboral>.

<sup>25</sup> [https://www.ilo.org/ilostat/faces/oracle/webcenter/portalapp/pagehierarchy/Page21.jspx?\\_afLoop=1324561190717589&\\_afWindowMode=0&\\_afWindowId=5ibx0s173\\_1#!%40%40%3F\\_afWindowId%3D5ibx0s173\\_1%26\\_afLoop%3D1324561190717589%26\\_afWindowMode%3D0%26\\_adf.ctrl-state%3D5ibx0s173\\_45](https://www.ilo.org/ilostat/faces/oracle/webcenter/portalapp/pagehierarchy/Page21.jspx?_afLoop=1324561190717589&_afWindowMode=0&_afWindowId=5ibx0s173_1#!%40%40%3F_afWindowId%3D5ibx0s173_1%26_afLoop%3D1324561190717589%26_afWindowMode%3D0%26_adf.ctrl-state%3D5ibx0s173_45).

<b>Labor force participation rate</b>	
Males 25+	80.8%
Females 25+	57.7%
<b>Unemployment rate</b>	
Males 25+	6.9%
Females 25+	11.5%
<b>Part-time rate<sup>1</sup></b>	
Male	6.3%
Female	10.5%

<sup>1</sup> Measured by time-related underemployment which is determined by three conditions: (i) willing to work more hours; (ii) available to work more hours, and (iii) working less than full-time hours. This underestimates part-time employment because it excludes those who do not want to work more hours.

Source: ILOSTAT.

This, however, is a national average. In order to explore possible regional differences, we use the 2016 household survey, which is large enough to be representative for our two study regions (the Caribbean region, including Magdalena and Guajira, and the Antioquia region, including Urabá), to directly calculate the average number of hours worked per week for men and women of prime working age (25-59 years old) living in 2-7 person households in our two study regions. This average includes people who are working full-time (but not overtime<sup>26</sup>), people who work part-time, people who have decided not to work for whatever reason (such as for family care, child care, household work, or study), and people who are temporarily unemployed or otherwise unable to work at the time of the survey. However, the data only includes working hours for the main occupation, so the total number of hours worked is slightly underestimated.

According to the 2016 ENCV survey, men in our two study regions worked on average 37.9 hours per week while women worked on average 17.7 hours per week in their main occupation (excluding working time greater than 48 hours per week). The simple average of the two is 27.8 hours per week<sup>27</sup> (see Table 12 below).

Given this information, the number of full-time equivalent workers per family in our two study regions can be calculated as:

$$1 + \frac{27.8}{48} = 1.58$$

As can be seen from Table 12, there is a difference between our two study regions (1.58 and 1.63). People in the Caribbean region tend to work almost four hours less per week than people

<sup>26</sup> For individuals working more than 48 hours per week, the number was reduced to 48, so as to be consistent with the Anker & Anker (2017) living wage methodology, which assumes that a living wage should be earned within normal working hours, without the need for overtime.

<sup>27</sup> Hours normally worked in primary occupation.

in the Antioquia state. But the information from the Antioquia state is heavily influenced by the big, modern city of Medellín, where people would tend to work more than in the rest of the state. Thus, primary working hours from the banana growing region of Urabá are probably lower than the 1.63 reported in Table 12.

*Table 12: Average work hours per week in the primary occupation for people of prime working age (25-59 years) in the banana growing regions of Colombia, and implied number of full-time equivalent workers per family*

Area	Average hours per week worked by 25-59 year old men and women in 2-7 person households in our study regions			Implied number of full-time equivalent workers per family
	Men	Women	Average	
<b>Both study regions</b>	<b>37.9</b>	<b>17.7</b>	<b>27.8</b>	<b>1.58</b>
- Caribbean region (Magdalena and Guajira)	36.3	16.1	26.2	1.55
- Antioquia region (Urabá)	40.2	20.0	30.1	1.63

*Notes:* The hours worked are the “usual” hours worked in the primary occupation. The question asked in the survey is: “How many hours per week do you usually work in this occupation?”. The sample was limited to households in the Caribbean and the Antioquia region, and further limited to only include households with 2-7 members. All calculations in this table are made using the analytical weights provided by the National Statistical Institute (FEX\_C), to correct for non-proportional sampling of the survey.

*Source:* Authors’ calculations based on the ENCV 2016 survey.

Combining both analyses, and considering that the numbers in Table 12 are slightly too low, because second jobs were omitted, it seems reasonable to choose a value of 1.61 full-time equivalent workers per family for our living wage estimate.

**13. TAKE HOME PAY REQUIRED AND TAKING TAXES AND STATUTORY DEDUCTIONS FROM PAY**

Mandatory deductions from wages reduce the amount of take home pay workers receive. These need to be taken into account when calculating a living wage, to ensure that workers have sufficient net income to cover their living costs.

In the case of Colombia, the mandatory deductions are 4% for the contributory health system and 4% for the pension system. In addition, workers who are members of the SINTRAINAGRO labor union, pay 2% of their salary in labor union contributions.

Banana workers’ salaries are generally well below the limit for which income tax should be paid. Table 13 shows the tax brackets for 2018. As long as the living wage is below COP 3,868,200 per month, it is exempted from income taxation.

Table 13: Income tax brackets for Colombia, 2018

Income Range in COP/month	Tax Rate
0 to 3,868,200	0%
3,868,201 to 4,697,100	19%
4,697,101 to 11,328,300	28%
> 11,328,301	33%

Source: Dirección de Impuestos y Aduanas Nacionales (DIAN).

