



Appendix A 2-1

CASE ID # \_\_\_\_\_ For Office Use Only

# REGIONAL CAPACITY BUILDING PROGRAM FOR HEALTH RISK MANAGEMENT OF PERSISTENT ORGANIC POLLUTANTS (POPS) IN SOUTH EAST ASIA

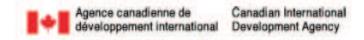
#### **HUMAN HEALTH RISK EXPOSURE QUESTIONNAIRE**

Site N	ame/Address:
Samp	le ID Number:
1	Interviewer's ID Name and No.:
2	Date Interview Began:
3	Date Interview Completed:
4	Time Interview Began:am/pm
5	Time Interview Completed: am/pm
6	Length of Interview:

#### The following statement must be read to all respondents:

Your participation in this project is completely voluntary. Even though you signed the informed consent document, you may decide to leave the study at any time. You may skip or refuse to answer any survey question that makes you feel uncomfortable.



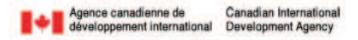




#### **SECTION A. INTRODUCTION TO QUESTIONNAIRE**

•	ourpose of this interview is to colle sure to POPs substances suspec			<b>.</b>
	·	·		
AAI.	Please tell me <u>your</u> date of birth. //(MM) ( DD ) (YYYY)			
		Section A: Healt	h	
A1.	SEX OF THE RESPONDENT:	MALE F	EMALE	
A2.	How tall are you?m	cm		
A3.	How much do you weigh?	kg		
A4.	Have you lost weight in the pas	t 12 months? Yes	No	
A5.	How much weight did you lose?	?kg		
A6.	Have you gained weight in the	past 12 months? Y	'es No	
A7.	How much weight did you gain?	?kg		
A8.	How many days of work do you	miss per month du	e to illness?	_
	How many days of work do you	miss per year due	to illness?	
FEM/	ALES:			
A9.	How many times have you alive, stillborn, aborted, miscarr			nclude babies borr
	# Pregnancies	None	Don't Know	
A10.	How many times have you had	a miscarriage <u>in yo</u>	<u>ur life</u> ?	
	# Miscarriages	None	Don't Know	

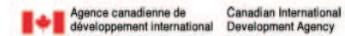






A11.	. How many times have you had a stillborn child in your life?				
	# Stillb	orn children	None	Don't Know	
A12.	How m	any children have	you given birth to? (Please	only count live births.)	
	# Child	ren	None	Don't Know	
A13.	that yo	ur child was breas	t-fed as the main source of n	n estimate of the number of <u>months</u> utrition. Let's start with your first child IARGINS. IF NOT BREAST-FED,	
СНІ	LD	NAME	A10a. What is the child year of birth? (ENTER YYYY)	's A10b. How many months was this child breast-fed?	
1			Year:	# Months:	
2			Year:	# Months:	
3			Year:	# Months:	
4			Year:	# Months:	
5			Year:	# Months:	
6 7			Year: Year:	# Months: # Months:	
8			Year:	# Months:	
A14.	Have y	ou or any of your	children had serious medical	problems?	
	Yes _	No _	Don't Know		
	If Yes,	describe:			
A15.	How m	any days of work	does your husband miss per	month due to illness?	
A16.	How m	any days of schoo	l/work do your children miss	per month due to illness?	
Comme	ante:				



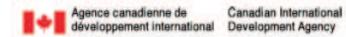




#### **SMOKING HABITS:**

A17.	Have you ever smoked cigarettes or any other kind of tobacco (e.g., pipe) in your life? (If you have smoked less than 20 packs of cigarettes in your lifetime, or less than 1 cigarette a day for 1 year, then please answer "No".)
	Yes No Don't Know
A18.	How old were you when you first started cigarette smoking?
	Age: Don't Know
A19.	Do you smoke cigarettes now (that is, as of one month ago)?
	Yes No Don't Know
A20.	As of one month ago, on average, how many cigarettes do you smoke per day?
	# Cigarettes/Day: Don't Know
A21.	What is the total number of years you have smoked?
	# Cigarettes/Day: Don't Know



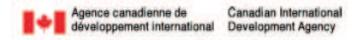




A22. I have a few other questions about your health.

