Agribusiness and environmental injustice: impacts on the health of rural women

On how the organization and sexual division of labor and job insecurity in single crop activities affect the health of female workers and how territorial transformations derived from this model of production directly affect women.

In recent decades, Latin American countries have been subjected to interventions resulting from development policies based on the intense exploitation of natural resources and the export of primary goods with low added value. This has strengthened sectors such as agribusiness and mining (SVAMPA, 2012). In Brazil, this has led to the advance of agricultural frontiers, resulting in **a series of environmental injustices and impacts on health,** given that the model of agribusiness production is characterized by the expansion of single crop plantations, the concentration of land, mechanization of the means of production, the proletarization of rural populations and by the intensive use of chemical fertilizers and agrotoxins (RIGOTTO, 2011).

In response to this situation, the Work, Environment and Health Center (TRAMAS Nucleus) of the Federal University of Ceará (UFC) Medical School has undertaken studies and research for over ten years on the **impacts on the environment and the health of populations in areas where agrotoxins are used**. The main focus of our research has been the Chapada do Apodi territory, which is located in the region of Baixo Jaguaribe in the State of Ceará in northeast Brazil. Since the 1980s, Chapada do Apodi has suffered the negative consequences of irrigation policies that have transformed it into one of the main areas of agricultural development in the semi-arid northeast region of the country, particularly following the establishment of the Jaguaribe-Apodi irrigated perimeter.

As early as 2010 the UFC Tramas Nucleus reported that the spread of agribusiness - and consequently of single crop plantations- had brought about violent processes of deterritorialization and disrupted the way of life and production of local communities. The results of the research highlighted **a serious picture of environmental and human contamination due to agrotoxins and the worsening of social problems** capable of affecting the environment, work and health of the population of that territory (RIGOTTO, 2011).

Understanding that the negative **consequences of the processes of environmental injustice fall disproportionately on the most vulnerable segments of populations and thus on women,** in 2013 the UFC Tramas Nucleus launched the *Study on exposure and impacts of agrotoxins on the health of rural women in the Baixo Jaguaribe Region, Ceará.* The research, which considered gender inequalities, focused on the ways in which the organization and gender division of labor and job insecurity in the agribusiness production chain have impacted the health of workers. The studies also provided analyses of the territorial transformations that this model of production has generated and the resulting changes to the social determinants of health that directly affect women.

Gender division of labor and job insecurity

Researchers have found that women's work is impacted by an **accentuated sexual division that**

relegates them to very specific jobs. In addition to unhealthy working conditions, work commonly set aside for women is fast-paced and involves a lot of movement in addition to a series of skills such as dexterity, focus and patience. As Marcondes et al. reminded us (2003), **by associating women with the sphere of reproductive work, these skills are seen as naturally feminine and, therefore, are not duly valued, although they are widely exploited by employers.** Women's qualifications are thus denigrated and do not engender improvements in wages; in fact, the opposite is true, as we observed that **women are paid less,** given that productivity bonuses are higher for men - at least double - although the increase in the production of male workers depends directly on the accelerated labor output of the women.

Another issue related to the gendered division of labor is the idea that the work undertaken by women should be lighter. However, further analysis showed that **the tasks performed by women are associated with other risks such as repetitive movements, intense work pace and incorrect postures.** Many workers suffer from WSI/WRMD (Repetitive Strain Injury and Work-related Osteomuscular Disturbances) due to unfavorable postures, repetitive efforts and the inability to move freely. However, complaints about these matters were being treated by companies as non-specific and women encounter significant resistance to changing tasks or even to receiving adequate medical attention (ROCHA and RIGOTTO, 2017).

One of the aggravating factors of the unhealthy conditions of the work performed by women is **exposure to unknown chemical products and agrotoxins,** which is characteristic of an agricultural model based on single crop plantations. The ABRASCO Dossier warns that among "the health impacts related to the agribusiness production process, the most relevant to human and environmental health are contamination and acute and chronic intoxication caused by the use of agrotoxins" (CARNEIRO *et al*., 2015, p. 109, *our translation*). We observed that the intensive and abusive use of agrotoxins, lack of information and inefficient product labeling make it difficult for workers and the general public to perceive risks. We verified that research participants did not know to which chemical products they were being exposed, although all of them complained about the smell of the products and said that, depending on the activity to which they were assigned, they could feel the effects on their bodies of exposure to the agrotoxins. They presented symptoms such as irritation in the throat, the eyes and respiratory systems. The research also identified a series of violations of rights committed by companies, such as subjecting workers to **strenuous workdays that exceeded that determined by present legislation; non-payment of overtime, in addition to being forced to carry it out; unhealthy work environments that expose women to the risk of accidents; habitual moral harassment; neglect in terms of the specific rights of pregnant or breastfeeding workers** (ROCHA and RIGOTTO, 2017).

