

**Organization of Production and Working Conditions in the Global  
Agrifood Systems: the production of melon in the semiarid region of Rio Grande  
do Norte (Northeast/Brazil)**

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**ABSTRACT**

This article analyzes the forms of organization of production prevalent in Polo Açu-Mossoró, in the semiarid region of Rio Grande do Norte (Northeast / Brazil), as well as their labor conditions. The methodology includes the systematization and analysis of data primarily collected through field research, more precisely during visits and interviews with key people in July 2016, in the municipalities of Mossoró and Barauna, Rio Grande do Norte. Sixteen (16) people were interviewed - they were composed of companies (farms), rural workers' unions, cooperative producers (headquarters) and rural settlements (communities). The results confirmed that the analyzed region is generating job opportunities, including formal ones with regular contract, especially during harvest time, despite the decrease of the number of companies over time and recurring dry seasons in the region. With regard to decent working conditions, larger companies (farms) when compared to the rural settlements proved being able to provide occupational health and environmental conditions that are much closer to the recommended by the International Labour Organization (ILO) and the Fundamental rights at Work and other recommendations, as well as to the standards set by international certifications. However, with the intensification of work during the harvest period, illnesses resulting from contact with pesticides and the use of certain equipment start to appear. Labor unions fail on carrying out and getting results from audits from the Ministry of Labor, while a number of employees claim having been effectively admitted by companies during collective bargaining (4% and 6% on average). This also illustrates a precarious condition for waged labor and a fragile relationship of union/company, albeit better than the horrific scenario existent in the early years of the activity in the region. All these factors questions the effectiveness of decent work in the melon production in the Polo Açu-Mossoró area.

**Key-words:** production organization forms. Working conditions. Semiarid region. Rio Grande do Norte. Brazil

**INTRODUCTION**

This paper aims at analyzing the prevailing forms of organization of production in the melon industry in the Açu-Mossoró area, in the semiarid region of Rio Grande do Norte (Northeast Brazil), as well as its labor conditions. This is a qualitative study and the methodology of systematization and analysis of the collected data was primarily done through field research, precisely during visits and interviews with key players

from July 5th to 7th, 2016, in the municipalities of Mossoró and Barauna, Rio Grande do Norte semi-arid. Companies (farms), rural workers' unions, cooperative producers (head office) and rural settlements (communities) were interviewed and/or visited during this period.

In this research, it was possible to speak directly to 16 persons, among private companies, cooperative farmers, trade unionists, setting rural farmers, distributed as follows: two (2) company representatives (one being Agrícola Famosa Ltda's Quality Assurance Manager and the other being an Agriculture Technician with TOP PLANT), four (4) representatives of producers cooperatives (three employees of the export department of the Cooperative of Fruit Producers of the Potiguar Basin (COOPYFRUTAS), and one director at Agroindustrial Development Cooperative Potiguar (COODAP)), four (4) representatives of Crop Workers' Unions (one being a director at the Union of Agricultural Workers of Mossoró, the president of Agriculture Workers' Union of Barauna and two union leaders; and six (6) rural workers from settlements.

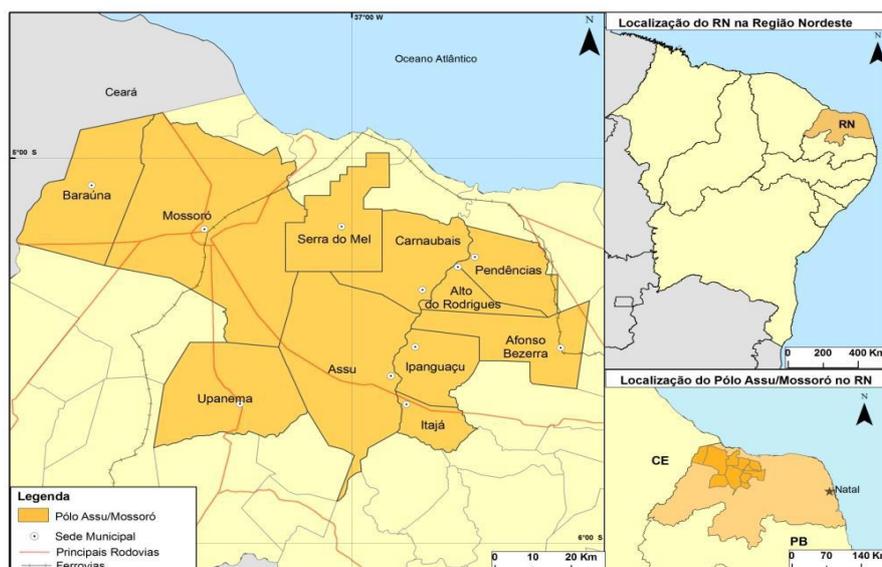
This paper contains two sections, besides this introduction. Section 1 addresses the location advantages of Polo Açú-Mossoró, the cycle of production/marketing, profile of producers and the ways of organizing production. In section 2, labor conditions in Mossoro-Baraúna, RN are highlighted based on the concepts of Fundamental Rights at Work established by the International Labour Organization (ILO) and its recommendations on the Environment, Health and Safety. It is also added the theme of Social Responsibility. Finally, the Final Considerations are presented.

## **1. Location, general features of the producers and the forms of organization of melon production in Polo Acu-Mossoró / Rio Grande do Norte**

### **1.1 Advantages of location, production/trade and main producers**

Melon production in Rio Grande do Norte (northeastern Brazil) is concentrated in its semi-arid region, more precisely in the area of the river valleys - Açú and Mossoro, especially in the cities of Mossoró and Baraúna. These areas compose the so called "Açú-Mossoró Hub of Integrated Development covering an area of 5930 km<sup>2</sup>, representing 10.1% of the total area of the State of Rio Grande do Norte, which is 58,800 km<sup>2</sup> large". (Hespanhol, 2015, p. 14).

**Figure 1 – Açú-Mossoró Hub of Integrated Development - 2015**



SOURCE: BANCO DO NORDESTE APUD HESPANHOL, 2015, p. 15

According to Oliveira, Apolinário and Silva (2014, p. 104), among the melon production advantages of being located in the region, is the proximity to the "main global distribution ports such as Rotterdam (Netherlands) and Dover (England)". Furthermore, the soil is suitable for production because "has optimum depth for the culture. This fact allows the achievement of the leaching process, enabling the liberation of soil nutrients that are important for the development of the plant, preventing the occurrence of desertification".