	YES	No	Don't Know
A22a. Do you have hemophilia or any other blood clotting or bleeding disorder?			
A22b. Have you received chemotherapy in the past 6 months?			
A22c. Do you weigh less than 40 KG (90 pounds)?			
A22d. Are you currently taking medication to thin your blood? (IF YES, PROBE: This does not include aspirin.)			
A22e. Have you been currently diagnosed or treated for anemia?			
A22f. Have you been currently diagnosed or treated for malaria?			
A22g. Have you been currently diagnosed or treated for dengue fever?			
A22h. Have you been currently diagnosed or treated for Hepatitis?			
A22i. Have you been currently diagnosed or treated for HIV?			
A22j. Have you donated blood within the last 8 weeks?			
A22k. Are you currently pregnant?			
A22I. Have you breastfed a child in the last 6 months?			
A22m. R ANSWERED "NO" TO ALL THE A23 QUESTIONS AND IS ELIGIBLE TO GIVE A BLOOD SAMPLE.			



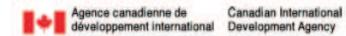




#### Section B: Residential and Work History

В1.	Now I need to get the <u>addresses</u> for where you have lived during the last 30 years
B2a.	What is your current address, including village, commune, district, city, and province?
B2b.	What year did you move into this address?
В3а.	Please give me the address, including village, commune, district, city, and province of previous residences you lived in.
B3b.	During what years did you live at this address?
	Begin Year End Year
	COLLECT ADDITIONAL ADDRESSES (IF THEY ARE LOCAL TO THE SITE IN QUESTION) UNTIL THE BEGIN YEAR IS 1978 OR EARLIER.
В4а.	Please give me the address, including village, commune, district, city, and province of the previous residence you lived in.
B4b.	During what years did you live at this address?
	Begin Year End Year

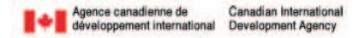






В5а.	Please give me the address, including village, commune, district, city, and province of the previous residence you lived in.
B5b.	During what years did you live at this address?
	Begin Year End Year
В6а.	Please give me the address, including village, commune, district, city, and province of the previous residence you lived in.
B6b.	During what years did you live at this address?
	Begin Year End Year
В7а.	Please give me the address, including village, commune, district, city, and province of the previous residence you lived in.
B7b.	During what years did you live at this address?
	Begin Year End Year
Comr	nents:



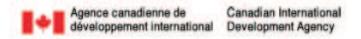




### Section C: Property Use a. PERSONAL PROPERTY USE

C1.	property?	es anyone es	se in your nousenoid	nave a rice/vegetable/fruit garden on your		
	Yes	No	Don't Know	Comments		
C2.		es anyone els your proper		raise animals or livestock (e.g., chickens,		
	Yes	No	Don't Know	Comments		
C3.	How much (9	%, m2 or ha) o	of <b>your property</b> is us	sed for:		
	Growing crop	os?	Raising Li	vestock or fish?		
	Comments _					
C4.	Has the amo	unt of food gr	own <b>on your proper</b>	ty changed in the past 5 years?		
	Yes	No	Don't Know	Comments		
C5.	If yes, please	e estimate the	percentage increase	or decrease in the past 5 years%		
	Increase in vegetable production% OR Decrease in vegetable production% Increase in livestock/fish production% OR Decrease in livestock/fish production%					
	Comments _					
C6.	Did you, you	rself, ever use	e weed killers or pesti	cides on your property?		
	Yes	No	Don't Know	_		
	Comments _					

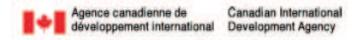






C7.	Did you ever live on charcoal burning sto	• •	_	ireplace, wood burning stove or
	Yes	No	Don't Know	_Comments
C8.	Did you ever live on	a property where	e trash or yard was	te was burned?
	YesNo	Don't Know	Comments	
b. WC	ORK SITE USE FOR	FOOD PRODUC	TION	
C9.	Do you or does anyone Site property?	one else in your h	nousehold have a r	ice/vegetable/fruit garden on the
	Yes	No	Don't Know	Comments
C10.	Do you or does anyonish, etc.) on the Sit	_	nousehold raise ani	imals or livestock (e.g., chickens,
	Yes Normalized Comments			
C11.	Has the amount of fo	ood grown <u>on th</u>	e Site property cha	anged in the past 5 years?
	Yes No _	Don't Kr	now C	comments
C12.	If yes, please estima	ate the percentag	e increase or decre	ease in the past 5 years%
	Increase in vegetabl Increase in livestock	le production //fish production_	% OR Decrease % OR Decrea	in vegetable production% use in livestock/fish production%
	Comments			





