



Report

Study on Pesticides Impacts to Health and Environment in Xiengkhouang Province

1. Activity Overview:

Title of activity: Study on Pesticides Impacts to Health and Environment in High Risk Areas

Target site: Xiengkhouang province

Implementation Organisation: Community Development and Environment Conservation Foundation (ECDECF)

Funded by: HELVETAS/ LURAS

Date: 31May - 3 June, 2016

2. The target sites and participants:

No	Target sites	Participants						Total	Female
		Farmers		Student and child		Consumer			
		Male	Female	Male	Female	Male	Female		
1	PAFO	-	-	-	-	45	31	76	31
2	Hoi village	20	40	10	26	-	-	96	66
3	Vieng village	25	60	21	21	-	-	127	81
4	Na oung village	43	68	29	27	-	-	167	95
5	Xieng kiew	39	80	26	39	-	-	184	119
6	Administration of Kham	-	-	-	-	68	49	117	49
Total		127	248	86	113	113	80	767	441

3. Summary activity:

This is the first activity that HELVETAS/LURAS funded on study impacts to health and environment in high risk areas to Community Development and Environment Conservation Foundation (ECDECF) covering the period from May - July, 2016.

The objective of this study to conduct the study on pesticides impacts to children, community and environment and to disseminate finding to concern agency for developing the strategies and action plan to reduce the used of pesticides. nowadays. we have already done activity one on the 26- 27May, 2016, and activity two at four villages, three districts, and two places for consumer in Xiengkhouang province, such as PAFO, Hoi village, Khoun district, Vieng village, Paek district, Na oung and Xiang kiew villages, Kham district, Administration of Kham office on the 31 May - 3 June, 2016.

• Linking with government:

We have collaborated with Food and Drug Quality Control Centre(FDQCC) Ministry of Health. Provincial agriculture office (PAFO) Xiengkhouang. Khoun district agriculture office. Paek district agriculture office. Kham district agriculture office. Provincial education office. Khoun district education office. Paek district education office. Kham district education office, and provincial health office. Khoun district health office. Paek district health office. Kham district health office to work on the blood test and pesticides impacts to schoolchildren and farmer in high risk areas (Khoun, Paek and Kham districts, Xiengkhouang province)

3.1. The blood test:

we have already done the blood test at four villages within three districts, and two places for consumer in Xiengkhouang province, such as PAFO, Hoi village, Khoun district, Vieng village, Paek district, Na oung and Xiang kiew villages, Kham district, Administration of Kham office for the result as below:

No	Target site	Target group	The blood test result								Total
			Normal		Safe		Risk		Unsafe		
			M	F	M	F	M	F	M	F	
1	PAFO	Consumers	2	2	20	13	18	11	5	5	76
2	Hoi	Farmers	-	1	4	8	10	24	6	7	60
		School children	-	1	4	10	5	11	1	4	36
3	Vieng	Farmers	1	4	9	21	8	24	7	11	85
		School children	-	2	9	9	12	9	-	1	42
4	Na oung	Farmers	1	11	21	31	17	21	4	5	111
		School children	8	1	13	10	8	14	-	2	56
5	Xieng kiew	Farmers	2	9	17	49	16	20	4	2	119
		School children	6	9	13	22	7	7	-	1	65
6	Admin..of Kham	Consumers	2	1	29	18	31	27	6	3	117
Total			22	41	139	191	132	168	33	41	767



#. Number of participant: 767 persons, Female: 441 persons
- Normal: 63 persons, Female: 41 persons
- Safe: 330 persons, Female: 191 persons
- Risk: 300 persons, Female: 168 persons
- Unsafe: 74 persons, Female: 41 persons
#.School children: 199 persons, Female: 113 persons
- Normal: 27 persons, Female: 13 persons
- Safe: 90 persons, Female: 51 persons
- Risk: 73 persons, Female: 54 persons
- Unsafe: 9 persons, Female: 8 persons
#. Farmers: 375 persons, Female: 248 persons
- Normal: 29 persons, Female: 25 persons
- Safe: 160 persons, Female: 109 persons
- Risk: 140 persons, Female: 89 persons
- Unsafe: 46 persons, Female: 25 persons
#. Consumers: 193 persons, Female: 80 persons
- Normal: 7 persons, Female: 3 persons
- Safe: 80 persons, Female: 31 persons
- Risk: 87 persons, Female: 38 persons
- Unsafe: 19 persons, Female: 8 persons



