

# WAGE STRUCTURE ANALYSIS IN THE BANANA INDUSTRY OF ECUADOR

## OBJECTIVE

The following study defines a methodology and statistical model analyzing the wage structure of operational tasks (cultivation and processing) in the banana plantations, taking the Ecuadorian market as a pilot. However, the below document does not claim to represent the Ecuadorian reality but only provides the results of the aforementioned methodologies based on a sample of conducted interviews.

## METHODOLOGY

The applied process, closely bound to the collected sample, consists of the following phases:



### Sample

In order to identify the different types of farms during the process of data collection, a classification developed in the doctoral thesis of Darío Cepeda PhD<sup>1</sup> was applied. It consists out of 8 different classes of farms, which were later, during the process of analysis, aggregated into two main groups (Type 1 & Type 2).

Type	Subtype	Limitating factor	Farm size (hectars)	"Fair trade"	Description
Type 1	A	Superficie	≤5	-	Small producers-peasants with production dedicated surfaces
	A2			Yes	
	B	Mano de obra para administración	6-10	-	Producers owners of small plantations
	B2			Yes	
Type 2	C	Capital	11-50	-	Producers owners of medium plantations
	D		≥51	-	Producers owners of big surfaces
	E		≥51	-	Producers owners present in big plantation surfaces
	F		≥51	-	Producers exporters with big surfaces or multi-properties

The following types of workers were included into the study:

- Formal workers of farms Type1
  - o Packaging and field workers contracted under the regulation of labor law
- Cuadrilla workers in farms Type1
  - o Temporal packaging workers, which mainly work one day a week for each farm they are hired by. The organization of their work is done by the head of the cuadrilla, who is the main contact to the farm managers and sub-contracts the actual workers. In none of the interviewed cases a formal working contract existed.
- Formal farm workers of farms Type2
- Formal packaging workers of farms Type2

<sup>1</sup> Cepeda Darío, Dynamique Et Performances Agro-Economiques Des Systemes De Production Bananiers En Equateur, l'Institut des Sciences et Industries du Vivant et de l'Environnement, Agro Paris Tech – Diciembre 2009

## Development and application of the questionnaires

Two types of questionnaires were developed, one for the workers and the other for the managers of the farms. The containing aspects are illustrated in the following graphic:



Manager

- General finca information
- Functions of the workers
- Provided benefits



Workers

- Demographics
- Labour situation (Temporal, unionization, etc.)
- Received benefits
- Spending priorities

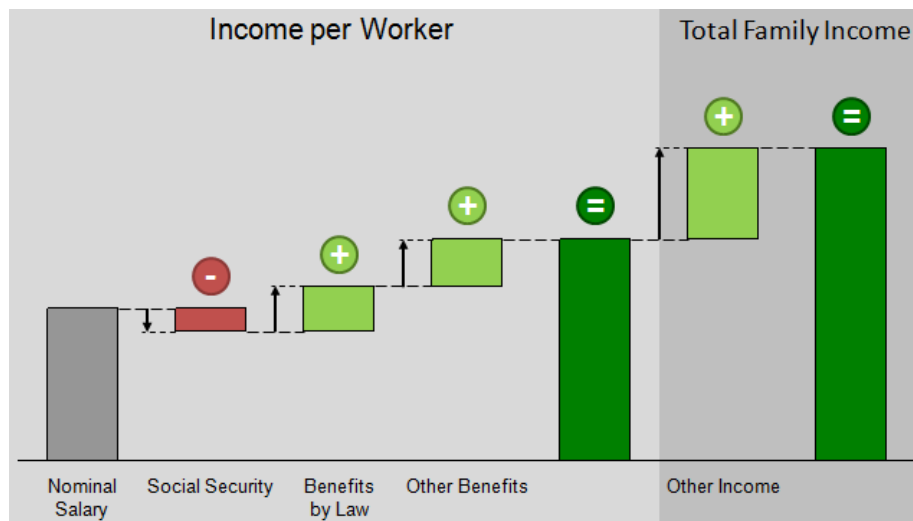
The information gathering was conducted by visits to farms in the provinces of Los Ríos, El Oro and Guayas. These visits were conducted either randomly or pre-agreed, latter with the support of members of the FMB such as DOLE, COMPEMBAL, AEBE and FENACLE.

