



The health of Haitian immigrant workers in Mato Grosso, Brazil: vulnerabilities and risks

La salud de trabajadores inmigrantes haitianos en Mato Grosso, Brasil: vulnerabilidades y riesgos

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ABSTRACT The relationships among immigration, health, work and environment are explored with the aim of analyzing the insertion of Haitian immigrants in the productive processes of Mato Grosso, highlighting health risks and socioenvironmental vulnerabilities. An action research study was carried out in conjunction with the Haitian community, social organizations and State institutions. In 2014 and 2015, a questionnaire was applied among the Haitian population of the city of Cuiabá (capital state of Mato Grosso) to characterize living and working conditions. In addition, data from different institutions and the registry of employers that submitted workers to conditions of modern-day slavery was analyzed. The results include 2,151 Haitian workers involved in the formal labor market in 2014, distributed in 27 municipalities of Mato Grosso. Two economic sectors in particular absorbed Haitian workers: transformative industries (especially meat processing plants) and civil construction. Among the 452 Haitians interviewed, 52.7% were working and 26.5% reported a workweek longer than 48 hours. The study shows the fragility of the social insertion of this population, expressed through the presence of Haitians in areas and productive processes of high social risk.

KEY WORDS Migrants; Occupational Health; Environment; Brazil.

RESUMEN Se describen las relaciones entre inmigración, salud, trabajo y ambiente con el objetivo de analizar la inserción de inmigrantes haitianos en procesos productivos de Mato Grosso, destacando los riesgos para la salud y las vulnerabilidades socioambientales. Se trata de una investigación-acción desarrollada junto a la comunidad haitiana, organizaciones de la sociedad e instituciones del Estado. En 2014 y 2015 se aplicó un cuestionario a población haitiana de la ciudad de Cuiabá (capital del estado de Mato Grosso), para caracterizar sus condiciones de vida y trabajo. Además, se relevaron datos de distintas instituciones y el registro de empleadores que sometieron a trabajadores a condiciones de esclavitud contemporánea. Los resultados muestran 2.151 trabajadores haitianos registrados en el mercado formal de trabajo en 2014, distribuidos en 27 municipios de Mato Grosso. Dos sectores económicos se destacaron en la absorción de trabajadores haitianos: las industrias de transformación (principalmente frigoríficos) y la construcción civil. Entre los 452 haitianos entrevistados, el 52,7% estaba trabajando y el 26,5% mencionó una carga horaria semanal superior a 48 horas. El estudio indica la fragilidad de la inserción social de esta población, la cual se expresa en la presencia de haitianos en áreas y procesos productivos de alto riesgo socioambiental.

PALABRAS CLAVES Migrantes; Salud Laboral; Ambiente; Brasil.

INTRODUCTION

The economic globalization and the new international division of labor create intensive financial, material, and population flows among different regions and nation-states that directly impact the features and profiles of how the workforce is used. In Brazil, the number of immigrants within the production processes have increased due to the presence of Bolivians, Haitians, Peruvians, Portuguese, and Spaniards, who are called for specific and skilled labor⁽¹⁾ or called by labor demand, filling different positions in diverse economic sectors.

The Haitian diaspora to the Brazilian nation has largely increased since 2011 and such migration flows have already grown by more than 39,000 people,⁽²⁾ whose destinations are mostly southern and southeastern states.⁽³⁾

This migration movement is linked to the dramatic environmental disaster of 2010, to the humanitarian aid given by Brazil to Haiti, and to the dynamic nature of global capitalism itself which exercises structural violence on the most vulnerable populations, being more difficult for them to survive in their home countries,⁽⁴⁾ especially in peripheral countries.

From 2012 onward, Mato Grosso state has become the center of Haitian immigration due to its economic expansion and the 2014 World Cup mega-event, which caused an increase in the financial flows and produced high levels of labor demand. Despite the fact that several organizations and social movements were involved in the support and aid to Haitians, there is no estimated number of Haitian immigrants within the state. Furthermore, those who are responsible for implementing the National Workers' Health Policy do not have information about the integration of this new group of workers into productive sectors and into the regions of greater impact.

Due to the cycles of reproduction of the capitalist system, it is highlighted that immigrants generally settle in the "grey economies of big cities"⁽⁵⁾ in precarious job positions,

fraught with risks, with lower salaries and less social protection. Thus, this workforce would represent the "ideal worker" for capitalist employment relationships, precisely because it is "commodified, exploitable, flexible, and disposable."⁽⁴⁾ Historically, immigrants have been a population unequally exposed to occupational and environmental risks as well as bad working conditions and subject to physical and symbolic violence, budget cuts, and deprivation of rights.⁽⁶⁾ The vulnerabilities are reflected both in the sphere of production (working conditions and employment relationships) and in the sphere of reproduction (food, shelter, access to information, and entertainment).^(7,8)

A few studies indicate how immigrant workers are exposed to pesticides, overexploitation, and excess work hours, which are features of the types of contemporary slave labor.^(9,10,11) Immigrant status, especially undocumented immigrant status, gives rise to a greater vulnerability to this situation as immigrants remain silent for fear of the risks to which they are exposed. Failure to report occupational accidents or grievances suffered at the workplace is usual.^(6,7,8) For these reasons, immigrants are more likely to die at work.⁽¹²⁾ Nevertheless, both the direct impacts of immigration on health and the relationship between working conditions and health inequity⁽⁷⁾ are still not widely known.

Considering the importance of the category "work" both in the migration flows and in the health-disease process, and following the theoretical frameworks of the field of worker health, it should be considered how important and influential the integration of this new group of workers into the labor process^(13,14) is in the health-disease process.

