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Special Rapporteur on Toxics and Human Rights

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Subject: Call for submissions on "Mercury, artisanal and small-scale gold mining and human rights"

Brasilia, March 07, 2022.

Dear UN Special Rapporteur on Toxics and Human Rights,

In response to the call for contributions on "Mercury, artisanal and small-scale gold mining and human rights" for the thematic report to be presented to the UN Human Rights Council in September 2022, we here send, with our respectful compliments, relevant information on the dissemination of wildcat mining (or "garimpo", in Brazil) activity on indigenous lands, unconstitutional in Brazil, and the resulting mercury contamination to which their inhabitants - in particular the Yanomami, Ye'kwana, Kayapó, and Munduruku - are exposed.

In 2021, representatives of the three people joined together in an alliance to expose the threat of "garimpo" in their respective indigenous lands and call for the protection of the forest and indigenous peoples from the illegal activity.

We stress that the Brazilian state has not adopted specific measures to protect the health of indigenous peoples from mercury contamination. On the contrary, in addition to the historical encouragement by public authorities, mineral exploration on indigenous lands



has been systematically supported by the current government, which intends to make it legal.

We hope that the information that we send in detail in the attached note will be taken into consideration to understand the graveness of the human rights violations to which indigenous people in Brazil are susceptible as the result of “garimpo” activity invading their lands.

Certain of the importance of this issue for the protection of the human rights of indigenous peoples, we bid farewell, emphasizing the relevance of putting on the agenda of the UN Human Rights Council the negative impact of “garimpo” and mining, with the use of mercury, on indigenous lands.

Yours sincerely,

Associação das Mulheres Munduruku Wakoborŭn

Associação Indígena Pariri

Hutukara Associação Yanomami

Associação Wanassedume Ye'kwana

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Contribution to the call for submissions on "Mercury, artisanal and small-scale gold mining and human rights"

Illegal “garimpo” activity in the Amazon and mercury contamination among the Kayapó, Yanomami and Mundurucu indigenous peoples.

March, 2022.

1. Brazil's adherence to the international standards established by Minamata Convention
Brazil has been a signatory to the Minamata Convention since 2013, having ratified it in 2018¹. Little progress has been made to its implementation, and there have been no adaptation on domestic legislation regarding the matter.²

In respect to specific provisions on "artisanal and small-scale mining", there is no information on the development of any regulation or public policy for their compliance. The country has failed to present to the secretariat of the Minamata Convention a National Action Plan for the reduction or elimination of use and releasing mercury in mining. Meanwhile, the activity is alarmingly expanding throughout the Amazon, and its impacts on the population are increasingly severe.

The Minamata Convention defines, in its Article 2, artisanal and small-scale gold mining as "gold mining conducted by individual miners or small businesses with limited capital investment and production". The notion that “garimpo” activity is comparable to 'artisanal' or 'small-scale mineral extraction’ may give rise to misinterpretations regarding the dimension and degree of socio-environmental impacts related to the activity, considering the technological transformations it has undergone in the last two decades



and the complexity of the logistical, political, and economic arrangements that underpin current “garimpo”. In addition, “garimpo” operations are linked to other criminal activities, such as arms and drug trafficking, as well as abuses such as sexual exploitation of women and children, and labor exploitation³.

Mindful of the conceptual distinction between the “garimpo” activity observed in Brazil and proper mining activity, and taking into account the purpose of the Minamata Convention to promote substance control, we understand, for the purposes of this contribution, that the phenomenon of garimpo would fall into the category of "artisanal and small-scale mining" due to the large informality of the modality of mineral extraction and the widespread use of the mercury amalgamation technique.

However, “garimpo” activity as it occurs in Brazil should not be confused with analogous experiences in other countries or continents, where it may take place on a strictly individual or family basis.

i. General characteristics of “garimpo” activity in the Amazon

Although the 1988 Constitution authorizes “garimpo” through cooperatives in compliance with environmental protection standards (Article 147, §3 and 4), Article 237, §7 prohibits activities in the country's Indigenous Lands.