## 14. CALCULATION OF THE NET AND GROSS LIVING WAGE

With these last pieces of information, we are ready to estimate the net and gross living wages. Table 14 is the most important table of the whole report, as it summarizes the calculation of the living wage.

Table 14: Calculation of the net and gross living wage for banana workers in Colombia

	Local currency (COP)	USD <sup>a</sup>
<b>PART I: FAMILY EXPENSES</b>		
<b>Food cost per month for reference family<sup>b</sup> (1)</b>	<b>717,833</b>	<b>254</b>
Average food cost per person per day	5,900	2.09
<b>Housing costs per month (2)</b>	<b>338,880</b>	<b>120</b>
Rent per month for acceptable housing	254,160	90
Utility costs per month	84,720	30
<b>Non-food non-housing costs per month (3)</b>	<b>1,148,533</b>	<b>407</b>
Preliminary estimate of NFNH costs <sup>c</sup>	1,148,533	407
Health care post check adjustment	0	0
Education post check adjustment	0	0
<b>Additional amount (5%) for sustainability and emergencies (4)</b>	<b>110,262</b>	<b>39</b>
<b>Total living costs per month for basic but decent living standard for reference family (5) [(5)=(1)+(2)+(3)+(4)]</b>	<b>2,315,509</b>	<b>820</b>
<b>PART II. LIVING WAGE PER MONTH</b>		
<b>Net living wage per month based on 1.61 full-time equivalent workers (6) [6=(5)/1.61]</b>	<b>1,438,204</b>	<b>509</b>
<b>Statutory deductions from pay (7)</b>	<b>126,562</b>	<b>45</b>
Compulsory contributions to health (4%), pensions (4%), and labor union (2%) <sup>d</sup>	126,562	45
Income tax <sup>e</sup>	0	0
<b>Gross living wage per month (8) [(8)=(6)+(7)]</b>	<b>1,564,766</b>	<b>554</b>

<b>PART III: CASH LIVING WAGE NEEDED EACH MONTH CONSIDERING VALUE OF TRANSPORT SUBSIDY, AGUINALDO, AND CESANTÍA</b>		
Transportation subsidy (9A) <sup>f</sup>	88,211	31
<i>Aguinaldo/prima</i> (9B) <sup>g</sup>	105,468	37
<i>Cesantía</i> (9C) <sup>h</sup>	105,468	37
<b>Monthly cash salary needed assuming <i>cesantía</i> is <u>not</u> received every year (10) [10=(8)-(9A)-(9B)]</b>	<b>1,371,088</b>	<b>485</b>
<b>Monthly cash salary needed assuming <i>cesantía</i> is received every year (10) [10=(8)-(9A)-(9B)-(9C)]</b>	<b>1,265,619</b>	<b>448</b>

Notes: <sup>a</sup> The exchange rate used for May 2018 was COP 2,824 = 1 USD.

<sup>b</sup> Reference family size is two adults and two children.

<sup>c</sup> Based on an estimated NFNH/food ratio of 1.60.

<sup>d</sup> Contributions are paid on the salary, but not on transportation subsidy, *aguinaldo/prima* and *cesantía*.

<sup>e</sup> The living wage is so low that it is exempted from income tax. Only monthly incomes in excess of COP 3,868,200 pay income tax.

<sup>f</sup> Employers either have to provide free transportation for workers, or pay them a subsidy, which for 2018 was fixed at COP 88,211 per month.

<sup>g</sup> The *aguinaldo/prima* is a standard bonus which amounts to an extra month's payment per year. It is split in two and paid in June and December.

<sup>h</sup> *Cesantía* is a standard benefit which is supposed to be accumulated over time and be paid when workers are laid off or have a contract for less than 1 year. Workers with an indefinite contract do not receive *cesantía* directly and by law can cash in this *cesantía* payment only if they use it for either tertiary education, purchasing a home, or home improvement.

Source: Authors' calculations.

Finally, Table 15 lists the key assumptions used for the calculation of the living wage for banana workers in Colombia.

Table 15: Key values and assumptions used for calculating the living wage for banana workers in Colombia

<b>Key values and assumptions</b>	
Exchange rate of local currency to US\$	2,824
Number of full-time workers per couple	1.61
Number of full-time workdays per month	22
Number of hours work in normal week	48
Reference family size	4
Number of children in reference family	2
Preliminary NFNH to Food ratio	1.60

Source: Values derived in previous sections of this report.

## SECTION IV. ESTIMATING GAPS BETWEEN LIVING WAGE AND PREVAILING WAGES

### 15. PREVAILING WAGES FOR BANANA WORKERS IN COLOMBIA

One important reason for estimating a living wage is to determine if workers receive a living wage and if employers pay a living wage. In this section we will compare the estimated living wage with the prevailing wages in the banana industry in Colombia.

Most banana workers are covered by the collective bargaining agreement between SINTRAINAGRO and AUGURA, which is explained in the following sub-section.

#### ***15.1 The collective bargaining agreement for banana workers***

Banana workers are paid according to a very complex system of payments per unit of production, rather than per month, week, or day. Some tasks, mostly maintenance work in the field, are paid based on individual productivity, whereas work related to the harvesting and packaging of bananas is paid based on group productivity. This payment system has been developed and refined in order to secure the best incentives for workers to be efficient and do work of high quality. This is important, because bananas for export have to be practically flawless, which requires utmost care from everybody handling them. If one worker is careless at some point in the chain, all workers in the chain will suffer, as bananas with even tiny bruises will be rejected, and workers will be paid less, as these bananas will be sold in the national market at much lower prices.

