NOT ALL THAT GLITTERS IS GOLD: CONTEMPORARY SLAVE WORK IN MINING ACTIVITY

NEM TUDO QUE RELUZ É OURO: TRABALHO ESCRAVO CONTEMPORÂNEO NA ATIVIDADE GARIMPEIRA

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Abstract

This study analyzes the characteristics of contemporary slave labor in gold mining activity in the Amazon Region, focusing on the state of Pará. An analytical and descriptive approach was used, based on inspection reports carried out from 1995 to 2022. As main results, it was verified a prevalence of males and Black and Brown people among the victims, in addition to low education and salaries below two minimum wages. The inspections highlighted labor irregularities, related to non-compliance with occupational health and safety standards, especially regarding degrading working and accommodation conditions. Among 168 people rescued, most from the North region and the municipality of Itaituba. The profile of the victims and the infraction notices applied were also analyzed. It was concluded that mining activity needs to be formalized, since it is a practice that exposes workers to violations. There is an urgent need to regulate the sector and offer alternative livelihoods to the local population in a

Resumo

Este estudo analisa as características do trabalho escravo contemporâneo na atividade garimpeira de ouro na Região Amazônica, com enfoque no estado do Pará. Utilizou-se abordagem analítica e descritiva, com base em relatórios de fiscalizações realizadas entre 1995 e 2022. Como principais resultados, verificou-se a prevalência do gênero masculino e de pessoas pretas e pardas entre as vítimas, além de baixa escolaridade e salários inferiores a dois salários-mínimos. As fiscalizações apontaram irregularidades trabalhistas, relacionadas ao descumprimento de normas de saúde e segurança do trabalho, sobretudo quanto às condições degradantes de trabalho e alojamento. De 168 pessoas resgatadas, a maioria era da Região Norte e do município de Itaituba. Analisou-se também o perfil das vítimas, além dos autos de infração aplicados. Concluiu-se que a atividade garimpeira carece de formalização, uma vez que se trata de uma prática que expõe trabalhadores a violações. Urge regular o setor e oferecer alternativas de sustento à população local de maneira sustentável. Embora apresente limitações, este



sustainable way. Despite limitations, this study contributes to understanding this problem and formulating public policies that guarantee dignity at work.

Keywords: sustainable development; mining; Pará; slavery

estudo contribui para entendimento desse problema e formulação de políticas públicas que garantam dignidade no trabalho. **Palavras-chave:** desenvolvimento sustentável; mineração; Pará; trabalho escravo.

Introduction

This study examines the characteristics of modern-day slavery in gold mining activities in the Pará region of the Amazon, Brazil To achieve this, it addresses: key violations identified during inspections of gold mining operations, the profiles of individuals rescued from slavery in this sector, the working conditions observed by inspection teams, and the structure and execution of enforcement actions aimed at combating slave labor.

Modern-day slavery is currently a reality across various economic sectors. It is essential to understand the nuances of how this phenomenon manifests in different contexts and evaluate the roles of both public and private sectors in either perpetuating or ending this practice within national borders.

This is a complex social issue that requires detailed studies to comprehend its specificities in each productive context. The statistics are alarming, yet labor inspections in the mining sector remain relatively scarce. Since 2017, there has been an increase in inspections of gold mining operations by the Labor Inspection Secretariat (Secretaria de Inspeção do Trabalho – SIT) of the Ministry of Labor and Employment (Ministério do Trabalho e Emprego – MTE), driven by the expansion of the industry in the Amazon, particularly in the state of Pará.

There is still a knowledge gap regarding the manifestation of the modern-day slavery phenomenon within this economic sector, particularly with respect to the most common violations and the profiles of victims. In short, this study aims to shed light on these aspects. A mixed-methods approach, incorporating both qualitative and quantitative analysis, was employed, based on a literature review and a document analysis of reports from 21 inspections conducted from 1995 to 2022, which identified slavery in gold mining activities in Pará.

The reports compile all infraction notices issued, records of interviews conducted at the workplaces, and other documents that form the basis of public agents' assessments. The territorial focus is justified by the high concentration of incidents and victims in the state, where the main gold reserves of the Amazon are located.

The indicators were extracted from public databases and labor inspection reports, accessed under an agreement for use in academic research. Information from the unemployment insurances forms of rescued workers helped in understanding the socioeconomic profile of slavery victims in artisanal mining. Since the data was presented without personal identification, there was no need for submission to the Research Ethics Committee (Comitê de Ética em Pesquisa – CEP/ HFA).

The study aims to contribute to addressing the issue by suggesting paths for the development and implementation of public policies to ensure decent working conditions in artisanal mining activities. Hopefully, the results shall encourage further research in the field and lead to improved inspection efforts and stronger measures to combat modern-day slavery.

