

Community Pesticide Action Monitoring in Mindanao

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PESTICIDE POISONINGS

In the South, an estimated 25 million agricultural workers may suffer one incident of pesticide poisoning each year.





Title of Report: Community Pesticide Action Monitoring in Mindanao, Philippines

Participating Organizations:

Pesticide Action Network Philippines

Pesticide Action Network Asia Pacific (PANAP)

Kilusang Magbubukid ng Pilipinas (KMP)

Kilusang Mayo Uno (KMU)- CARAGA

Citizens Alliance Unified for Sectoral Empowerment Davao del Sur
(CAUSE-DS)

Sitio Buloy Indigenous People's Organization, Davao del Sur

BAYAN(Bagong Alyansang Makabayan)-SOCSKSARGEN

Community Primary Health Care (CPHC)--SOCSKSARGEN

KALUMBAY (Indigenous People's Organization,Northern Mindanao)

SENTRA (Sentro para sa Tunay na Repormang Agraryo)

European Center for Constitutional and Human Rights

Center for International Law (Centerlaw)

Community-based Pesticide Action Monitoring (CPAM)

- Community-based monitoring refers to a systematic and participatory process of generating and analyzing information at the community level for action.
- Regular monitoring facilitates continuous and timely flow of awareness-raising information that may encourage community members to actively pursue steps leading to a change in their life situation.

Objectives of CPAM

- Empower communities to tackle the hazards of pesticides
- Ensure safe food and foods free from pesticides
- Build a national and global consensus to eliminate the health and environmental hazards of pesticides
- Counter the influence of agrochemical and seed corporations in order to benefit small-scale farmers in developing countries
- Support and promote the development of ecological, locally appropriate agriculture, which brings food security and other benefits

STUDY SITES AND METHODOLOGY

- Areas in Mindanao with banana and oil palm plantations were chosen as study sites.
- Individual interviews and focused group discussions (FGDs) were done by Barangay Health Workers or community organizers from participating organizations.
- Data gathering done in two cycles, from May to September 2015, and from June to July 2016, in communities in Davao del Sur and South Cotabato where banana plantations were located and in Agusan del Sur and Bukidnon where there were oil palm plantations. Additional data were gathered during the International Fact Finding Mission on the use of Paraquat in Oil Palm Plantations in Mindanao done from June 8-June 12, 2016.





Distance from the plantation

Many of the participants live within the 10 meter distance from the plantation edges, and there were those who live within the plantation itself.







Demographic profile of respondents

Demographic profile of participants.

Characteristic	No.	Total
Sex		
Male	35	57
Female	22	
Marital status		
Married	41	57
Single, Widow/er, Sep.	16	
Age group		
18 - 19	0	53
20 - 39	23	
40 - 59	20	
60 - \leq 80	10	
Level of Education		
Grade school	26	55
High school	23	
Vocational	2	
College	4	

Children in Households

Age Range	No.
<u><</u> 1 year old	1
1-6 years old	9
7-12 years old	16
13-17 years old	18
Unspecified	36
Total	80

Occupation of respondents

Twenty respondents were connected with the plantation either as a general worker (19) or as aerial crew (1) at the time of the interview. Another twenty of the respondents used to do odd jobs in the plantation as a harvester, sprayer, feed processor or guard. Three of them have worked in the plantation for 25 to 26 years.

Use of Pesticide at Work

Use of pesticide at work.

Response	No.
No	21
Yes	35
Total	56

Activity with pesticide.

Response	Freq.
Spraying	26
Mixing	17
Injecting	1
Loading	19
Applying in the field	1
Bagging	2
Others	6

Duration of exposure

Exposure to pesticides had a mean duration of nine years and the frequency of pesticide use and exposure was mostly 4-8 hrs/day. Eighteen of the respondents were backpack sprayers. There were 11 cases of accidental exposure.

Exposure to pesticides

All respondents from Davao del Sur said that they were regularly exposed to aerial spray because of the banana plantation. People passing through the immediate vicinity of the plantation are hit by the pesticides being aeriually sprayed. Sometimes, people are directly hit by the aerial spraying while they are eating.

Only one respondent was conscious of not entering a newly-sprayed field. Respondents do not eat or drink while spraying (knapsack sprayer).

Personal Protective Equipment (PPE)

| PPE worn by the respondents and frequency of use.