Also, complementing this list of advantages is the fact that the region receives "3500 hours of sunlight per year and 12 hours of photosynthesis/day, which means that the same type of melon that is produced in Europe, specifically in Spain, takes 120 days to be harvested and to complete its cycle, while in the Mossoró region it takes just 60 days." Another advantage is the export window of Rio Grande do Norte to the world, once "between September 15 and January 15 the world melon production can only be held in Mossoró and Baraúna because the other global producers are in their off-season". Even Africa has cold nights in this period, which affects the growth of the fruit. At last, in the region there is also an "arising cumulative learning from the people involved in the production, as most producers are agronomists who have access to universities, to do research and provide breakthroughs in product quality as well as overseeing costs and projections of the activity." (OLIVEIRA, APOLINÁRIO SILVA, 2014, p. 104)

Regarding the melon production process, the first step is to prepare the soil where generally tractors are operated for plowing and forming grooves to receive the mulching (plastic layer that covers the soil preventing the plant from contacting the soil and guaranteeing that the moisture will lower irrigation). It is also common to use agro-textiles blankets, which are intended to prevent the attack of pests and reduce the risk of breakage of plants by wind or rain. Then comes the process of "planting the seedling so that it can complete its life cycle, about 28 days to harvest." After the harvesting is done, which includes the steps of "paring, treating and carrying the fruit.", the next stage has the "melons sent to the Packing house, where the fruits roll on treadmills to be sorted, processed and packaged in cardboard boxes, where they are directed for cooling to be loaded into refrigerated containers." (OLIVEIRA, APOLINÁRIO SILVA, 2013, p. 18)

Melons for export go on in refrigerated trucks to the ports of Natal and/or Ceará, to normally head for the Port of Rotterdam in the Netherlands or to Dover in England. The melons intended for the domestic market are usually sent to São Paulo and Rio de Janeiro, through traders, for example, or regional/state market by Supply Center (CEASA) or Brazilian Food Company (COBAL).

As the main producers of melons for export in the municipalities of Mossoró and Baraúna in 2016, the presence of a large company stands out: Agrícola Famosa Ltda, the largest fruit exporter in Brazil. Also, with an important role in international trading, the COOPYFRUTAS cooperative emerges, that brings along five (5) producers. In addition, medium-sized individual producers also produce melon, as well as the COODAP cooperative, which in 2016 has 34 registered small producers; and some small and micro producers from settlements or that are independent. In 2016, the latter distribute their products in the national and regional/state market.

## 1.2 General features of producers and ways of organizing production

### 1.2.1 Agrícola Famosa

Agrícola Famosa Ltda was established in 1995, funded by national investment, and is the "largest producer of melons and watermelons in Brazil and one of the world's largest." (AGRÍCOLA FAMOSAWEBSITE, 2016).

The company has 16 farms located in Rio Grande do Norte (RN) and in the neighboring state of Ceará (CE), 20 packing houses and produces different kinds of melons (Galia, Italian Cantaloupe, American Cantaloupe, piel del sapo), papaya,

watermelon with and without seeds, mango, banana. Despite the diversity, 90% of the fruits produced are melons. The farms cover an area of 20,000 hectares in total. From the total land, around 8,000 to 10,000 hectares are for areas destined for crops. The company also has 60 groundwater wells that are from 80 to 150 meters deep, while three of them being 800 meters deep.

The company believes that it is "more advantageous" to export through the Port of Pecém, located in the state of Ceará, due to better logistics. According to the reports, they do not export by airplane because it is 150% more expensive. (FIELD RESEARCH, Jul / 2016)

Additionally, the company has about two thousand heads of cattle, predominantly used for food in the company's restaurants.

Regarding the organization of production, the firm uses strategic activities that add value to the processes. However, this occurs in a flexible manner. In the facility that was visited, there are other companies (corporations) that operate within the farm, resembling the wide existing modular consortium in manufacturing (e.g. automotive industry).

One example is that, within the company area, there are companies like TopBio, that has other legal status and produces insects for biological control.

By observing the demand for organic food in the North and Northeast regions, Agrícola Famosa - farming production of fruits and vegetables - made an initial investment of R\$ 7 million in the creation of the first bio-factory for biological control of the state: TopBio. [...] The company's goal is to use nature to their advantage for having pest control as an alternative to reduce the environmental impact of pesticides of chemical origin (O ESTADO DO CEARÁ, 2016, p. 1).

The company is an Agrícola Famosa branch, the country's largest exporter of fruit, with declared revenue of R\$ 598 million in the last year. Top Bio will create wasps and mites to be used against common pests in the region, especially whiteflies, the leaf miner and the caterpillar. According to the CEO of Agrícola Famosa and partner at Top Bio, Luiz Roberto Barcelos, the company's activities will start in 90 days, at first providing support only for the Agrícola Famosa Ltda. Only then, they will sell insects bred in captivity for the market. In the beginning, imported insects will be used. Mass breeding should follow. The investment declared for Top Bio is of about R\$ 2 million, and the technical team was brought from the state of São Paulo. Researchers are trained in the University of Sao Paulo (USP) and State University of Sao Paulo (Unesp). (PEOPLE ONLINE, 2016, p. 1)

Another branch of Agrícola Famosa is TopPlant Trade seedlings Ltd., which also operates within the visited farm. This company produces the seedlings for FAMOSA (e.g. melon, watermelon, tomatoes, etc.) and for other producers in the region. It is

noteworthy that until 2002 Agrícola Famosa planted melons directly, that is, without seedlings.

TopPlant Trade seedlings Ltd., established in March of 2002, is located in the municipality of Icapuí in the Ceará state. [...] The company now produces a monthly average of 15 million of seedlings of melons and seedless watermelons during regional crop and 3 million of papaya seedlings per year, plus a wide variety of seedlings of vegetables. They have clients such as Agrícola Famosa, Nolem, Del Monte, Potyfrutas, Itaueira, Mata Fresca Ltda and others. (SITE TOPPLANT, s / d, p. 1)

TopPlant and Agrícola Famosa "have a single owner, and ownership structure at TOPPLANT is of 50% owned by Agrícola Famosa and 50% by others." According to what was informed, this was due to the need for differentiation of profit, commercial invoices, and also because of the market demand. (FIELD RESEARCH, Jul / 2016).

It was also noted that there are other companies/registrations inside the Agrícola Famosa's area, such as Floriculture (being their main product the 'desert rose', as well as native plants like Jurema), TopPlant Hydroponics, among others.

Seedlings production steps in TopPlant are: Preparation and arrangement of the seedlings in the tray (seed planting in the tray), Seeding, Germination Chamber and Growth in Greenhouse. As reported, one (1) million seedlings are produced per day.

The preparation stage of the seedlings and the arranging in the trays happen in warehouses covered and ventilated, and the employee performs the activity bare foot. As informed, the gender ratio at this stage is of 70% women and 30% men. It was also highlighted that among the crop workers, only 10% are women, while in the industry (biological control and packaging), about 40% are women. Hence, there is a much more significant number of women than what was anticipated by the research team. The seeding stage consists of mixing several components using machines. Men and women operate the machinery and materials at this stage. About eight (8) people were seen in this activity. In Germination chamber, the temperature is at 30 degrees Celsius on average, and the humidity is 95%. Only men were seen at this stage, one or two.

The growth stage occurs in metallic greenhouses, covered with plastic/transparent grille that allow lots of light, but that inside, there is a sense of relative freshness. The greenhouse irrigation is done by sprinklers. The seedlings stay in there for about 8 days and are irrigated twice daily. Before entering the greenhouses, footwear (sole) are sanitized, including the visitors'.