1 The context of modern-day slavery in gold mining

This section presents the main indicators of modern-day¹ slavery² identified during inspections of gold mining activities in the Pará region of the Amazon.

To this end, a mixed-methods approach is applied, utilizing a convergent analysis method (Creswell, 2021) that integrates both qualitative and quantitative approaches. The quantitative approach is based on statistical studies regarding the profile of inspections, violations, and the victims of this form of labor exploitation. Meanwhile, the qualitative approach is grounded in a literature review focusing on gold mining and modern-day slavery in the Amazon.

The terminology used follows the legal definition of the activity under study. Artisanal Mining refers to the practice of extracting mineable substances, conducted within areas designated for this purpose, under the regime of artisanal mining

¹ Regarding terminology, it is important to note that "modern-day slavery," "contemporary slavery," "neo-slavery," and "exploitation akin to slavery" are terms used to describe post-abolition contexts. However, the terms "slave labor" and "forced labor" are continuously used, as in this work, to refer to the same phenomenon—practices that violate decent work standards and the principle prohibiting the commodification of labor, which guide the actions of the International Labour Organization (ILO), a specialized agency of the United Nations (UN), as outlined in Article I, "a," of the Declaration of Philadelphia, annexed to the ILO Constitution (1946).

² In this research, the legal definition of conditions analogous to slavery, as established in Article 149 of the Brazilian Penal Code (Brasil, 1940), is employed. It refers to submission, either individually or collectively, to: (1) forced labor; (2) exhaustive working hours; (3) degrading working conditions; (4) restrictions on movement, by any means, due to debt incurred with the employer or its agent at the time of hiring or during the course of employment; and (5) retention at the workplace due to restrictions on the use of any means of transportation, the maintenance of overt surveillance, or the confiscation of personal documents or belongings.

license, which is performed by either Brazilian nationals or mining cooperatives authorized to operate as mining companies, as stipulated in Article 10, *caput*, of Law No. 7.805 (Brasil, 1989). In turn, artisanal mining site refers to the location where the extraction of gold, diamonds, and other mineable minerals occurs, as defined in Article 10, Paragraph 2, of Law No. 7.805 (Brasil, 1989), and regulated by the National Mining Agency (*Agência Nacional de Mineração* – ANM)³.

According to the Labor Inspection Information and Statistics Panel in Brazil (*Radar da SIT*), from 1995 to 2022, over 60,000 enslaved workers were rescued across the country (Brasil, 2024). In addition to the activities carried out by the teams of inspection projects linked to regional units, a significant part of fiscal operations is conducted by the Special Mobile Inspection Group for Combating Slave Labor (*Grupo Especial de Fiscalização Móvel de Combate ao Trabalho Análogo à Escravidão* – GEFM)⁴. This entity is responsible for the planning and investigation of reports involving labor relations with indications of the crime of exploitation akin to slavery, as defined in Article 149 of the Brazilian Penal Code (Brasil, 1940).

This study is based on current theoretical and methodological approaches to modern-day slavery, artisanal mining, supply chains, and sustainable territorial development. Given the fact it is a complex social issue, modern-day slavery calls for interdisciplinary approaches that consider its multiple dimensions and the vulnerability affecting certain population groups. The analysis of the sociodemographic profile of victims reinforces the understanding of slave labor as a structural phenomenon rooted in social inequalities in Brazil.

This pattern of structural discrimination, which is evident in the cases of rescued enslaved workers in the country, is highlighted in the judgment of the Inter-American Court of Human Rights, dated October 20, 2016, in the case

³ As a complement, Article 70 of the earlier Mining Code (Brasil, 1967) defined artisanal mining as: "The individual labor of those using rudimentary tools, manual devices, or simple and portable machines in the extraction of precious stones, semi-precious stones, and metallic or non-metallic valuable minerals, from eluvial or alluvial deposits, riverbeds, or reserved riverbanks, as well as secondary deposits or plateaus (*groupiaras*), slopes, and mountain tops, collectively referred to as artisanal mining sites" (free translation).

⁴ Among the labor inspectors who make up the mobile group, there are permanent and occasional members called upon for each operation. Other public agents, such as representatives from the Labor Prosecutor's Office, the Federal Public Defender's Office, the Federal Public Prosecutor's Office, the Federal Police, the Federal Highway Police, and others may also participate, depending on the needs and circumstances of each case.

of the Brasil Verde Farm Workers. Through this ruling, the Brazilian State was held internationally accountable for human rights violations, including slavery, human trafficking, historical structural discrimination, judicial guarantees of due

diligence and reasonable timeframes, and the right to judicial protection (Corte

IDH, 2016).