A significant part of the gold mined in the Amazon today is extracted from non-regular or illegal “garimpo” pits⁴ and directed to “garimpo” pits whose activity has been authorized by the competent body. There, it is introduced into the legal market through fraud⁵. According to the current legislation, a self-declaration of the gold holder about its origin is sufficient to ensure its acquisition by the Distributors of Securities and Monetary Values (DTVMs), institutions authorized by the Central Bank to trade the metal⁶. In this way, they are exempt from liability for illegally sourced gold purchasing.



In Indigenous Lands, this relationship is highly destructive to local communities. In the Yanomami Indigenous Land (TIY), armed attacks by wildcat miners against indigenous people terrorized the communities of the Palimiu region on the Uraricoera River⁷ over weeks.

In Jacareacanga, the headquarters of the Munduruku Wakoborun Women's Association was vandalized and the village of its coordinator set on fire, following the intensification of a conflict that had lasted since 2018⁸. More recently, investigations carried out by the Federal Police have indicated the presence of members of criminal organizations acting in several sectors of the “garimpo” chain⁹.

ii. Data on the current expansion of “garimpo” activity in the Amazon

According to data from the MapBiomias¹⁰ platform, the area occupied by “garimpo” in Brazil grew more than six times between 1985 and 2020, jumping from 31,000 hectares in 1985 to a total of 206,000 hectares. This growth was accelerated from the 2010s onwards, being concentrated almost entirely in the Amazon. Conservation Units and Indigenous Lands (ILs) were the most exploited areas for “garimpo” in the region – even though the activity is considered illegal in those areas. From 2010 to 2020, “garimpo” expanded 495% in Indigenous Lands, mainly affecting the Kayapó, Yanomami and Munduruku Indigenous Lands.

In the Yanomami IL, the Illegal “Garimpo” Monitoring System, of the Hutukara Associação Yanomami, identified an increase of more than 2,000 hectares in the years 2019, 2020, and 2021 alone. In the Kayapó IL, in that same period, the increase was 4,596 hectares, according to data from SIRAD-X¹¹.

Even larger numbers were identified in mappings of these same territories with high-resolution satellite images. In the Munduruku IL, the manual mapping of “garimpo” scars



carried out with Sentinel 2 satellite images, in October 2021, showed a total of 5,458 hectares destroyed by the activity, compared to 1,521 hectares detected by MapBiomas. The example suggests that it is very likely that the numbers for the entire Amazon are even higher.

1. Mercury trafficking and its use in Amazonian “garimpo”

Elemental mercury is widely used in “garimpo” areas throughout the Amazon to facilitate the identification and separation of gold. A Federal Police investigation on the Tapajós estimated, in 2018, that “garimpo” activity was dumping 7 million tons of tailings per year into this river and its tributaries¹². However, as it is an activity with little regulation and often illegal, there are no statistics available on the use of mercury in Amazonian “garimpo”.

Likewise, little is known about the mercury origin that is sold and used in the “garimpo”. It is suspected that it can be acquired both from the detour of stocks that legally entered the country, as well as from its smuggling through the country’s different borders. In May 2018, IBAMA and the Federal Revenue Service seized in Santa Catarina 1.7 tons of mercury that would be destined for “garimpo” pits in the Legal Amazon¹³. Three months earlier, 430 kg of the metal that would also be sent to “garimpo” were seized from the largest Brazilian importer of this industry¹⁴. As for trafficking, recent reports have shown that a significant part of the mercury which enters the Tapajós basin illegally crosses the border with Bolivia, while for the state of Roraima, the metal enters through the border with Guyana¹⁵. In addition, the easy access to mercury through the Internet in Brazil and the lack of obstacles to acquire it on the streets of central cities of the illegal gold geography in the Amazon, such as Itaituba, in the mid Tapajós River (PA), were also verified¹⁶.



2. Indigenous lands affected by illegal “garimpo” and exposure of communities to Mercury: examples of the Kayapó, Yanomami and Munduruku peoples

Studies promoted by Oswaldo Cruz Foundation (Fiocruz), a renowned national public health research institution, have proven the incidence of high mercury concentration in indigenous groups that inhabit the Yanomami and Munduruku Indigenous Lands.