Therefore, it is necessary to have a better understanding of the living and working conditions, especially when violence, xenophobia, occupational accidents, and contemporary slavery suffered by that population in Brazil and in Mato Grosso occur. The aim of this article is to provide a description of the integration of Haitian immigrants into the production processes of Mato Grosso, highlighting the health risks

and the social-environmental vulnerabilities involved.

This article is part of a larger research study entitled “Estudo da migração haitiana para Mato Grosso: etno-história, perfil socioeconômico, condições de saúde e acesso ao SUS,” from which the following articles were published “Migração internacional, saúde e trabalho: uma análise sobre os haitianos em Mato Grosso, Brasil,”⁽¹⁵⁾ “Socioeconomic and health profile of Haitian immigrants in a Brazilian Amazon State”⁽¹⁶⁾ and “Prenatal follow-up of Haitian and Brazilian women in Mato Grosso”⁽¹⁷⁾ in which other aspects of analysis are approached.

THEORETICAL AND METHODOLOGICAL FRAMEWORK

In order to discuss the dynamics of the integration of Haitian immigrants into production processes within the Mato-grossense territory, this article adopts, as a critical analysis approach, the logic of predicting health impacts as opposed to the productive economic dynamics of Mato Grosso. The intention is not to quantify the exposure to occupational hazards or socio-environmental situations of vulnerability, nor is it to analyze the risks and vulnerabilities in the correlation of health-work-environment through a technical or biomedical reductionist viewpoint, but rather through a broadened viewpoint.⁽¹⁸⁾ This article appraises the historical processes that shape the factors of the risks caused by the economic development models and intends to visualize the spatial distribution of poor and deprived population groups, which live or move around risk areas or areas with environmental degradation.⁽¹⁹⁾ This viewpoint understands that the socio-environmental issues stem from “the current economic development model, and the offshoring and deregulation processes, which intensify the relationships between vulnerable groups and environmental risk areas.”⁽¹⁹⁾ In other words, in communities, in certain population groups or even in entire cities, companies are

established which are extremely dangerous, as the economic development causes at its core vicious cycles of environmental and occupational exposure, apart from violations of human rights, the right to health, and the right to a healthy environment.⁽¹⁸⁾ In that context, territories are changed and they start to protect dangerous socio-technical environmental systems which are subject to cycles of generation, exposure, and effects related to environmental and occupational risks.⁽¹⁸⁾ Meanwhile, the harmful effects and burdens of that process are unequally spread, falling more acutely onto the poorest and most historically excluded population groups.

In this article we identify dangerous socio-technical environmental systems, taking into account the high rate of use of pesticides and the circumstances regarding the exposure of the workers submission to conditions similar to slavery. The acknowledgement of the presence of Haitian immigrants in high-risk production processes, in territories currently exposed to chemicals extremely detrimental to health and the environment, in places with historical labor exploitation similar to the slave-based production methods, enables us to analyze the interrelations between production systems and damages to health. Although the identification of specific events of each exposure has been infeasible for this research study, this article is not intended to sustain a linear/objective causality relationship, but to highlight risk situations caused by the exposure to occupational and socio-environmental factors that, at the same time, impact on health, weakening the labor force.

This article applies the idea of human groups' vulnerability from the perspective of social and human sciences regarding health, which appraises the productive historical process of vulnerable groups. This idea includes discrimination based on social class, gender, ethnicity, color, and authoritarian working relationships, precarious work, the limits on risk understanding, and the capacity of social organization and mobilization to face the risk circumstances.⁽¹⁸⁾ Additionally, this article is intended to outline the way the inequalities upon the Haitian immigrant group are

manifested, identifying the discrimination and the symbolic violence with respect to the integration of that group into certain areas and activities.

Symbolic violence is often covertly manifested in social relationships and it is based on a frequently naturalized domination that validates a specific population group, a practice, or a speech. This symbolic violence comes from validated impositions that reinforce "the arbitrary power that establishes the symbolic violence and that such violence hides."⁽²⁰⁾ Discrimination in its multiple ways (interpersonal, institutional, structural, among others) is also shown in the violence inflicted by dominant population groups, based on gender, color, or class differences, which support superiority/inferiority ideologies.⁽²¹⁾ Those ideologies often create differentiated exploitation methods that have a negative impact on physical and mental health. Thus, the article also aims at inquiring into suffering evidences (such as pains, distress, fears, feeling of disdain, and non-recognition), using the ideas of Dejours' psychodynamics.

Based on this perspective, in relation to health, work is never neutral. Work is a complex and intersubjective human activity, which mobilizes collective dynamics such as the experience of suffering, the creation of defense strategies, and working rules that are brought up when comparing the workers' practice with their actual task.⁽²²⁾ Therefore, work is an important mental health mediator, which can cause not only psychic suffering and mental illness, but also pleasure and welfare, insofar as it is vital for the identity and fulfillment of workers.⁽²²⁾

Using these theoretical perspectives, an action-research study was performed in the capital of Mato Grosso with the aim of inquiring on several elements with respect to living and working conditions of the Haitians to mediate the creation of public policies for the promotion of health and citizenship. The research study was conducted by an interdisciplinary team that on frequent occasions approached the group of immigrants initially located in the Pastoral Center for Migrants (CPM) [*Centro Pastoral para Migrantes*] of

Cuiabá and in "*Vila dos haitianos*," which is a microregion of the city where a substantial number of Haitians live.

The action-research study collected substantial information from many data sources, such as public documents, thematic conversation groups, individual open interviews, and a survey carried out by the research study team based on key informant contacts which was conducted among the Haitian population in Cuiabá and Várzea Grande, between December 2014 and February 2015. This survey had closed and open questions that aimed at characterizing the Haitian immigrant population in Cuiabá and Várzea Grande, using demographic and socioeconomic data, as well as data of the migration flow, related to the activity performed in Haiti before their migration and their work at the moment of the interview, including information about the exposure to occupational risks, characterization of the working conditions and relationships, and suffering evidences. The open questions helped obtain a view of the Haitians with respect to the processes in which they are involved, using their own knowledge and experience.