Regarding the layout of the farm, it was recorded that, in relation to spatial layout, the distance between the entrance and the other activities concentrations ranges from one to three kilometers. Furthermore, it is observed that there is a combination of several activities, separated according to their specialties, i.e. a mixed grouping of labor concepts of Taylorism and Fordism theories, and flexible specialization in Toyotism, namely the administrative office / central dining hall, warehouse / maintenance shop, packing house (processing unit), planting, dining hall / accommodation.

Regarding the processing, significant differences were not observed between the packing of papaya and melon, except that the papaya go through a large number of washouts, and that the melon and the machines of the melon look bigger and taller. In the packing house that was visited (papaya), strict hygiene protocols precede access: the shoes are sanitized; glasses, jewelry, earrings, rings, etc., are necessarily removed and caps and gowns are available.

In the packing house, the machines and phases are: Monoblock wagon, Receiving, Dry chlorine brushing, 'packaging' by classification. At this stage, about 25-30 workers, equally distributed between men and women, work in the first shed. The place has different kinds of machines and processes. In the environment we hear noise and many chemical odors can be felt, but the ventilation and lighting are satisfactory, despite the region's warm weather and the time of visit (near noon). The workers wear uniforms and Personal Protection Equipment (PPE) such as masks, boots, ear plugs, gloves, among others.

Next to the processing phase, but within the same building, several pallets are disposed with hundreds of boxes with fruit in them. On the stacked boxes there are tags showing their destination (e.g. DULCINEA - California; TOTALPRODUCE - Netherlands). As they said, the company sends about 200-300 containers to Europe. The melon brands that do not go for export are Melicia and TopBrasil.

As for the origin of the boxes, they come from Italy, Spain, Argentina and Brazil (Klabin company, located in Bahia and Ceará) and come with specifications provided by the importer, such as storage time, humidity, glues and own packaging stickers for food. Most machines come from Spain and the pallets are produced in FAMOSA Ltda., with reforested wood from the state of Paraná (Southern Brazil).

Next to this area is the cooling stage where many other boxes are already stacked up by country of destination. In each batch/column of stacked boxes, by country and brand, it is showed the total number of boxes, weeks, weight, type and a tracking code

for identification by digit order, week, day, farm (01-16), farming area and court. Refrigeration lots are transported by refrigerator trucks to the Port of Pecém in the state of Ceará. The company said they have about fifty (50) refrigerated trucks.

### 1.2.2 Cooperative of Fruit producers of the Potiguar Basin (COOPYFRUTAS)

The COOPYFRUTAS was formed in 2005. Originally the founders of the cooperative were engineers and technicians from Mossoro Agroindustrial S/A (MAISA). After the company's closure in 2002, they began to acquire land in the region, forming later the cooperative seeking to stimulate the competitiveness of the partners in the international fruit market.

The framework of the Cooperative holds "five independent farms, four of which are managed by their respective owners [...] and the other one belongs to all producers. Hence, a total of five Packing Houses, two cold rooms and a meteorological station "(SITE COOPYFRUTAS, 2016, p. 1). Besides the melon and watermelon for export, producers also produce papaya, cashew, banana, coconut, tomato, sapoti.

The farms that comprise the cooperative are of different Legal Entities and each producer has its own brand. This happens because the export through cooperatives is more taxed and less encouraged than small and medium individual production. At the beginning, the cooperative members thought it would not have success, but they still decided to keep it working. It was noted that the producers normally gather to make decisions about everything by mutual agreement.

The annual production in the Coopyfrutas area of 1,500 hectares involves about 1,400 workers. The storage capacity of the cold chambers is of approximately 300 pallets. The cooperative has another area, not refrigerated, that holds more 300 pallets for hot varieties. "The Coopyfrutas has 47 wells in total, with an average flow of about 1200 m<sup>3</sup> / h." (COOPYFRUTAS WEBSITE, 2016, p. 1)

Partner farms accounted for the following percentages of export within the Cooperative: NORFRUIT - Fruit Nordeste Ltda 30%, DINA - Agrícola Industrial Dinamarca Ltda 25%, BJ - Agrícola Bom Jesus 15%, Agrícola Jardim 15%, Fruta Vida - Import and Production export Ltda 15%. (FIELD RESEARCH, Jul / 2016).

Of the total production, about 60% is destined for the international market and 40% is sold in the domestic market, more specifically in Rio de Janeiro and São Paulo via the sales agent in Brazil.

The farms produce and export to foreign markets (British, North Europe and Mediterranean) melons and watermelons, both regular and seedless.

The cooperative exports through the shipping companies Maersk and CMA CGM, via the ports of Pecém-CE, Mucuripe-CE and Natal-RN. (COOPYFRUTAS WEBSITE, 2016)

The managers argue that the negotiation for export nowadays happens only with a few importers because the number of buyers have significantly reduced over the years. They add that this also occurred in relation to the producers themselves, because Polo Açú-Mossoró in the early years had 30-40 producers, and today there are about 12 producers. They assert that the Dutch make up for 90% of importers and some supermarkets, such as the British chain TESCO, already buys directly from Polo companies, namely, Agrícola Famosa.

According to the Coopyfrutas cooperative, the advantage of having exclusive importers is that the producer receives 50% of the transaction amount in the receipt of BL (Bill of Lading) when the shipment leaves the port; and the remaining 50% after the ship's arrival at the destination country (which takes over 6 days).

Analyzing future perspectives, they do not intend to deal with the processed product intended for the export market (e.g. sliced melon for sales). In their view, slicing and selling in foreign markets could reduce the efficiency of COOPYFRUTAS, because that would require an extremely high level of abilities and control of regulations that applies to the processing industry in England, for example, that is extremely meticulous. There are phytosanitary and handling issues, compliance with laws, among others. Besides that, they do not just process melons, but also grape, kiwi, pineapple, etc. (FIELD RESEARCH, Jul / 2016).

However, it should be noted that by having an exclusive importer (and not a trading company that imports various products), it is more advantageous for negotiating and even agreeing on a different price for damaged goods. The cooperative accepts the deals due to the high failure percentage that importers report - usually from 5% to 6%, but registering 20% at a certain occasion. In this case, when it occurred, importers paid only 80% of the previously established price.

As for the geographical advantages of Polo Açú-Mossoró, the climatic conditions open up opportunities in the international market, as Brazil offer melon export from August to January, twenty-two (22) weeks, approximately. Exactly when the rest of the world does not have it. Throughout the rest of the year, Costa Rica and Honduras cover

10 weeks (from January to April) and from May to August the market is supplied by Spain, Morocco and Israel. (FIELD RESEARCH, Jul / 2016).

### 1.2.3 Agroindustrial Potiguar Development Cooperative (COODAP)

COODAP is situated at the far side of Mossoró (Pau Branco Community), and has melon as their main product since they were established in 2009. In that year, "with SEBRAE support, they obtained the certification for melon Fair Trade Foundation". (Hespanhol, 2015, p. 13).