Basically, each day a banana farm has to produce a certain number of boxes for export, according to the agreement(s) with their buyer(s). Thus, at the beginning of each work day (6 am), workers will know how many units they have to produce that day and what they will be paid for that work. What is flexible is the amount of time it takes to get the job done. Some days, they work more than 10 hours, while other days they finish early. They aim for an average of 48 hours per week<sup>28</sup>.

Workers often rotate and do a variety of tasks, so that the work doesn't become too monotonous. Each task has different advantages and disadvantages. When working in the field, workers are exposed to scorching sun or rain, but there is more room for breaks and the work tends to be finished in the early afternoon. When working in the packaging plant, workers are protected from sun and rain, but the work is more stressful (group pressure to get the work done as quickly as possible) and may continue into the evening hours for particularly large

---

<sup>28</sup> At one of the biggest farms we visited, they had recently implemented a fingerprint system to track working hours. The average number of hours worked the week before our visit was 57 hours, which is more than normal, because they had to work a Saturday to compensate for a holiday Monday the following week. For working on Saturdays, they received 25% extra pay. The average number of hours worked per day turned out to be 8.5.

shipments, or if there are unusually few workers around for some reason<sup>29</sup>.

In addition, different tasks imply different payments. Some require more experience and skill, such as *parcelero*, whose job it is to optimize and maintain the drainage canal system. As shown in Table 16, a *parcelero* earns more than twice as much as a *fitosaneador*, who is in charge of removing weeds. Working at the packaging plant (*empacador*) pays about the average wage of all workers.

*Table 16: Daily wages for different banana work tasks (COP/day)*

Aplic. Químico (chemical application)	24,141
Fitosaneador (weed removal)	26,559
Guadaña (removal of dead leaves)	28,157
Corte (harvesting)	32,218
Fertilización (fertilization)	33,452
Empacador (packaging)	37,245
Motorista (driver)	44,029
Deshijador (removing baby banana plants)	46,085
Regador (irrigation)	48,136
Parcelero (canal maintenance)	66,342

*Source:* Averages kindly provided by a big employer in the Santa Marta region.

Workers are paid every 14 days, and the pay slips specify earnings for each day worked, and for the different tasks carried out each day. They also receive a payment for Sundays, which is an average of the payment for each day worked that week.

Workers are guaranteed the minimum wage every day (COP 26,041.40) even if for some reason there is not enough work or they are not productive enough to earn that wage some days.

While incomes vary from day to day and from person to person, SINTRAINAGRO has calculated that on average their members earn 1.8 times the minimum wage, and they claim that that mark-up has been more or less constant for more than 20 years. A room full of union representatives from different banana producers in the Urabá region we met in May 2018 confirmed that according to their calculations the average wage for their banana workers is indeed 1.8 times the minimum wage. This factor is important, as it allows us to estimate the average prevailing wage for banana workers covered by the collective bargaining agreement. This factor has been re-confirmed in the latest collective bargaining agreement of September 2019 (AUGURA, 2019).

For 2018, the minimum wage was fixed at COP 781,242 per month + one extra month of *aguinaldo/prima*, implying a monthly wage income of COP 846,346. In addition, workers are

<sup>29</sup> Sometimes the workers themselves request that fewer people are called in, so that they will each earn more.



entitled to a transport subsidy of COP 88,211 per month<sup>30</sup>. Thus, the monthly minimum wage income amounts to COP 934,557.

If we multiply the minimum wage of COP 846,346 by the factor of 1.8, and add the transport subsidy, we find that the average gross monthly income for banana workers covered by the collective bargaining agreement is around COP 1,611,634 per month. (If they have access to their *cesantía* funds they receive COP 1,728,909 per month.)

Since our gross living wage was estimated at COP 1,564,766 per month, it means that, on average, workers covered by the collective bargaining agreement are receiving about 3% more than the estimated living wage (or about 11% more than the estimated living wage if *cesantía* funds are received every year). However, since there is substantial variation around this average, many workers still receive less than the living wage, as we show in section 15.4 below.

The finding that unionized workers, on average, are already receiving a living wage was confirmed by the labor union representatives that we talked with in Apartadó. They were convinced that banana workers in the Urabá region already earn a living wage and that working conditions are decent. Indeed, both AUGURA and SINTRAINAGRO expressed pride at how they have managed to negotiate conditions for the mutual benefits of the workers and the producers and the region at large.

Almost all banana workers in the Urabá region are covered by the collective bargaining agreement, while in Magdalena and Guajira the coverage is less than 50%. The workers in the latter two regions, who are not covered by the collective bargaining agreement, are believed to earn significantly less than the unionized workers. One large employer in the Magdalena/Guajira region calculated that workers producing conventional bananas earned on average 1.44 times the minimum wage, while organic banana workers earned on average 1.51 times the minimum wage. If this large farm is representative for the remaining farms in the Magdalena/Guajira region, then the average prevailing gross monthly income for conventional banana workers *not* covered by the collective bargaining agreement would be around COP 1,306,949 or COP 1,400,770 depending on whether *cesantía* is received every year (COP 846,346 or COP 911,499 \* 1.44 + COP 88,211), which is about 16% or 10% below the estimated living wage. Organic banana workers earn slightly more, and so probably around 13% or 6% below the estimated living wage depending on whether *cesantía* is accessed every year.