Although the women reported that agribusiness offered the chance to take part in productive work, we observed that this participation was both precarious and subordinate, reproducing and accentuating the gender inequalities existing in society. **In addition, the double workday becomes even more intense, as women remain responsible for family chores and need to reconcile these with the long workdays imposed by companies.** The increase in the participation of women in the productive sphere does not reduce their participation in the reproductive sphere. On the contrary, the changes caused by the new uses of their time promote a perverse connection between productive and reproductive work that deepens inequality between men and women.

Reflecting on the health-sickness process of women living in a territory impacted by agribusiness requires an understanding of their participation in the world of productive work and the ways in which the productive sphere is articulated with the social reproduction of life. The research thus revealed that the **territorial changes imposed by single crop plantations have an impact not only on**

those that are employed by such companies, but all the women who live in that territory, who are also exposed to processes of vulnerability.

The changes reported by women in Chapada do Apodi as potentially harmful to their physical and mental health include loss of access to land; concentration of water rights in the hands of large companies, which has led to water shortages; the pollution of water and soil by agrotoxins; increased food insecurity; **the intense migratory flow of male workers caused by the seasonal nature of work in the companies, leading to an increase in cases of early pregnancies and sexual exploitation;** an increase in drug trafficking, possibly driven by the disorderly expansion of municipal districts; and an **increase in violence** (SILVA, RIGOTTO and ROCHA, 2015). These changes impact the social determinants of health and fall more heavily on women given that in a patriarchal society marked by gender inequalities, they are still the most responsible for the work of social reproduction and, therefore, for the healthcare not only of themselves, but also of family and community units.

They are also the ones that play a leading role in overseeing the health risks and grievances generated by the agro-export model. For example, they have observed the **birth of children with congenital malformations and cases of precocious puberty in girls,** cases that were studied by Aguiar (2017) through clinical anamnesis, evaluation of the environmental and occupational exposure of family units to agrotoxins, analysis of the active ingredients of agrotoxins in blood and urine, as well as in the water consumed in their homes. In the eight cases studied, the research established a relationship between illness and agrotoxins, confirming the perception of the women of the community who had already drawn this conclusion.

Thus, we observe that **women build bridges and weave connections between situations of environmental injustice and agrotoxin pollution with the increase in processes of vulnerability and impacts on health,** such as: increased cases of cancer, the emergence of cases of congenital malformation and of precocious puberty, the incidence of cases of WSI/WRMD, among other health ailments that have increased exponentially in their territory since the arrival of the agribusiness companies. Therefore, in the community context, they have been the most responsible for the dialogue established with the University, presenting demands for research and pointing out ways that help us to understand and analyze the complex situation that develops from the environmental injustices unleashed by agribusiness in the aforementioned territory.

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References:

- Aguiar, A. C. P. *Exposição aos agrotóxicos e efeitos crônicos sobre a saúde humana: uma "herança maldita" do agronegócio para a Chapada do Apodi* (CE). Dissertation [Master in Collective Health] Universidad Federal de Ceará. Fortaleza, 2017.

- Carneiro, Fernando Ferreira (Org.) **Dossiê ABRASCO**: *um alerta sobre os impactos dos agrotóxicos na saúde* / Organization of Fernando Ferreira Carneiro, Lia Giraldo da Silva Augusto, Raquel Maria Rigotto, Karen Friedrich and André Campos Búrigo. Rio de Janeiro: EPSJV; São Paulo: Expressão Popular, 2015. http://www.epsjv.fiocruz.br/sites/default/files/l241.pdf

- Marcondes, W. B.; Rotenberg, L.; Portelall, L. F.; Moreno, C. R. C*. O peso do trabalho "leve" feminino à saúde*. São Paulo: *Perspectiva*. vol.17 no.2 São Paulo Abr./Jun. 2003. http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0102-88392003000200010

- Rigotto, R. M. et al. ***Agrotóxicos, trabalho e saúde*** – *vulnerabilidade e resistência no contexto da modernização agrícola do Baixo Jaguaribe*, Ceará. 1ª Ed. Fortaleza: Editora UFC y Coedición Expressão Popular, 2011. http://www.tramas.ufc.br/?p=518

- Rocha, M. M.; Rigotto, R.M. *Produção de vulnerabilidades em saúde: o trabalho das mulheres em empresas agrícolas da Chapada do Apodi*, *Ceará*. *Saúde em Debate*, v. 41, p. 63-79, 2017. https://scielosp.org/pdf/sdeb/2017.v41nspe2/63-79/pt

- Silva, M. L. V.; Rigotto, R. M.; Rocha, M. M. *Agora é uma riqueza medonha e todo mundo é doente: repercussões da modernização agrícola sobre a saúde de mulheres camponesas na Chapada do Apodi*/CE. *Retratos de Assentamentos*, v. 18, p. 67-89, 2015. http://retratosdeassentamentos.com/index.php/retratos/article/view/181

- Svampa, M. *Pensar el desarrollo desde América Latina*. Buenos Aires, 2012. http://www.maristellasvampa.net/archivos/ensayo56.pdf