3.2. Pesticides survey:

we have already done the pesticides survey at four villages, three districts, Xiengkhouang province, such as PAFO, Hoi village, Khoun district, Vieng village, Paek district, Na oung and Xiang kiew villages, Kham district, Administration of Kham office for the result as below:

3.2.1. Chemical:

Address: Xiengkhouang province								
Day of survey: 31 May - 3 June, 2016								
Number of farmers: 127 farmers, Female: 82 persons								
No	Village	Trade name	Common name	Color code	Toxic level	Chemical family	Type of chem	#.of farmer use
1	Hoi	Aparse	Cypermethrin	Blue	II	Py	Insecticide	5
		Sevin	carbaryl	Yellow	II	C	Insecticide	13
2	Vieng	Sevin	carbaryl	Yellow	II	C	Insecticide	40
		Good knock	Cypermethrin	Blue	II	PY	Insecticide	4
3	Na oung	Sevin	carbaryl	Yellow	II	C	Insecticide	48
		Good knock	Cypermethrin	Blue	II	PY	Insecticide	1
4	Xiang kiew	Sevin	carbaryl	Yellow	II	C	Insecticide	20
		Good knock	Cypermethrin	Blue	II	PY	Insecticide	6
		Gramoxol	Paraquat	Yellow	II	-	Herbicide	1
Total		3	3					



3.2.2. Amount:

Address: Xiengkhouang province					
Day of survey: 31 May - 3 June, 2016					
Number of farmers: 127 farmers, Female: 82 persons					
No	Village	Type of crop	Area of plot	# of day exposed/ year (c * d * e)	Total amount used litters/ year(a * b * d * e)
1	Hoi	Chinese mustard	3.6 Rai	62	3536
2	Vieng	Chinese mustard	36 Rai	478	12844
3	Na oung	Watermelon,..	72 Rai	214	5584
4	Xieng kiew	Watermelon,..	42Rai	232	6790
Total			153.6 Rai	986days/year	28,754L/year
#. Average litre per person per year - 8 L/p/y (25.6 ha)					
#. Average spray day per person per year- 227days (Max= 150 days, Min= 1 day per person per year)					

3.2.3. Behaviour:

Address: Xiengkhouang province				
Day of survey: 31 May - 3 June, 2016				
Distance from Spraying area to School/ Community : very closed Meters/Km				
Number of farmers: 127 farmers, Female: 82 persons				
Protective Equipments and Behaviors in Spray Session				
X=yes	No	Spraying behaviour	Amount of farmer	Percentage
x	1	Use protective clothes when mixing	75	59%
x	2	No use protective clothes when mixing	41	32%
x	3	Touch eyes while spraying	4	3%
x	4	Touch face while spraying	5	3%
x	5	Get soak with diluted chemical from spraying	3	2%
x	6	Observe wind direction while spraying	9	7%
x	7	Leaking Equipment	5	3%
x	8	spraying	4	3%
x	9	Eat during spraying	2	1%
x	10	Drink during spraying	24	18%
x	11	Shower after spraying	104	81%
x	12	Wash clothes together with other clothes	33	25%
x	13	Wash tank and equipment in water source	48	37%