Items	None	100% of the time	50% of the time	Rarely
Coveralls	15	10	0	0
Goggles	19	6	0	0
Face Shield	17	6	1	0
Face Mask	4	8	4	9
"Respirator"	18	6	2	0
Apron	16	4	4	0
Gauntlet Gloves	7	13	3	5
Boots	0	25	1	2
Face Cloth Towel	0	4	30	0

Use of PPE

Of the 35 respondents that answered the query on the use of PPE, 31 wore PPE. They normally had personal caps, long sleeves, long pants, boots and face cloth towel at work. The towel served as “respirator” and face shield/mask. Coveralls/apron, gauntlet gloves and respirator were provided to some. Only six had goggles.

Use of PPE

Focused group discussion (FGD) participants said that the masks and gloves lasted one month, while the aprons lasted for five months. The apron was of the same material as a raincoat.

Respondent workers in the oil palm plantation in Agusan del Sur said that PPE was provided only when the union asked for it. PPE was given once a year. Torn PPE was not replaced as the company emphasized that it is the workers' responsibility to ensure that the PPE does not break. Thus, several of them resorted to the use bra cups as substitute to masks.

Washing PPE

Person who washes the PPE.

	Freq.
Respondent	10
Spouse	13
Respondent & Spouse	1
Spouse & child	1
Laundrywoman	2
N	27

Place where PPE is washed.

	Freq.
Brook	6
Creek	5
Workplace: Faucet	3
Workplace: Stored water	11
Home: Faucet	14
Do not wash PPE	3

Impact of pesticides on water



1. Water Pollution
2. Decreasing volume of clean water for household use
3. Killing of organisms in water bodies
4. People lose access to potable water and the benefits of uncontaminated water

Washing PPE and pesticide containers

Most respondents wash their equipment at their workplace or at home at a faucet or using the stored water in drums.

Sometimes, washing is done in a brook, creek, or field. Some leave the equipment unwashed.

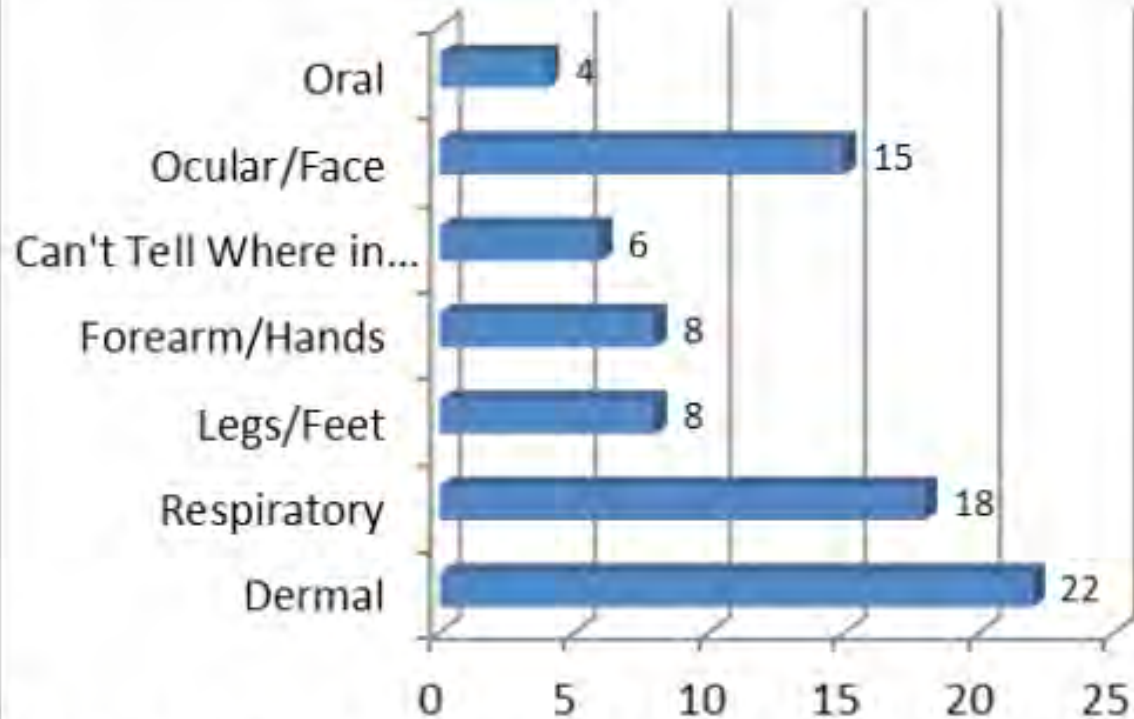
The respondents or their spouses usually do the washing.