For achieving such certification, several courses had to be attended, such as "associations, cooperatives, sales skills, good agricultural practices and logistics, among other topics" (RURAL GLOBO, 2012, p. 1). In addition, adjustments and obligations were assumed, such as:

[...] The exclusive use of pesticides allowed by Flo-Cert, reducing the application of pesticides and growing trees around the plantation to prevent leakage of product out from the application area. The conservation of 20% of the native forest inside of the property, referring to the natural reserve's law in its obligatory condition, as well combating the deforestation, hunting and inadequate waste disposal. Another basic requirement is that all the children of cooperative members attend school. (RURAL GLOBO, 2012, p. 1)

In 2009, the COODAP acquire the GLOBALGAP certification, and later the Integrated Fruit Production one, granted by the Federal government of Brazil.

However, according to the representative of the Cooperative, the problems that have been arising, such as the presence of the whitefly and other pests, have resulted in a decline of productivity and fruit quality for two consecutive years. The COODAP also addresses financial difficulties in order to renew the certifications that allow access to the international market, which are based on the annual cost of the audits or the cost to maintain the standards required for the certification. All these factors have made renewals unviable. So, the cooperative turned their activities to the regional market only, especially Recife, Fortaleza and Natal, through the CEASAs (supply public centers). In addition, the cooperative joined the National School Feeding Program (PNAE), offering fruit (watermelon, papaya, banana) and vegetables (pumpkin, sweet potato), among others, in Mossoró-RN. However, the melon is not required by the program, which has made some cooperative save their melon cultivation for sales. As of 2016, they have 34 members (cooperative) and 15 producers, effectively. (FIELD RESEARCH, Aug / 2016)

#### 1.2.4 Rural settlements in the area of the old MAISA

According to Nilson de Sá (2003), the origin of Mossoro Agroindustrial S/A (MAISA) is associated with motivation and pioneering from some entrepreneurs of Rio Grande do Norte for setting an alternative to face the significant decrease in the derivative economy of salt production, cotton and cattle ranching, previously the pillars of the Rio Grande do Norte state's economy. The initial idea was to develop a cashew crop; for this reason, one (1) million cashew trees were planted in the region. This crop would be intercropped with cattle ranching.

Thus, in 1968, MAISA settles in the Açu Valley and begins to work with various crops, although mainly cashew. They started operating on an area of about 20,000 hectares for the crops, which was later used in new operations in the processing of nuts, juices and pulps. However, the severe droughts of the 1970's and 1980's significantly damaged the cashew crops and livestock developed by the company, causing them to shift in the 1980's for the production of melon, using the "drip fertigation" technique, and reaching the foreign market already in 1983. Due to this expansion, MAISA opened "offices in London and Rotterdam." (Hespanhol, 2015, p. 10). The good results quickly attracted to the region various entrepreneurs coming from all over the country.

“In November 1982, we participated in the famous Paris SIAL, an international a food sector fair, using our booth for representing Brazil, which, sincerely, had the most beautiful products (melons) among the exhibitors. The melons of MAISA, the first from Chapada do Apodi, irrigated with water from the Potiguar basin, of an average depth of 700 meters. (NILSON DE SA, 2003, p. 218)

With the institution of the Real Plan in 1994, an appreciation of the Brazilian currency (the Real) started happening, thus changing the competitiveness of domestic products. On the other hand, there was now a demand for international certifications such as the EUREPGAP, established in 1997, which covered a wide range of issues such as quality control, environment, occupational health and safety. This resulted in the bankruptcy of MAISA in 2002. This fact affected several other companies during the 2000s (Hespanhol, 2015).

Nilson de Sá (2003, p. 216, 219 and 220) also adds that the severe drought that "devastated the Northeast for 5 consecutive years," starting from 1979, meant that nothing was produced until 1983, when MAISA was expected to have a production of ten thousand tons of cashew. He also states that the business stopped because of "extortionary interest rates" of economic plans, with export losses increasing, victims of

the devaluation of the dollar towards the real and complex relations with creditor banks. Additionally, he corroborates the argument stated by Mendes (2011, p. 1), referring to the MAISA, noting that "in 2001, they collapsed, sunk in debts that exceeded their own value."

With the bankruptcy of MAISA, their employees began to demand not only the outstanding labor rights, but also the implementation of agrarian reform projects. Thus, in 2003, the area that belonged to MAISA was converted in rural settlements, based on the argument of social use of land. Since then, the melon production at Polo is also marked by the presence of rural settlements.

The following text resulted from the visit made by the authors to the rural settlements located within the area that previously belonged to MAISA in Mossoró and in other communities in the municipality of Baraúna, in July 2016.

#### COMMUNITY 1 – Mossoró municipality

This 'COMMUNITY 1' is located by a federal freeway, has numerous houses, and is divided into blocks with streets, a school, restaurants, small commerce, all quite simple. It also has public illumination, but the streets are not paved. The houses are made of brick, covered with ceramic tiles and generally have a porch, and water tanks of 16,000 liters, built with the support of the Brazilian Program of Semi-Arid Articulation - ASA, among others.

Behind the houses, usually there are small livestock (of chickens, pigs, goats and even cattle). The crops are very near. In the plantation area, wells are dug and a water tank of approximately 2-4 thousand liters is placed around, for the most immediate needs. You can also see the existence of a separate room, also made of bricks and ceramic tiles, measuring approximately 5x4 meters, for storing work materials and for the workers to rest inside.

The agrarian reform settlers produce acerola, vegetables (lettuce, tomato, etc.), beans, cassava, watermelon, melon. One of the community representatives pointed out that at the beginning, there were 4 hectares for 25 families. Today, there are 11 hectares per family. There are also 2 hectares for collective usage (FIELD RESEARCH, Jul / 2016). The production decisions are made collectively. Among the topics discussed, they address the challenges related to the growing costs of production due to persistent droughts in the region and the lack of technical assistance.

The producers report that there are difficulties in production, such as digging wells that are 100-150 meters deep. Several other obstacles also come up, not only related to digging, but also to maintaining the wells (e.g. electricity bill). It was reported that, at the beginning, 10% of the area was destined for production, but with the dry production, its costs have increased too.

The settlers also resent the lack of support from organizations, as they have been producing without technical assistance for 8 years. They add that there used to be the support from the Landless Workers' Movement (MST) and from the National Institute of Colonization and Agrarian Reform (INCRA), but today, INCRA only helps with electricity bills. For all these reasons, 70% of the settlement's inhabitants work at the nearby fruit companies, and not on their own land (FIELD RESEARCH, Jul / 2016).

Other problems existent in the settlement, as reported by the producers, are similar to ones faced by other non-settler small farmers, such as insufficient credit. It was reported that PRONAF 'A' offers an amount of R\$ 27,500.00. However, just for covering the costs of digging the well, R\$ 22,000 is necessary, while R\$ 5,000 or 6,000 more are needed for materials, having nothing left at the end for other necessities, as financing the costs of production.

It was also noted that at the time of harvest the whole family, including women and children go to the field.

When trading, it was told that they sell acerola (4-5 crops per year), beans, sweet potatoes, passion fruit, both for Rio Grande do Norte and Ceará. Interestingly, it is the acerola, instead of the melon, that is considered by some people the more attractive culture. This is because, usually, a small farmer can only produce 1-2 hectares of melon, while large farmers plant on 200 hectares or more. Thus, competition in the melon market is tighter.