In the Yanomami Indigenous Land, in response to a request made by Hutukara Associação Yanomami (HAY), Fiocruz carried out an investigation in the Papiu regions (where there used to be intense “garimpo” activity in the 1980s-1990s) and Waikás (where there were records of activity during the research period). The study revealed that even after almost 30 years of interruption of “garimpo” activities in Papiu, in 2014, 6% of the local population still had high levels of mercury in their bodies. In Waikás, almost 30% of the population of 4 Ye'kwana villages and more than 90% of the population of the Sanöma (Yanomami) village of Aracaçá were contaminated by mercury¹⁷. In a still unpublished study, Fiocruz has conducted an investigation in the Maturacá region (an area also impacted by “garimpo”) and has revealed that 56% of reproductive-age women and Yanomami under 5-year-old children happen to be contaminated¹⁸.

During the II Leadership Forum of the Yanomami Indigenous Land, there were complaints about the increasing scarceness or illness of fish, an important item for their food, as a result of the impact of “garimpo” on water resources. Yanomami women also reported that more children are presenting congenital malformations, questioning whether this is a consequence of the mercury that “garimpo” workers are dumping into the rivers.

Similarly, the Pariri Indigenous Association requested Fiocruz in 2019 to conduct a study with the Munduruku of the middle Tapajós. The indigenous people had been suspecting that the growing cases of spontaneous abortions and children born with malformations could be linked to mercury contamination. The region has suffered from “garimpo” activity since the second half of the 20th century. Researches carried out in the 1990s had



already indicated that mercury pollution was a serious problem in the Tapajós basin because of gold “garimpo”¹⁹.

The Fiocruz study in partnership with WWF Brazil identified levels above the safe limits in 60% of the participants, who inhabit the villages Poxo Muybu, Sawre Muybu, and Sawre Aboy (Sawre Muybu Indigenous Land). The rates are higher the more impacted the communities are by “garimpo”: in the Sawre Aboy village, where there have been records of “garimpo” activity since the 1960s²⁰, 9 out of 10 evaluated people showed mercury levels above the 6µg/g limit. In the three villages studied, 4 out of 10 children under five years old had high concentrations of mercury in their bodies, and 15.8% of the children had problems in neurodevelopmental tests.

Among the Mundurucu who inhabit the lands upstream, according to a study not yet published, the neurologist Erik Jennings’s team identified that 99% of the population examined in the Mundurucu Indigenous Land, upper Tapajós, had mercury levels in their blood above the limit considered safe by the WHO. "Some have up to 15 times above the recommended limit," said the doctor in an interview, also explaining that women of childbearing age and children represent the most serious and worrisome cases²¹.

Among the Kayapó, although less current, a study by researchers from UNICAMP, UNESP, and UnB²² indicated in 1999 that 345 people out of a universe of 625 tested, among Kayapó individuals and “garimpo” workers, presented contamination levels above the safe limits.

Little or no attention has been paid to reducing the effects of mercury contamination among indigenous peoples. Questioned, the Brazilian state claims to be implementing a policy of testing and clinical follow-up in the Special Indigenous Health Districts (DSEI-Ys). However, such a procedure is not part of the routine of care in indigenous communities: the agency has not carried out clinical evaluation even of contaminated



individuals, nor has it expanded the tests to areas with suspected contamination, and it does not have a database on the subject.

Finally, it should be mentioned that the Brazilian state itself has created obstacles to identify the degree of impact of mercury contamination on indigenous peoples. At the end of 2021, the National Indian Foundation (FUNAI), on the advice of the Special Secretariat for Indigenous Health (SESAI), an agency linked to the Ministry of Health, denied authorization for the entry of a medical team from Fiocruz with the objective of carrying out a diagnosis among the Yanomami populations of the Mucajaí region, even though the institution presented all the technical credentials to carry out the activity and the authorization of the indigenous associations.

3. Nexus between “garimpo” and mercury contamination: weakening of indigenous territorial protection policies

Despite this data, the Brazilian government has been conducting initiatives that seek to promote “garimpo” operations across the country with the least degree of control over its socio-environmental impacts, with indigenous peoples being particularly threatened.

