



**SRADeV NIGERIA PRESS BRIEFING ON THE NATIONAL SITUATION OF
CHLORPYRIFOS IN NIGERIA AT SWEET SENSATION MEETING ROOM, 62 ISAAC
JOHN STREET, IKEJA GRA - LAGOS ON 11 JULY, 2024.**

Protocols,

Gentlemen of the Press, ladies and gentlemen,

I am pleased to welcome you all to this national media event to formally release to the public our study on **The National Situation of Chlorpyrifos in Nigeria**, implemented under the auspices of the International Pollutants Elimination Network (IPEN). This study is one of our activities in espousing the Nation Situation of Chlorpyrifos, its imports, use and impact in Nigeria carried out in 6-month (*June – November 2022*) as part of our national campaign and awareness towards sustainable management and the promotion of safer alternatives in Nigeria. The project goal was essentially to establish the current status of Chlorpyrifos use and the promotion of safer alternatives in Nigeria, to inform policy implementation in Nigeria.

As you know, Sustainable Research and Action for Environmental Development (SRADev Nigeria) is a professional, non-governmental, non-profit think-tank in environmental health research, advocacy and action organization. We are acting as a catalyst, advocate, educator and facilitator to promote the wise use and sustainable development of the environment, facilitating knowledge of environmental science management by providing society with the information and tools it needs to secure a sustainable future. In this regard, we influence governments decisions, legislations and policies through lobbying and other non-violent means with a view to mainstreaming environment into developmental agendas.

We seize this opportunity to congratulate the National Environmental Standards Regulation and Enforcement Agency (NESREA) for the gazette of the National Environmental (Hazardous Chemical and Pesticides) Regulations, 2023 earlier in the year – 2024 which addresses the concerns of Highly Hazardous Pesticides among others, and NAFDAC effort in the ban of some HHPs effective 2024.

Gentlemen of the Press, once again I welcome you all.

[What are these HHPs?](#)

Highly Hazardous Pesticides (HHPs) are pesticides acknowledged to present particularly high levels of acute or chronic hazards to health and/or the environment according to internationally accepted classification systems such as the World Health Organization (WHO) or the Global Harmonized System of Classification and Labelling of Chemicals (GHS) or their listing in relevant binding International Agreements and Conventions. In addition, they are known to cause severe or irreversible harm to health or the environment under conditions of use in a country that may be considered to be and treated as highly hazardous.

What is Chlorpyrifos?

Chlorpyrifos is a broad-spectrum organochlorine pesticide (OCP), class of chemicals that were first developed by the Nazis for chemical warfare and later adapted for commercial pesticide use after the break-up of the Nazi chemical apparatus, now been in products for uses that can be broadly divided into the following categories: agricultural uses for food and feed crops, agricultural uses for non-food crops; veterinary uses; and uses in residential settings, industrial uses or public health applications. The majority of uses are in commercial agricultural settings. Chlorpyrifos is used globally, although 15 countries plus the European Union (EU) have completely banned the use of Chlorpyrifos, and its use is under review in several countries. Ongoing production of Chlorpyrifos takes place primarily in China, India, Brazil, United States of America (USA) and EU, estimated to be approximately in the volume of 50,000 tonnes/year.

Ladies and Gentlemen, a wide range of commercial products containing chlorpyrifos have been identified, with many individual trade names indicated specified. Although data on total global production volumes are unavailable, information from the CCPIA (2022)¹ but the global use is estimated to be 50,000 tonnes/year. Based on searches of publicly available databases², over 300 suppliers of chlorpyrifos-containing products containing chlorpyrifos have been identified globally. Chlorpyrifos has been found co-formulated as in mixtures with other insecticides, including abamectin, acetamiprid, buprofezin, cyfluthrin, cypermethrin, diazinon, dichlorvos, emamectin, ethiprole, fenobucarb, hexaflumuron, isoprocarb, permethrin, phoxim, pymetrozine pyretrozin, spinosad, thiram, triazophos, trichlorfon, and fungicides such as mancozeb and carbendazim (Pesticide Action Network, 2013)³. **Commonly available brands in Nigeria include: Massacre (20% Chlorpyrifos), Kolar (20%), Terminator (50% Chlorpyrifos/5% Cypermethrin), Predator (Chlorpyrifos 50% EC) and ACT FORCE 55 (Chlorpyrifos 35 % + Cypermethrin 10 % EC).**