As for production costs, farmers say the total expenditure includes direct labor, extra manpower for the Mulching process, harvest, tractor rent, hoses that last 3 to 4 years if well maintained, mulching blanket that lasts 2 to 3 years, electricity (about R\$ 3,000.00), fertilizer and seeds. Summing up, it costs a total of R\$ 18,000 to R\$ 22,000 per hectare.

Finally, it was observed that, among the settlers, farmers produce and sell papaya for export exclusively through a single channel, the entity Union of Brazilian Producers of Papaya (UBPP). According to the producers, about 50% of the farmers sell

to this organization, which provides services in technical assistance, with agronomist and technical professionals helping out with the transportation.

#### COMMUNITY 2 - municipality of Baraúna

This 'COMMUNITY 2' is located outside of Baraúna, in an apparently drier and stonier area. That explains the existence of a large variety of cement and lime businesses located around the community. This industry, along with the fruit one, corresponds for the majority of the jobs available in the region.

In general, the organization of production is similar to that of the previous settlement, because it is also divided into lots. Some producers become more of entrepreneurs, seeking to diversify the production: pumpkin, potatoes, beans, bananas, corn, watermelon, papaya and raising bees, chicken, goat, sheep, fish.

However, the community also suffers from a lack of technical support, financing, training, projects for aiding a specific group (e.g. young people and women).

As for the settlement framework, attention is drawn by the number of houses made of clay in the surrounding area, giving the impression that agricultural workers are more vulnerable, at least in the aspect of housing and income earned. However, it was reported that these houses are now used only for supporting the production. The settlement, while seeming to have fewer houses than Community 1, has them remaining in the same pattern: made of brick, electrically powered, with a water tank right outside.

With regards to the challenges in production, producers mentioned various difficulties. For instance, even after digging 90-meter deep wells, no water can be found – in some cases, it goes up to 150 meters deep. Moreover, in this community, about 5 wells have been closed. For these reasons, some settlers say that only some public policies and actions make their survival possible, such as the assistance of the "carro pipa" (water truck), sent by the Baraúna City Hall, and retirement benefits as well as government aiding (school, bolsa familia, food, rent). As reported, many are retired and most of the settlers receive aid from the government.

#### 2. Working conditions in fruit production in Polo Açú-Mossoró / RN: emphasis on Fundamental Rights at Work, Environment, Occupational Health and Safety

The labor conditions here reported are analyzed under the approach of the 'Decent Work Agenda' preconized by the International Labour Organization (ILO) and their recommendations, precisely the Fundamental Rights at Work, Environment,

Health and Safety. The themes are the existence of the right to form an union and the freedom of the workers (Conventions 87 and 151); workers' right to collective bargaining (Conventions 98 and 135); work done under coercion and punishment (Conventions 29 and 105); child labor (Conventions 138 and 182); discrimination at the workplace related to gender, racial, religious and public opinion (Conventions 100 and 111); the adequacy of the internal and external environment, occupational health and safety of workers (Conventions 148, 155, 170 and 174). The variables and analytical approach are based on FAO/ILO (2013) and Apolinario (2013 and 2002). Issues related to social responsibility have also been introduced.

## FUNDAMENTAL RIGHTS AT WORK

### UNION FREEDOM, Collective Bargaining and other rights and/or benefits

#### Agrícola Famosa Ltda and Coopyfrutas

Agrícola Famosa and Coopyfrutas report that there is union freedom for the employees in their farms and that the Collective Bargaining Agreement (CCT) is respected. They also added that their relationships with the unions of the rural workers are good and that their companies respect the human being in its entirety. Both reported participating in the collective bargaining that takes place annually in September.

At Agrícola Famosa, working hours are from 07:00 a.m. to 11:00 a.m. and from 1:00 p.m. to 5:00 p.m., as said in the collective agreement of 2015. However, at the peak of production, the working day is extended until 7:00 p.m., with two extra hours/day, which are remunerated at a value 50% higher than the wage for regular working hours. According to the interviews, the company offers incentives for the top performers (e.g. the highest number of boxes, of pruning, of clean bathrooms). These incentives are paid in cash, and range from 20% to 30% more than the regular salary.

There is also participation in profit sharing (PS), but this program only reaches supervisors, technicians, assistants, foremen and managers. This participation can pay the employees three to five times more per season. When asked about why the PS does not reach other workers too, FAMOSA AGRÍCOLA replied that "It is under discussion". Regarding the compensation, it was informed that workers receive a salary plus hours *in itinere*s that can increase the monthly wage in an amount that goes up to R\$ 300.00

In respect to the benefits offered - included in the CCT or not - Agrícola Famosa stated that offers breakfast, lunch, afternoon snack, dinner and evening snack, with the last two given for the workers who sleep at the company. It was also said that during production peak season, the company has about 9,000 workers, for usually nine months of individual contract, and are served from 6 to 7 thousand meals per day.

### Workers' Unions

Regarding issues about freedom of unions and Collective Bargaining, union members usually stress on how different the current situation is in comparison with how it used to be. For this matter, they mention that in the early 1990's collective bargaining agreements were only possible at a few companies (e.g. Collective Agreement 1990-1991 - Mossoro Agroindustrial SA- MAISA, São João Farm, Farm Mossoro SA, Farm Paulicéia, Agrossol, Agricultura de Mossoró and Fazenda Santa Julia).

However, they claim that since the 2000's the Collective Bargaining Agreement (CCT) has been held covering all employed rural workers in fruit production, including eight (8) municipalities, specifically Açú, Apodi, Baraúna, Carnaubais, Ipanguaçu, Macau, Mossoro and Pureza and, consequently, all therein fruit companies. The Convention is held in September and the agreement is held up from September 1 to next year's September 1.

According to what was told, they generally happen for four days (four days of negotiations) with the representatives of the companies. During the negotiations, the trade unions have the support of the Brazilian Department of Statistics and Socioeconomic Studies (DIEESE), the Workers Federation of the Rio Grande do Norte State in Agriculture (FETARN) and, to some extent, of the National Confederation of Workers in Agriculture (CONTAG).

As for trade union freedom, according to the union members, now they can visit workplaces, respecting the provisions of the CCT. While this is, already, a major victory, it contrasts with the common threats and persecution that the union activities suffered in the beginning. Unionists pointed out that in the 1990's, if union members were seen within the old MAISA area, the police were immediately called. However, as stated in the 2015 collective agreement, they are now able to visit the workplaces, with the condition of reporting this intention to the company 48 hours in advance. It is noteworthy that this term was already included in the Collective Agreement 1990-1991.

It should be noted that in the Collective Agreement of 1990-1991, the 26th Clause, which deals with preventive measures against physical violence at the workplace, prohibiting company over-management, fiscal field and possession of firearm. The inclusion of this clause in the agreement is a demonstration that, at the time, labor relations appear to be quite tense.

Unions confirm many successes from their struggle over the years, such as transportation, dining hall TV, drinking water, brick accommodation and fuel aiding, having the signing of Working Papers from 30 to 90 days. However, although such victories are noticeable at Agrícola Famosa – the largest business, the Research Team still could not confirm whether this makes up the mainstream reality among other companies or not, even if considering only the larger ones.