The complexity inherent in such issues requires an analysis of the specificities of each scenario to develop effective and integrated responses from the public, private, and third sectors. Therefore, artisanal mining activities must be considered within their social, economic, and environmental particularities to formulate public policies appropriate to the territories and realities they are intended to address. Artisanal mining demands regulation and the structuring of its labor conditions and production processes to ensure the socio-environmental sustainability of local communities.

The supply chains that benefit from these economic activities must adapt their dynamics and interests, as these practices influence the organization of labor and territorial management. The concept of sustainable development must incorporate the dynamics of the territory and local populations, so that environmental and social costs are factored into the economic performance of these activities. This same logic should guide the analysis of slave labor in gold mining sites in the Amazon region.

The official gold production from artisanal mining sites in the Tapajós region accounted for approximately 70% of Pará's production in the 1990s, which, in turn, represented 52.5% of the artisanal mining production in the Amazon (Veiga; Silva; Hinton, 2002). In general, this representativeness continues to hold today. Many aspects underscore the social relevance of studying the working conditions of thousands of small-scale miners in the region, who are afforded protection by the Constitution—Articles 21, XXV, 174, Paragraphs 3 and 4, and 201, Paragraph 7, II (Brasil, 1988).

According to the International Labor Organization (ILO), the presentation of data is just as important as the quality of the information itself, as the way data is displayed influences statistical interpretation. Tabulation must be designed to showcase all observations and conclusions relevant to the analysis. Statistics are not an end in themselves; manifesting as tools for highlighting specific issues (OIT, 2016).

Initially, general information is provided on the inspections carried out from 1995 to 2022, as well as the number of workers reached and rescued from modern-day slavery situations during said inspections. These data demonstrate the

reach and impact of inspection operations in combating slavery in this economic activity.

Subsequently, the stages of organizing and executing inspections are detailed, with particular aspects of gold mining activities highlighted, focusing on the working and living conditions observed by inspection teams at the sites where mineral extraction occurs. The main indicators of irregular conditions and violations of health and safety regulations identified in these production contexts are then presented. The characterization of the panorama found during inspections and the elements analyzed in the reports serve as a basis for understanding later analyses on violations, victim profiles, and other aspects related to modern-day slavery in this activity.

Thus, the most common working and living conditions observed by inspection teams in gold mining operations include the following aspects:

- Inadequate sanitary facilities, such as insufficient or poor-quality restrooms and washing facilities for the workers;
- Unsuitable places for preparing, consuming, and storing food, leaving workers exposed to contamination due to a lack of hygiene;
- Absence or inadequacy of lodging, with no provision of minimum safety, insulation, privacy, comfort, or protection from the elements;
- Failure to provide appropriate personal protective equipment (PPE) suited to the tasks performed and their inherent risks, such as boots, hats, and gloves;
- Lack of first-aid services, with no provision of medications, bandages, or essential items for treating injuries and accidents in the workplace;
- Absence of pre-employment medical exams and regular health checks, in violation of worker health and safety regulations;
- Absence of planning, systematization, and oversight of safety measures in the production process, especially in the use of machinery and equipment employed in artisanal mining; and
- Failure to provide collective protection measures for the final stage of gold extraction. At this stage, due to the heat generated by the blowtorch flame, the sublimation (the transition from a solid directly to a gas) of solid mercury which had previously been amalgamated with the surface of the gold. For this reason, nearby workers are exposed to the risk of mercury poisoning in its gaseous form.

Overall, there is evidence of non-compliance with Regulatory Standard No. 22 (*Norma Regulamentadora n. 22* – NR-22), which addresses occupational health and safety in mining (Brasil, 1999). These conditions, repeatedly observed by

inspection teams, served as indicators of degrading work situations and violations of the fundamental rights of mining workers. The descriptions of the working conditions found during inspections provide a relevant initial context for understanding the environment in which modern-day slavery occurs.

Regarding the mineral extraction activities considered in this study, the extraction of precious metals was predominant in cases where modern-day slavery was identified (78.1%), as well as in cases where it was not (48.5%).

Precious metals mining ranks highest in all aspects considered: number of workers reached (56.9%); enslaved (84.7%); rescued (84.7%); and formally employed (71.9%). Once again, precious metals mining stands out in the relative number of citations for violations (73.0%), unemployment insurance forms issued (81.5%), Employment Register Card (*Carteira de Trabalho e Previdência Social* – CTPS) issued (86.0%), and compensation paid to workers in terms of severance (78.5%).

Of the 65 inspections carried out between 1995 and 2022 in gold mining sites in Pará, 32 confirmed situations of modern-day slavery, resulting in the rescue of 274 workers. The municipalities of Jacareacanga and Itaituba in Pará registered the highest numbers of cases and people rescued, aligning with the significance of the southwestern region of the state as an artisanal gold production hub (MapBiomas Brasil, 2021). In 78.1% of the rescues, the economic activity involved was specifically the extraction of precious metals, with gold mining being particularly significant in this context.

