

Republic of the Philippines
HOUSE OF REPRESENTATIVES
Quezon City

SEVENTEENTH CONGRESS
First Regular Session

HOUSE BILL NO. 5678



INTRODUCED BY ANAKPAWIS PARTY-LIST REPRESENTATIVE

ARIEL B. CASILAO

**CARLOS ISAGANI T. ZARATE, EMMI A. DE JESUS, ANTONIO L. TINIO,
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EXPLANATORY NOTE

The number of global cases of pesticide poisoning is estimated to be over one million each year. Tens of thousands of the cases result in death. A significant portion of these cases can be attributed to the use of Paraquat, which is the substance with the most victims in various countries (ECCHR, 2011).

Paraquat is one of the world's largest selling weedkiller and is registered and used in about 100 countries. It has been a subject of controversy for several decades, especially regarding the safety of farmers and agricultural workers in developing countries. Both intentional and unintentional poisonings with paraquat, mainly among agricultural workers, farmers and inhabitants of rural areas, have led to serious concern among national health authorities, workers' unions and non-governmental organisations. Acutely toxic pesticides are used in many countries under inadequate conditions and cause ill health and deaths, both among agricultural workers and the general public. The injuries suffered often cause chronic health problems, and are sometimes fatal (ECCHR, 2011)

Paraquat (1,1'-dimethyl-4,4'-bipyridinium dichloride) is a fast-acting, non-selective contact herbicide that causes rapid drying of plant leaves. It is used to control weeds and grasses in more than 100 different crops, including bananas and oil palms. It is used in the Philippines, particularly in Mindanao, where the work conditions (hot/humid climate, lack of protective clothing, leaking/clogged equipment, continuous use, and lack of washing facilities, lack of training/awareness, and lack of medical facilities) make its use particularly hazardous.

The product was first sold in 1961 and it is the most toxic herbicide used today, about 28 times more acutely toxic than the globally most widely used herbicide glyphosate. From the time when it was first marketed until today, accidental and suicidal ingestion of paraquat has caused an innumerable loss of lives. Paraquat is often mistakenly ingested because containers for drinking water and storage or mixing of paraquat are confused, and paraquat has been found available in stores in re-packed containers without proper labelling. An oral ingestion of a mouthful of

a 20% paraquat solution is likely to cause death, and depending on the constitution of a person 10 ml are enough to be fatal. Fatal poisoning at the workplace occurs mostly when paraquat absorption through skin is increased after prolonged contact with undiluted or diluted paraquat solution. Spray mist deposited in the nose may be swallowed and spray in the air can be ingested when workers breathe through the mouth. The level of exposure to paraquat that workers may experience when handling paraquat is high enough to lead to absorption of an amount that can result in acute poisoning. The symptoms of poisonings are often delayed. Damage to the lungs, for example, may not be evident until several days after absorption. Since there is no antidote against paraquat poisoning, the outcome can be fatal and in these cases death mostly results from respiratory failure (ECCHR, 2011).

The use of paraquat raises safety concerns on both human health and environment on a global scale. Paraquat is a neurotoxic herbicide and has been linked to increased incidence of Parkinson's disease. It is a potential endocrine disruptor, teratogen, genotoxin and carcinogen. Paraquat causes multiple organ failure as it damages the lungs, heart, kidneys, adrenal glands, central nervous system, liver, muscles, spleen, skin and eyes.

The Permanent People's Tribunal on Agrochemical Transnational Corporations (PAN International, 2016) in its 2011 assembly reported that sprayers have died after sucking clogged spray nozzles or after applying pesticides with a leaky knapsack sprayer, or from splashes of concentrate on their bodies. Sprayers often suffer skin damage, burns, eye injuries/blindness, nail damage/loss, nose bleeds and respiratory problems. Changes in wind direction result in sprayers' exposure through inhalation and contact with skin and eye. The Tribunal also found that agricultural equipment are either left unwashed or are washed in streams and rivers due to inadequate washing facilities, contaminating the water source. Some sprayers also bring home their equipment endangering household members.