As for payments, the union reports that according to the CCT 2015, fruit production workers should receive the wage of R\$ 892.00 plus R\$ 12.00. However, the organization draws attention to the fact that in the 1990s, the salary had an addition of 10%, not just R\$ 12.00. This change occurred because of the Plan Real (1994), with the argument that with the end of inflation, this percentage has been reduced to 6%, 5% of the salary, and today, it is the salary plus R\$ 12.00.

As for payday, according to union leaders, they vary according to where the company is located. Some companies make fortnightly payments (in the cities of Mossoró and Baraúna), while others make them monthly. Of these, 40% pays by the 20th of each month, and the remaining 60% by the 5th of the next month. Payment can be in the form of cash, credit bank account, check or magnetic card. It should be mentioned that the CCT in 2015 prohibits such payments from being made in form of discount on stores (such as grocery stores).

The union members reported that workers who live in the company often complain that the transport offered for them to visit their family, in the occasion of it being available, is very expensive. This statement suggests that in the month that such visits are made, considering the fee charged for transportation, the workers' final remuneration is very low. As an aggravating factor, it was told that some workers in melon production work for food or sleeping only. It is likely that the standard of living of their families - when there is a family, is much lower than the terms offered by companies like Agrícola Famosa.

Regarding the working week, it comprises 44 hours, and in most companies this is: from 07:00 a.m. to 11:00 a.m. and from 1:00 p.m. to 5:00 p.m., on Mondays through

Fridays, and from 07:00 a.m. to 11:00 a.m. on Saturdays. However, the CCT provides that this journey can be stretched up with one more hour (Mondays through Thursdays), in order to compensate for not working on Saturdays. This specific case happens in the municipality of Açú.

It is interesting to observe that, although in many respects labor relations are better today, the union says it is unknown what the audits by the Ministry of Labor and Employment (MTE) find in the companies. It was also added that before certification audits, some companies dispense unregistered workers. (FIELD RESEARCH, Jul / 2016)

The entity also resents not being able to follow the audits carried out by MTE, which was a right not only provided in the CCT in 2015, but also in the Collective Agreement 1990-1991 (19th Clause). According to the information, the entity previously followed audits, performed by labor inspectors, directly.

On the other hand, the union indicates that the number of claims directed to the companies in each collective bargaining is large, surpassing the number fifty. However, at the closing of the negotiation, only two or three demands are met.

Finally, in the 2015 Wage Campaign, which is the 26th edition, the demands were "wage increase, meal supply, working from Monday to Friday, profit sharing, bus for transportation and other rights." (FOLDER OF WAGE CAMPAIGN 26th, 2015).

#### Discrimination of any kind

Firstly, it is noteworthy that deeper issues in gender perspective will be addressed in another paper written by the same research team.

Agrícola Famosa Ltda and Coopyfrutas report that do not perform any kind of discrimination and point out that their processes do not incorporate women in the field activities (outdoors), although it includes them in indoor processes.

In rural settlements, settled women often take activities in the crop, besides the frequent homewifery tasks (wife, mother and homemaker). When in the field, they work in production (planting and harvesting). However, it should be observed that the same situation also probably occurs to employed women who work in melon production at the companies.

Still addressing the women of rural settlements, it was told that "at 5 a.m., there is no women at home, because they are already in the field, working. When they arrive home, they go on to make the food." (FIELD RESEARCH, Jul / 2016).

It is worth mentioning that besides the home activities and the ones related to the production, women play an important role in the Boards and at various forms of existing social organizations in rural settlements.

#### Child Labor and Forced Labor

Overall the research team did not find evidence of forced labor as provided by the ILO. As for child labor, some comments appear below.

#### *Agrícola Famosa Ltda*

The company said that there is no child labor or forced labor at their farms. However, while recognizing the non-existence of forced labor at the company, it can be said that there is hard work, because the agreed working hours at the CCT include the hottest time of day (1:00 p.m.). Besides, there is an increasing intensification of the working day, sometimes motivated by the incentive policy that the company has in order to achieve better results (compliance and exceeding targets). This is in the occasion of harvest peaks, when overtime is required almost on a daily basis, which, although pays beyond the normal time, lengthens the working day.

#### *Coopyfrutas*

The COOPYFRUTAS also reported that there is no child labor or forced labor at the farms from any of its five associated companies.

#### Rural settlements

The research team identified no evidence of forced labor in the settlements, as provided by the ILO. However, in a general manner, the working day in the settlements (production and harvesting) appears to be quite intense, and it can be said that the hours are much longer than the average hours of the companies. Point in case, a settled man explained he works from 05:00 a.m. to 07:00 p.m., from Sunday to Sunday, which adds 14 hours to the 44 that were officially established. (FIELD RESEARCH, Jul / 2016)

Therefore, even while subtracting the time of some essential breaks (e.g., hypothetically, about 3 hours for lunch, snacks, physiological needs and some rest), such a journey would be of 11 hours of daily work (14 hours - 3 hours = 11 hours) or 77 hours weekly ( $11 \times 7 = 77$ ).

However, while recognizing this long journey, we consider that the working world in the twenty-first century presents strong evidence of precariousness in human labor in general, whether in employed conditions or not, and this is not a prerogative of rural settlers. By saying this, it is meant that excessive responsibilities sustained by exhausting journeys can easily be found in the informal or formal urban areas, as it is increasing subcontracting activities carried out by smaller companies.

This statement from Sachs (2008), referring to small entrepreneurs, is emblematic.

Most of the smaller entrepreneurs require a low productivity at work, to seek competitiveness through arrangements known as spurious competitiveness factors: low wages, lack of social protection, long working hours, tax evasion, unhealthy working conditions. In other words, to face the rigors of social Darwinism in the market, they have no other solution than to dive into informality. (SACHS, 2008, p. 145)

In the case of child labor, some rural settlers reported that the whole family, including children, help in the activities in times of harvest. However, no one with whom the Research Team spoke with reported that their children under 16 years, even when the ones who help in the crops, are properly enrolled at regular education institutions. It is reminded here that the use of child labor, as well as the informal transmission of professional knowledge parents-children, occur in other micro and small urban and rural activities (e.g. assistance with household activities, and else). Still, during field visits, 10-12-year-old children (male) were seen helping their parents watering the crops.

### Workers Union

The unions report that there is no child labor in private enterprises (farms) and point out that children sometimes do some activities in the rural settlements.

As for the forced labor, the union members report that it does not occur in private companies. When asked about the intensification of work, aimed at achieving company goals, they informed that although the jobs are still very exhausting, the situation used to be much worse years ago.

On the other hand, the union members mentioned that in the production of mango in another municipality, which was outside of this research area (Rio do Fogo region), there was slavery work. Others reported that in other melon production regions, some workers disappear – what could be cases of murder.

## Environment, Health and Safety

### *Agrícola Famosa Ltda*

The company reports that at the peak of the harvest, they have about one (1) thousand workers who live in the company, and the vast majority are from the countryside of the Rio Grande do Norte state. When it is not peak season, about 500 workers live/spend the night at the company. The visited farm has one (1) dining hall for workers, of about 1,000 square meters, covered with ceramic tiles (clay), built with bricks. The dining hall has large tables, seats, TV and a comfortable temperature. The food served smelled and looked good, but some workers seemed to want to be served more portions.