The territorial scope of the study was viable due to the verification of the number and proportion of establishments and workers in conditions analogous to slavery, as grouped by state and municipality. The state of Pará accounted for the largest share of inspections (32.3%) and enslaved workers (61.3%). During the period, the municipality of Jacareacanga in Pará had the highest proportion of people in conditions analogous to slavery (30.3%) and ranked second in terms of the number of establishments inspected (7.7%).

The sample is representative, as the research aligns with the locations identified by the ANM where active gold extraction operations exist, notably in the southeastern and southwestern regions of Pará. It is true that actions to combat modern-day slavery are sporadic and depend on significant evidence of potential conduct that constitutes the crime. However, the number of inspections falls short of the need to monitor the significant number of areas subject to the use of artisanal mining labor⁵.

⁵ In the state of Pará alone, 1,040 administrative processes were registered over the past ten years (2013-2022) with the ANM, referring to mining permit requests that list gold as either the only or one of the extractable substances (ANM, 2024).

Addressing the precarious working conditions demands the enforcement and verification of compliance with base standards of safety, health, hygiene, comfort, and workers' rights in artisanal mining. Investment in prevention is necessary so that the repressive role is only exercised in a subsidiary manner, especially in areas where the Brazilian State is aware of mining activities, given that there is an approved request by the ANM.

Based on the focus of this research, these types of establishments are among those that most employ forced labor and commit a wide range of labor violations. These facts reinforce the need for regulation and monitoring of the working conditions of those engaged in this economic activity.

Among those rescued, men aged 30 to 49, self-identified as Black or Brown, with low levels of education and earning less than twice the minimum wage, are the majority. Most are originally from and reside in the states of Pará and Maranhão, particularly in the regions where the investigated mining sites are located. This information provides an initial overview of the victim profile found in modern-day slavery and the characteristics of the irregular situations identified by inspections in this economic activity

2 Overview of inspection actions in the state of Pará

Labor violations require labor tax auditors (LTA) to issue a corresponding citation for each infraction, as provided by Article 628 of the CLT (Brasil, 1943). These administrative acts consolidate and individualize the actions incompatible with labor legislation in general, which includes the content of the regulatory standards aimed at occupational health and safety issues at work.

The Constitution ensures that no one shall be subjected to torture or inhumane or degrading treatment, and that the national economic order is based on the social value of human labor and free enterprise, aiming to secure a dignified existence for all, according to the principles of social justice—Article 1, III and IV, and Article 170 (Brasil, 1988). The degradation of working conditions and violation of labor dignity disregard the fundamental legal provisions of the Brazilian State, ignore the value of human labor, and deny a dignified existence as both the foundation and goal of the economic order.

In cases of rescue, workers are informed of this decision and provided with transportation at the expense of the employer or the public agencies involved in the operation. In such cases, the immediate cessation of the workers' activities is ordered, along with the elimination of the circumstances or actions that led to

their submission to conditions analogous to slavery. Additionally, special unemployment insurance forms are issued to the rescued workers, in accordance with Article 2-C of Law No. 7.998 (Brasil, 1990) and Normative Instruction No. 2 (Brasil, 2021).

Once delivered in person or by mail, these documents trigger administrative processes, ensuring the right to a defense and fair trial. If the facts and irregularities are confirmed, administrative fines may ensue. If the exploitation of modern-day slavery is confirmed, the responsible parties are added to the public employer registry, known as the "dirty list".

Finally, inspection reports are drafted for the purpose of monitoring and promoting continued inspection efforts. Such reports consolidate the actions taken during the inspection and are forwarded to the relevant authorities for further appropriate measures within their respective areas, whether civil, labor, or criminal.

Within the jurisdiction of the relevant agencies, the situation found may lead to legal accountability for the harm caused and result in measures to prevent the recurrence of such conduct. For example, a conduct adjustment agreement may be signed with the Public Labor Prosecutor's Office (*Ministério Público do Trabalho* – MPT), or a public civil action may be filed in accordance with Law No. 7.347 (Brasil, 1985). With regard to the criminal repercussions, a formal complaint and investigation of the responsibility for the conduct under Article 149 of the Brazilian Penal Code (Brasil, 1940) are required, as amended by Law No. 10.803 (Brasil, 2003).

In the gold extraction process, there are identified failures in safety management, informality in labor relations and the procedures necessary for artisanal mining operations, as provided by Law No. 7.805 (Brasil, 1989), as well as shortcomings in the training and formal qualification of workers for mining activities, despite the existence of specific rules (Brasil, 1999). Some irregularities correspond to indicators of degrading working conditions, as outlined in Annex II of Normative Instruction No. 2 of the MTE (Brasil, 2021).