There are incidents of paraquat poisoning that has been recorded in the Philippines. Dr. Norma Pacalso of the Benguet Provincial Health Office said there is an increase in monitored cases of poisoning in the province. She said from 39 cases in 2011, it rose to 48 in 2012. In 2013, twenty one (21) cases have already been recorded.

In 2010, the Department of Health conducted a study on the paraquat exposure among farmers in Agusan del Sur and its summary findings were disturbing as follows:

- Integumentary changes (chronic irritant dermatitis) that could be compatible with chronic paraquat exposure were seen in 21.4 %; nail changes were seen in 69.6%
- 30.3% had abnormal spirometry findings
- Urine paraquat was detected in 90% of workers, although less than detectable limit in 43%
- Although majority of workers use PPE, the item used may not provide enough protection against paraquat

Paraquat is marketed by Syngenta, with an approximate market share of 75%, under the brand name Gramoxone in formulations ranging from 24%-36% active ingredients. Other companies produce it under the trade names Crisquat, Dexuron, Totacol, Cyclone, Gramixel, Pathclear, and many others. The World Health

Organization (WHO) classifies it as moderately hazardous (Class II) but the Pesticide Action Network (PAN) considers it as highly hazardous (Class I) due to its acute toxicity, delayed effects and lack of antidote. The US Environment Protection Agency classifies paraquat as highly toxic by inhalation.

Its use is unauthorized in Norway since 1981 and in Syngenta's home-base Switzerland starting December 1989. Six European Union countries banned paraquat – Sweden (1983), Finland (1986), Hungary (1991), Austria (1993), Denmark (1995) and Slovenia (1997) – long before the European Court's decision to put an effective ban on paraquat in its 27 member countries in July 2007. The European Court of First Instance has ruled that paraquat must be prohibited within the European Union, exactly because the dangers of paraquat were considered too high. The Court relied in its decision on the "precautionary principle". Under the precautionary principle, even indications of a risk serve as a basis for the prohibition of a business practice. The Court ruled that there is serious doubt as to whether paraquat has no effects on health and life even if all recommended safety measures are applied within the European context.

Paraquat is also banned in Kuwait (1985), Cambodia (2003), Ivory Coast (2004), Syria (2005), United Arab Emirates (2005), Sri Lanka (2010) and most recently in Vietnam (2017). Malaysia banned paraquat in 2002 but this was reversed in 2006 to allow its restricted use in oil palm plantations. South Korea cancelled the re-registration of paraquat in November 2011 and banned its sale starting 31 October 2012. In April 2012, China decided to halt all production and use of liquid paraquat by 2016. On February 8, 2017, the Vietnamese government officially announced an immediate ban on Syngenta's paraquat upon having weighed in on the different scientific evidences that showed clear harms of the pesticides both on humans and environment. Doctors from Bạch Mai Hospital in Hà Nội, Vietnam have reported at least one patient everyday hospitalised due to herbicide poisoning, popularly known as paraquat poisoning. The fatality rate after ingesting just 5ml of the chemical is 90 per cent, doctors said. Every year, about 1,000 people die of paraquat poisoning across the country.

In the USA *Gramoxone* must include the warning "fatal in inhaled". But this warning is not included on the product sold in India, which states only "fatal if swallowed". This was uncovered in research for the Monitoring Report submitted by the European Center for Constitutional and Human Rights (ECCHR) in October 2015 to the Panel of Experts on Pesticides Management at the UN Food and Agriculture Organization (FAO).

Many international organizations such as Forest Stewardship Council (September 2005), Rainforest Alliance (June 2009), Fairtrade (May 2014), and the food giant DOLE (October 2007) have voluntarily banned it from their production systems. The ban is due to paraquat's high acute toxicity, irreversible toxic effects (especially on lungs), risk of accidents during handling and use, numerous accidents where the mortality rate was unacceptably high, its persistence in soil and its potential for biomagnification.