Gender distribution of the workers in our sample: **15% women – 85% men**

Distribution by type of work: **39.0%** field workers **24.6%** of packaging workers **18.6%** of cuadrilla workers, **16.1%** of owners which are working in their own farms, and **1.7%** which did not specify their task.

## Statistical Analysis

At first, probability distributions and correlations were defined for each of the relevant variables of the obtained questionnaires. At second, those results were used in order to construct a simulation model for each of the different types of workers. As a result, the model provides a range of the possible family income, based on a 90% confidence interval. The basic formula is illustrated below:



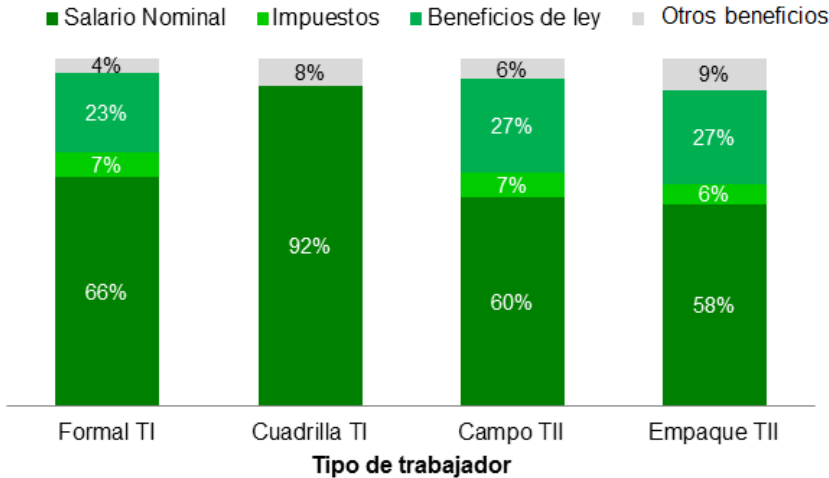
The simulated family income is then compared to the Basic Family Basket and the Vital Basic Basket in order to assess the purchasing power of the workers.

Furthermore, calculations were made in order to determine how the labour cost was structured.

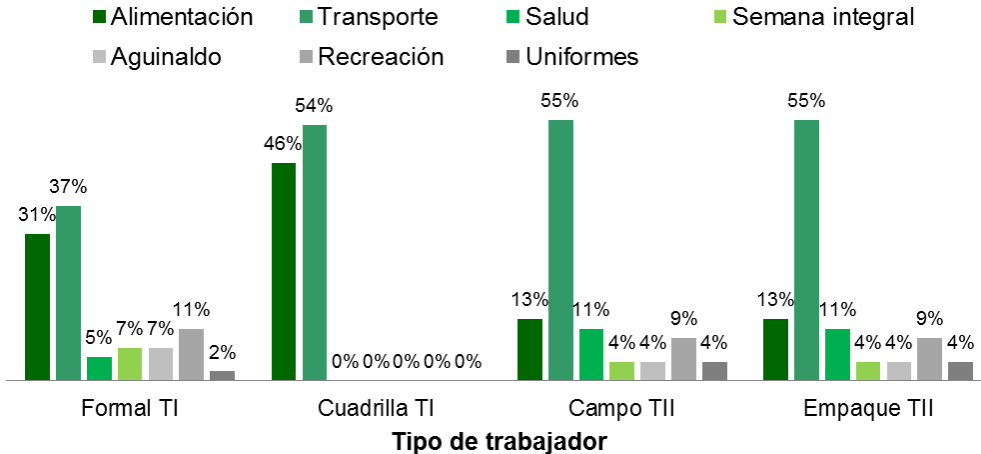
## FINDINGS

### Labor Cost

Labor costs do not only consist out of the salary itself but also have other dimensions as is shown in greater detail by the following diagram:



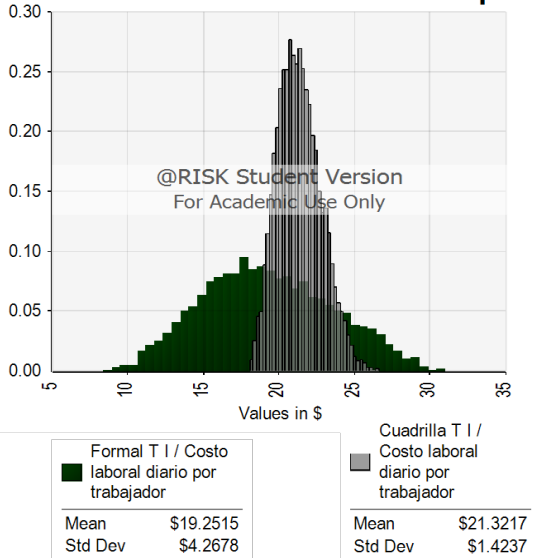
Inside which “other benefits” subdivide themselves in the following proportions:



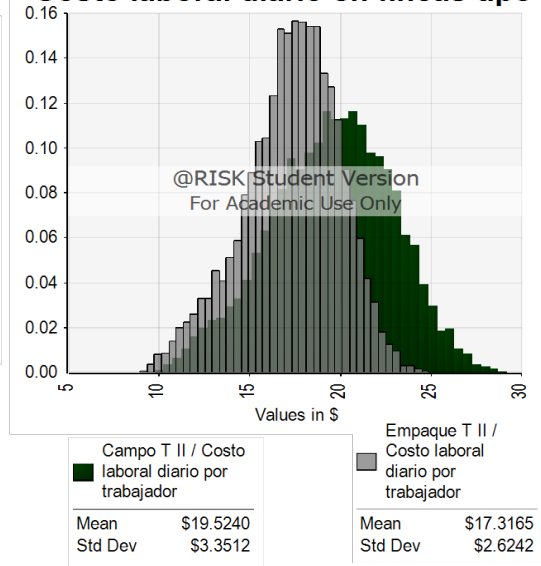
By law, each employee needs to be integrated into the social security system, generating costs for benefits by law and imposing taxes on the salary payments. However, due to the fact that the cuadrilla workers are not directly employed by the farm owners but only hired by the head of cuadrilla, managers don't have the obligation to pay anything but the daily salary. As an indirect result, this type of workers is mainly located in the informality.

The following graphs illustrate the simulated range of labor costs per day per type of workers imposed on the farm owners:

**Costo laboral diario en fincas tipo 1**



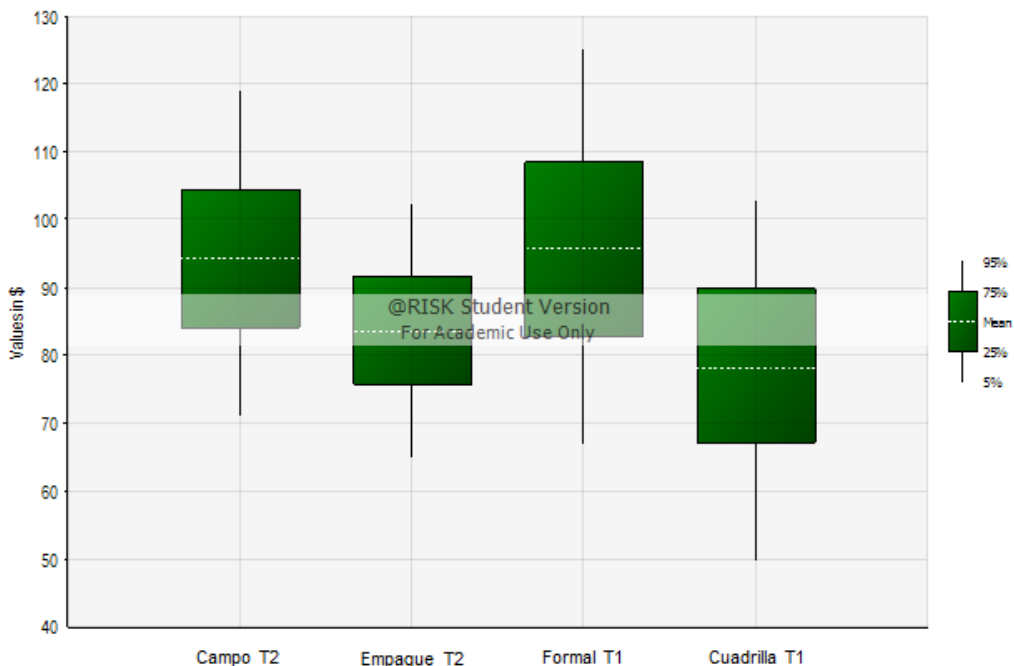
**Costo laboral diario en fincas tipo 2**



