An aerial photograph of a vast, flat agricultural field, likely a soybean plantation. A small tractor is visible in the distance, moving across the field. The field is divided into sections by faint lines, possibly furrows or roads. The overall tone is dark and grainy, with a reddish-brown overlay at the top and bottom.

Chemical warfare of pesticides and unsustainability of soybeans:

impacts on traditional peoples and
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Maranhão is a state located in the Brazilian Northeast and situated between the Amazon and Cerrado biomes, being the 8th largest federative unit in territorial extension, with an area of 331,936.949 km², which corresponds to 3.9% of the Brazilian territory. It is home to 217 municipalities and, according to data from the Brazilian Institute of Geography and Statistics (IBGE), has more than 7 million inhabitants. The state capital is the city of São Luís, a coastal city with 1.1 million inhabitants.

Maranhão is a multi-ethnic state with 57,214 indigenous peoples from 12 ethnic groups. It is the state with the largest number of quilombola communities in Brazil, with 2,025 (23.99%), and more than 400,000 women babassu coconuts breakers. It is a negative reference of agrarian and socio-environmental conflicts in Brazil. The large number of conflicts reveals the influence of capital on the rural areas (country-side).

Due to its unique characteristics, related to the abundant land stock, forest and water resources, climate and geographical position, the mechanism adopted by capital to ensure its growth in Maranhão is directly linked to the expansion of the agricultural frontier for the production of commodities.

According to data from the Federation of Rural Workers and Family Farmers of the State of Maranhão (FETAEMA), the year 2024 recorded 405 conflicts involving traditional communities, quilombolas, indigenous peoples, extractivists, riverside dwellers, fishermen, babassu coconut breakers, among other ethnic-racial affiliations that have in common their participation in the fight in defence of their territories and, on the other hand, national and foreign agribusiness companies that produce animal, vegetable and mineral commodities for export purposes to China, the USA and the European Union.

As a result of these conflicts, between 2020-2024, 50 human rights defenders were murdered in Maranhão, including 32 indigenous people, 12 quilombolas and 6 members of traditional communities. In addition to the murders, 418 people suffered death threats as a result of conflicts in Maranhão in 2024.

Figure 1 – Protest against the murder of Maranhão *quilombola* leader Edvaldo Pereira Rocha



Source: João Paulo Guimarães (2022).

According to official data from the National Institute for Space Research (INPE) Maranhão has been the national champion in deforestation of the cerrado in the last three consecutive years (2021, 2022, 2023). This is related to the intense destruction and inefficiency of environmental institutions in Brazil. Still according to data from INPE (BRASIL, 2022), 10,688.73 km² of native cerrado vegetation was deforested and Maranhão has concentrated most of the devastation, with 2,833.92 km², followed by Tocantins (2,127.52 km²), Bahia (1,427.86 km²) and Piauí (1,188.78 km²). The four states account for 71% of deforestation in the biome.

Figure 2 – Deforestation of the cerrado for soybean plantation, in Buriti/MA



Source: Diogo Diniz Ribeiro Cabral (2023).

In addition to intense deforestation, Maranhão is the national champion in number of people who are victims of aerial spraying of pesticides, launched by planes and drones.

In Brazil, data from the 2017 Agricultural Census (IBGE, 2018) has shown significant increase in relation to the 2006 Census when it comes to the number of agricultural establishments that use pesticides: in 5,073,324 agricultural units surveyed in 2017,

about 36% declared using pesticides, whereas in 2006, for a total of 5,175,636 units, only about 30% declared using pesticides.

The Atlas of Pesticides, produced by the Heinrich Böll Foundation, reveals that since 2016, Brazil has broken consecutive records in the historical series of pesticide registrations, which began in 2000. In 2022, 652 pesticides were approved, 43 of which were new active ingredients. According to records from the Permanent Campaign Against Pesticides and for Life, of these recently authorized products, 522 (41.5%) contain 153 active ingredients, of which 53 have already been banned in other countries. According to publications in the official gazette, the federal government, through the Ministry of Agriculture, Livestock and Food Supply (Mapa), published the approval of 1,552 new pesticide products between 2019-2022.