The survey was conducted on a probabilistic and proportional sample by sex. The Lwanga and Lemeshow's procedures were adopted for the calculation of the sample,⁽²³⁾ starting from the record of Haitian immigrant entries in Cuiabá kept by the Pastoral Center for Migrants, between 2012 and 2014. Considering that the number of registered Haitians was 1,059 (16% women, 50% prevalence, 95% significance level, 4% tolerable risk of error), the sample selected 383 subjects. In order to compensate for potential losses, the sample size was increased by 15% (57 subjects). The study population was made up of 440 subjects and, according to the sex proportion, the sample should consist of 370 men and 70 women.⁽¹⁵⁾ The data was collected between December 2014 and February 2017. The interviews were conducted by bilingual individuals (Haitian Creole-Portuguese), properly trained and supervised by the researchers in charge.⁽¹⁵⁾ The research subjects were contacted personally or by

phone and they were invited to participate in the research study (the phone numbers and addresses were obtained from the Pastoral Center for Migrants).⁽¹⁵⁾

By means of religious leaders and the Support Organization to the Activities of the Haitians in Brazil (OSAHB) [*Organización de Soporte a las Actividades de los Haitianos en Brasil*], thematic group meetings and conversations were organized, holding an average participation of 40 Haitians in each meeting. The bilingual exchanges (Haitian Creole-Portuguese) covered the topics related to women's health, access to the Unified Health System (SUS), immunization in Brazil, men's health, working relationships, and worker health. Those events created rich places for the exchange of experiences, dialogue, knowledge, and, especially, for the organization of requests and claims of the Haitians. Apart from the research team, this process involved officers of Brazil's Municipal Secretary of Health, the Ministry of Labor and Employment, the Labor Public Ministry, the Pastoral Center for Migrants, and the Land Pastoral Commission. In many of those events, claims regarding employer negligence, exposure to environmental and industrial risks, deprivation of pension and labor rights, mobbing and symbolic violence situations, accidents and occupational diseases emerged. These situations highlighted the need for the research team to analyze further in depth the integration process of that population into work, especially considering that a lot of immigrants move quickly to the interior of the state of Mato Grosso.

From then on, the team sought to gain access to secondary data about extreme exploitation situations, categorized as contemporary slave labor, in the interior of the state as well as to get information about the integration of Haitians in areas with high levels of environmental exposure to pesticides. The secondary data was obtained from the Land Pastoral Commission, the *Informe Anual de Relaciones Sociales* [Social Relationships Annual Report] of the Ministry of Labor and Employment of 2014, records from the Pastoral Center for Migrants of Cuiabá obtained between November 2012 and December 2014, and the National

Institute of Agricultural Defense (INDEA) [*Instituto de Defensa Agropecuaria*]. In order to define the number of Haitians within the formal labor market of Mato Grosso, on a municipal and economic field basis, we analyzed data from the Annual Social Information Report (RAIS) [*Relación Anual de Informaciones Sociales*], available on the website of the Labor Ministry,⁽²⁴⁾ the National Classification of Economic Activities (CNAE) [*Clasificación Nacional de Actividades Económicas*] established under Resolution CONCLA No. 2 of June 25, 2010⁽²⁵⁾ and Brazil's Occupation Classification of 2002.⁽²⁶⁾ Due to differences with respect to the income generating sectors in the municipalities, it was deemed relevant to characterize the main economic fields into which Haitian workers were inserted according to the capital and the municipalities in the interior of the state. In this analysis, the municipalities of Cuiabá and Várzea Grande, which comprise the Metropolitan Area of Cuiabá, were considered the capital.

Taking into account the regional disparities of the state, the fact that Mato Grosso is one of the Brazilian states in which agri-business and the pesticide-intensive agricultural production processes predominate, and the high rate of contemporary situations of slave labor, the researchers identified municipalities that approved the use of pesticides as well as municipalities in which claims and/or confirmed cases of slave labor were reported. The data of the claims was obtained through the Land Pastoral Commission,⁽²⁷⁾ and the cases of rescue of enslaved workers were obtained from the record of employers that subjected workers to slavery in 2015, as revealed by the Division of Control for the Eradication of Slave Labor (DETRAE) [*División de Fiscalización para la Erradicación del Trabajo Esclavo*] of the Labor Ministry.⁽²⁸⁾

With regard to the use of pesticides in the municipalities of the state, researchers analyzed the data base of the Pesticides Information System (SIA) [*Sistema de Información de Agrotóxicos*] of the National Institute of Agricultural Defense, which records since 2005 the data of the orders in the invoices issued by the retailers.⁽²⁹⁾ This analysis was based on the strategy

adopted by Pignati *et al.*⁽³⁰⁾ which connected the 10 most pesticide-consuming municipalities of Mato Grosso of 2012 with the process of agricultural production. For this strategy, four million liters of pesticides were considered a cut-off point to determine which municipalities have the largest pesticide consumption.

The Pastoral Center for Migrants of the Archdiocese of Cuiabá, the main responsible institution regarding the reception of immigrants in Mato Grosso, authorized the access to the administrative record data of all the Haitians who were received by the center up to December 2014. Such data was used to describe the immigrant flow in that institution.

With respect to the data analysis and tabulation, the data collected through the survey and the records in the Pastoral Center for Migrants was digitized and validated twice in the program EpilInfo 7 and the program SPSS (17th edition) for the statistical analysis. The chi-squared distribution test was used to check the differences among the groups, adopting a 5% significance level. The analysis of the spatial distribution of the data of the RAIS, the records of employers who subjected workers to slavery, and the pesticide consumption per municipality was conducted with the assistance of the Tabwin program of DATASUS.