Distribution and use of Pesticides has been considered as an important element of the *Strategic Approach to International Chemicals Management (SAICM)* process by the Council of FAO in 2006. By 2023, the new Global Framework on Chemicals (GFC) conference in Bonn (Bonn Declaration) by *Resolution V/11: Highly Hazardous Pesticides*, endorses the formation of a **global alliance on highly hazardous pesticides** with the *goal of taking effective measures to phase out highly hazardous pesticides in agriculture where the risks have not been managed and where safer and affordable alternatives are available; and to promote transition to and make available those alternatives, as a voluntary multi-stakeholder initiative under the auspices of the Food and Agriculture Organization of the United Nations, the International Labour Organization, the United Nations Development Programme, the United Nations Environment Programme and the World Health Organization.*

¹ Chlorpyrifos Draft Risk Profile. April 2022 available on: <https://echa.europa.eu/documents/10162/8a51d7d9-e9a4-2513-e975-492fb70f825c>

³ Pesticide Action Network (PAN), (2013). Chlorpyrifos. Monograph. Prepared by Meriel Watts, PhD <http://dev.panap.net/sites/default/files/monograph-chlorpyrifos.pdf>. Accessed 12 December 2023.

Health and Environment Dangers of Chlorpyrifos

Permit me to reiterate more on the Health and Environment dangers of Chlorpyrifos. This Pesticide exposure has both human and environmental health consequences ranging from tearing of the eyes, runny nose, increased saliva and sweat production, nausea, dizziness and headache. Signs of progression include muscle twitching, weakness or tremors, lack of coordination, vomiting, abdominal cramps, diarrhea, and pupil constriction with blurred or darkened vision. Signs of severe toxicity include increased heart rate, unconsciousness, loss of control of the urine or bowels, convulsions, respiratory depression, and paralysis. Exposure to environmental media disruption of ecosystem of environmental media including beneficial soil microorganisms and insects, non-target plants, fish, birds, and other wildlife.

There are existence of significant research findings in Nigeria, which indicates the presence of concentrations of chlorpyrifos residues in vegetables (spinach, lettuce, cabbage, tomato and onion) and aquatic biota as reported by Akan et al., (2013); Fatunsin et al., (2020); Maigari et al., (2021) etc. This finding could be responsible for many cases of alterations in carbohydrate and lipid metabolism and organ damage in humans in Nigeria. Acute and chronic pesticide poisoning usually results from: consumption of contaminated food, chemical accident in industries and occupational exposure in agriculture. Annual importation of chlorpyrifos rose to 1,064,772 litres and over 538 tonnes in 2019 into the country.

National Situation of Chlorpyrifos

As you may already know, across all 46 countries in the sub-Saharan Africa, the Food and Agriculture Organization (FAO) of the United Nations estimated that the use of pesticides increased by 150% times between 2006 and 2019, attaining over 100,000 tons per year⁴.

Chlorpyrifos effectively controls boll worms, cutworms, white grub, termites, borers on crops like cotton, vegetables, paddy, and fruit trees. In Nigeria, it is used on fruit and vegetable crops to manage crop pest especially insects. Such crops include watermelon, spinach, sorrel (Zobo) *Hibiscus sabdariffa*, Rice paddy. Generally, it is found also used in apples, citrus, wheat, cherries, peaches, soyabeans, cotton, oranges, broccoli just to mention a few.