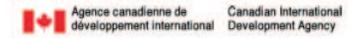


#### **Section D: Work History**

#### **WORK HISTORY**

D1.	D1. What is your current <b>work</b> address, including ward, commune, district, city, and provin			
D2.	How long you have worked at this location?			
D3.	Have you ever worked on, or been inside, the Site in question?			
	Yes No Don't Know Comments			
D4.	If the answer to Question D3 was <b>Yes</b> :			
D4a.	How many years have you worked at the Site?			
D4b.	How many days per month do you work at the Site?			
D4c.	How many hours per day do you work at the Site?			
D4d.	Describe the typical work activities you perform (describe your job):			
	· · · · · · · · · · · · · · · · · · ·			

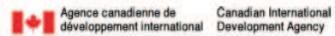






D4e.	Describe the type of clothing worn to perform the typical work duties (e.g., long pants or shorts? long sleeve top or short sleeve top? Sandals or closed shoes? Gloves or no gloves? breathing mask or no mask?)
If the	answer to Question D3 was <b>Yes</b> :
D5.	Did you come in to contact with <b>soil</b> at the Site?
	Yes No Don't Know Comments
D6.	Did you come in to contact with waste material at the Site?
	Yes No Don't Know Comments
D7.	Did you come in to contact with waste oil at the Site?
	Yes No Don't Know Comments
D8.	If the answer to Question D7 was <b>Yes</b> , how often does your skin come in contact with waste oil?
	Every day Once per week Once per month Seldom
D9.	Do you ever bring used (waste) oil home from work to use for cooking, lighting, or other purposes?
	Yes No Don't Know Comments
D10.	If the answer to Question D9 was Yes, how much used (waste) oil did you bring home per month? Litres

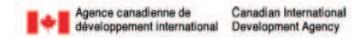






D11.	name and address		es which also bu	rn/use this used (waste) oil	(include village
D12.	Has your work eve	er involved sp	oraying chemica	ls to kill plants, weeds or in	sects?
	Yes	No	Don't Know _	Comments	



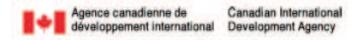




and

D13.	Have you ever worked in waste disposal including incinerator, wastewater, solid waste scrap metal collection?				
	Yes	No	Don't Know		
D14.	Have you ever	worked at an	ny other factory or industry?		
	Yes	No	Don't Know		
Descr	ibe				
D15.	Have you ever	been expose	ed to a spill involving industrial chem	icals anywho	ere (else)?
	Yes	No	Don't Know		
D16.	Have you ever	been expose	ed to a fire involving industrial chemic	cals anywhe	re (else)?
	Yes	No	Don't Know		
D17.	Have you ever	worked in the	e production, formulation, use or disp	posal of:	
				Yes	No
	Agent Orang				
D17b.		nsformers			
D17c.					
D17d.					
<u>D17e.</u>		rophenols (in	cluding 2,4,5-T)		
D17f.	DDT				
D17g.			s/insecticides (please name if possib	ole)	
D17h.	Other chemic	als (please na	ame if possible)		





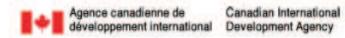


#### **Section F: Food Consumption**

#### **FOOD CONSUMPTION**

F1.	1. Have you ever eaten fish caught from an area close to the Site?			
	Yes	No	Don't Know	
F2.	Which parts o	of the fish do y	ou eat? How often per we	ek?
Liver Stoma Fat _	le (meat) only ach			
F3.	Have you eve	er eaten chicke	ens or other animals from a	an area close to the Site?
	Yes	No	Don't Know	
F4.	What other m	eat do you ea	t? How often per week?	
Pork			Chicken Eggs Frogs	Snakes Birds
Wild A	Animals	specify:		
Other	(specify):			
F5. List the kinds of fruits and vegetables that you eat. How often per week?				low often per week?
F6.	Do you grow	your own vege	etables and fruits at your h	ome?
	Yes	No	Don't Know	

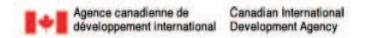






3.	Do you raise	your own ducks	, chickens, pigs, cows, o	or other animals at home?		
Yes		No				
	If YES, specif	·y:				
	Do you use recycled oil from work for cooking, lighting, or other purposes?					
).			D 11.14	_ Comments		







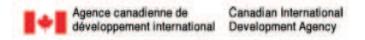
#### **Section G: Educational Level**

G1. Now I am going to ask you about your own education level.