As to the independent small-scale producers in Magdalena, they themselves consider that they earn more than banana workers in the same region, and enjoy more flexibility, so they are probably also close to earning a living income.

Apart from the direct salaries, the collective bargaining agreement includes additional extra-

---

<sup>30</sup> <https://www.bluradio.com/nacion/salario-minimo-en-2018-sera-de-781242-y-subsidio-de-transporte-de-88211-164643>

legal benefits for the workers, including support in case of deaths in the family, support in case of pregnancy, and support for children's schooling. Since these are conditional benefits, we do not take them into account in the wage calculations, but they do provide additional protection for workers.

The conclusion that many banana workers in Colombia are close to earning a living wage is further supported by our visits to banana workers' homes, which all complied with minimum standards. Banana worker families could all afford a decent and varied diet with meat every day, live in a decent house or apartment, and send their children through secondary school and often even to university.

Workers on Fairtrade certified farms enjoy several additional benefits compared to the standard wage agreement, because each box of Fairtrade bananas sold pays a premium of USD 1.00 to that farm's workers' organization, and that adds up to quite a lot of money. The workers jointly decide what to do with the Fairtrade premium, but the typical priorities are: 1) rotatory fund for housing loans; 2) rotatory fund for household appliances or emergencies<sup>31</sup>; 3) education subsidies; 4) community projects. For the farms that have been the longest time with Fairtrade certification, the demand for the first three items had already been largely satisfied, and they had moved on to make considerable investments in the community, mostly in infrastructure for sports, culture or education.

---

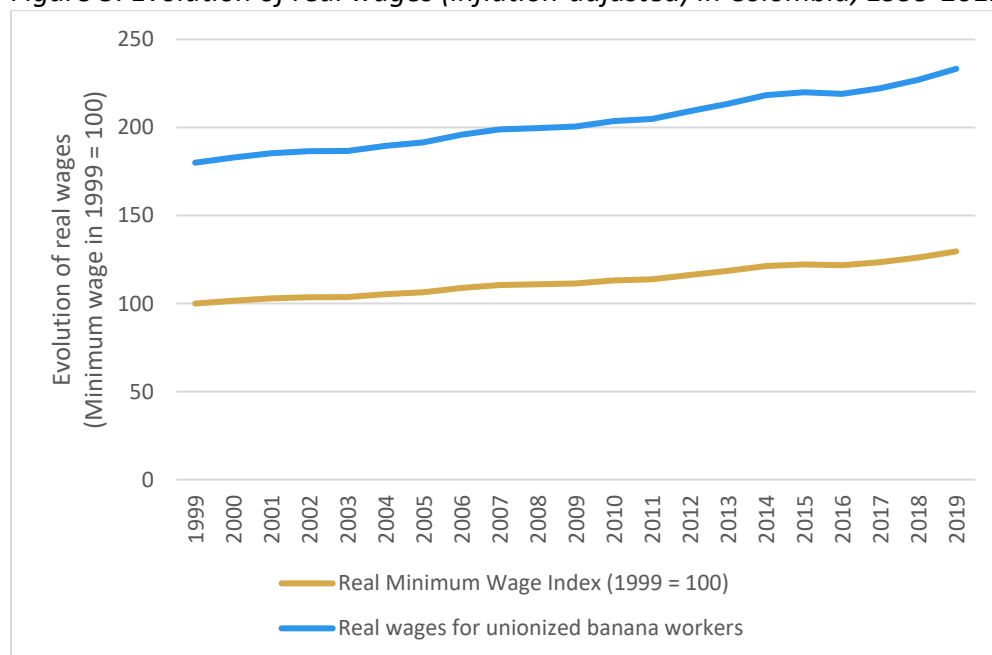
### **15.2 Recent wage trends**

According to the SINTRAINAGRO staff, unionized banana workers have earned approximately 80% more than the minimum wage during the last two decades, and we confirmed this percentage with several banana producers, and it has also recently been confirmed in a press release presenting the latest collective bargaining agreement reached in September of 2019 (AUGURA, 2019). Figure 3 plots the development of the real (inflation-adjusted) minimum wage over the last 20 years, and the estimated prevailing wage for banana workers covered by the collective wage agreement (averaging around 1.80 times the minimum wage). The inflation-adjusted minimum wage has increased slowly over the last 20 years (30% over 20 years), and it is believed that the same is true for the real wage of banana workers.

---

<sup>31</sup> The rotatory funds for emergencies help workers of Fairtrade certified farms avoid the necessity of resorting to the so-called "gota a gota" loan sharks, which is a common problem for low-income households.

Figure 3: Evolution of real wages (inflation-adjusted) in Colombia, 1999-2019



Source: Authors' elaboration based on minimum wages, assumption that wages of unionized banana workers are always 80% more than minimum wage, and inflation rates from the Central Bank of Colombia.

This slow, but steady, increase in the real salary of banana workers reflects a joint effort between the workers' union and producers' union to balance the desire for higher wages for workers with the need to maintain the international competitiveness of the banana producers, so that the banana jobs do not move to another country altogether.