However, Syngenta continues to sell and distribute paraquat to other countries, such as South Korea, where paraquat has been used for the past three decades, with an estimated 2,000 toxic ingestions annually and associated 60-70% mortality. Ingestion of paraquat is still common across the world, from the United States to China and from Costa Rica to Malaysia. Chinese authorities have recently

discussed concerns over 5,000 of its citizens dying from paraquat each year. Burkina Faso has recently proposed to add 'Gramoxone Super' to Annex III of the Rotterdam Convention, because of numerous occupational poisonings caused by this common paraquat formulation. (ECCHR, 2011)

Paraquat is a restricted pesticide in the Philippines. Yet, through a strong political will, Benguet officials banned gramoxone in the Cordilleras in July 2009. Benguet officials also called for a nationwide ban on gramoxone in October 2013 following the discovery that it is illegally traded from adjacent provinces which consequently increased poisoning incidence in the Cordilleras.

An International Fact Finding Mission conducted in Mindanao oil palm plantations (Bukidnon and Agusan del Sur) in June 8-12, 2016 by Kilusang Magbubukid ng Pilipinas (KMP), RESIST-TNCs and Pesticide Action Network Asia Pacific (PANAP), and a community monitoring of pesticides use in South Cotabato and Davao del Sur banana plantations in 2015 and 2016 revealed a number of disturbing facts:

1. The five most commonly reported pesticides are paraquat, deltamethrin, glyphosate, chlorathalonil and malathion. The most hazardous of these is paraquat.
2. Pesticide handlers have inadequate training or none at all. Most are unaware of the hazards of pesticides that very few of them were conscious not to spray against wind direction. One sprayer-respondent even clears the applicator nozzle with his mouth.
3. There are plantations where the washing facilities are off-limits to workers. Thus, workers usually go home unwashed or do their washing at the rivers/streams.
4. There are no accessible comfort rooms that there are women workers who urinate on newly sprayed ground. One woman respondent divulged that she is already experiencing pain while urinating and have sores in her private parts.
5. Provision for masks, gloves, coveralls/aprons and boots is limited. Workers had to resort to the use of bra cups as masks since their employers do not provide them replacements once their masks are worn out. Only one pair of boots is provided, and is not sturdy enough to last a year. There are workers with sores on their legs and who have discoloured nails because they cannot afford to buy boots. Goggles are rarely provided. Most of the workers complained of eye pain/itchiness and tearing. Workers usually wear long sleeves and long pants to work. One female worker realized that her back sprayer was leaking only when she felt a searing pain. The paraquat wounded and left a mark on her buttocks.
6. Children as young as 12 years old are employed by the plantations. A woman belonging to the indigenous people that were displaced by the oil palm plantation in Agusan del Sur shared that she and her husband started working in the plantation when they were 12 years old.
7. There is at least one sick member and three types of illnesses per household. There are indications of endocrine disruption as can be deduced from the delayed menarche by most female respondents. There are reports of still

births and deaths within the first year of birth which signify pesticide effects on the foetus.

8. Residential houses were found inside and within the 10 m radius of the banana and palm oil plantations. Respondents from Davao were all exposed to pesticide drift, and there were cases when they were aerially sprayed while eating or on their way to the river to do laundry. Residents also enter newly sprayed areas without adequate protection.
9. There are a sizable number of children at the vulnerable ages of 6 years old and below within the vicinity of the plantations. One respondent recounted that her three-year old child lost consciousness while playing and ended up mentally handicapped. She attributed the cause of the illness to pesticide drift as the incident occurred during an aerial spray.

The UN's International Code of Conduct on Pesticide Management discourages the use of pesticides whose handling and application require the use of personal protective equipment (PPE) that is uncomfortable, expensive or not readily available especially in the case of small-scale users and farm workers in hot climates. Paraquat entails the use of PPE and thus, should not be marketed nor sold in the Philippines where hot climate prevails and where companies are not conscientious in providing adequate PPE.

Paraquat sale and use in the Philippines must be stopped. A nationwide ban on paraquat must be declared immediately to protect life and health, especially our women and children, and the yet to be born, from its hazardous effects.