There are bills in progress that seek to facilitate the occupation of Indigenous lands for predatory economic activities. Bill 191/2020²³, proposed by the current government, aims to regulate economic activities in Indigenous lands, liberating them for “garimpo” operations. Bill 490/20 weakens the legal frameworks for protecting the rights of indigenous peoples, providing for the review of already demarcated areas, the contact with indigenous people in voluntary isolation, and the regularization of “garimpo”. These bills were indicated by the Presidency of the Republic as one of the priority agendas for voting in the National Congress in 2022, alongside other legislative initiatives to weaken environmental policies and the protection of indigenous peoples’ rights²⁴.



The President of the Republic himself has given public statements in support of the activity, even in areas where it takes place illegally. In 2021, for example, he visited an illegal “garimpo” operation in the Raposa-Serra do Sol²⁵ Indigenous Land and defended its regularization, despite the opposition of local indigenous organizations.

More recently, the government has published Decree 10,966/2022²⁶, which aims to "propose public policies and stimulate the development of artisanal and small-scale mining", electing the Amazon as a priority region for its action. The Decree does not provide mechanisms for mitigating the impact of the activity.

At the regional level, in early 2021, state law 1.453/2021 was sanctioned in Roraima, which sought to facilitate the activity licensing in that state, foreseeing the authorization of mercury use in licensed “garimpo” operations there - the bill was declared unconstitutional by the Supreme Court²⁷. In late 2021, the State Legislative Assembly of Roraima hosted a Public Hearing in protest against the fiscalization from the Brazilian Institute of Environment and Natural Resources (IBAMA) - no representatives of the state's indigenous peoples were invited²⁸. Similar initiatives occur in other Amazonian states, such as Rondônia²⁹.

4. Recommendations to the Brazilian State

The dizzying rise of illegal “garimpo” is associated with serious violations of the rights of different indigenous peoples of the Amazon, including the Kayapó, the Yanomami, and the Munduruku. Mercury contamination in the communities is among the most harmful effects of the invasion of their territories for illegal gold extraction, alongside the increase in violence, environmental degradation, and the weakening of the communities' health status.



We understand that, under a perspective of integral protection of human rights, the most adequate response to combat mercury contamination among the Amazonian communities must necessarily go through the deterrant of “garimpo” where it occurs illegally and the territorial protection of the country’s Indigenous lands.

Initiatives that seek to mitigate mercury contamination only through regulation and technical investment in the activity tend to consolidate violations of fundamental rights, contrary to internationally recognized standards on the rights of indigenous peoples. Nor is it likely that indigenous people will adopt actions such as avoiding the consumption of carnivorous fish in a scenario of increasing depletion of food resources in the face of the expansion of “garimpo” activities.

Alongside territorial protection actions, it is essential that the Brazilian state restructure specialized health care policies for indigenous peoples, carrying out specific actions to identify and prevent the effects of mercury pollution that already affects the populations of the respective peoples.

Finally, it is urgent that the Brazilian state presents a National Action Plan (PAN) capable of eliminating mercury use and dumping in the Amazon, in compliance with the provisions of the Minamata Convention.

End notes:

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http://www.planalto.gov.br/ccivil_03/_ato2015-2018/2018/decreto/D9470.htm

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 NORMATIVA 8, DE 08 DE MAIO DE 2015
<http://www.ibama.gov.br/component/legislacao/?view=legislacao&legislacao=135696>



3 <https://oglobo.globo.com/brasil/seguranca-publica/narcogarimpo-movimenta-dinheiro-na-amazonia-com-avioes-joias-cavalgadas-shows-de-famosos-25272438> ;

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4 Manzolli et al. Legalidade da produção de ouro no Brasil. Belo Horizonte: Editora IGC/UFGM, 2021

5 <https://www.gov.br/pf/pt-br/assuntos/noticias/2020/10-noticias-de-outubro-de-2020/operacao-ouro-frio-combate-extracao-e-comercializacao-ilegais-de-ouro-no-para>