Washing facilities

An FGD participant from the oil palm plantation in Bukidnon said that the washing area of the company was restricted and off-limits to him and his co-workers. Thus, they used the creek to wash themselves and the equipment. They did not regularly wash at home since water was limited. His co-worker never washed after mixing pesticides because “...when you put the water in, it (the pesticide) will also go through your hands.” Another respondent added that they did not bathe to avoid *pasma*.

There were times that workers could not wash when the stored water runs out. On these occasions, they washed in rivers, brooks or creeks, or at home.

Pesticide Spillage



Body parts affected during spillage and frequency.

Pesticide spillage

Most of the respondents experienced spillage while backspraying, circle spraying, loading and mixing. Sometimes, parts of the knapsack break and the workers usually try to fix it on their own since it was often not possible to have it fixed by the company. Leaks were sealed with plastic and clogged nozzles were loosened. A respondent reported that he wraps the clogged nozzle with tissue and loosens it with his mouth. Another used sardine cans to measure pesticides which get into contact with his hands. Another said that during spraying, pesticide would flow from her knees towards her feet and this caused blackening of her nails and toes.

Training on pesticide use

Of the 34 plantation workers who responded to the query, only 17 had training on pesticide use and handling.

One respondent said that she was only taught the manner of pesticide application, and how to measure. Only the regular employees receive training on health and safety, she added. A co-worker explained to her the hazards of pesticides.

Another respondent learned about the dangers of the pesticide he was using because of the symptoms he experienced after handling it. He also shared that a fellow sprayer was paralyzed and he attributed the disease to the pesticide.

Another respondent said he was told to use PPE in work but the gloves was easily torn and no replacement was provided. Financially incapable to buy gloves, he had been handling pesticides with bare hands.

List of Pesticides Used

Insecticides

Decis (Deltamethrin)

Malathion

Karate (Lambda-cyhalothrin)

Cymbush (Cypermethrin)

Lorsban (Chlorpyrifos)

Herbicides

Gramoxone (Paraquat)

Clear-Out (Glyphosate)

Round-Up (Glyphosate)

Shadow (dimethenamid, etc.)

2,4-D

Garlon (Triclopyr)

Insecticide-Nematicide

Furadan (Carbofuran)

Mocap (Ethoprop)

Fungicides

Daconil (Chlorothalonil)

Antracol (Propineb)

Banguard (Thiram)

Benlate (benomyl)

Others

Jackpot (*Bacillus
thuringiensis*)

Green Mustard

Illnesses of Respondents: Examples

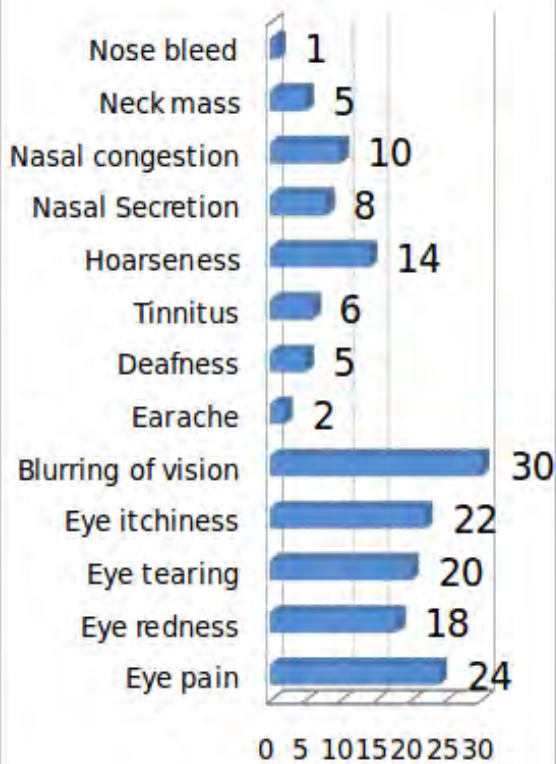
Headache, blurring of vision, nausea, coughing, eye pain and skin itchiness were the most common ailments among the respondents. According to a respondent who started working at the oil palm plantation in 1980, she noticed injuries due to pesticides in 2004. She started coughing and her eyes became blurred. She had then several instances of losing consciousness. Her skin became very dry and her fingers would feel numb. She went to a medical clinic but was not given a prescription. She started getting headaches in 2008.

Another respondent had the same complaints, and in addition to these, had found it painful to urinate. She had frequent itching in her inguinal area. She thought that these were due to pesticides since she used to urinate on newly sprayed ground. Another respondent also reported of having breast cysts and myoma. She did not see a doctor after quitting her job in 2014 for she could not even afford the transportation fare to the clinic.