X= yes		PPE		
x	14	Uses normal cap	62	48%
x	15	Mong hat	12	9%
x	16	Uses helmet	2	1%
x	17	Use farmer hat	28	22%
x	18	Uses other hat	6	4%
x	19	No hat	13	10%
x	20	Uses eye glasses=safety goggles	17	13%
x	21	No eye protection	88	69%
x	22	Use clothes to cover face	25	19%
x	23	Uses mask	25	19%
x	24	No mask	28	22%
x	25	Shirt with long sleeves	119	93%
x	26	Shirt with short sleeves	6	4%
	27	No Shirt	-	
x	28	Long pants	117	92%
x	29	Short pants	1	2%
x	30	Cloth gloves	12	9%
x	31	Medical gloves(white color and thin rubber gloves)	22	17%
x	32	Rubber gloves (orange color and thick rubber gloves)	75	59%
x	33	No gloves	13	10%
x	34	Boots	114	89%
	35	Canvas shoes	-	
x	36	Sandal	6	4%
x	37	Other shoes	1	2%
x	38	No shoes	2	1%

3.2.4. Storage and Disposal:

Address: Xiengkhouang province				
Day of survey: 31 May - 3 June, 2016				
Number of farmers: 127 farmers, Female: 82 persons				
Risk to	Storage		Disposal	
	Safe	Unsafe	Safe	Unsafe
Children	21	106	88	19
Food in home	84	43	115	12
Drinking water	97	30	83	8
Domesticated animals	23	104	76	51
Natural food source	37	80	9	116

3.2.5. Sign and Symptom:

Address: Xiengkhouang province			
Day of survey: 31 May - 3 June, 2016			
Number of farmers: 127 farmers, Female: 82 persons			
Signs and Symptoms Occurred from Pesticide Contamination to Health Effects			
X= yes	No.	Sign and Symptoms	Amount of farmer
X	1	* burning nose	5
X	2	* insomnia	1
X	3	* red eyes	1
X	4	* burning / stinging / itching eyes	23
X	5	* excessive tearing	3
	6	* runny nose	-
X	7	* excessive salivation	12
X	8	* dizziness	40
X	9	* exhausted	12
X	10	* headache	25
X	11	* short of breath	18
X	12	* muscle weakness	1

	13	* skin rashes / redness / white rash / scale / dryness	-
	14	* sweating	-
X	15	* itching skin	2
X	16	* numbness	4
X	17	* cough	2
X	18	* sore throat	12
	19	** twitching eyelids	-
X	20	** blurred vision	3
X	21	** tremor	5
	22	** muscle cramps	-
	23	** staggering gait	-
	24	** diarrhea	-
	25	** stomach cramps	-
X	26	** nausea	5
	27	** chest pain / tightness burning	-
	28	** ເລັບຫູດ	-
X	29	** vomiting	5
X	30	*** seizure	1
	31	*** loss of consciousness	-
X	32	*** coma	2
use X indicate level		Evaluation on Level of signs and symptoms occurred to farmer's health	
		no sign no symptom	
5		* mild	
40		** moderate	
2		*** severe	

4. Issues:



Nowadays, the pesticides used in Kham district. It is very popular to use and which has the number of suicides from drinking pesticide has increased very year. We have got the information from Kham district health office. In addition during the implemented activity we found a boy. His name is Xa, he is only three years old from Vieng village, Kham district. He drank the insecticide(Cypermethrin) that his father storage inside the house.

The deputy of Kham district governor said she is very pleased to have a good activity comes in Kham district, and if it is possible she would like to the blood test activity to do at very village in Kham district.

5. Future plan:

According to the the real working with four villages, within three districts, Xiengkhouang province, for the main activities such as the blood test and pesticides survey. The next plan I think that for the activity three (meeting to review findings and develop community action plan to reduce the uses and impacts pesticides). We should have done for community by community, because we have to present finding to communities and make the action plan to reduce the pesticides uses. After that we should have done the meeting at district level to present finding and community action plan to district governor and concern agency at district level.

The finally, dissemination and planning meeting at provincial level to present finding result from survey, community action plan and concern agency at district level action plan to develop the strategy and action plan to reduce the used of pesticide to concern agency at provincial level.

Vientiane Capital, Lao PDR on the 09 June, 2016



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