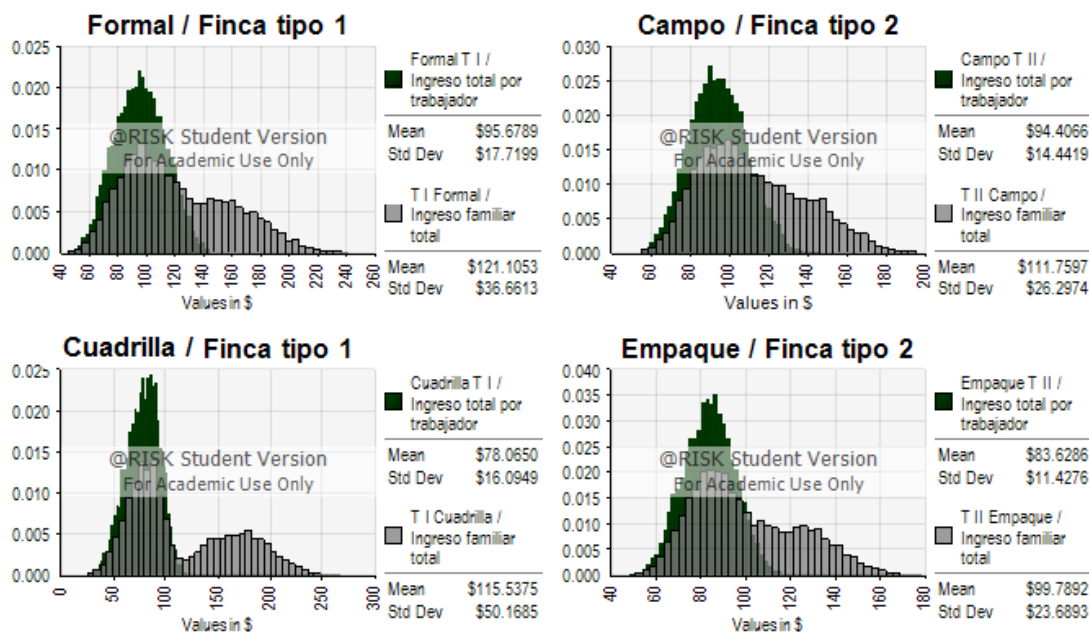
In case of the formal workers it is necessary to point out the actual salary is not representing the full amount of labor costs. In fact, the employees' income represents only 87% of the transferred cash, being the other 13% direct taxes paid by both employer and employee.

**Worker's income**

The income of a worker in the banana industry is highly dependent on its position. The minimum income of a formal worker (field Type1, field Type2, packaging Type2) is bigger than the cuadrilla workers who have a more exposed position to being unemployed due to lack of contracting in farms they serve in.



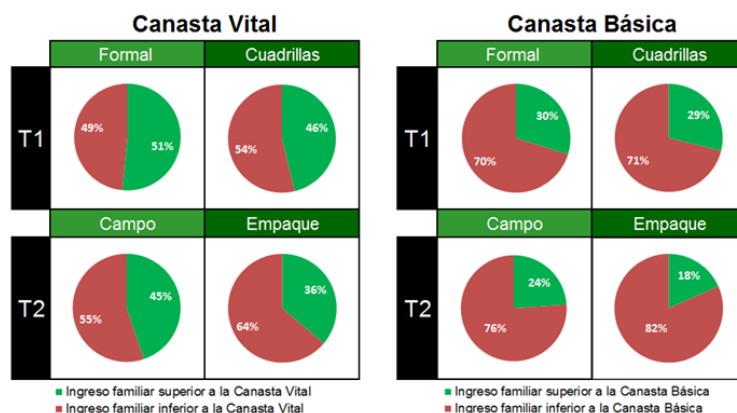
As described before, the income of a whole family does, in many cases, does not depend on one single income, but is increased by additional family earnings. Therefore, the additional income changes the overall distribution of income and increases inequalities in the industry as can be seen in the following graphs.



In the Type2 farms the additional income, parallel to the worker's primary job income, has got a higher share on the total family income than in farms Type1. In detail, the additional income accounts for 84% in families of employees of Type2 farms and 79% in the ones from Type1 (68% of participation in the case of cuadrilla workers). This indicates that in type 1 farms, whether due to a lesser income stability or the farms' size in this type, it is possible that other family members are employed in the same cuadrilla, or in their own farm, participating with a more equal amount to the family's income.