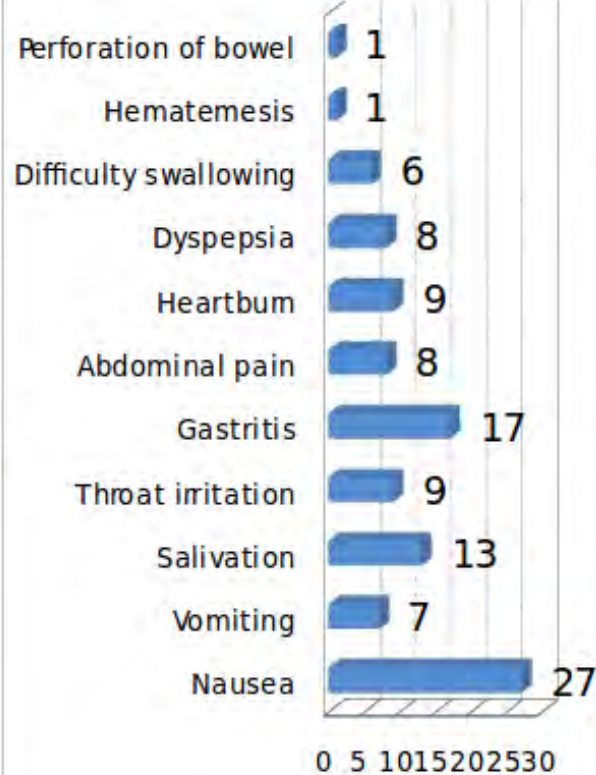


Signs and Symptoms of Respondents

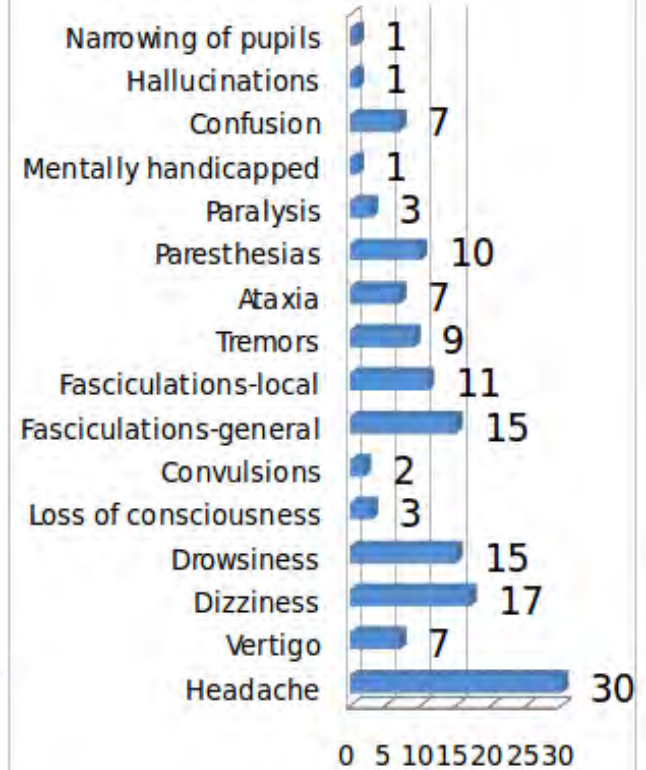
EENT



Gastro-Intestinal



Neurological





Tboli resident with eye disorder, exposed to aerial spraying by banana plantation