The research study was approved by the Ethics Committee for Human Subjects Research of the *Hospital Universitário Julio Müller* (No. 29120414.0.0000.5541) and the free and informed consent form was signed by all the subjects before collecting the data. This research study was financed by the *Fundação de Amparo a la Pesquisa do estado de Mato Grosso* (FAPEMAT) (Record 155709/2014), and the *Conselho Nacional de Desenvolvimento Científico e Tecnológico* (CNPq) (Record 445842/2014-7).

FINDINGS AND DISCUSSION

Migration flow and socio-economic status of Haitians in Mato Grosso

The first Haitians started to arrive in Mato Grosso in November 2012 and they were

welcomed by the Pastoral Center for Migrants of Cuiabá. Between November and December 2012, only six Haitian immigrants arrived; in 2013, 833; and in 2014, that number decreased to 358, reaching a total of 1,197 (84.3% of male sex). Between May and August 2013, 464 Haitians arrived, which was the highest record number of immigrants. These amounts do not reflect the number of new immigrants within the state, given that most of them directly stayed at the homes of their relatives and/or friends who were already residents of the city.

Secondary data indicates a much larger number. Analyzing the information of the Annual Social Information Report, it was checked that there were 2,151 records of Haitian workers in the formal labor market of Mato Grosso state in 2014, distributed in 27 municipalities; and in seven of them there was a concentration of 94.4% of workers: Cuiabá (1,264; 58.8%), Várzea Grande (277; 12.9%), Sorriso (145; 6.7%), Sinop (144; 6.7%), Rondonópolis (116; 5.4%), Paranaíta (56; 2.6%) and Nueva Mutum (28; 1.3%). One of the main channels of distribution of the state production crosses six of these municipalities: Federal Highway BR 163.

Among the 452 Haitians resident of Cuiabá and Várzea Grande (373 men and 79 women) who were interviewed, more than half were under 35 years old. Approximately, two thirds of the people interviewed were married or in a steady civil union. Among those who answered that they were married, 60.7% of men said that their partner was in Haiti and 60.8% of women said that they lived with their partners.⁽¹⁵⁾ This demographic profile is similar to the profile made in other Brazilian states.^(31,32)

Most of the people interviewed earned a salary higher than the minimum wage (49.3%), with a majority of men ($p = < 0.01$), while 30.1% answered that they earned no income. This situation may be related to the fact that 10.1% ($n = 49$) of the people interviewed had arrived in Brazil less than 30 days ago before being interviewed. That is to say, they lived in the Pastoral Center for Migrants and they still had no job. A large

number of women stated that they depended on the incomes of their husbands/partners and 41% of them said that they earned no income. The interviewed women also had less language skills and it seems that their migration was economically supported by their husbands, who traveled before them. Furthermore, data was collected a few months after the end of the World Cup, when temporary employment contracts had expired and many Haitians were looking for a job again or had been recently hired. Among those men who said they earned no income, many of them stated that they were living on cash reserves of previous jobs or thanks to the help of friends and/or relatives.⁽¹⁵⁾

In general, it seems that there are no differences among sexes with regard to the migratory project. Approximately, 72% of immigrants were living in urban areas in Haiti, 19.9% were living in the Dominican Republic when they migrated to Brazil and about half of them needed financial aid to migrate (53.3%). Among the Haitians who said they have received financial aid, the majority received it from relatives (67.5%) or friends (19.2%), but a great number resorted to moneylenders (13.3%). When they were asked if they had any economic debt related to that help, 71% answered they had. It should be highlighted that this type of information is important in analyzing the profile of Haitian workers in Brazil, which is characterized by debts incurred on account of their migration and a great number of unemployed people, a situation that is not reflected in the official records available, such as those of the Ministry of Labor.

Main production sectors with Haitians in the state of Mato Grosso

The workforce of Haitian immigrants in Mato Grosso has taken place predominantly in stages of the agribusiness supply chain, in the civil engineering, and in the service sector, which are the main factors of the economic development of the state.

Manufacturing and civil engineering industries are the production sectors with a large presence of Haitians (Table 1). In the capital, the largest number of recruitment of Haitians in 2014 took place in the civil engineering sector (46% of the Haitian workers recorded in the capital), mainly in the sector of building construction (25.8%). The survey data also showed that the two main sectors of occupations practiced by Haitians immigrants in Cuiabá were the civil engineering and service sectors. Attention is drawn to the fact that these two main sectors, into which the immigrants in the capital are integrated — service and civil engineering — are among the main sectors that create jobs but they are also the sectors that cause greater occupational accidents and diseases in Brazil. In 2011, 2,884 workers lost their lives when performing their professional activities and, in 2010, 2,753 deaths at the workplace were recorded. The highest rate of fatalities in 2011 occurred in the service sector, reaching 341,000 notices of occupational accidents. In addition, in the civil engineering sector, a larger number of fatalities was recorded, reaching 59,808 occupational accidents.⁽³³⁾

In the municipalities of the interior the manufacturing industrial sector integrated most of the immigrants (49.7%) of the formal labor market, with 39.8% of workers registered in slaughterhouses and in meat packing plants. The meat packing plants are part of the manufacturing industry and, in Mato Grosso, they represent 44.2% of the whole workforce in the industrial sector.⁽³⁴⁾ It should be mentioned that, based on records from 2000 to 2014 in Brazil, 18% of fatal industrial accidents among workers between the ages of 18 and 24 occurred in the agricultural sector.⁽³⁵⁾

This profile of Haitian integration into the labor processes in Mato Grosso could be similar to the profile noted at a national level, whose main employers are the industrial manufacturing and civil engineering sectors. In 2013, these sectors ranked third and fourth in relation to the number of workers in the state (11.5% and 7.5%, respectively) behind trade (29.9%) and public administration

Table 1. Economic activities of Haitian workers registered in the formal labor market in the state of Mato Grosso, Brazil, 2014.