This process of environmental (normative) flexibility serves the interests of transnational corporations that dominate the production and sale of pesticides around the world. Brazil is the largest consumer of pesticides in the world and only ten companies account for 90% of the national market: Bayer (Germany), Syngenta (Switzerland), Basf (Germany), Monsanto (USA), Dow Chemical (USA), Milenia/Makteshim Agan (Israel), DuPont (USA), FMC (USA), Nortox (Brazil) and Arysta (Japan).

In this sense, the Brazilian Congress, whose parliamentarians, in the vast majority, defend the interests of agribusiness, approved Law No. 14.785/2023 (Poison Package), a true setback in the rules that regulate research, experimentation, production, packaging, labelling, transportation, storage, marketing, use, import, export, final destination of waste and packaging, registration, classification, control, inspection and supervision of pesticides that are harmful to health and the environment in the country.

The aforementioned norm (law) goes against the global trend of limiting and prohibiting this type of toxic substance, increases the risk of environmental and human contamination, augment the risk of cancer and other acute and chronic diseases related to the exposure of the Brazilian population to pesticides, contaminates ecosystems in the different Brazilian biomes and above all puts rural workers at risk. It goes against the principles of prevention, precaution, agroecology and sustainable development.

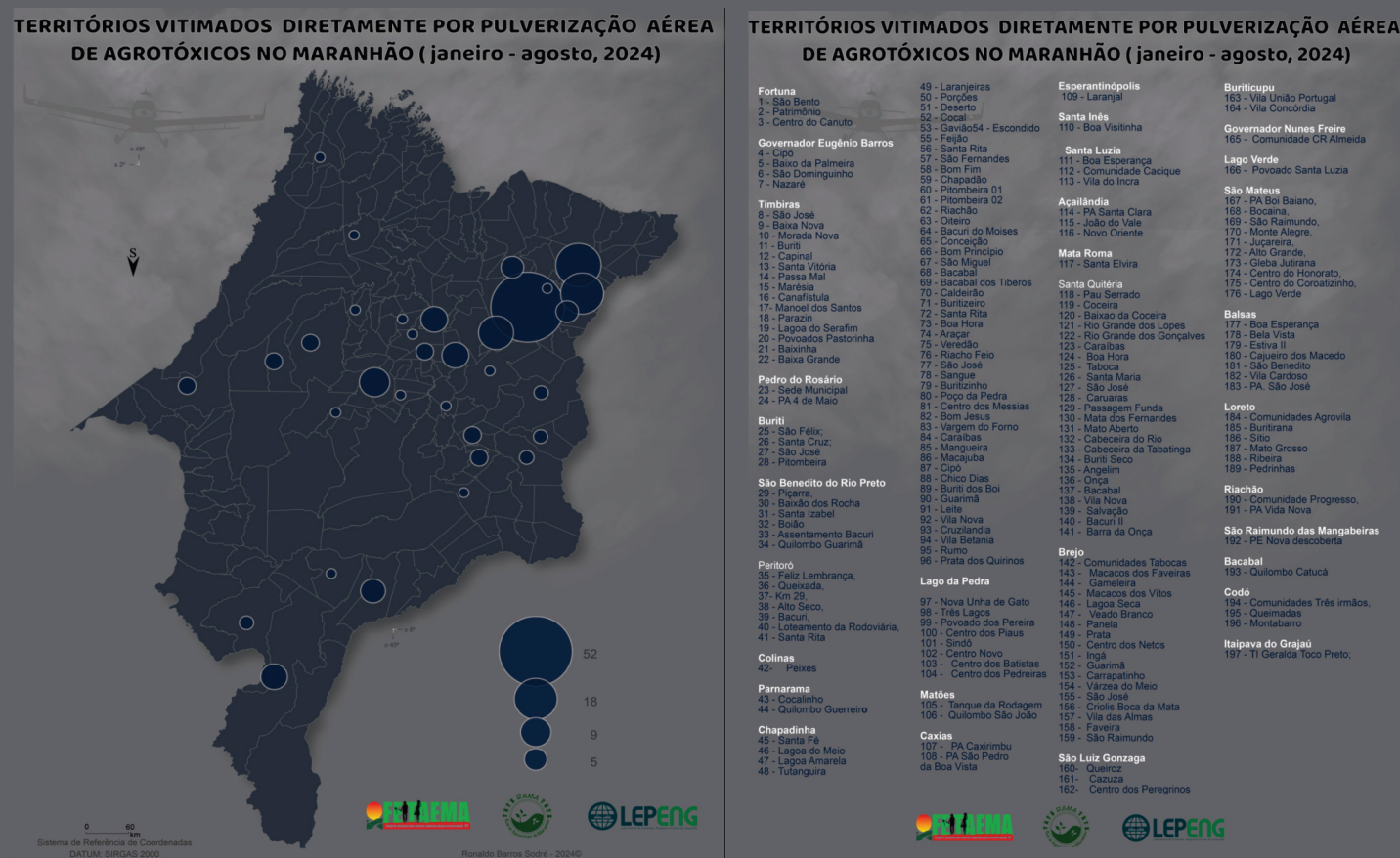
The Maranhão Agroecology Network (RAMA) and Federation of Rural Workers and Family Farmers of the State of Maranhão (FETAEMA), in collaboration with the Laboratory of Extension, Research and Teaching of Geography of the Federal University of Maranhão (LEPENG), have carried out a cartographic survey of the indiscriminate use of poison in traditional communities in the state by agribusiness.