Child with acute respiratory disease, Sumifru plantation, Tboli South Cotabato

Child exposed to paraquat and other pesticides in an oil palm plantation



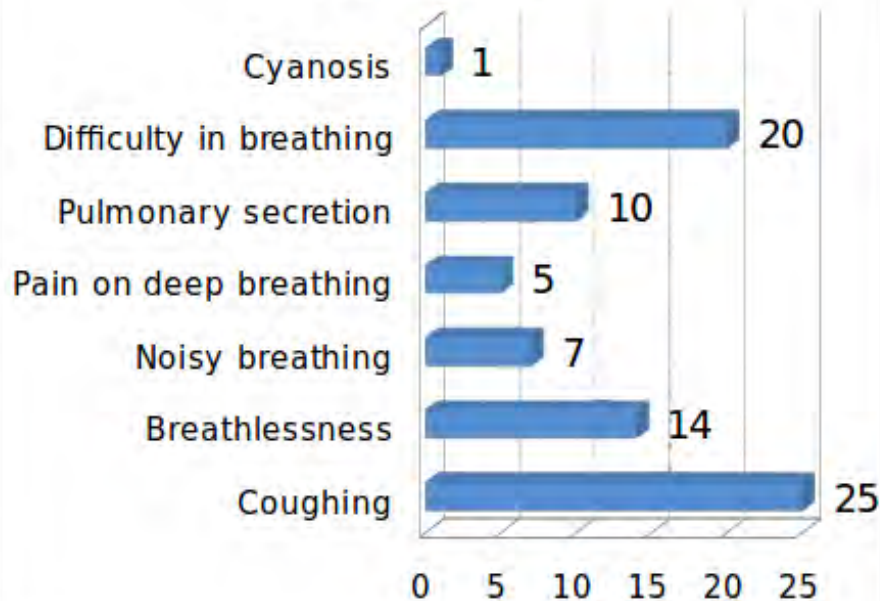
Effects of Pesticides Used by the Banana Plantation on Children



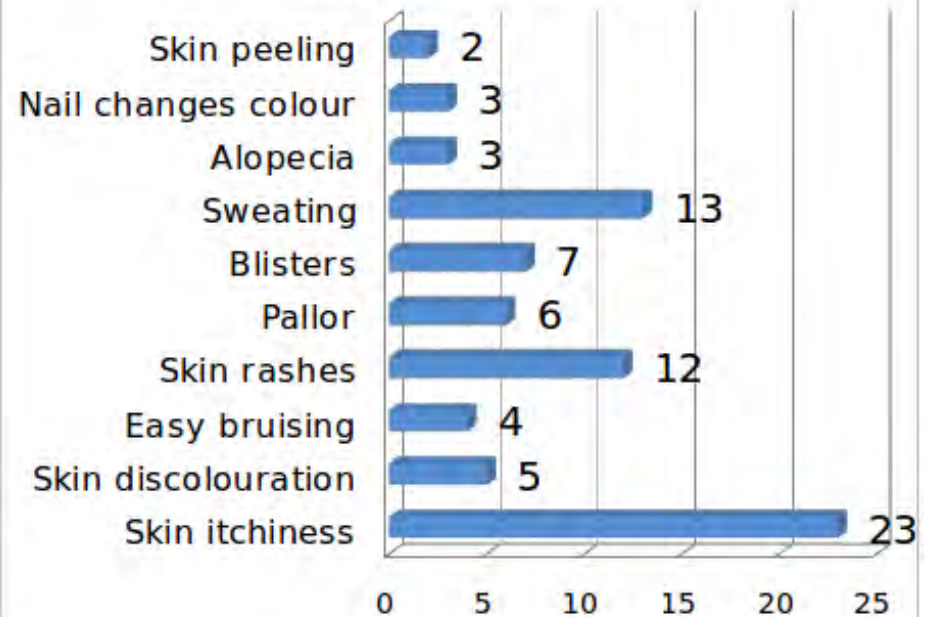
1. Stinging of the eyes and itchy skin
2. Gastrointestinal and respiratory ailments
3. Deformities among new born babies
4. Impaired mental and psychomotor development
5. Anemia and other blood diseases