What is the highest level of school you have completed or the highest degree you have received?

1	Less than 1 <sup>st</sup> grade
2	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> , or 4 <sup>th</sup> grade
3	5 <sup>th</sup> or 6 <sup>th</sup> grade
4	7 <sup>th</sup> or 8 <sup>th</sup> grade
5	9 <sup>th</sup> grade
6	10 <sup>th</sup> grade
7	11 <sup>th</sup> grade
8	12 <sup>th</sup> grade No Diploma
9	High school graduate high school diploma, or the equivalent (for example: GED)
10	Some college but no degree
11	Associate degree in college Occupational/vocational program
12	Associate degree in college Academic program
13	Bachelor's degree (For example: BA, AB, BS)
14	Master's degree (For example: MA, MS, MEng, MEd, MSW, MBA)
15	Professional School Degree (For example: MD, DDS, DVM, LLB, JD)
16	Doctorate degree (For example: PhD, EdD)
17	Don't Know
18	REFUSED



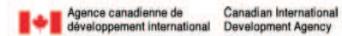




#### **Section H: Socio-Economic Information**

H1.	What is <b>your</b> mo	onthly income from all	sources?	Refused		
No in \$500-	come -\$1,000/month	<\$100/month_ \$1000-\$2000/m	\$100-\$500 nonth	/month >\$2,000/month		
H2.	What is your total <b>household</b> monthly income (including all family members living with you)? Refused					
No in \$500-	come -\$1,000/month	<\$100/month_ \$1000-\$2000/m	\$100-\$500 nonth	/month >\$2,000/month		
H3.	importance for e	ach contributing famil	ly member:	? List them in decreasing orde		
H4.				·%		
H5.	What percentag	e of your family's food	d is grown <b>on y</b>	our property?	_%	
H6.	What percentag	e of your family's food	d is grown & so	ld for money (extra income)?_	%	
H7.	How large in m2 (or hectares) is your plot of land/property?					
H8.	Do you own the	land/property where y	you live? Yes _	No Don't Know		
H9.	How large in m2	(or hectares) are the	buildings on ye	our land ?		
H10.	Do you own the	buildings on your land	d? Yes N	o Don't Know		

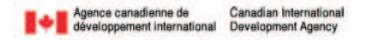






H12.	List the equipment, vehicles, farm machinery and other key items that you own:



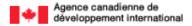




#### **Section I: Information and Outreach**

I1.	Have you heard a	iny reports about t	he PCB, dioxin or pesticide issues in the newspaper?	
	Yes	No	Don't Know	
I2.	Have you heard a	any reports about t	he PCB, dioxin or pesticide issue on the radio?	
	Yes	No	Don't Know	
I3.	Have you heard a	ny reports about t	he PCB, dioxin or pesticide issue on the TV?	
	Yes	No	Don't Know	
l4.	Have you heard any reports about the PCB, dioxin or pesticide issue on the public address system (loudspeaker)?			
	Yes	No	Don't Know	
<b>15</b> .	Have you read ar websites?	y reports about th	e PCB, dioxin or pesticide issue on any internet	
	Yes	No	Don't Know	
Any c	other comments?			





Canadian International Development Agency



		Appendix A2-2
Case ID #	Sample Id #	

## Informed Consent Document Regional Capacity Building Program for Health Risk Management of Persistent Organic Pollutants (POPs) in South East Asia: Questionnaire and Blood/Breast Milk Sampling

#### 1. Title of the research project:

POPs Project ("POP1406")

#### 2. Sponsor of Study

This study is sponsored by the World Bank, through the Canadian International Development Agency (CIDA) POPS Fund.

#### 3. Names of the researchers

All researchers are affiliated with Hatfield Consultants and Golder Associates:

- Principal Investigator: Thomas Boivin, M.Sc., R.P. Bio.
- Co-Investigators: Sokhem Pech, M.A (Hons). LLM.
- Grant Bruce, M.Sc.
- John Wilcockson, M.Sc., R.P. Bio.
- Jasmin Gee, B.Sc.