### 15.3 Aguinaldo/prima and Cesantía

Apart from the regular monthly salary, workers in Colombia receive *aguinaldo/prima* (13<sup>th</sup> month payment) and *cesantía* (termination pay). Each of these correspond to one extra month of payment per year worked, but as they are not considered part of the monthly salary, they are not subject to income taxes or payroll deductions. Still, they help finance family expenses, especially the irregular ones, like clothing, home improvements, consumer durables, and emergencies. Workers working less than a year receive both *aguinaldo/prima* and *cesantía* on a pro-rated basis. For workers with an indefinite contract, which includes most banana workers, their employer pays into a separately run personal *cesantía* account every February, and these workers can withdraw by law from this personal *cesantía* fund to pay for home purchase or improvement or tertiary education, or when their employment ends. It is not clear how easy it is to withdraw from this fund for other reasons and while according to union representatives it is difficult, employers think it is easy.

*Aguinaldo/prima* is split in two cash payments, in June and December, whereas *cesantía* for workers with an indefinite contract is paid every February into a personal account with a

company that administer these funds (<https://www.cartagenaexplorer.com/cesantias-explanation-colombia/>). Workers with an indefinite contract either get this money paid out when they are laid off or leave employment, or when they request it to cover expenditures for either housing improvements or tertiary level education (whereas workers with a less than 1-year contract get their *cesantía* payment by the end of the contract on a prorated basis depending on the number of days worked). If workers with an indefinite contract leave the money in the *cesantía* account, it accrues interest at a minimum guaranteed rate of 2.83% per year, although actual rates have lately been about twice that rate<sup>32</sup>.

The *cesantía* payment is the item that caused the most debate in the various “validation meetings” of stakeholders carried out during the elaboration of this report. Employers insisted that *cesantía* should be considered part of pay, since it is paid into each worker’s *cesantía* account every February, as dictated by law, and employers believe that most workers access it each year. Labour union representatives, on the other hand, argued that *cesantía* should not be taken into account as part of annual remuneration for comparison to living wage, because there are restrictions in the law on how the *cesantía* money can be used, and according to union representatives only a minority of workers cash it in every year. Therefore, according to trade unions, *cesantía* should be considered a deferred benefit and not as part of remuneration when comparing prevailing banana sector wage to a living wage. In contrast according to employers, *cesantía* should be included in remuneration when making comparisons to a living wage, because they think that almost all banana workers are able to receive *cesantía* in pocket every year.<sup>33</sup>

Note that whether *cesantía* should or should not be included in remuneration for comparison to living wage does not affect the estimated gross living wage. Since there is a difference of opinion about whether *cesantía* is available in practice for ongoing regular family expenses for most banana workers, we report and use two prevailing wages—one prevailing wage which excludes *cesantía* (which is the view of trade unions and the law which says that the workers with an indefinite contract, that includes a majority of banana workers, can receive *cesantía* only if they use *cesantía* for home purchase or improvement or tertiary education) and a second prevailing wage that includes *cesantía* (which is the view of banana employers who say that banana workers actually access *cesantía* each year).

---

#### **15.4 Prevailing wages and wage ladder**

Figure 4 shows a wage ladder, which compares our estimated gross living wage for 2018 of COP 1,564,766 per month (column 5) with five other wage comparisons. The first is the gross wage that would be needed to keep our reference family of four persons with 1.61 full-time

---

<sup>32</sup> See <https://www.colfondos.com.co/dxp/personas/cesantias/cifras>.

<sup>33</sup> In the Anker methodology, prevailing wages used to estimate the gap to living wage should include payments and benefits available to workers within a year and so available for ongoing expenses. Deferred benefits beyond one year should not be included in prevailing wages, because they are not available for ongoing expenses. This means that whether *cesantía* should be included in remuneration when making comparisons to living wage depends on whether or not *cesantía* is received in pocket by most workers every year.

equivalent workers just at the World Bank's international poverty line for upper-middle-income countries (\$5.50 PPP) per person per day measured in purchasing power parity adjusted international dollars<sup>34</sup>. The second is the gross wage that would be needed for the same family to be at the national poverty line of COP 250,620 per month per person. This turns out to be COP 622,658 per month ( $4 \times 250,620 / 1.61$ ). The third is the gross minimum wage (including *aguinaldo/prima* and transportation subsidy, and with and without *cesantía*). The fourth is a rough estimation of the average wage for non-unionized banana workers in the Santa Marta region. And the final comparison is the average gross income believed to be earned by unionized banana workers in the Urabá region (including *aguinaldo/prima* and transportation subsidy, and with and without *cesantía*).