Signs and Symptoms of Respondents

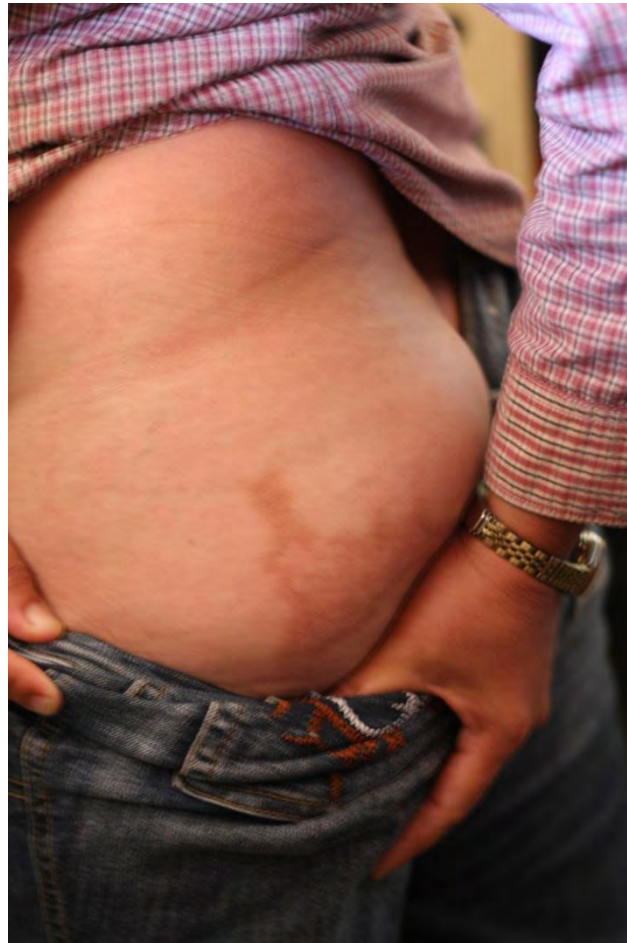
Respiratory



Integumentary



Scarring due to paraquat spill



Blindness due to paraquat exposure



Chronic Dermatitis Due to Repeated Immersion in Plantation Canals



Effect of paraquat on skin and nails



Nail erosion due to paraquat exposure



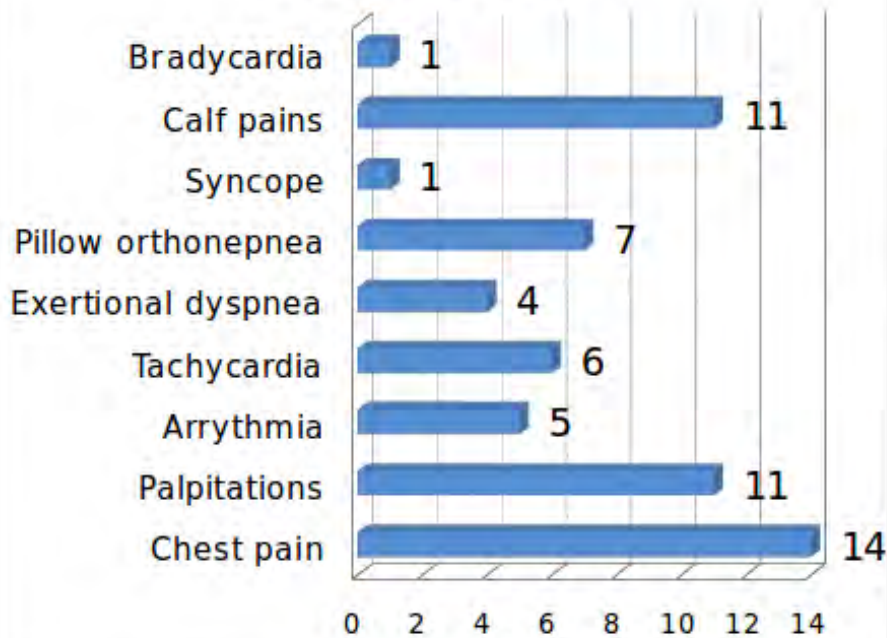
Skin discoloration due to paraquat spillage