The inspections aimed at combating modern-day slavery conducted by the mobile group of labor auditors in the state of Pará, from 1995 to 2022, provide an important insight into the exploitation of labor analogous to slavery within the context of gold mining in the Amazon region of Pará. During this period, 65 inspections were identified in gold mining sites, of which 32 resulted in the rescue of 274 people working under degrading conditions. This proportion (49.2%) highlights how frequently labor auditors find evidence of exploitation akin to slavery in this economic activity.

The three municipalities with the highest incidence of modern-day slavery in this activity were Itaituba, Jacareacanga, and Água Azul do Norte, located in the southwestern region of Pará, which accounts for the majority of the state's artisanal gold mining. These municipalities represented approximately 50% of the establishments inspected and workers rescued.

The most common infractions identified in inspections involve labor issues such as working hours and the registration of employment relationships, in addition to health and safety concerns, particularly the violation of items from NR-22 (Brasil, 1999), which addresses occupational health and safety in mining.

The infractions are divided into two main groups: regulatory standards (NR) and general labor legislation (LG). Below are the key attributes that were the subject of citations in actions against modern-day slavery, with the rescue of workers in gold mining in Pará (Table 1).

The following groups of infractions related to the working environment stand out among the most recurring issues in inspections aimed at combating modern-day slavery in gold mining in Pará: NR-22 – Mining (32.6%); NR-24 – Sanitary and comfort conditions in the workplace (21.9%); and NR-7 – Occupational Health Medical Control Program (*Programa de Controle Médico de Saúde Ocupacional* – PCMSO) (5.2%). The irregularities regarding general labor legislation are mainly represented by the following groups: FGTS (5.2%); employment contract and annotation (5.0%); and individual labor contracts (3.8%).

Table 1. Most recurring issues in inspections combating modern-day slavery in gold mining, Pará, Brazil, 1995-2022

Position	Type	Code	Group	N	%
1.0	SST	NR-22	Mining	144	32.6
2.0	SST	NR-24	Sanitary and comfort conditions in the workplace	97	21.9
3.º	SST	NR-31	Agriculture, livestock farming, forestry, logging, and aquaculture	32	7.2
4.0	SST	NR-07	Occupational Health Medical Control Program	23	5.2
5.0	LEG	LG-18	FGTS	23	5.2
6.0	LEG	LG-01	Employment contract and labor cards (CTPS)	22	5.0
7°	LEG	LG-12	Individual labor contracts	17	3.8
80	LEG	LG-13	Earnings	15	3.4

90	SST	NR-06	Personal protective equipment (PPE)	11	2.5
10°	LEG	LG-20	Rest	9	2.0
110	LEG	LG-40	CAGED	8	1.8
12°	LEG	LG-03	Work schedule	6	1.4
13°	LEG	LG-35	Christmas bonus	5	1.1
140	SST	NR-18	Construction industry	5	1.1
15°	LEG	LG-15	Contract termination	4	0.9
16°	LEG	LG-38	Unemployment insurance	3	0.7
17°	SST	NR-12	Machinery and equipment	3	0.7
18°	LEG	LG-10	Protection of child and adolescent labor	3	0.7
19°	LEG	LG-27	Underground mining work	3	0.7
20°	LEG	LG-19	FGTS – social contribution	2	0.5
21°	LEG	LG-04	Vacation	2	0.5
22°	LEG	LG-21	Night work	2	0.5
23°	LEG	LG-14	Contractual changes	1	0.2
24°	LEG	LG-39	RAIS	1	0.2
25°	SST	NR-17	Ergonomics	1	0.2
			Total	442	100.0

Source: adapted from Brasil (2024).

The core of the irregularities identified by the inspection teams indicates the need to establish minimum requirements to adjust labor relations in the context of gold mining. These data highlight the key issues identified in actions to combat modern-day slavery in gold mining, conditions that call for improvements in regulations and oversight.

The most frequent infractions in inspections targeting modern-day slavery in gold mining include: evidence of slavery (63.2%), which has had a specific provision since 2016; failure to conduct pre-employment medical exams (63.2%); lack of employment contracts (57.9%); failure to provide drinking water (52.6%); and operating without the technical supervision of a legally qualified professional (47.4%).

These violations relate to compliance with the minimum standards of occupational safety and health regulations, as well as the general applicable labor legislation. The regulation of the working environment in mining activities arises from the legal mandate outlined in Article 200, III, of the CLT (Brasil, 1943). It is the responsibility of the MTE to establish supplementary provisions to labor regulations, considering the specificities of each activity or labor sector.

NR-22 (Brasil, 1999), which addresses occupational safety and health in mining, is designed to ensure workplace safety, prevent accidents and fatalities during work, and safeguard the health of workers, thereby preserving the human dignity of those involved in mining activities.