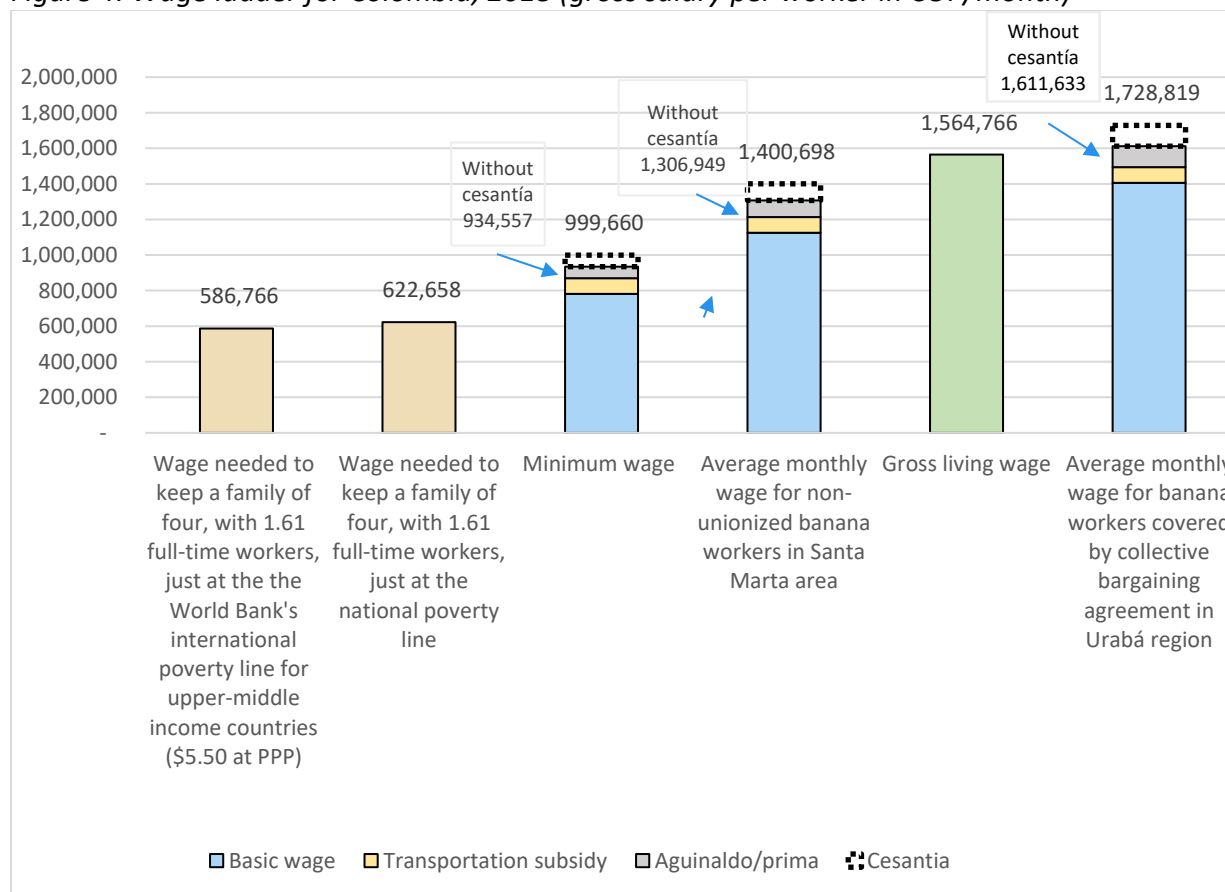
As can be seen, our living wage is much higher than the minimum wage as well as the World Bank poverty line wage and the national poverty line wage. It is around two times the minimum wage and around 2.5 times these two poverty line wages.

However, on average, banana workers in Colombia in 2018 belonging to a trade union are already earning slightly above our estimated living wage, while those not unionized are earning about 16% less than our living wage when *cesantía* payments are not considered and about 10% less when *cesantía* is received every year.

---

<sup>34</sup> The World Bank operates with different international poverty lines for different country income groups. For upper-middle-income countries, like Colombia, the international poverty line is set at \$5.50 PPP-adjusted international dollars (<http://blogs.worldbank.org/developmenttalk/richest-array-international-poverty-lines>). The World Bank also publishes private consumption PPP-conversion factors. The value for Colombia for 2018 is 1411.59. This is equivalent to a monthly poverty line for a family of four for 2018 of  $4 \times 30.42 \times 5.50 \times 1,411.59 = \text{COP } 944,692$ . This necessary income would be shared between 1.61 full-time equivalent workers, meaning that each full-time worker should earn COP 586,766 to keep the family just at the World Bank poverty line.

Figure 4: Wage ladder for Colombia, 2018 (gross salary per worker in COP/month)



Notes: Minimum wage and average wage of banana union workers as well as living wage include prorated monthly value of *aguinaldo/prima*, *cesantía* (with and without) and transport subsidy, which are required by law.

Source: Authors' elaboration based on calculations throughout this report.

However, there is considerable variation in wages from worker to worker, and from month to month, depending on both luck and skill. Thus, even if the average monthly wage is close to the living wage, a significant share of workers will still be earning less than the living wage.

In order to assess how large a share of workers would on average earn less than the living wage for a whole year, we obtained data on *cesantía* payments from February of 2019, which exactly correspond to the average monthly cash payment during all of 2018. *Cesantía* is an extra payment that is proportional to the number of days worked the previous year. The requested information was kindly and voluntarily provided by some of the banana producers that participated in workshops held in Rodadero and Apartadó in July 2019. This means that these data are not necessarily representative for all banana workers in the country, but they still give us a good idea about the distribution of wages.

We used only data for workers who had worked full-time during all of 2018, so that their *cesantía* payment corresponds exactly to their average monthly cash salary during the year

2018. Excluding administrative staff, this gave us a sample of 46 banana workers from the Urabá region, and 207 banana workers from the Santa Marta region. The average of observed wages in the sample was very close to the estimated living wage. Figure 5 shows that in the Urabá region 20% of the workers earned more than the living wage and 80% earned less than the living wage. 57% of workers earned within +/- 10% of the living wage, while 43% earned less than 90% of the living wage and 15% earned less than 75% of the living wage.