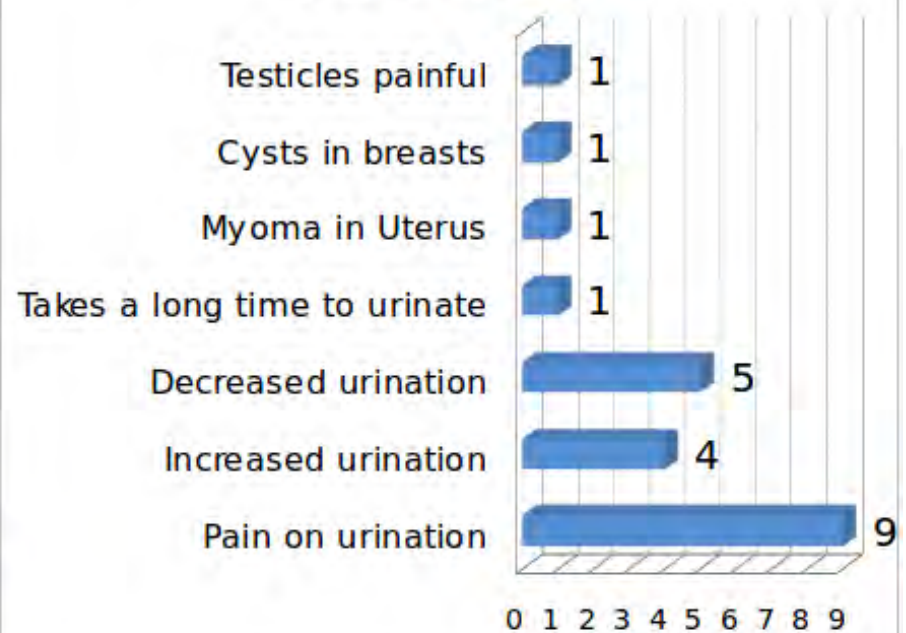


Signs and Symptoms of Respondents

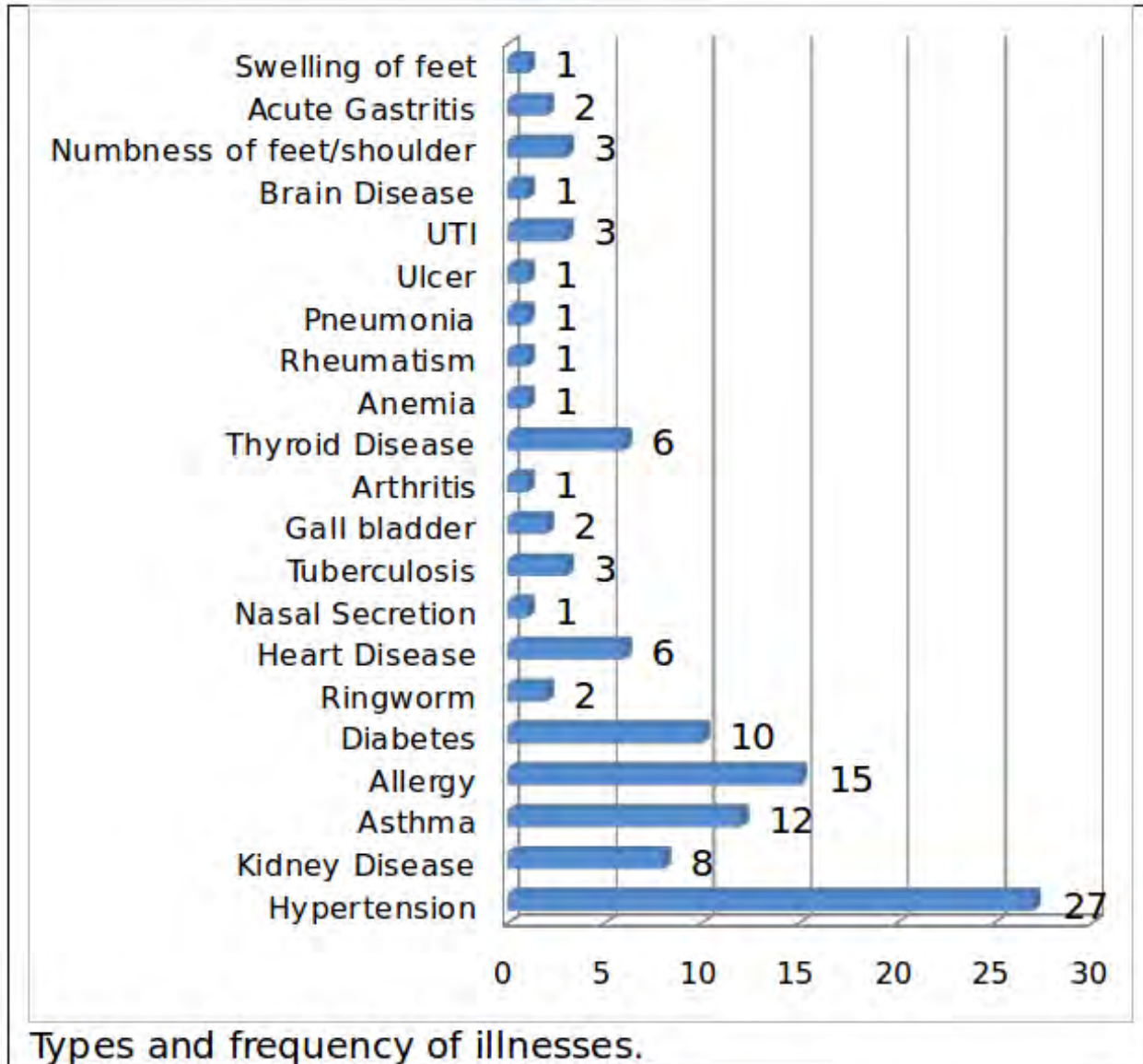
Cardio-Vascular



Genito-Urinary



Illnesses Reported in Households



RESULTS

Presence of people, especially children, inside and within the 10 meter periphery of the banana and oil palm plantations.