This level of use has resulted in negative health, environmental and economic consequences in Nigeria and around the world. Yet, the proper registration of pesticides, their sustainable management and the promotion of safer alternatives are clearly lacking. Sufficient information exist that Nigeria imports chlorpyrifos majorly from China and India. However, as at 2019, chlorpyrifos has been banned in India and been restricted in China yet exported to Nigeria. According to the NESREA, chlorpyrifos residues have been detected in sediments, soil, water, vegetables, foodstuff and even in human fluids. The extensive application of

⁴ FAO Statistics and Database of the Food and Agriculture Organization of the United Nations (FAOSTAT) [(accessed on 28 October 2021)]. Available online: <http://www.fao.org/faostat/en/#data/EP/visualize>; <http://www.webcitation.org/723qXCJRz>.

chlorpyrifos has caused contamination of various ecosystems like soil, sediments, water, and air and also leads to the disruption of biogeochemical cycles.^{5, 6, 7}

Ladies and Gentlemen, the challenge of chlorpyrifos management in Nigeria is enormous, as farmers continuously use this very dangerous chemicals recklessly - **there are no safe uses for chlorpyrifos**. Indiscriminate use and over reliance on pesticides has been linked to increased risks to food safety, health of consumers and agricultural workers. In accordance with paragraph 9 of Article 8 of the Stockholm Convention on POPs, the POPRC recommends the Conference of the Parties to the Stockholm Convention to consider listing chlorpyrifos under the Stockholm Convention in Annex A/B with/without exemptions. On 7th March 2022, The Federal Ministry of Agriculture and Rural Development (FMARD) called for ban and compliance monitoring of all agrochemical products with Chlorpyrifos active 17 ingredients and variant chlorpyrifos-methyl including: Blocade, Cortilan, OleoRel, Pyrinex and Reldan22 in Nigeria. The Federal Ministry of Environment, being the designated national authority (DNA) for chemically related Multi-lateral Environmental Agreements (MEAs) in Nigeria, transmitted the decision to the Secretariat of the Rotterdam Convention on Prior Informed Consent on Certain Hazardous Chemicals and Pesticides in International Trade. In November, 2022, NAFDAC reeled out a phase-out process for chlorpyrifos which involved:

- *Stoppage for issuance of certificate for registration and renewal of the product by December 2022*
- *Product importation and field trials to be conducted and provisional permit given by January 2023*
- *Control was placed on the importation of the product authority to clear and the quantity that can be permitted issued Between Jan 2023 and Dec 2023 as sensitization continued on the moratorium.*
- *The period of moratorium set was January 2024 - October 2024*
- *Ban on chlorpyrifos effective from 1st November 2024.*
- *National Committee of Chemicals Management (NCCM) at its meeting on 22 May 2024, finally approved the ban of Chlorpyrifos in Nigeria.*

Gentlemen of the Press, Ladies and gentlemen,

Against the foregoing, SRADeV Nigeria in 2013 undertook a study to understand the current *National Situation of Chlorpyrifos in Nigeria*. The study main aim was to “**establish the current status of HHPs use, infrastructural framework that addresses its trade and management in Nigeria**”. The project study involved an assessment of the national inventory of chlorpyrifos importation. The study approach entailed extensive consultation with relevant government agencies, country data review, desktop literature review, extensive consultation with interest groups like Alliance for Action on Pesticides in Nigeria (AAPN) with the following crucial findings:

⁵ Akan, J.C., Jafiya, L., Mohammed, Z., Abdilrahman, F. I., 2013, Organophosphorus Pesticide Residues in Vegetable and Soil Samples from Alau Dam and Gongulong Agricultural Areas, Borno State, Nigeria. *International Journal of Environmental Monitoring and Analysis*. Vol. 1, No. 2pp. 58-64. doi: 10.11648/j.ijema.20130102.14

⁶ Fatunsin, O.T., Oyeyiola, A.O., Moshood, M.O., Akanbi, L.M. and Fadahunsi, D.E., 2020. Dietary risk assessment of organophosphate and carbamate pesticide residues in commonly eaten food crops. *Scientific African*, 8, p.e00442.