The map entitled "Territories Directly Affected by Pesticides in Maranhão - January to August 2024" shows that 197 traditional communities, quilombolas and rural settlements in 32 municipalities in the state are suffering serious consequences due to the spraying of pesticides.

¹ <https://br.boell.org/sites/default/files/2023-12/atlas-do-agrotoxico-2023.pdf>

² <https://contraosagrotoxicos.org>

Figure 3 - Communities directly affected by pesticides in Maranhão (January to July/2024)

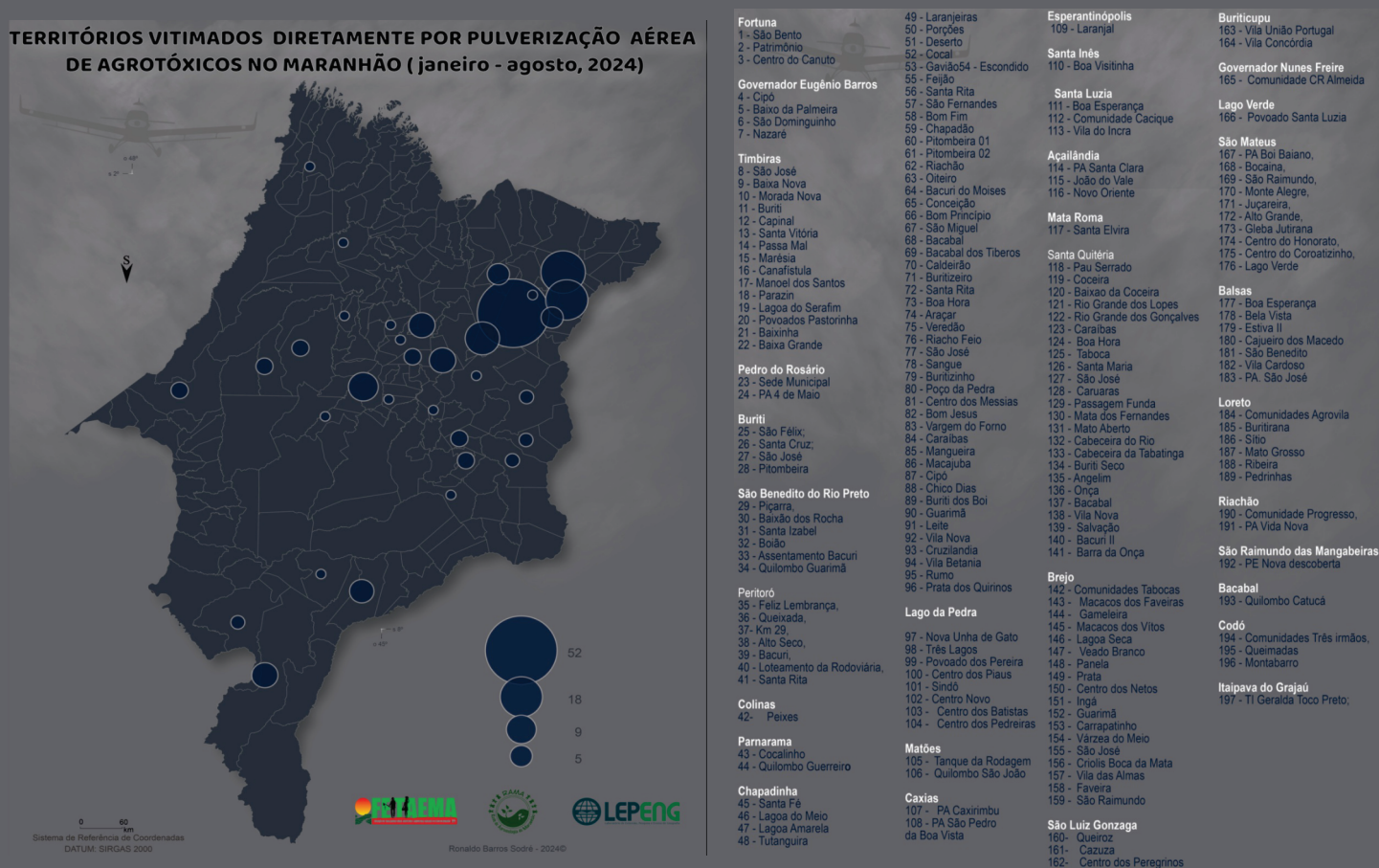


Source: Lepeng, Fetaema, RAMA, 2024. Mapa dos Territórios Diretamente Vítimados por Agrotóxicos no Maranhão – janeiro a agosto de 2024.

Such situations are directly related to the expansion of agribusiness in Maranhão, resulting, above all, from the various government actions in favour of the consolidation of agribusiness in Maranhão in the 21st century, which involved logistics works, technical cooperation, projects, partnerships, financing through public and private banks and approval of standards. This resulted in a rigid enclave economy, unsustainable from a social, economic and environmental point of view.

In 2021, the Government of the State of Maranhão, through the State Secretariat for Agriculture, Livestock and Fisheries of Maranhão (Sagrima), the State Secretariat for Family Farming (SAF), the State Secretariat for Environment and Natural Resources (SEMA), the State Secretariat for Human Rights and Popular Participation (SEDIHPOP) and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), a German international cooperation agency, signed a cooperation project for the production of 200 thousand tons of sustainable soybeans in the east of the state, which will be operationalized through cooperation with Archer Daniels Midland Company (ADM), one of the main traders of agricultural commodities in the world, and Produzindo Certo, a private company specialized in the transformation of agribusiness production chains.

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The proposal for “sustainable soy” is contradictory, given that soy is one of the main threats to the sustainability of this Brazilian region. In addition to deforestation, the use of pesticides – some of which are only permitted in Brazil – and the use of GMOs, the plantations threaten thousands of communities with traditional ways of life.

Traditional peoples and communities have a different way of thinking about territories and sustainability. That is, they know how to use natural resources consciously, without destroying them, respecting the life cycles of plants, water and soil. They respect the forests and, through extractivism, guarantee their food, a source of income and, at the same time, contribute to the conservation of nature. They do not focus on the exploitation of natural resources for economic purposes. They are concerned and care so that future generations can enjoy common goods.

Soybean cultivation in Maranhão, which requires the intensive use of glyphosate and other toxic products, has led to very serious environmental problems, as well as precarious living and working conditions for peasant families in Maranhão. This has resulted in territorial loss, reduction of subsistence planting areas and spaces for extractivism (pequi, bacuri, babassu), reduced food supply and significant changes in the diet of communities, reduction in family income, acute/chronic poisoning by pesticides and mental health problems, including children and the elderly (depression, hypervigilance, insomnia, generalized anxiety disorder).