Respondents from a banana plantation community in Davao del Sur were all exposed to aerial spraying of pesticides and there were cases when they were sprayed while eating or while on their way to the river to do laundry. One respondent said a three-year old child was exposed to the pesticide drift while playing, making her lose consciousness and ended up mentally handicapped.

Results

The absence or inadequacy of training given to most of the pesticide handlers. Very few were conscious not to spray against wind direction. This is made worse by the fact that there were respondents handling paraquat, a highly hazardous pesticide that has been banned in many countries. Not knowing the dangers, handlers were not mindful of restricting contact with the pesticides, with one even declogging the pesticide applicator nozzle with his mouth.

Results

Abusive and inhumane treatment of plantation workers in the plantation. Making the washing facilities off-limits to plantation workers, not providing accessible comfort rooms, and limiting the provision for masks, gloves, coveralls/aprons and boots to the workers have increased the risk of pesticide-induced illnesses. Because of lack of safety procedures for washing pesticide equipment and their bodies, pesticide residues get into the workers' skin and private parts resulting to dermal and other diseases. The workers had to resort to the use of bra cups as masks or "respirator" since their employers do not provide them replacements once their masks are worn out.

Results

The illnesses reported by the respondents are clearly indicative of pesticide poisoning as the major causative factor.

The five most reported pesticides were paraquat, deltamethrin, glyphosate, chlorathalonil and malathion. The most highly hazardous of these is paraquat. The WHO misleadingly classifies it as Class II, moderately toxic, but it should be reclassified as Class I because of its very high acute toxicity, delayed effects and lack of antidote.

Conclusions

The plantation workers and the communities within and near the plantations are adversely affected by the plantations' use of highly hazardous pesticides.

The corporations that run the banana and oil palm plantations do not comply with national and international regulations pertaining to the use of agrochemicals and do not abide by their corporate responsibility of ensuring the safety of their workers and the nearby communities.

The corporations violate the basic human rights (right to health, right to safe working conditions, etc.) of the workers and community residents, esp. children & women).

RECOMMENDATIONS

- 1. Concerned government institutions and agencies (e.g. House of Representatives, Department of Health, Dept. of Agriculture, Dept. of Agrarian Reform, etc.) should conduct a thorough investigation of the reported health and environmental impacts of pesticides used in banana and oil palm plantations, particularly the use of paraquat and other highly hazardous pesticides.**

Recommendations

2.The banana and oil palm plantations should be made accountable for violations of national and international regulations on Occupational and Health Safety , including cancellation of their business permits, if warranted.

Recommendations

- 3. The corporations should be made accountable for both human and environmental damage and be made to indemnify workers and residents of communities who have been adversely affected by their harmful practices.**

Recommendations

- 4. Concerned government agencies should ensure, through appropriate implementation of relevant laws and regulations, and through additional legislation and policies, that workers and communities, especially children, are adequately protected from potentially harmful practices of banana and oil palm plantations, especially the use of highly hazardous pesticides.**

Recommendations

- 5. Highly hazardous pesticides, particularly, paraquat and glyphosate, should be immediately banned for use in the Philippines.**

WHY?

Lack of community participation

Arrogance of power

Gross ignorance

Unethical, unprofessional behaviour

Triumph of money

Mis-use of science and technology

Expediency over moral duty

WHY?

Neoliberal Globalization

- Neoliberal theory proposes that human well-being can best be advanced by an institutional framework characterized by strong private property rights, free markets, and free trade.
- Key elements of neoliberalism include:
Liberalisation, Deregulation and Privatization







What needs to be done?

Mitigating Measures

Activated charcoal





Moringa oleifera



What needs to be done?

- **A** wareness raising
- **N** etworking among groups
- **T** echnical capacity building
- **I** nformation exchange/monitoring
- **D** eepening of understanding
- **O** rganizing concerned people
- **T** ransformative action
- **E** mpowerment of people



INDE KAMI PISTE
TAO KAMI !!
-BATOAN-
-BATOAN-

AERIAL SPRAY
STOP NOW !!
-BATOAN-

INDE KAMI PIKTI
TAO
-BATOAN-

AERIAL SPRAY
STOP NOW !!
-BATOAN-

BAN AERIAL SPRAY
OF TOXIC CHEMICALS !!
-BATOAN-

INDE KAMI PISTE
TAO KAMI !!
-BATOAN-

BAN AERIAL SPRAY
OF TOXIC CHEMICALS
-BATOAN-

PEOPLE POWER !





I LOVE Organic
FOOD!!!
No To Pesticides!!!
David Q. A Dapon