Everyone's right to life is provided for in Art. 3 of the Universal Declaration of Human Rights (UDHR) of 1949 and in Art. 6(1) of the 1966 International Covenant on Cultural, Civic and Political Rights (ICCPR). Art. 25 of the UDHR declares everyone's right to a standard of living adequate for their health and well-being. Art. 23(1) of the UDHR contains the right to "just and favourable conditions of work". Art. 7(b) and 12(1) of the 1966 International Covenant on economic, social and cultural rights (ICESCR) provide the right to safe and healthy working conditions.

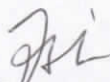
Furthermore, the International Labour Organisation (ILO), has provided for several conventions that specify the right to just and favourable conditions at work in the context of usage of chemicals. The ILO's Occupational Safety and Health Convention C155 of 1981 requires member states to implement "a coherent national policy on occupational safety, occupational health and the working environment" in order to "prevent accidents and injury to health arising out of, linked with or occurring in the course of work, by minimising, so far as is reasonably practicable, the causes of hazards inherent in the working environment" (Art. 4(1) and (2)). Fifty seven (57) states have ratified this convention as by October 2011. The ILO's Chemicals Convention C170 of 1990 requires member states to implement "a coherent policy on safety in the use of chemicals at work" (Art. 4), "to prohibit or restrict the use of certain hazardous chemicals" (Art. 5), and to ensure labelling, "in a way easily understandable to the workers, so as to provide essential information regarding their classification, the hazards they present and the safety precautions to be observed" (Art. 7(2)). This convention has been ratified by 17 states as by October 2011.

The ILO's Safety and Health in Agriculture Convention C184 of 2001 requires member states to establish "specific criteria for the importation, classification, packaging and labelling of chemicals used in agriculture and for their banning or restriction" (Art. 12(a)). Furthermore, it requires that member states "ensure that there are preventive and protective measures for the use of chemicals and handling of chemical waste at the level of the undertaking", including the preparation, handling, application, storage and transportation of chemicals, agricultural activities leading to the dispersion of chemicals, the maintenance, repair and cleaning of equipment and containers for chemicals, and the disposal of empty containers and the treatment and disposal of chemical waste and obsolete chemicals (Art. 13(1) and (2)). This convention has been ratified by 13 states as by October 2011.

With the numerous unaccounted deaths and disabilities due to paraquat, the severity of its effects on the flora and fauna of the areas where it is in use, its banning in 36 countries, and the inappropriateness of PPE in the Philippine climate,

We are submitting this bill in the 17th Congress to push for a nationwide ban on Paraquat.

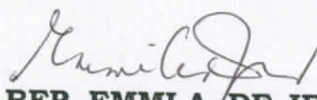
The authors strongly urge this House to pass it promptly.



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**AN ACT
PROHIBITING THE DISTRIBUTION, SALE AND USE OF PARAQUAT IN THE
PHILIPPINES**

*Be it enacted by the Senate and House of Representatives of the Philippines in
Congress assembled:*

Section 1. Title. This Act shall be known as the 'Paraquat Use Prohibition Act of 2017'.

Section 2. Declaration of State Principles and Policies. Pursuant to Section 15, Article II of the Philippine Constitution, which declares that the State shall protect and promote the right to health of the people and instill health consciousness among them, as well as Section 16, Article II of the Philippine Constitution, which further declares that the State shall protect and advance the right of the people to a balanced and healthful ecology in accord with the rhythm and harmony of nature, it is hereby the declared policy of the State:

1. To ensure the protection and promotion of these Constitutionally guaranteed rights to health and balanced ecology of the people, including generations yet to be born;
2. To protect the people from the hazards of the environmentally degrading and health threatening agricultural practice of using glyphosate to control weeds; and
3. To adopt the precautionary principle in assessing projects which are environmentally critical.