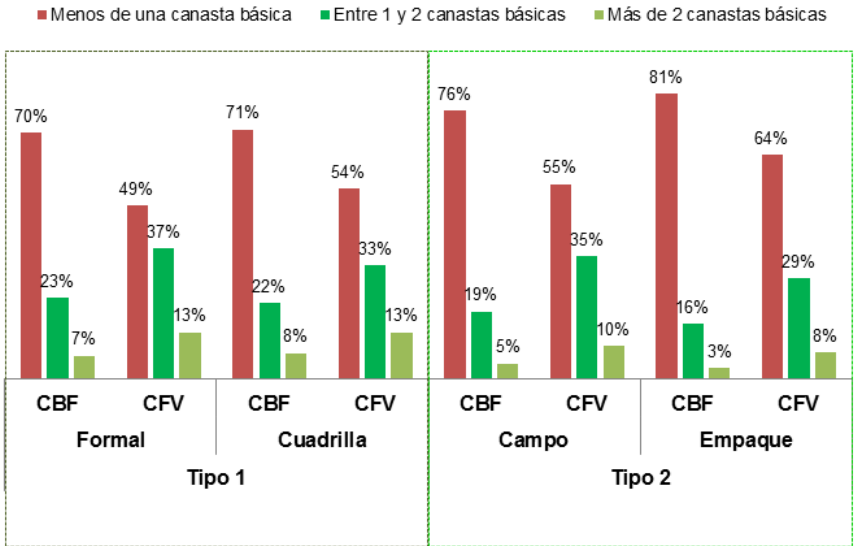
### Basic Family Basket

Comparing the governmental definition of a family basket, which is based on average prices, to the simulated average family size and income, reveals that on average only 25.25% of the workers can afford the Basic Family Basket and 44.5% the lower-standard Vital Basic Basket.



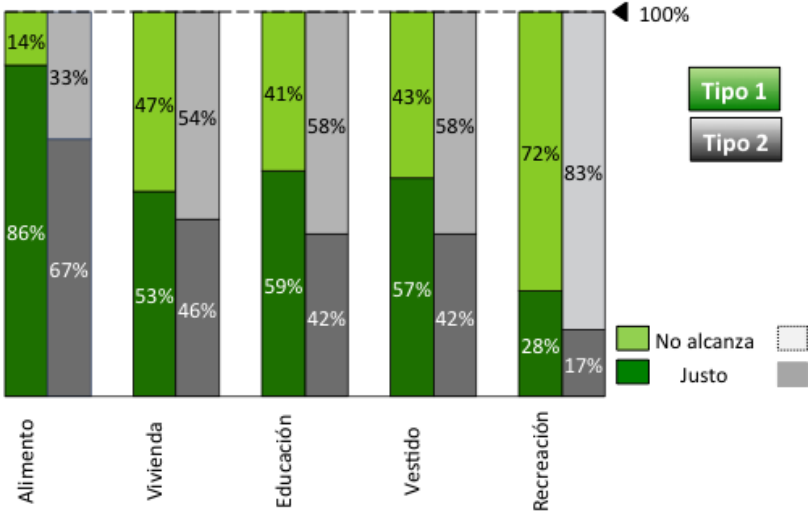
In case of farms Type1, the purchasing power per family is higher than in those of Type2 – for both types of family baskets. This is mainly due to the reason of the higher amount of additional family income for this kind of workers.

On average, only 10% of the workers are able to buy the equivalent of 2 or more Vital Basic Baskets. In the case of the packaging workers in farms Type2, which have the lowest purchasing power, it is important to mention that his group has as well the lowest additional income.



**Perception of the interviewed workers about their purchasing power**

The workers of each type of farm have different perceptions about their purchasing power in each of the assessed categories (food, accommodation, education, recreation). However, compared to the interviewees of Type2 the workers in Type1 perceive their purchasing power as higher in each of the categories. It has to be remembered that even though the salaries and benefits are lower for Type1 workers, their additional family income is on average higher, thereby increasing their liquidity. Additionally, satisfaction seems to be related to the ability to purchase the Basic Family Basket.





## CONCLUSIONS

Salaries showed a high variability, mainly due to cuadrilla workers, who are less likely to work up to five days a week due to a low demand for their services, or due to the possibility of having another remunerated activity.

Social-economical sustainability has the additional familiar income and the worker's salary as the major drivers, therefore, actions that help these two drivers will have major transcendence in closing the gap between income of the families of the banana workers and the family baskets.