The kitchen staff that makes and handles the food wear white uniforms and mobcaps, while the kitchen itself had typical industrial machinery. FAMOSA stressed that the kitchen visited by the Research Team was the oldest kitchen in their farms, and that the others ones are more modern, with better equipment.

The farm offers accommodation to shelter the workers who live in the company. The accommodations are located in the dining hall surrounding area, almost in the shape of 'U'. They are made of brick, covered with ceramic tiles, and have electricity and cement floor. The furniture is supported on the floor, measuring about 1 meter long and ½ high. There is a standard size entrance door and tiny and few windows for air circulation, placed about 2 meters above the ground. The building has several columns where dozens of hammock are placed for workers to sleep and/or rest. The appearance of a nest of hammock and people in such a hot and dark place left the impression of an unhealthy and depressing place, especially when taken into consideration the size of Agrícola Famosa. Some portable fans are arranged over the precarious existing furniture.

When the search team entered the accommodation, an old man was leaving and his conversation with the Quality Assurance Manager of FAMOSA was symbolic:

MANAGER: Excuse me, can I come in?!

WORKER: Make yourself comfortable Mr.. By the way, you are the owner!

MANAGER: Is everything okay with you, sir?

WORKER: Well, not really, because you know, when you're poor, it's never okay, isn't it?!

RESEARCH TEAM: When are you going to visit your family?

WORKER: Only after receiving the payment. Excuse me because I have to get to ... (work) (FIELD RESEARCH, Jul / 2016).

The company has a medical clinic, located next to the accommodation. It also has water troughs (walls that are about 2 meters high and 3 meters wide, with several taps that are 1 meter above the ground. The representative of the Federation of Agricultural Workers of Rio Grande do Norte (FETARN), which is an agronomist and also accompanied the research team on this visit, drank the water and said it was cold and clean, a major breakthrough, as he said. Behind these water troughs are the bathrooms. In this same area the company has a large water tank, with about 50,000 liters and at least a dozen thermal bottles for water, which are taken to the field. All of this is also considered an important development, especially when compared with the 1990's.

Regarding the transportation of workers, FAMOSA has 10 to 15 buses to transport the people who do not sleep at the farm. Part of the buses are outsourced, and the other are of their own fleet. Within the farm there are numerous speed bumps with speed limit warnings of 40km/h. According to the reports, this is to reduce the judder of the fruits in the transportation, and to not generate dust, because the roads are not paved.

In the field, workers have bathrooms made of brick, measuring 1.5 x 1.5 meter with a small water tank on top. According to the company, these bathrooms exist throughout the farms, and are distributed 500 meters apart. At the places it was not possible to build them, the company installed chemical toilets instead.

As for the performance of the Internal Accident Prevention Commission, it was informed that there are several programs aimed at reducing the number of accidents and increasing the use of PPE, among others. For the more severe cases (diarrhea, fever), the company has ambulances and/or private cars for transportation.

The main work accidents occur on the way to work - specifically those who go by bicycle and motorcycle - equipment handling, snake bites and bees. It was emphasized that the company was on their 6th day without having any accidents, and that the company's record was 139 days without accidents. It was not informed the nature of the latest accident. According to the company, hired personnel receive training for their activity. Moreover, technicians working in the handling of products have professional certification granted by the National Rural Education (Senar), the National Industrial Apprenticeship Service (SENAI) and/or were trained by the company.

## Coopyfrutas

Coopyfrutas reported that complies with all the national and international standards on environment, occupational health and safety.

## Rural settlements

Overall, the environment, occupational health and safety aspects appeared to be in precarious in the settlements visited, either by exhaustion resulted from long journeys, either because of the use of PPE. An aggravating factor is that the settlements do not go through the inspections and/or the audits of certification from the Ministry of Labor.

Some farmers reported that settlers had stopped working with melon or become ill due to the damage caused by the use of pesticides, equipment handling / tools or spinal injuries, because of poor body posture at work. These back problems are also common among the employees of the companies.

Regarding the public provision of health, it was reinforced that it exists, but it is insufficient and the quality is not good. Illustrating this fact, they mention that the only existing health center can answer to only 8 people a week, and only on Wednesdays and Thursdays. As a result, people have to get there at around 1:00 a.m. to try to secure a spot, making it difficult for many women. As for public education, the reports were that there is a school, but only for 5-year-olds and younger.

## Workers Union

Overall unions stress that the workplace environment today is much healthier than before. They say this referring to companies in general and, in particular, to Agrícola Famosa. Some unions leaders mentioned that before, the workers slept in hammocks under the trees because accommodation did not exist, and when there was, it did not have a floor. Moreover, originally the workers themselves bought their groceries and made the food inside of the housing. It was also mentioned that the manufacturing equipment had no protection, that some companies kept the pesticide stored improperly, and that the workers suffer from diseases by aerial spraying that ended up poisoning and killing workers (e.g. FRUNORTE). So, some diseases of workers came from the handling and inhalation of chemicals. At that time, the water they drank was not clean and was put in barrels, exposed to room temperature and all forms of contamination,

including the pesticides used in the production. Some conclude that today "FAMOSA is five stars... it's heaven." (FIELD RESEARCH, Jul / 2016)

Also in relation to housing, although the CCT 2015, Clause 39th, set the design for the installations to have an area of 4,5m<sup>2</sup>, including the space of "closets and the movement of personnel". The research team assumes that these norms did not prevail, because, despite not being the sleep time for the workers, they appeared to be much in a much higher number than the recommended, at least in Agrícola Famosa.

According to the union, some issues related to the environment, occupational health and safety, that made up many of the workers' complaints are now resolved, such as small housing, not paid rest, EPI insufficiency, late payment. The authorities add that the main complaints of workers are currently decreasing, by the company, the number of days set by certificates from the workers (e.g. from 10 to 3 days); the change, by the company, of Disease code (ICD); and the difficulty of workers to go to the doctor and be treated. The union adds that along with the MTE, a campaign in the settlements was held for the correct use of pesticides. (FIELD RESEARCH, Jul / 2016)

SOCIAL RESPONSIBILITY (companies, government and settlements)

***Agrícola Famosa Ltda***

The company points out that they have already obtained certifications that distinguish the Agrícola Famosa from others, highlighting the GLOBALGAP; Supply Chain Security (ISO 28000); Business Social Compliance Initiative (BSCI), SMETA, GLOBALGAP Risk Assessment on Social Practice (GRASP), which complements the GLOBALGAP certification; and, last but not least, the Sustainable Agriculture Network Certification (RAS - Rainforest Alliance Certified or RAINFOREST).

In the case of RAINFOREST certification specifically, the company pointed out that they are in the certification process and if they get well rated, they will be the first company in melon production in the world to achieve this certification. It was also said they are heavily audited: in 2014, they undergone 91 audits, including customers', auditors from the Ministry of Labor and Employment (MTE), Federation of Industries of Rio de Janeiro (FIRJAN AS), among others. In 2015, the number was even higher: 136 audits happened, as required by the internal or external market.