Section 3. Definition of terms. For purposes of this Act, the following terms shall be understood as follows:

- a) **Back spraying** refers to the application of substances, including but not limited to pesticides and any other hazardous substances.

b) Agricultural activity, in relation to this Act, refers to the cultivation of the soil, sowing of seeds, planting of crops, growing of fruit trees, and shall include, among others, the following activities: land preparation, seeding, planting, cultivation, harvesting, bagging, and other activities and practices performed in conjunction with farming operations.

c) Agricultural entity refers to any person, whether natural or juridical, who is involved in agricultural activities.

d) Banned pesticide or herbicide is a pesticide or an herbicide for which all registered uses have been prohibited by a government action or for which all requests for registration or equivalent action for all uses have, for health or environmental reasons, not been granted.

e) Global Positioning System survey refers to a survey plan to be made with the aid of Global Positioning System showing the metes and bounds of each agricultural farm/plantation that shall be submitted to the Office of the Mayor of the municipality/city which has jurisdiction over concerned agricultural farms/plantations.

f) Hazardous substances refer to substances which present either:

1. Short-term acute hazards, such as acute toxicity by indigestion, inhalation or skin absorption, or other skin or eye contact hazards, or the risk of fire or explosion; or

2. Long-term hazards, including chronic toxicity upon repeated exposure, carcinogenicity, resistant to detoxification process, such as biodegradation, the potential to pollute underground or surface waters, or aesthetically objectionable properties such as offensive odors; or those substances which the Fertilizer and Pesticides Authority (FPA) under the Department of Agriculture and other government agencies will identify as hazardous.

g) Herbicide refers to any substance or product, or a mixture thereof, including active ingredients, adjuvants and formulations, intended to control, prevent, destroy, repel, or mitigate, directly or indirectly, any unwanted plant/weed.

h) Imminent hazard refers to a situation which exists when the use of a pesticide or herbicide will likely result in unreasonable adverse effects on the public and/or the environment or will involve unreasonable hazards to the survival of species declared endangered by the appropriate authorities.

i) Paraquat refers to herbicides with 1,1'-dimethyl-4,4'-bipyridinium dichloride (chemical formula $C_{12}H_{14}N_2$) as active ingredient.

j) Pest refers to any form of plant or animal life, or any pathogenic agent injurious or potentially injurious to plants or plant products.

k) Pesticide refers to any substance or product, or a mixture thereof, including active ingredients, adjuvants and pesticide formulations, intended to control, prevent, destroy repel or mitigate, directly or indirectly, any pest. The term shall be understood to include insecticide, fungicide, bactericide, nematocide, herbicide, agaricide, molluscicide, avicide, rodenticide, plant regulator, defoliant, dessicant, and the like.

l) **Restricted pesticide** or herbicide is a pesticide for which virtually all registered uses have been prohibited by final government regulatory action, but for which certain specific registered use or uses remain authorized. It may not be allowed for distribution, sale and use in certain crops and/or areas of the country; and may be used only by and under the supervision of certified applicators, or under such conditions as the FPA executive director may require.

m) **Toxicity** refers to a physiological or biological property determinative of the capacity of a chemical to do harm or produce injury to a living organism through non-mechanical means.

n) **Unauthorized pesticide or herbicide** is a pesticide or herbicide for which registration has been denied by the government.

o) **Weed** refers to any form of plant injurious or potentially injurious or perceived to be injurious to agricultural crops.

Section 4. *Ban on the distribution, sale, and use of Paraquat in agriculture and other activities.* The distribution, sale, and use of glyphosate for agriculture and other pest management activities are hereby declared as contrary to law. Its distribution, sale, and use in the Philippines are hereby declared illegal and punishable under this Act.

Section 5. *Scope and presumption.* The provision of this Act shall apply to the distribution, sale, and use of Paraquat in all agricultural and pest management activities; Provided, that the detection of glyphosate residues in the agricultural crops, food, and environment is a *prima facie* evidence of the commission of the act.