This standard aims to regulate the principles observed in workplace organization and environment to align the planning and development of mining activities with the continuous pursuit of safety and health for workers. According to Brasil (1999), its application covers: underground mining; open-pit mining; artisanal mining; mineral processing; and mineral exploration. It is the responsibility of the company, the holder of the mining permit, and the mine operator to ensure strict compliance with the standard and provide the necessary information to inspection authorities (items 22.1.1, 22.2.1, and 22.3.1 of NR-22).

Of the 47 violation citations related to NR-22 (Brasil, 1999), the most significant items in terms of incidence involve: the provision of drinking water in hygienic conditions at worksites and stations (52.6%); technical supervision by a legally qualified professional (47.4%); development and implementation of the PCMSO (47.4%); development and implementation of the Risk Management Program (Programa de Gestão de Riscos, PGR) (47.4%); and monitoring and control of benches and slopes in open-pit mines (36.8%).

During inspections of gold mining sites where conditions of exploitation akin to slavery were confirmed, several environmental factors were frequently found to be in violation of occupational safety, health, and hygiene regulations. One of the main issues identified concerned the provision and conservation of water. In many cases, workers did not have access to drinking water in sufficient quantity or quality, whether for hygiene, consumption, or other purposes, such as cooking.

It was also common to find a lack of adequate sanitary facilities, or unsanitary and/or inadequate conditions designated for personal hygiene. Another critical issue was the workers' accommodation. They were often found to lack basic conditions of comfort, privacy, and protection from the elements. In many cases, there were no mattresses, hammocks, or blankets available for sleeping. Additionally, the absence of an appropriate place for preparing and consuming meals posed a health risk for workers.

Finally, a significant violation of safety regulations involved the failure to provide personal protective equipment (PPE) suitable for the tasks performed, despite the clear risks inherent in those activities. High-risk situations, such as handling mercury, were carried out without any protection for the workers. Furthermore, there were no basic first aid supplies at the worksites, violating

minimum regulations. Adequate provision of first aid is crucial in cases of workplace accidents or sudden illness. Timely action can prevent or minimize long-term effects, and in some cases, the speed of the response can mean the difference between life and death for an injured worker.

These were the main environmental and safety factors identified as non-compliant during inspections of the mining sites. Regarding labor issues, the occurrence of modern-day slavery in gold mining has severe repercussions on workers' enjoyment of their most basic human and fundamental rights. At times, criminal conduct occurs through the use of illegally established cooperatives or other fraudulent means to mask the employment relationship.

Although the Brazilian Statute of the Miner (Estatuto do Garimpeiro) (Brasil, 2008) allows for different ways of carrying out the activity, what is observed in the context of efforts to combat modern-day slavery is the use of tactics aimed at denying the elements of an employment relationship, rendering such means void under Article 9 of the CLT (Brasil, 1943).

There is a lack of employment contracts and registration of workers' labor cards (CTPS), despite the existence of employment elements such as personal service, regularity, compensation, and subordination. Even though the legal possibility for autonomous work exists, what is seen in the descriptions of a mining ecosystem is a network of relationships and dependencies that undermine this form of labor (Portela, 1993).

Therefore, the scenario of violations leading to the recognition of labor exploitation under conditions analogous to slavery involves various situations. The employer behaviors identified by labor inspections encompass violations of fundamental and human rights, going beyond mere infractions of labor regulations.

3 Profile of victims of modern-day slavery in gold mining

An analysis of the sociodemographic profile of workers rescued from conditions of slavery in gold mining in Pará between 1995 and 2022 reveals some predominant features. The 16 inspections in which enslaved workers were identified in gold mining in Pará involved 192 individuals, with 168 people rescued (87.5%). Involving a total of 12 establishments, the years 2018, 2020, and 2021 accounted for 79.8% of the rescues (Figure 1).

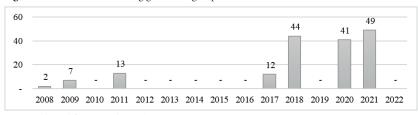


Figure 1. Workers rescued during gold mining inspections, Pará, Brazil, 1995-2022.

Source: adapted from Brasil (2024).

A total of 114 special unemployment insurance forms for rescued workers⁶ were issued during inspections of gold mining operations in Pará (67.9%). However, the number of mining workers who accessed the benefit does not represent the full number of individuals rescued during inspections. The lack of full coverage for those removed from modern-day slavery is primarily due to the absence or incorrect provision of the necessary information for issuing the forms. Of the releases identified, 77.2% were concentrated in 2018, 2020, and 2021. Once again, the clustering of unemployment insurance form releases is evident in the final years of the analysis.

Most cases involved male workers, accounting for approximately 87%. Regarding race/skin color, most workers self-identified as Black or Brown/Mixedrace (83%). The most representative age group was 30–49 years old (43%). This data indicates that the activity primarily attracts adult workers in their productive years.