Regarding the topics about training and safe work, on the company website it is informed that each worker, on entering the company, is trained in health and safety procedures. It was also stated that the "future goal is to implement a school at the farm,

as most of the employees have insufficient learning." (AGRÍCOLA FAMOSA WEBSITE, 2016, p. 1)

The use of the greenhouse can also be understood as an item of social responsibility, as this provides greater uniformity to acreage and also reduces the use of pesticides. This is because during the 12 days when the plants are in the greenhouse, spraying does not occur. The use of thermal fabric on planting also reduces the appearance of pests and avoids the use of pesticides; the same occurring with the Mulch. (AGRÍCOLA FAMOSA WEBSITE, 2016, p. 1)

The company also has about 600 beehives in the farms. This procedure allows an increase in productivity due to greater presence of pollinators, bees. Moreover, the company intends to allocate 20% of its total area, about 1,200 hectares, to identify, record and preserve animal and plant species and plans to hold a recycling program of "materials used in production and packaging of fruit.". The company also aims at achieving "self-sufficiency in food for daily meals." (AGRÍCOLA FAMOSA WEBSITE, 2016, p. 1)

### ***Coopyfrutas***

The mission of the Cooperative is "to follow the principles of ethics and morality, export excellent quality products, according to the good agricultural practices, respecting the rules and the environment, and having dignity with its employees and loyal customer requirements, ensuring food security ". (SITE COOPYFRUTAS, 2016, p. 1)

On their website, it is also showed the information of participation in the Project Mesa Brazil, consisting of weekly donation of fruit, fostering employment in the region and the environmental aspect, recycling the waste generated from planting and shipment.

The company claims to be in accordance with Brazilian law of the environment and preserving "20% of the total area of native forest." It also claims to act in the "repopulation of wildlife," that all farms have "license for the exploitation of land and water in the region", and also working on the development of "biological control in partnership with the Federal University of the Semi-Arid (UFERSA) and the Brazilian enterprise for Agricultural Research (EMBRAPA). " (SITE COOPYFRUTAS, 2016, p. 1)

Although Coopyfrutas are proud to possess the GlobalGAP certification, and to pay wages plus 5%, and to have no child or forced labor, they admit that: i) most of the improvements were implemented by requirement of certification and/or international market, not by internal initiative of local producers; and ii) the procedures and practices adopted by larger companies, such as those that make up the cooperative, are hardly implemented by micro and small producers, which says that the environmental and working conditions then are lower. (FIELD RESEARCH, Jul / 2016)

### Rural settlements

Usually, they are communities seeking to diversify production (e.g. beans, cashew, among others) and this is important, because the broader diversification also reduces the incidence of pests. Regarding the use of pesticides, it was informed that it is applied once a week. However, it seems to be insufficient, and no training on aiming at the correct use of pesticides exists - the dosage per application, the use of PPE, packaging and disposal of the materials used. On the other hand, the settlements are also beneficiaries of programs that stimulate a socially responsible attitude. A good example is the Bolsa Verde program.

The Support Conservation Program Bolsa Verde, launched in September 2011, grants, each quarter, a benefit of R\$ 300 to families in extreme poverty living in priority areas for conservation. The benefit is granted for two years and may be renewed. As 47% of the 16.2 million people living in extreme poverty are in the rural areas, the proposal is to combine the increase in income of this population to the conservation of ecosystems and the sustainable use of natural resources. [...] It has the following objectives:

- 1) to encourage the conservation of ecosystems (maintenance and sustainable use)
- 2) to promote citizenship and improvement of living conditions,
- 3) to increase the income of the population in extreme poverty, exercising natural resource conservation activities in rural areas, and
- 4) to encourage the participation of beneficiaries in environmental training activities, social, technical and professional. (MINISTRY OF ENVIRONMENT, s / d, p. 1)

According to some settlers, this encourages farmers to preserve the environment, because it has the requirements, for example, for the non-raising of birds (caging of birds), the zeal for the community etc.

Regarding the social aspect, the settlements have activities involving specific groups, especially youth and women, which seek to reconcile demands, share experiences and establish solidarity and trust bonds. However, some settlers complain

that there are only a few projects for these groups, especially for young people, many of whom have no interest for studying.

An example of successful joint initiatives is the formation of a bank in a settlement visited, calling Gold Bank. In this project, a group of women lend each other a certain amount of money, at a 2% interest per month. The borrowed money is used to buy medicines or to fill other particular needs.

In relation to the Public Policy accessed by the settlers, the Bolsa Família Program and the Bolsa Verde Program were emphasized. It was also said that they should receive R\$ 450,000.00 from Sustainable RN Program for irrigation, a State Government Program financed by the World Bank.

### 3. FINAL REMARKS

Overall it is clear that Polo Açú-Mossoró/RN is a job opportunity generator, including for ones with formal contract, especially in the melon harvest times, despite the reduction in the number of companies over time and the droughts that prevail in the region.

As for rural settlements, the predominant reality is poverty, lack of technical, commercial, technological, infrastructural support, and management/training. Also, basic services such as health, education, transport, security suffer from deficiencies. Thus, it is believed that the sum of all these gaps greatly reduce the quality of life in the visited settlement areas. As a result of this depressed context, the conventional waged employment appears to be the best and safest way to inclusion in the region. Therefore, the vulnerability of the production and the life of the settlers seem to be caused by this gap in support and promotion, and by the obstacles existent in the community, rather than any inefficiency of the small production.

Despite these adversities, individual entrepreneurship of some settlers and the total family income from non-agricultural sources (pension, wage, public service, trade, etc.) allowed some producers to earn a level of material comfort. Albeit not the general rule, it certainly serves as an example and encouragement to others. This creates entirely new ways of cooperation in the establishment of confidence building, something only possible because of the coexistence of a daily life. A notable example is the Gold Bank.

Moreover, settlers noted with pride that some of their children were able to rise socially, as today they have a higher education (being agronomists, lawyers). On the other hand, it also demonstrates a certain collective learning and resulting of individual

power of decision on what to produce, how to produce, how much to produce (sometimes melon, papaya now, now acerola, sometimes breeding, among others).

With respect to decent working conditions, the research indicates that, in fact, larger companies (farms), when compared with rural settlements, can offer better health and occupational safety, as well as environmental and convergent with the recommendations by the ILO, as well as the standards set by international certifications. The same can be said about child labor and forced labor.

Moreover, with reference to the five main demands of Wage Campaign 2015, it is possible to conclude that what was observed by the Research Team at Agrícola Famosa Ltda may not be the general case in Polo, because this company already offered these demanded items in the 2015 campaign (Ex : food and transportation).

However, intensification of work was mentioned during the harvest, as well as serious illnesses resulted from the contact with pesticides and positions held in the activities; lack of a labor union presence on the results of audits from the Ministry of Labor; only a small number of workers' demands are effectively met by companies in the collective bargaining (2 or 3 of a total of 50 = 4% to 6%).

All these elements point to a precarious condition in melon production for the workers, although far from the manner that prevailed at the beginning of the activity in the region. Thus, it is concluded that the effectiveness is questionable in decent work in Polo Açú/Mossoró.

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