Section 6. *Liability.* Any person, natural or juridical, who distributes, sells, buys, or applies Paraquat shall be held liable and penalized under section 10 hereof. Provided, that if the violator is a corporation, partnership or any other juridical entity, the penal provisions hereof shall be applied to the members of the Board and the officers of the corporation, the managing partner in the case of partnership, or the equivalent head in the case of any other juridical entity or any other person acting on their behalf who have acquiesced or consented to the distribution, sale, use and application of glyphosate. In the case of a corporation, the indictment shall include the manager of the department directly responsible for the commission of the act

Section 7. *Implementing agencies.* The Fertilizer and Pesticide Authority (FPA) shall be primarily responsible for the implementation and enforcement of this Act.

Section 8. There shall be created a municipal or city inspection and monitoring committee, to monitor compliance with this Act, to be composed of representatives of farmers'/farmworkers' organizations, environment protection advocates, civil society, church people, and youth organizations. The municipal/city agriculturist, municipal/city health officer, community environmental officer, and the municipal/city chief of police shall be automatic members of the inspection and monitoring committee.

The municipality/city-based inspection and monitoring committees shall be co-headed by the municipal or city health officer and the municipal or city agriculturist. It shall have inspectorial and investigative powers, with the power to

issue subpoena *duces* and *ad testificandum*, in cases where complaint for possible violation of this Act has been reported or filed to the committee.

Any persons who shall delay, prohibit, bar, cause the delay or prohibition of the inspection and investigation of the committee shall be subject the corresponding penalty herein-below provided.

Any person or entity who shall fail to obey the subpoena of the committee may be held liable for contempt and punished accordingly in accordance with the provisions of the Rules of Court on Contempt.

The committee, after conducting inspection or investigation, shall submit its report to the FPA which shall thereafter cause the prosecution of any violator of this Act.

Section 9. Documentation/Inventory. All distributors, suppliers, and sellers of pesticides and herbicides shall be required to submit a list of the products they distribute, supply, or sell to the city or municipality monitoring committee where they are based. The failure to do so shall merit suspension or cancellation of business permit and their operation.

Any person or entity using any pesticide or herbicide shall be required to submit to the monitoring committee a report which shall include, but not limited to the following:

- a. The area covered by these agricultural farms/plantations where the pesticide or herbicide shall be used or applied.
- b. Main crop produced by these agricultural farms/plantations
- c. Pesticides used or intended to be use in the farm or plantation.

Section 10. Penal provisions. The penalty of *prision mayor* shall be imposed upon any person or entity found to have violated section 4 of this Act.

The aerial spraying and similar operations with the use of glyphosate shall be considered an aggravating circumstance and any person or entity found guilty thereof shall be punished with a penalty next higher in degree.

The penalty of *prision correccional* shall be imposed upon any person or entity found to have violated the provision of the third paragraph, of section 8 hereof.

In addition, the following fines shall be imposed:

1. For violation of Section 4, a fine of not less than fifty thousand Philippine pesos (P50,000.00) but not more than one hundred thousand Philippine pesos (P100,000.00) per day shall be imposed upon the owner of the plantation who actually instructed the use of glyphosate;
2. For failure to submit report under Section 9, second paragraph of this Act, a fine of not less than fifty thousand Philippine pesos (P50,000.00) shall be imposed;
3. The filing of a criminal action under this Act shall be without prejudice to the filing of civil and administrative cases against the violators hereof by the persons or communities affected by the use of Paraquat.

Section 11. Implementing Rules and Regulations. Within sixty (60) days after the effectivity of this Act, the Department of Agriculture, through the Fertilizer and

Pesticide Authority, in coordination with the DILG, DENREMB, and DOH, shall formulate and issue Implementing Rules and Regulations of this Act.

Section 12. *Separability clause.* If any part or provision of this Act is declared void or unconstitutional, the remaining provisions thereof shall remain in full force and effect.

Section 13. *Repealing clause.* All other laws, decrees, rules and regulations, orders, and issuances inconsistent with the provisions of this Act are hereby repealed or modified accordingly

Section 14. *Effectivity clause.* This Act shall take effect after fifteen (15) days following its publication in the Official Gazette or in any newspaper of general circulation.

Approved.