⁷ Sulaiman, M., Maigari, A., Ihedioha, J., Lawal, R., Gimba, A. and Shuaibu, A., 2021. Levels and health risk assessment of organochlorine pesticide residues in vegetables from Yamaltu area in Gombe, Nigeria. *French-Ukrainian Journal of Chemistry*, 9(1), pp.19-30.

Key findings include:

Ladies and gentlemen, the national consumption of pesticides is increasing, even though the health and ecological consequences have long been known. The study established that Nigerians are increasingly at the receiving end of the current increase in usage of this hazardous chemical.

From our project study, we have specifically found that:

- *Chlorpyrifos*⁸ is categorised as a dangerous Highly Hazardous Pesticides (HHPs) and banned in many countries was found highly imported into Nigeria and registered for use in Agriculture within the study duration (2017-2022). It comes in both liquid and solid forms.
- Between 2017-2022, over 4 million litres and about 700 tonnes of chlorpyrifos was imported into Nigeria as recorded by NAFDAC. China had the largest import share of 69% ₦4,451,126,541.08 in origin and India 31% ₦2,012,558,830.13, this accounts for 99.97%
- Between 2019 and 2020, Chlorpyrifos, accounted for *about 3% and 2% of HHP imports (in kilograms and litres respectively)*. However, as at 2019, Chlorpyrifos has been banned in India and restricted in China yet exported to Nigeria.
- HHPs that are NOT PERMITTED IN EUROPE FOR ECOLOGICAL OR HEALTH REASONS are still produced and exported to Nigeria. It was found that many European companies are also involved in the export business. This is an issue of double-standard by European Union.
- The study also noted that composition and active ingredients of some pesticides imported into Nigeria were not stated in the import data provided or explicitly documented. These could include HHPs, chemical based non HHPs as well as biopesticides. This practice could pose a distortion to audit trail and record-keeping of imported pesticides, which has serious public and environmental health implications on the economy.
- Nigeria has no comprehensive policies in place to fund, implement or promote research as well as the practice into organic farming, agroecology or any other sustainable agricultural strategy. Regulations remain out of step with standards in leading export markets such as the EU, enforcement of existing regulation is poor and alternatives to high pesticide use are unexplored.
- Finally, Standards & Certification of organic food products are not in place to encourage export and competitiveness in the growing international market. The need for Organic Agriculture Standard is imperative.

Our recommendations:

To address the problem of chlorpyrifos use and its poisoning, SRADev Nigeria propose the following urgent recommendations:

- ▶ Urgent call on the Nigerian government (NAFDAC) to commence monitoring and pharmacovigilance activities towards identifying the trade on chlorpyrifos and

⁸ Chlorpyrifos accounts for over 2% importation of HHPs between 2020 and 2021 into Nigeria. The pesticide has been found harmful to the brains of foetuses and young children and an interim ban has been placed on it in the EU.

punitive measures be taken. NAFDAC and NESREA should immediately commence a national awareness raising activities with the Federal Ministry of Agriculture and Rural Development (FMARD) on the banned state of chlorpyrifos.

- ▶ Nigeria Government should facilitate the access to certification services. There is no government approved certifying body yet to standardize products and ensure compliance with Organic Production system. Awareness or advocacy on organic agriculture must be raised to de-emphasise Conventional Agricultural practices. Organic agriculture should be inculcated into the educational curriculum. Specialised institutions involved in training for organic agriculture should be financially supported.
- ▶ There is need for collaboration within and between Customs, Nigerian Police Force to track and arrest illegal import of the pesticides beyond the ban implementation.
- ▶ Government should urgently reactivate extension officers under the Agricultural Development Programme (ADP) to provide information on agro-ecology/organic farming in Nigeria.

Once more, I welcome you all the invited seasoned journalists, media reporters and NGO advocates to take opportunity of this event to disseminate widely the dangers inherent in pesticides (HHPs) use particularly chlorpyrifos for enhance Agricultural Sustainability in Nigeria towards attaining the SDG goals.

Gentlemen of the Press, I thank you for your attention and may God bless you all.

Dr. Leslie Adogame

Executive Director

SRADev Nigeria

11/7/2024