Low educational levels are a striking characteristic (Figure 2). More than one-fifth of the workers were illiterate (21.9%), while the majority had minimal schooling, with 51.7% having studied up to the 5th grade of elementary school. A significant portion (89.5%) had not entered high school.

⁶ Unemployment insurance, under the rescued worker modality, is owed to individuals identified as being in forced labor or in conditions analogous to slavery, as a result of inspection actions, in accordance with Article 2-C of Law No. 7.998 (Brasil, 1990) In such cases, the labor tax auditor will issue the Rescued Worker Termination Notice (Comunicado de Dispensa do Trabalhador Resgatado – CDTR), duly completed.

26.3 21.9 17.5 12.3 11.4 6.1 Up to 5th Illiterate 5th grade 6th to 9th Primary Secondary Secondary incomplete grade grade Education Education Education incomplete incomplete complete incomplete complete

Figure 2. Schooling (%) of individuals issued unemployment insurance forms during inspections combating modern-day slavery in gold mining, Pará, Brazil, 1995-2022.

Source: prepared by the author based on Brasil (2024).

The profile of workers is similar to that identified in ILO (2011) research on situations of slavery in agriculture and livestock farming in the states of Pará, Mato Grosso, Bahia, Tocantins, and Maranhão: 30 to 49 years old (39.7%); Black, Brown, and Indigenous (81.0%); schooling up to the completion of primary school (95.9%).

In terms of income, more than half (56.2%) earned up to two minimum wages, reflecting the poor working conditions. Regarding geographic origins, 51.8% of the individuals arrived from the North and 39.5% from the Northeast Region. As for residence, 78.9% of the cases were concentrated in Pará. The most common occupations were artisanal gold miner (62.3%) and cook (12.3%), demonstrating gender-based specialization of roles.

These predominant characteristics reveal a socially vulnerable profile, with few alternatives for subsistence outside of artisanal mining. These aspects should be considered in public policies aimed at protecting workers in mining operations.

The analysis also revealed other important aspects. While most expressed a desire to remain in gold mining or related functions, this desire must be viewed in light of the real lack of decent job and income alternatives. Additionally, there was statistical invisibility of women involved in gold mining, as their roles as miners were often masked by secondary roles such as cooks.

Among the cases examined, there was information about one teenager rescued in an inspection conducted in 2021. There is no record of immigrants reached or rescued in actions combating modern-day slavery in gold mining in Pará. This suggests that children and adolescents are not the primary workforce in such activities, mainly due to the physical demands and inherent limitations of mining. The profile of those rescued consists predominantly of adult males.

The geographic concentration in southwestern Pará, particularly in the municipalities of Itaituba and Jacareacanga, reflects the large-scale artisanal mining activity in these areas. However, there is a notable disproportion between the number of areas designated for mining in the region and the actual number of inspections conducted, which undoubtedly facilitates the perpetuation of serious irregularities.

In general, those rescued express an intention to continue in the same activity in which they were found. This finding reinforces the need to align the working dynamics with minimum regulatory standards that ensure dignity for mining workers. However, this issue can be analyzed from another perspective.

The concept of justice as defended by Sen (1999, 2000, 2011), particularly the correlation between capabilities and the exercise of substantive freedoms, is worth considering. Thus, the guarantee of effective respect for individual dignity depends on access to substantive freedoms, and the development of human capabilities guides the evaluation of justice in democratic societies.

It is essential, therefore, to consider the necessary access to a minimum standard of guarantees for the exercise of freedom to choose dignified work, taking into account the real and specific problems of Brazilian society. Evidently, the expectations of those who do not have effective access to constitutionally guaranteed fundamental rights are limited.

In the context of artisanal mining, substantive equality requires ensuring the development of a person's potential so that they can validly exercise the freedom to choose a labor activity, which logically stems from access to a minimum standard of social protection rights.

Given this scenario, it is clear that overcoming this reality demands more than occasional repressive actions. There is a need for investment in preventive policies, primarily aimed at guaranteeing basic labor rights in mining areas. It would be beneficial to promote itinerant Labor Courts alongside efforts to combat modern-day slavery, enabling immediate access to judicial protection in the areas targeted by these actions (Correa; Sá; Chaves, 2022).

When efforts to recover wages owed to workers during inspections fail, judicial intervention becomes necessary, which can be initiated by the workers themselves. Workers may seek judicial protection in person, due to the *jus postulandi* provision allowed by Article 791 of the CLT (Brasil, 1943), or by appointing a lawyer. It is also possible for the Federal Public Defender's Office (*Defensoria Publica da União* – DPU) or the MPT to represent workers due to the particular vulnerability of rescued individuals.