6 Lei 12.844/2013.

7 <https://www.socioambiental.org/pt-br/noticias-socioambientais/yanomami-continuam-sem-seguranca-sob-ameaca-de-novos-ataques-diz-dario-kopenawa>

8 See, “Encircled by gold – illegal mining, destruction and struggles on Mundurucu lands”, versão resumida e traduzida de um estudo homônimo; disponível em <https://tinyurl.com/2p9f3632>. Also: também <https://www.socioambiental.org/pt-br/noticias-socioambientais/mundurucu-denunciam-ataque-de-garimpeiros-em-jacareacanga-pa>

9 <https://tab.uol.com.br/edicao/pcc-no-garimpo/>

10 Projeto MapBiomass – Coleção 6 da Série Anual de Mapas de Cobertura e Uso de Solo do Brasil, acessado em 10/01/2021 através do link: <https://plataforma.brasil.mapbiomas.org/>

11 <https://xingumais.org.br/siradx>

12 Laudo de Perícia Criminal Federal nº 091/2018

13 <https://www.ecodebate.com.br/2018/05/14/operacao-impede-a-distribuicao-de-17-tonelada-de-mercurio-para-garimpos-ilegais-na-amazonia/>

14 <https://g1.globo.com/sc/santa-catarina/noticia/ibama-apreende-430-kg-de-mercurio-em-sc-que-seriam-enviados-para-garimpos-ilegais-na-amazonia.ghtml>

15 <https://www1.folha.uol.com.br/ambiente/2020/09/nova-corrída-do-ouro-movimenta-o-mercado-de-mercurio-em-roraima.shtml>

16 <https://www1.folha.uol.com.br/ambiente/2020/09/nova-corrída-do-ouro-movimenta-o-mercado-de-mercurio-em-roraima.shtml>

17 Vega *et al.* Human Mercury Exposure in Yanomami Indigenous Villages from the Brazilian Amazon. *Int. J. Environ. Res. Public Health* 2018, 15, 1051.



18 Ver matéria relacionada: <https://oglobo.globo.com/brasil/estudo-da-fiocruz-mostra-que-56-dosianomamis-tem-mercúrio-acima-do-limite-23852233> e

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20 RODRIGUES et. al., 1994, apud Molina, L.; Wanderley, L. (org.). O Cerco do Ouro: garimpo ilegal, destruição e luta em terras Munduruku.

21 <https://reporterbrasil.org.br/2021/02/as-mulheres-munduruku-estao-envenenadas-por-mercúrio-e-temos-provas-denuncia-lider-indigena/#:~:text=%E2%80%9CNossa%20pesquisa%20%5Bfeita%20com%20109,o%20neurologista%20%C3%A0%20Rep%C3%B3rter%20Brasil.>

22 Gonçalves A, Gonçalves NN da S e. Exposição humana ao mercúrio na Amazônia brasileira: uma perspectiva histórica. Rev Panam Salud Publica. 2004;16(6):415–9.

23 <https://www.camara.leg.br/proposicoesWeb/fichadetramitacao?idProposicao=2236765>

24 <https://www.in.gov.br/en/web/dou/-/portaria-n-667-de-9-de-fevereiro-de-2022-379226707>

25 <https://www1.folha.uol.com.br/poder/2021/10/bolsonaro-e-criticado-apos-visitar-area-de-garimpo-ilegal-em-terra-indigena-que-prometeu-anular.shtml>

26 <https://www.in.gov.br/en/web/dou/-/decreto-n-10.966-de-11-de-fevereiro-de-2022-379739340>

27 Ação Direta de Inconstitucionalidade (ADI) 6672.

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29 <https://oglobo.globo.com/brasil/governador-de-rondonia-sanciona-lei-que-proibe-destruir-equipamentos-em-fiscalizacoes-ambientais-25354024#:~:text=BRAS%C3%8DLIA%20%E2%80%93%20O%20governador%20de%20Rond%C3%B4nia,pela%20Assembleia%20Legislativa%20do%20Estado.> ;

<https://rondonia.ro.gov.br/governo-publica-decreto-para-regulamentar-atividades-garimpeiras-em-rondonia/>