CAMPANHA PERMANENTE CONTRA OS AGROTÓXICOS E PELA VIDA

April, 10, 2023.

Ref: Information from Brazilian civil society on the situation of the abusive use of pesticides and their effects on the right to health to support the UN Special Rapporteur on human rights, health and food.

Dear Rapporteur Ms.

The Permanent Campaign Against Pesticides and For Life[1], a network with more than one hundred civil society organizations, social movements and institutions, respectfully present subsidies and complementary information about the situation and threats in relation to the human rights of the Brazilian population caused by pesticides.

This document deals with situations of violation of human rights, setbacks institutions with regard to the flexibility of legislation on pesticides in Brazil, damage to traditional communities, farmers and peasants, problems of access to justice and liability for damages in Brazil.

We hope that the document can subsidize the visit of the rapporteur to Brazil and, thus, support the report and recommendations to the country on the abusive use of pesticides and the respective violations of human rights, especially the right to health and food of the Brazilian population.

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In Brazil, licensing of pesticides is granted after the authorization of three regulatory bodies: the Brazilian Health Regulatory Agency (Anvisa), of the Brazilian Ministry of Health; the Brazilian Institute of Environment and Renewable Natural Resources (Ibama); and Ministry of Agriculture, Livestock and Supply (Mapa), which are the bodies that assess the potential impacts on health, the environment and agronomic efficiency, respectively[1,2].

81% of pesticides authorized in Brazil have no use permit in at least three OECD countries, and 31% are not approved in China and India. The percentage of unauthorized pesticide active substances was: 85.7% in Iceland; 84.7% in Norway; 54.5% in Switzerland; 52.6% in India; 45.6% in Turkey; 44.4% in Israel; 43.4% in New Zealand; 42.4% in Japan; 41.5% in the European Community; 39.6% in Canada; 38.6%

[1] This document was written by members of the Operative Group of the Permanent Campaign Against Pesticides and For the life.

in China; 35.8% in Chile; 31.6% in Mexico; 28.6% in Australia; and 25.6% in the United States[3].

Approximately 80% of pesticides authorized for use in Brazil have no use permit in at least three OECD countries, including those that have an important economic activity in agriculture.

A total of 52,5% of active substances licensed in Brazil are forbidden in the European Community (data collected in Mar 2023). Most of pesticides have been used in Brazil for more than 20 years and cases of disseminated plague resistance have been recorded. In 2020 a total of 243,531.28 ton of pesticides forbidden in EC were commercialized in Brazil. An increase of 19% was observed in the sale amount in the following year. Among them, large amount of pesticides are associated with cancer, endocrine diseases, and reproductive harms[3,4].

Considering all pesticide volumes traded in Brazil, 67.2% is associated with human diseases and environmental damage. These pesticides are included in official lists that identify effects on human health or wildlife, i.e., a list of potential carcinogens according to IARC (possible or probable carcinogen) or USEPA (recognized, possible and probable carcinogen), endocrine disruptors, and candidates for substitution in Europe[3]. Approximately 80% of pesticides authorized for use in Brazil have no use permit in at least three OECD countries, including those that have an important economic activity in agriculture[3].

Current scenario in Brazil shows economical, health, environment and political context ruined because of Bolsonaro government. Monitoring data of pesticide in water or food are scarse or unpublished to general population; surveillance and inspection structures are insufficient and inadequate.

Besides that, recent proposals to change the legislation[5] point to flexibility to license more toxic products, specially associated to chronic diseases. This fact has been worrying research institutions, legal entities, democratic interests, and social organizations, especially with the national expansion of commercialization products that are not used in other countries[6]. Within this context, Brazil may consolidate itself as a huge market for obsolete and more dangerous products, which can cause damage to the exposed population and biodiversity[7].

Brazilian agriculture, in addition to the use of large volumes of pesticides, extensively cultivates transgenic crops resistant to herbicides, such as glyphosate, 2,4-D, and dicamba, resulting in greater demand for the application of these substances. GM herbicide tolerant crops have contributed to an increase in pesticide use in Brazil and consequently, increased human and environmental exposure to these hazardous chemical substances[8].

Therefore, the potential for an increase in pesticide use should also be considered during the process of licensing for GM crops. This scenario is characterized by multiple exposure to pesticides, especially herbicides but to genetic engineering procedures which are not properly investigated to dietary and other risks.

Other approaches such as increasing the use of different herbicides and development of GM crops resistant to other herbicides have been considered[9,10]. However, these alternatives are also concerning due to the increased probability of serious toxic hazards to humans and the environment by mixing different herbicides[11,12] It is noteworthy that the two most widely used herbicides in Brazil[2], glyphosate and 2,4-D,were classified as probable (2A group) and possible (2B group) carcinogens, respectively, by the International Agency for Research on Cancer (IARC).