Economic activity ^a	Capital ^b (n= 1,541)		Interior (n= 610)		Total (n= 2,151)	
	n	%	n	%	n	%
Construction	709	46.0	158	25.9	867	40.3
Process manufacturing	272	17.7	303	49.7	575	26.7
Commerce; manufacturing of automobiles and motorcycles	173	11.2	77	12.6	250	11.6
Accommodation and food industry	93	6.0	39	6.4	132	6.1
Administrative activities and complementary services	111	7.2	7	1.1	118	5.5
Water, sanitation, activities of decontamination and waste management	56	3.6	-	-	56	2.6
Transport, storage, and mail	48	3.1	5	0.8	53	2.5
Other services activities	36	2.3	-	-	36	1.7
Professional, scientific, and technical activities	16	1.0	1	0.2	17	0.8
Education	16	1.0	-	-	16	0.7
Industries of agriculture, livestock, forestry production, fishing, and aquaculture	4	0.3	9	1.5	13	0.6
Extractive industry	1	0.1	3	0.5	4	0.2
Human health care and social services	-	-	4	0.7	4	0.2
Information and communication	2	0.1	1	0.2	3	0.1
Real Estate industry	-	-	3	0.5	3	0.1
Public administration, defense, and social security	2	0.1	-	-	2	0.1
Arts, culture, sport, and entertainment	2	0.1	-	-	2	0.1

Source: Own elaboration based on data obtained from the Ministry of Labor, the Annual Social Information Report (RAIS) [Relación Anual de Informaciones Sociales].⁽²⁴⁾

^aThe economic activities were obtained from the National Classification of Economic Activities (CNAE) [Clasificación Nacional de Actividades Económicas] established under Resolution CONCLA No. 2/2010.⁽²⁵⁾

^bThe municipalities of Cuiabá and Várzea Grande were considered the capital, given that they are geographically and economically connected with Cuiabá.

(19.5%). These occupational data match even the data reported by the international bibliography. Immigrant workers in several regions of the world are concentrated in the agriculture, civil engineering, service, and clothing production processes, known for their high rates of risks.^(7,8)

It should be highlighted that the model of economic development adopted by the state of Mato Grosso determines the socio-technical and environmental aspects of their supply chains that also produce determinants of the health-disease processes of populations, which include immigrants. The agribusiness is the core business in the economy of Mato Grosso and, along with civil engineering, have caused socio-environmental, occupational, and health conflicts, as shown

by the destruction of ecosystems, deforestation, capital and land accumulation, urban overcrowding, increase in urban and rural violence against indigenous peoples and traditional communities, overexploitation of poor workers and children, high rates of occupational accidents, human poisoning, and environmental pollution caused by the use of pesticides.^(30,36,37,38) Such impacts corrode social relationships, cause public expenditure for damages and constitute environmental and health damages that lead to disease and death that could be avoided.⁽³⁹⁾

In this scenario, Haitian immigrants are filling posts in "dirty supply chains," due to its historical scores in accidents and grievances, such as in the manufacturing of meat products. Agribusiness has caused social

degradation of work, in which social, cultural, and economic elements form a fabric that creates invisible movements that subject workers to precarious and degrading events.⁽⁹⁾ Meat packing plants are an important stage of the chain of agribusiness, which grows on the national stage. In this sector, workers are not required to have formal schooling, training, and so on to be hired; they must only be physically healthy to perform repetitive, exhausting, and unhealthy tasks in environments plagued with physical, chemical, biological, and ergonomic risks, apart from an accelerated pace and other aspects of a rigid labor organization structure.⁽⁴⁰⁾ The integration of Haitian immigrants may be playing an important role in replacing the workforce of

this sector that have caused several problems that lead to disabilities in the working class.⁽⁴⁰⁾

Socio-environmental vulnerabilities of Haitians in the interior of the state and in the capital

Apart from the integration into production processes representing a high risk for worker health, the vulnerability of Haitian immigrant workers in Mato Grosso is reflected through: a) movements across localities with high rates of pesticide consumption and with a history of exploitation similar to slavery and b) claims of discriminatory behaviors in relation to ethnicity and color.