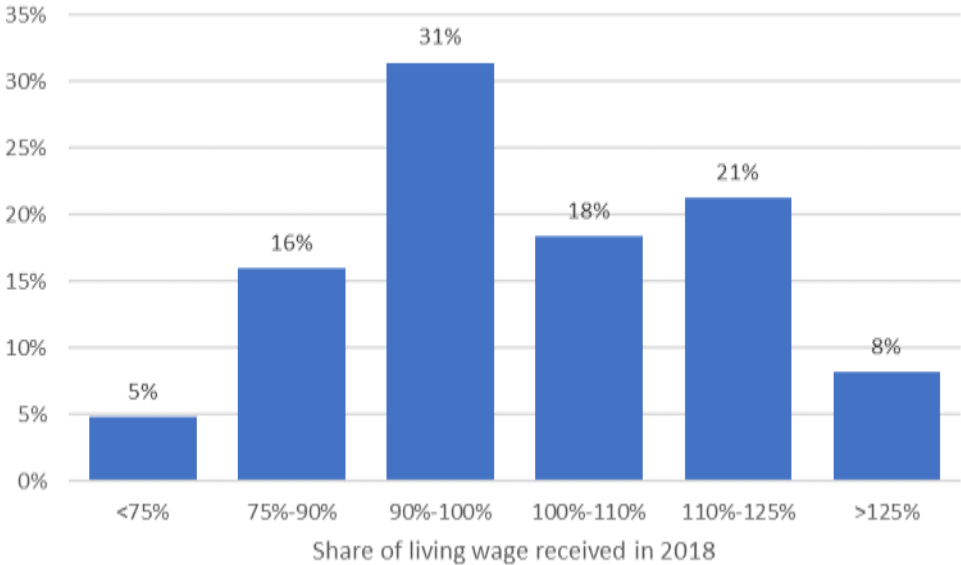
Figure 5: Example of wage distribution for a banana farm in the Urabá region



Source: Authors' elaboration based on *cesantía* payments from a sample of 46 banana workers from the Urabá region who worked full time during the year 2018.

Figure 6 shows a similar wage distribution for a sample of 207 full-time banana workers from the Santa Marta region. From the sample we received, which is not necessarily representative off all banana workers, 47% of workers received more than the living wage and 53% of workers received less. 49% received within +/- 10% of the living wage.

Figure 6: Example of wage distribution for a farm in the Santa Marta region



Source: Authors’ elaboration based on *cesantía* payments from a sample of 207 banana workers from the Santa Marta region who worked full time during the year 2018.

## 16. CONCLUSIONS

Our estimate for a gross living wage for banana workers in Colombia is **COP 1,564,766 (USD 554) per month**. This is the wage necessary for a typical family with 1.61 full-time equivalent workers and two adults and two children to pay for a nutritious diet, decent housing, health care, education, clothing and other essential expenses.

This value was calculated for May 2018, and covers the banana growing regions in the states of Magdalena, Guajira and Antioquia. Living costs and diets were sufficiently similar across the three states for one living wage estimate to be valid across the three states. A simple update of the living wage to January 2020 can be found in the Annex below.

For workers, it is the gross wage they need to receive to afford a decent standard of living. For independent small-holders, it is the net income they would need to earn to afford a decent standard of living, after having paid all farm operating costs, including non-family labor, irrigation, fumigation, fertilizers, materials, transportation, and the rental costs of land and production facilities.

Our living wage is much higher than the minimum wage as well as national and World Bank poverty line wages. Our living wage is around 2.0 times the minimum wage and 2.5 times these two poverty line wages.

In contrast, the average prevailing wage for banana workers covered by the collective wage



bargaining agreement between SINTRAINAGRO and AUGURA (believed to average about COP 1,611,633 per month excluding *cesantía*) is around 3% more than our living wage (and around 10% higher if *cesantía* is included which is the view of employers but not of trade unions or the strict interpretation of *cesantía* in the law). At the same time, we estimate that the average prevailing wage is around 16% less than our living wage for non-unionized banana workers. Almost all banana workers in Urabá, and almost half of banana workers in Magdalena and Guajira, are covered by this agreement. Thus, around 80% of banana workers are covered by the CBA. Considering that there is a distribution of wages of banana workers, we find, according to our calculations, that around half of banana workers in Colombia already earn a living wage although we find that this achievement applies more to Urabá than to Magdalena because of the much higher unionization rate in Urabá compared to Magdalena.

Apart from many unionized banana workers in Colombia already earning a living wage, they also enjoy high levels of job security. Since bananas are harvested every week of the year, the workload is pretty constant over the year, and almost all workers have indefinite contracts and make mandatory contributions to health and pension systems. Many of the workers we talked with had worked for the same banana farm for at least a decade, and this job-stability, combined with a salary that is close to a living wage, means that practically all banana worker families, at least in the Urabá region, by now have acquired decent housing, enjoy a nutritious and varied diet, have their children attend school and sometimes university, and have health care coverage.

The independent small-holder banana exporters we visited in the Santa Marta region considered that they were better off than banana workers, earning at least the same net income, with more flexibility. It is therefore possible that they are also close to earning a living income. However, we did not do the necessary investigation about their net incomes to establish the gap to a living income. It is quite likely that their impression of sufficient earnings required to support a decent standard of living for their family fails to take into account some production expenses, and especially the rental value of their land, since it has usually been inherited.<sup>35</sup> Almost all of the small-holders we visited were part of Fairtrade certified cooperatives, and this clearly made a big difference. They all wished they could sell all their bananas with the Fairtrade seal, and receive the Fairtrade premium, but there is not enough demand, so about half of the production is sold as conventional bananas, although the bananas are exactly the same, produced in the same way, by the same people.