The “Sustainable Chains” project, which is said to focus on “increasing the sustainability of the soybean production chain and strengthening value chains for family farming and traditional communities, as a way of protecting natural ecosystems”, while implemented with a concentration in the Chapadinha micro-region (which covers 9 municipalities), shows an expansion of soybean cultivation and consequently causing the conversion of forests and savannas, as well as generating social tensions through land conflicts, which threaten livelihoods. The Map of Territories Directly Affected by Pesticides in Maranhão indicates that this region has the largest number of contaminated communities. Chapadinha has the largest number of affected communities, 51, Santa Quitéria 25 communities, Brejo 18 communities, Buriti 7 communities and São Benedito Rio Preto 6.

This is a little-publicized scenario of chemical warfare against these communities. In the city of Duque Bacelar, in August 2022, around 40 children were sprayed with pesticides, dropped by plane, while attending classes in the traditional community of Roça do Meio.

There is no difference between traditional soy and sustainable soy. Sustainable soy is a term, a nomenclature used by large producers, in association with financial capital and the German Federal Government to create a label for this commodity. It is a fairy tale, a form of greenwashing, since traditional soy and sustainable soy require large areas of land, intensive use of pesticides, and destruction of new areas for their implementation, which feeds back into the ongoing agrarian and socio-environmental conflicts, generating more violence and the expulsion of peasant families.

Figure 4 - Rural worker exposes several injuries on his body, which appeared after contact with pesticides.



Source: Rama, 2024

In the city of Buriti, after years of chronic exposure to pesticides, used as a chemical weapon to expel traditional communities from the region, children from the Araçás and Carrancas communities suffer from various skin diseases and mental health problems, such as generalized anxiety, insomnia and depression. In Timbiras, in April 2024, in an agrarian conflict involving 8 traditional communities, children and pregnant women were sprayed with pesticides dropped by planes and drones, some suffered chemical burns, others were hospitalized. One of the victims, a pregnant woman, had to be hospitalized.

This production model requires infrastructures and logistics to transport production (doubling of federal highways, expansion of the Itaqui port, new railways and waterways), which cross several quilombola territories and traditional communities, generating conflicts and threats to defenders of human rights and nature.

On the other hand, despite the profound inequalities in the conflict and the intense brutalities suffered, traditional peoples and communities of Maranhão have been bravely resisting the countless acts of violence and ruthlessness promoted by the Brazilian State and by national and foreign companies. They have been doing so in processes of alliances and collective mobilization, with the support of neighbouring communities and civil society organizations.

This process of mobilization for survival has produced new community relations, with the strengthening of solidarity ties, innovative forms of organization and firm expressions of belonging to the place, at a time of systematic attacks against territorial rights established in various laws and regulations.

In this sense, it is important to highlight the approval of 7 municipal laws that prohibit the spraying of pesticides in their territories. These laws have been approved in the cities of Barreirinhas, Buriti, Brejo, Caxias, Lago dos Rodrigues, São Francisco do Maranhão, and Santana do Maranhão.

What recommendations do we propose to tackle the issue?

- The prohibition of aerial spraying of pesticides by airplanes and drones throughout the territory of Brazil.
- The total prohibition of aerial spraying of pesticides near indigenous lands, quilombola territories and self-recognized traditional communities, respecting the right to free, prior, informed and good faith consultation of these populations in Brazil.
- The prohibition of any and all pesticides that have been banned in the European Union (Mancozeb, Chlorothalonil, Atrazine and Acephate) for use in Brazil.
- The establishment of global standards for use limits, residue limits and programmed phase-out of pesticide usage.
- The creation of a European fund to compensate victims of exposure to pesticides and for the loss of biodiversity.
- The global prohibition of aerial spraying of pesticides and the gradual viability of the transition from the current agricultural model dependent on chemical products to a sustainable local production model, aiming at food security and sovereignty.
- The suspension of the “Sustainable Chains” project in cooperation with GIZ Brazil and the Government of Maranhão.





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