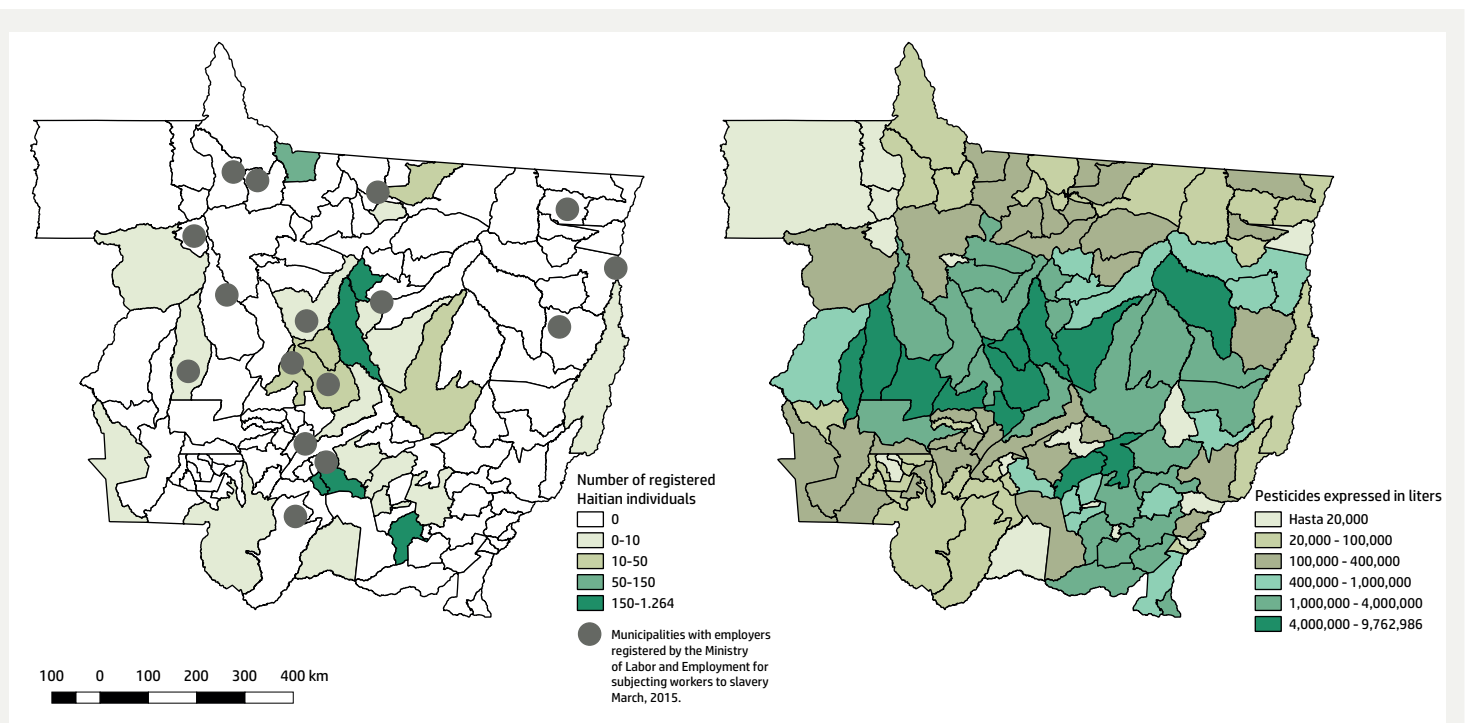


Figure 1. Number of Haitians registered in the formal labor market (2014), municipalities with employers registered for subjecting workers to slavery (2015), and pesticide consumption (2012), according to municipalities of the state of Mato Grosso, Brazil.

Source: Own elaboration based on data from the Ministry of Labor, the Annual Social Information Report (RAIS) [Relación Anual de Informaciones Sociales],⁽²⁴⁾ the Record of employers that subjected workers to slavery,^(27,28) and the National Institute of Agricultural Defense (INDEA) [Instituto de Defensa Agropecuaria].⁽²⁹⁾

These conditions analogous to slavery may be characterized by the excess work hours, forced labor, degrading work conditions, or difficult access areas. These types of exploitation lead to grievances and physical and mental diseases such as post-traumatic stress, drug and alcohol abuse, occupational accidents, among others.⁽¹¹⁾

In March 2015, according to the Ministry of Labor, in 16 municipalities there were employers registered for subjecting workers to slavery. In 4 of them—Cuiabá, Nova Mutum, Matupá, and Sapezal—there were Haitian workers registered in the formal labor market (Figure 1).

In 2013, the Land Pastoral Commission received complaints against employers for subjecting workers to conditions similar to slavery in eight municipalities of the state. Five of them were in the record of the Ministry of Labor in 2015 (Matupá, Paranaíta, Ribeirão Cascalheira, Santo Antônio de Leverger e São Felix do Araguaia) and in three of them there were records of Haitians in the Annual Social Information Report in 2014: Matupá, Paranaíta, and Santo Antônio de Leverger.

These data indicate that the immigration trail in Mato Grosso, in addition to impacting cities of the agribusiness, covers territories vulnerable to contemporary slavery. This fact is important because the populations subjected to slave labor are generally young, poor, with a low level of education and migrant.⁽¹¹⁾ Haitian population in Mato Grosso may be subjected to those types of work that restrict freedom, given that most of those immigrants have a low level of education and low income, reflecting the reality of the home country. It should be highlighted that a few cases of “liberation” of Haitians from slave labor have already taken place in regions of Brazil, even in the capital of Mato Grosso.⁽²⁷⁾ It should also be noted that the farther away the territories of the interior of the state that attract workers are from the capital, the higher the rate of risks and impacts on worker health is.⁽⁴¹⁾

In addition to this, the results obtained from the survey showed that immigrants

incurred debts to arrive in Brazil. Those debts or the remittances for the support of their families in Haiti, restrict workers and worsen the situation of vulnerability, subjecting them to more precarious activities with such low incomes that are only sufficient for their own support and their relatives in Haiti. The data collected does not enable us to assert that these situations involve cases of human trafficking; however, the possibility that elements constituting human trafficking may exist cannot be dismissed, especially considering that the debts incurred subject these workers to slavery with respect to the relationships and conditions of precarious work.

The high rate of pesticide consumption in different municipalities of the interior of Mato Grosso is another important aspect. Most of these municipalities go through particular situations of risk by being surrounded by monoculture with multiple exposures to pesticides. Attention is drawn to the fact that among the 11 municipalities with greater consumption of pesticides in the productive agricultural process (higher than four million of liters), in 5 of them there were Haitian workers registered (Sorriso, Sapezal, Nova Mutum, Nova Ubiratã, and Lucas do Rio Verde). This fact indicates that the Haitian immigration trail in Mato Grosso also covers the territories exposed to extremely toxic agents that cause several health problems in the population. It should be highlighted that there is an increased number of consequences related to the environmental exposure to pesticides, for example, the increase in cancer cases registered in the regions of greater consumption of pesticides in the state⁽⁴²⁾ and in cases of contamination of breast milk.⁽⁴³⁾