We would like to end this report by highlighting the unusually constructive relationship we found between the banana workers' union (SINTRAINAGRO) and the banana producers' union (AUGURA) in the Urabá region of Colombia. Their joint achievements over the last couple of decades have been very impressive, as they have worked constructively together to improve conditions for the workers while maintaining the competitiveness necessary for the producers

---

<sup>35</sup> A typical small-holder would have a few hectares of bananas, worth about COP 50,000,000 per hectare, which means that the rental value of the land and production facilities could easily amount to COP 500,000 per month, which they would have to earn on top of the COP 2,315,509 needed to cover the living expenses of the family.

in an international commodities market. The results of their long term commitment to build a sustainable industry and a thriving region, shows that it is possible to achieve not only mutual benefits between the negotiating parties, but indeed positive spill-over effects on entire communities. The support of Fairtrade, both in securing higher sales prices and in organizing workers to help each other and their communities, has further strengthened this positive relationship between workers, producers and communities. Other regions, countries, sectors and institutions trying to reach a living wage could learn from the example of bananas in Urabá.

## ANNEX: UPDATE TO JANUARY 2020

Since more than a year has passed between the field work and the publication of this study, this Annex provides a simple update of the living wage estimate by adding the inflation observed in Colombia between May 2018 and January 2020, which, according to official statistics from DANE, amounted to 5.1% in total for the last 20 months.

Since the gross living wage for May 2018 was estimated at COP 1,564,766, due to moderate levels of inflation, **workers would need a gross living wage of COP 1,644,569 by January 2020** on the assumption that there is not much seasonality of inflation during the year. Similarly, family monthly living expenses for a basic but decent standard of living would increase from COP 2,315,509 to COP 2,433,600 in January 2020.

Due to another round of successful negotiations between AUGURA and SINTRAINAGRO, the latest collective bargaining agreement, published September 2019<sup>36</sup>, includes wage increases of 5.5%, which is more than the inflation rate, which means that the average gross wage for a unionized banana worker is still higher than the estimated living wage – although as shown in this report, perhaps one-half of unionized workers earn less than our estimated living wage.

---

<sup>36</sup> <http://www.rel-uita.org/banano/este-acuerdo-nos-beneficia-a-todos/>

## REFERENCES

- Anker, R. and Anker, M. (2017). *Living wages around the world: Manual for measurement*. Edward Elgar Publishing. Cheltenham and Northampton.
- Anker, R. (2011). *Estimating a living wage: A methodological review*. International Labour Office. Geneva.
- AUGURA (2019) “Empresarios bananeros y Sintrainagro firmaron nueva Convención Colectiva de Trabajo” Medellín, 12 September 2019.
- Bucheli, M. (2005) *Bananas and Business: The United Fruit Company in Colombia, 1899-2000*. New York and London: New York University Press.
- Colombia (2015) *Encuesta Nacional de Demografía y Salud*. Tomo 1. Componente Demográfico.
- Colombia (2014) “3er Censo Nacional Agropecuario: Hay campo para todos. Tomo 2: Resultados” Minagricultura & DANE.  
<https://www.dane.gov.co/files/images/foros/foro-de-entrega-de-resultados-y-cierre-3-censo-nacional-agropecuario/CNATomo2-Resultados.pdf>
- DANE (1987) “Magnitud de la pobreza en Colombia.” In: DANE, *Boletín de Estadística*, No. 439, pp. 165-350.
- DNP & DANE (2012) “Misión para el Empalme de las Series de Empleo, Pobreza y Desigualdad (Mesep): Pobreza monetaria en Colombia: Nueva metodología y cifras 2002-2010.” Departamento Nacional de Planeación (DNP) & Departamento Administrativo Nacional de Estadística (DANE). Bogotá.
- ENDS (2015) **Encuesta Nacional de Demografía y Salud**. Bogotá: Ministerio de Salud.
- FAO (2019) “Banana Statistical Compendium 2018.” Rome: Food and Agriculture Organization.  
<http://www.fao.org/3/ca5625en/CA5625EN.pdf>
- FAO (2017) “Banana market review: Preliminary results for 2017” Rome: Food and Agriculture Organization.  
[http://www.fao.org/fileadmin/templates/est/COMM\\_MARKETS\\_MONITORING/Bananas/Documents/Banana\\_Market\\_Review\\_December\\_2017\\_update.pdf](http://www.fao.org/fileadmin/templates/est/COMM_MARKETS_MONITORING/Bananas/Documents/Banana_Market_Review_December_2017_update.pdf)
- FAO & Colombia (2013) *Hoja de Balance de Alimentos Colombiana, 2013*. Organización de las Naciones Unidas para la Alimentación y la Agricultura y el Gobierno de Colombia.  
[https://www.icbf.gov.co/sites/default/files/files/HOJA\\_BALANCE\\_ALIMENTOS\\_2013.pdf](https://www.icbf.gov.co/sites/default/files/files/HOJA_BALANCE_ALIMENTOS_2013.pdf)
- Lopez-Calva, Luis F. and Ortiz-Juarez, Eduardo (2011). *A vulnerability approach to the definition of middle class*. World Bank working paper 5902.
- OECD (2016) **Education in Colombia**. Available here:  
<http://www.oecd.org/education/education-in-colombia-9789264250604-en.htm>
- Parras Rojas, L. (2012) *Entre la Reivindicación y la Concertación. Historia de la Violencia contra Sindicalistas Bananeros en Urabá*. Tesis de grado. Pontificia Universidad Javeriana,

Facultad de Ciencias Sociales, Departamento de Historia, Carrera de Historia, Agosto 2012.

Schofield, W. N. (1985). "Predicting basal metabolic rate, new standards and review of previous work". *Human Nutrition Clinical Nutrition*, 39, Suppl 1: 5–41.