The joint efforts of inspection, prosecution, and defense represent an important tool in the pursuit of full compensation for the individual and collective

harm experienced by workers and society at large. However, there is still a need to invest in financial intelligence efforts to trace the sources of funds fueling the illegal mining operations, enabling the recovery of the amounts necessary to pay what is owed to the workers.

It is also essential to develop real and dignified alternatives for the subsistence of the thousands of people dependent on this activity, many of whom belong to traditional Amazonian communities. Only through such measures will it be possible to effectively curb the persistence of exploitation akin to slavery in this economic sector.

These are people who exist on the margins of legal protection and are easy targets for those who exploit this economic activity. The work of the inspection authority reveals irregularities that go beyond mere non-compliance with formalities, often constituting conditions analogous to slavery. Nevertheless, the statements of workers found in these conditions often express a desire to remain in the occupation or role they were performing when discovered by state agents.

Therefore, it is crucial to seek ways to provide these individuals with opportunities to access new and previously unseen prospects. The combination of exclusionary factors cannot be overlooked. This situation reveals yet another facet of the structural discrimination and inequality that characterizes Brazilian society (Sá; Loureiro; Silva, 2021).

Final considerations

Despite inspection efforts, the analyzed data indicate that the eradication of modern-day slavery in gold mining in Pará still requires more effective measures. The sociodemographic profile of the rescued workers—predominantly male, young adults with low education and income, and of Amazonian origin—demonstrates high social vulnerability in this labor sector.

The predominant profile of those rescued was adult men, self-identified as Black or Brown, with low educational attainment and earning less than two minimum wages. Most were born or resided in the states of Pará and Maranhão, particularly in regions where the majority of the investigated mining sites are located. The systemic labor violations identified, exacerbated by insufficient inspections, effectively trap workers in exploitative situations.

There is an urgent need to develop integrated public policies to strengthen labor inspections, encourage responsible formalization and legalization of artisanal mining, create real livelihood alternatives, and promote the socioeconomic emancipation of local communities. These measures would effectively curb the persistence of serious human rights violations in this sector and ensure that artisanal miners can freely and dignifiedly exercise their trade. It is essential that the existing legal frameworks be effectively applied in the complex local dynamics, ensuring full citizenship for all involved.

The inspections were found to be sporadic and concentrated in only a few years of the historical series analyzed, revealing the need to strengthen preventive action in areas with potential mining activity, as a form of continuous monitoring. The high incidence of violations of health and safety regulations highlights the urgency of investing in the improvement of labor environmental conditions, with basic infrastructure and worker training.

The research leads to the following additional conclusions: the limited formalization of artisanal mining work hinders access to social protection and subjects workers to degrading conditions; inspections revealed the existence of a production chain that sustains the illicit extraction of gold, making it difficult to identify the actual employers; the ethnic and regional characteristics of artisanal miners call for policies that consider cultural specificities in offering alternative means of subsistence; the low educational levels observed require the State to promote professional qualification for these workers, thereby expanding their opportunities for entry into the labor market; the unique characteristics of the Amazon region demand localized strategies for engaging with various local actors, conferring legitimacy on efforts to regulate the activity.

There must be improvement on the inclusion of the principle of corporate social and environmental responsibility within mining processes and artisanal mining activities. To this end, it is important to expand the mechanisms for holding the production chains that benefit from illegally mined gold accountable. Internalizing the costs and risks can help curb predatory labor practices in the exploitation of this strategic resource.

There is a need for international technical and judicial cooperation to identify the primary buyers of gold extracted illegally in Brazil. Moreover, it is essential to universalize the registration and inspection of gold purchasing stations to prevent the acquisition of gold from mines that perpetuate modern-day slavery. Therefore, integrated action between the public and private sectors emerges as a key strategy for overcoming the realities studied and ensuring protection and dignity for workers.

The lack of institutional outreach and investment in agencies dedicated to the creation and implementation of public policies hampers the fight against

modern-day slavery in artisanal mining. For instance, improvements are needed in the structure and staffing of the labor tax auditor, the Brazilian Institute of Environment and Renewable Natural Resources (Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis – IBAMA), the Chico Mendes Institute for Biodiversity Conservation (ICMBio), the National Institute for Colonization and Agrarian Reform (Instituto Nacional da Colonização e Reforma Agrária – INCRA), the National Indigenous Foundation (Fundação Nacional do Índio - FUNAI), the ANM, and other institutions with the potential to address these regulatory violations.

This challenge is complex and requires multifaceted efforts. The legal framework must be strengthened and made further applicable, and institutional presence must be reinforced with a focus on citizenship. Additionally, policies must be articulated that emphasize worker dignity and local sustainability. Only then will it be possible to envision overcoming the exploitation of labor in the Amazonian gold mines, with the goal of ensuring social justice and upholding human rights.

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