At the international level, the studies also showed the exposure of immigrants to pesticides and found that such exposure is connected with distress and psychological problems.⁽¹⁰⁾ This implies that the Haitian population may undergo situations of socio-environmental vulnerability along with the populations already exposed to pesticides in Mato Grosso and form a more vulnerable group, given the fact that the risks are unevenly distributed and those risks that are

more dangerous and harmful are suffered by the poorest populations and black communities,⁽⁴⁴⁾ as shown by countless cases of environmental injustice. In general, communities with low incomes and black communities unevenly bear the burden of environmental contamination, which illustrates the social inequities.⁽⁴⁵⁾

The assimilation of Haitian immigrants in the state of Mato Grosso must be highlighted because many regions with records of Haitians in the formal labor market are characterized by the southern settlement, especially in cities whose main productions are wood, soya, and cotton, where inequities based on incomes and color are higher. In spite of the fact that there are few formal workers registered in the agricultural sector, it is suspected that a portion of Haitian workers may be rendering their services in agricultural activities under informal contracts and receiving daily pay or remuneration for work done, which are common types of precarious work in the interior of the state⁽⁴⁵⁾ where the precarious work and risk rates are higher.

In the last population census, less than 10% of the population of the main municipalities of Mato Grosso with records of Haitians declared themselves to be black people.⁽⁴⁶⁾ From the 1970s onwards, these regions, mostly occupied by indigenous people in the past, have gone through a colonization process by white men. The current entry of Haitians into these territories has social and racial implications and, throughout the development of this research, it was possible to observe how exposed to xenophobic speeches and behaviors these immigrant workers are. The opening of geographical borders is not well-proportioned with social and cultural borders, for this reason, the relationship between the first settlers of those cities in the 1970s and the current immigrants in the region should be carefully studied. The job vacancies in the labor market for that black population, in positions and job functions with less social recognition, express discrimination practices involving skin color and racism that still exist in Brazil. That symbolic violence may intensify the vulnerable situations and health risks of immigrants

because they are determining factors that give rise to exclusion, stress, and the distress of those workers.⁽⁴⁶⁾

One of the aspects that characterize the vulnerable situations is the “social (re)production of vulnerable groups, which live in the social, economic, and geographic peripheries characterized by inequity and discrimination, and which have less resources to protect themselves from risks and little influence on decision-making processes that define the regulation and prevention of risks.”⁽¹⁷⁾ [Own translation] Haitians experience that situation within a vulnerable framework in Mato Grosso, which is added to the social, technical, and environmental vulnerability produced by the way agribusiness is conducted. This agro-export model, based on the use of harmful technologies, as part of the destructive development of productive forces of the capital, strengthens the mechanisms of resources, land, and capital accumulation, and of precarious work and social exclusion.⁽⁴⁷⁾

Working conditions, industrial risks, and suffering evidence

More specifically, the survey data showed that, from the Haitians working in the capital (52.7%), a large amount of them had been employed in their current occupations from 3 to 6 months ago (38.7%) and reported a workweek of more than 48 hours (26.5%).

It was noted that the majority of them had a formal employment relation, although women had a higher percentage of temporary employment contracts. Although a larger number of women stated that they did not have work experience (61.9%), half of the subjects reported that they had received training in occupational safety and 43% of them reported that they had had some type of training.

The most mentioned occupation in Haiti was employment in agricultural production and only 10 subjects stated that they were unemployed. Regarding men, 25.2% did agricultural work, 17.4% studied, and the third most named occupation was builder (12.1%).

Regarding women, the majority mentioned being traders (60.8%). Once in Brazil, the majority of the men who had an occupation were assistants of builders (48.7%) and more than the half of women (53.5%) comprised the cleaning staff group (Table 2).

There are obvious inconsistencies and discrepancies between the professions and works in Haiti and in Brazil. It was generally noted that the education, the experience, and the professions practiced in Haiti were really different from the occupation in Mato Grosso. In addition, there are qualified Haitians that have occupations far below their abilities, due to the lack of validation of foreign diplomas.

These facts, apparently of no major importance, can reveal complex situations as they affect the identity and the mental health of immigrants. Based on the psychodynamics of work, for instance, the mental health crises of workers are also identity crises, given the fact that work occupies a vital place in the symbolic economy, in mental health, and in the identity of workers.⁽²¹⁾ Therefore, work is a source of pleasure and is also a source of intense suffering. It should be noted that, according to a survey conducted by Porru, Elmetti y Arici,⁽⁴⁸⁾ the number of publications on immigrant workers' mental health is still low, thus it is necessary to consider that the identity built in that place (Haiti in this case) and

Table 2. Main occupations in Haiti and Brazil performed by Haitian immigrants residing in Cuiabá, Mato Grosso, Brazil, 2015.

Main occupations performed in Haiti					
Men (n= 373)			Women (n= 79)		
Occupations	n	%	Occupations	n	%
Temporary agricultural worker	94	25.2	Comerciante minorista	48	60.8
Student	65	17.4	Student	7	8.9
Builder	45	12.1	Beautician	5	6.3
Retailer	23	6.2	Garment worker	5	6.3
Builder assistant	22	5.9	Teacher	3	3.8
Taxi driver	22	5.9	Cleaning staff	2	2.5
Teacher	12	3.2	Temporary agricultural worker	2	2.5
Unemployed	9	2.4	Unemployed	1	1.3
Other	81	21.7	Other	6	7.5
Main occupations performed in Brazil (currently)					
Men (n=195)			Women (n=43)		
Occupations	n	%	Occupations	n	%
Construction worker	95	48,7	Cleaning staff	23	53,5
Cleaning staff	31	15,9	Cook	5	11,6
Builder	27	13,8	Construction worker	5	11,6
Plumber	9	4,6	Launder	4	9,3
Garment worker	3	1,5	Inventory replenishment employee	2	4,7
Launderer	2	1,0	Other	4	9,3
Inventory replenishment employee	2	1,0			
Other	26	13,3			

Source: Own elaboration based on data obtained from Brazil's Occupation Classification of 2002.⁽²⁶⁾

all the varieties of experiences and knowledge raised in the workers through their occupations conflict with each other, although spontaneously, regarding the process of deterritorialization and reterritorialization,⁽⁴⁹⁾ in which new activities are undertaken.