CTNBIO is the organ responsible for GMO approval in Brazil. It has been widely reported that the commission does not consider reproductive, carcinogenic, chronic or subchronic studies to make a decision. Presence of genetically modified crops is not regularly monitored in Brazil. “Supporting” evidence consists of not existing any case of poisoning by GMO intake registered in Information Systems.

Pesticides in food

Data from the Pesticide Residue Analysis in Food (PARA), of Anvisa, last published in 2019, show that, among the 20 pesticide active substances most found in the surveyed foods, 7 (representing 40% of the total findings) are banned in at least three OECD countries.

Anvisa analyzed the presence of 243 active substances collected in different cities of Brazil. Most found substances were imidacloprid, tebuconazole and carbendazim (imidacloprid and carbendazim are forbidden in Europe. Other three pesticides were found in irregular situations: acephate, chlorpyrifos and methamidophos, all of them prohibited in EC.

Mixtures of pesticides are also frequently found in Brazil as 35% of the surveyed food samples contained from 2 to 21 residues[13].

Brazilian Institute of Consumer Protection (IDEC) analyzed the presence of pesticides on processed and ultra-processed food. All samples of meat origin present pesticides residues, such as nuggets and hamburgers. Food samples made of milk, such as cream cheese also presented Glyphosate was the most found pesticides in analyzed samples.

All sample food made of wheat presented pesticides residues, including some highly consumed by children.Glyphosate and glufosinate were the pesticides most found in samples analyzed.

Recent studies also show the contamination of rivers, soil, flora, and fauna with products extremely harmful to life and not permitted in other countries, such as endosulfan (banned in Brazil in 2013), cypermethrin, and ametryn[14,15], the latter with potential toxicity to aquatic life . These contamination may be an additional source to pesticide exposure through ingestion of food.

These results show that food security in Brazil is threatened by pesticides and GM crops. The Brazilian regulation system doesn´t consider multiple exposure to determine Maximum Residues Limits (MRL) of pesticides on food or water intake. Therefore the Brazilian population is exposed to mixtures of pesticides, some of them above regulatory limits or not allowed for the crop.

Chronic health effects

Os sistemas alimentares convencionais são caracterizados pelo uso de agrotóxicos, seja em aplicações individuais, seja em misturas, aumentando o potencial de desenvolvimento de câncer. Os agrotóxicos carcinogênicos atuam por meio de mecanismos celulares e moleculares, como estresse oxidativo, imunossupressão, inflamação crônica, entre outros. Estudos in vitro, in vivo e epidemiológicos dão robustez a esse conjunto de informações[16].

Considering chemical active substances licensed in Brazil, 29% are strongly associated to chronic health effects (cancer, reproductive or endocrine disruption) and environmental damages[3]. The IARC concluded that diazinon, glyphosate, and malathion being are classifiable as probable carcinogens (group 2A), and chlorotanolil and 2,4-D as possible carcinogens (group 2B)[3].

In the list of 77 pesticide candidates for substitution of the European Community, 68% are authorized in Brazil. Pesticides included in this group present characteristics that increase the risk to toxicity progress[3].

It is indispensable that public policies aiming to reduce or substitute these substances be implemented especially in countries such as Brazil, including as primary prevention of cancer[17], It has been recomended that promoting adequate food and healthy and sustentable food system, as occurs in agroecological basis.(artigo marcia e akren

Healthy and adequate food and pesticides

Vegetable origin food contain functional and nutritional components which has proactive role on prevention, inhibition or even reversal of some types of cancer, e.g. mouth, pharynge, larynge, lung and collonrectal[18]. Scientific studies performed in last decades demonstrated that these benefic components and nutrients may vary considering model of food production[19,20]. Pesticides-free food systems in Brazil favours the maintenance of functional components in vegetable and minimal processed food. Some pesticides act as enzymatic inhibitors, modifying plant metabolism and diminishing phenolic compounds production. Phenolic compounds may be important to inhibition of colon, esophagus, lung, liver, breast and skin cancers[21,22].

According to a meta analysis study performed in UK, organic food present higher content of antioxidants, which protect against cancer, than food conventional agricultural systems to chronic diseases cultivated using pesticides[21,22].

Human populations feeding with high amount or organic food present lower risk of cancer. Agroecological systems are more advantageous to cancer and other chronic diseases prevention, when compared to conventional agricultural systems. At first, agroecological guarantees food production agrochemical- and GMO-free and to interact to other strategies from field to table[16].

Monoculture farming, including GMO crops and animal intensive husbandry promotes pesticides usage; food processing contain fat, additives and conservants. Part of this can be explained by extending the food chain, through long distances and shelf life. Consequences can be seen in non health living habits, inadequate and/or expensive access to vegetable origin and less processed food and scarcity of nutrients and burden of diseases and environmental crisis[16].

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