The word deterritorialization is usually used to express alienation, as well as to express loss of culture. [...] When a man is placed on a space that he did not help to create, a space whose history is unknown to him, and whose memories are unfamiliar, that space is the source of a strong alienation.⁽⁴⁹⁾ [Own translation]

Human beings are also a combination of elements set in a specific territory, therefore, "their 'home' and their work space, however short-lived they may be, is the living environment which has a significant value regarding the production of a man."⁽⁴⁹⁾ [Own translation]

In the two largest groups of occupations performed by these immigrants in Cuiabá (construction work and services industry), the main risks perceived were physical risks (53.2% and 63.4%, respectively) and accidents (23.4% and 17.1%, respectively). The research study also analyzed the narrative of risk groups, in other words, workers who mentioned perceiving more than one risk (physical and chemical risks or physical and accident risks). Less than half of the subjects mentioned that they had previous training for the task they performed. In addition, 62.5% of construction workers and 55.2% of service industry workers mentioned that they had participated in some type of training in occupational safety.

Despite the fact that there were no differences between the proportion of men and women that worked in Cuiabá at the moment of the research study, women were paid a lower remuneration, less training in occupational safety and they did not have experience in the tasks they performed. These data reinforce the apparent greater vulnerability of women which may be related to the sex-based division of labor.

With respect to what most causes discomfort in the performance of their activities among the interviewed Haitians who had an occupation, 90 mentioned complaints regarding difficulties in dealing with employers and managers, working in an inappropriate role, and the management and organization of work. They highlighted the lack of recognition and appreciation of the company, which "does not like foreigners." The most highlighted element was the remuneration, given that 24 of the workers were not satisfied regarding their remunerations which are "very low," in addition to delays and even default on salary payment.

Another number of complaints was focused on psychosocial and physical suffering: spinal pain, headache, stomachache, or pain in all the body, in addition to intensive effort, fatigue, insecurity at the moment of performing their activities, and so on. They also mentioned intimidation, humiliation, lack of respect, and homesickness for their families. According to the words of an immigrant worker: "I think of my family at all times." In that sense, certain research studies highlight mental health problems in migrant workers, such as cases of depression caused by "loneliness related to the excess and exhaustive working hours," the silencing on their conditions and the fear of losing their occupation and the inability to keep themselves away from home.⁽⁵⁰⁾

The excess working hours to which they were subjected is striking. Despite the fact that workers had not mentioned in their narratives the excess working hours as part of their discomfort, it was noted that the occupations involving high physical demand performed for extended periods had a detrimental effect on workers, which was evidenced by their symptoms of suffering (pain in all the body and fatigue). These elements interact with the body of the workers, causing loss of mental and body potential capacities.⁽¹⁴⁾

Another significant point to consider is the number of unemployed immigrants in the capital of Mato Grosso (47.3% of the interviewed Haitians). Work is central to the migration and mental health of workers, as

highlighted by Dejours and Molinier,⁽²¹⁾ and many Haitians went to Brazil with the expectation of finding work.⁽⁵¹⁾ Such a situation may lead to a perception of health deterioration as well as mental health disturbances, as evidenced in research studies conducted in different global contexts.^(7,8)

FINAL CONSIDERATIONS

This article addressed the integration of immigrant workers into work processes in Mato Grosso, taking into account the working conditions, risk situations, and socio-environmental vulnerabilities in light of the economic context of the state and the socio-economic elements of this population group. The results show the fragility of the social integration of this population group. This fragility is highlighted both in the unemployment situation and in the presence of Haitians in areas and production processes with a high socio-environmental risk level which affect health in that population group. Brazil implies a social and political environment attractive for the international migration of workers from poor countries for work in vulnerable areas and in supply chains with high risk levels for the workers' health. Based on the results of this research study, future research should define the working conditions of the Haitians in the interior of the state and identify risk situations, grievances, or harm to the health of the immigrant workers delimited by economic sectors.

The complex and dynamic interaction of migration, labor processes, risk situations, and socio-environmental vulnerabilities can be understood as the expression of the current economic scenario and the economic development model adopted in Brazil, noticeable

by the export of agricultural commodities shown in Mato Grosso. Then, by identifying a new group of vulnerable workers in the context of the health-work relationship, this research study highlights the challenge of public health and other State areas regarding the universality of rights, especially in the historical moment of global crisis with respect to migration. This situation demands further action from public, national, and local institutions for the defense of health, dignity and upgrade of the working conditions of this population group in Brazil, for instance, the areas of Social Security, Work and Employment, Public Ministries, among others, as well as the civil society and social movements.

We must note the responsibility and importance of workers' health control regarding the identification of specific characteristics of this population group and the features of the adaptation process to the new language, customs, culture and their integration into production processes which generate risks and vulnerabilities, in order to coordinate cross-sectoral and inclusive activities in favor of health. This demands that this topic be included in the programs and actions of the worker health reference centers, in order to generate strategies and methods of control associated with the comprehensive immigrant health care for the effective implementation of the National Workers' Health Policy which prioritizes the most vulnerable worker groups.

It should be noted that the spread of the externalization and resurgence of slave work in Brazil, in 2017, tends to compound the precarious work and the impacts on health, thus increasing the situations that create conditions of discouragement and great social damage to vulnerable population groups like the immigrants.

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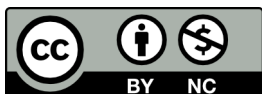
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