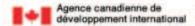
#### 4. Description of the research

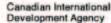
The main objective of the *Regional Capacity Building Program for Health Risk Management of Persistent Organic Pollutants in South East Asia* is to improve the ability of government agencies in the South East Asia Region to manage POPs and POPs-like chemicals using a health risk-based approach.

A second objective is to improve inter-governmental cooperation on hazardous chemicals issues in the region.

Persistent Organic Pollutants are toxic chemical substances that persist in the environment and bio-accumulate through food webs. The release of these chemicals into the natural environment is increasing and poses a serious threat to human health and the global environment. The project team will use a risk









management approach to assess the POPs situation in 4 South-East Asian countries: Lao PDR, Cambodia, Malaysia and Thailand.

The study will investigate the contribution of many potential sources of exposure to POPs chemicals, including: soils, sediments, fish and other food items. Residents living near the contaminated sites, or families of workers, will be the key focus of the study. Subjects invited to participate in this study will be asked to complete a questionnaire and provide a blood and/or breast milk sample. Blood and breast milk samples will be analyzed only for selected POPs chemicals (PCBs, and/or dioxins and furans along with serum lipids, i.e., fats in the blood).

Persons who complete the questionnaire and provide a blood/milk sample will be asked to allow soil or other food samples to be collected for analyses.

#### 5. Description of human subject involvement

You are being asked to participate in this study because you live or work in the vicinity of \_\_\_\_\_, and/or you were randomly selected. To be eligible for this study, subjects must be at least 18 years old and must have lived at their current residence continuously for the last 5 years (except for vacations or other absences that total less than 6 months).

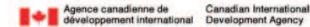
Subjects will be asked to complete an interview with a trained interviewer from Hatfield or national POPs focal point. The interview will include questions about residential history, occupational history, recreational activities (e.g., fishing), pregnancy history (for women only), and diet.

Subjects will be asked to provide a blood sample of 80 milliliters. Blood samples will be analyzed only for selected dioxins, furans, PCBs, and serum lipids. No other analyses will be performed on blood samples; any left over blood may be stored or 'banked' for future analyses.

Subjects must meet the following blood/milk sample eligibility criteria:

- Weigh at least 40 kg (90 pounds)
- No chemotherapy in the last 6 months
- No history of bleeding or clotting disorders
- Not currently taking blood thinner medications
- Not currently pregnant







- Not currently diagnosed or treated for anemia
- Not currently diagnosed or treated for malaria or dengue fever
- Not currently diagnosed or treated for Hepatitis A, B or C
- Not currently diagnosed or treated for HIV Aids
- No blood donation within the last 8 weeks

Please confirm whether you meet the blood sample eligibility criteria by initialing one of the following statements:

- I meet the blood/milk sample eligibility criteria.
- I do NOT meet the blood/milk sample eligibility criteria.

If you meet the blood sample eligibility criteria, please confirm whether you want to provide a blood sample for analyses in this study by initialing one of the following statements:

- I want to provide a blood/milk sample.
- I do NOT want to provide blood/milk sample.

#### 6. Length of human subject participation

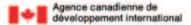
The interview will last approximately 20-30 minutes. There will be only one interview. The interview will be conducted at a time and place that is convenient to the subject. Some subjects may be re-contacted (usually by phone) to verify and/or clarify answers on the questionnaire. Blood sample collection will be scheduled for a time and place that is convenient to the subject. There will be only one blood sample collected, and this should take about 15 minutes.

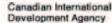
#### 7. Risks & discomforts of participation

The only physical risk associated with participation in this study is related to

obtaining the blood or milk sample. The blood sample will be obtained by a trained, professional phlebotomist using sterile, disposable equipment. The risks of bleeding, bruising, or infection are small, and similar to having blood drawn at your doctor's office. Some subjects report a feeling of faintness or brief dizziness upon blood donation. However, the volume of blood (80 milliliters) is small, and will be replaced quickly by your body.









For comparison, donation of blood normally involves about 500 milliliters, and it is permissible for a healthy person to donate this much blood as often as every 8 weeks. Breast milk samples (40-50 ml) will also be obtained by trained medical professionals. Samples will be collected by squeezing milk directly from the breast into a pre-cleaned glass jar; the mother can do this herself, with assistance from the medical personnel.

The interview will include questions about residential history, occupational history and diet. The interview does not include questions that might be considered potentially embarrassing (e.g., use of illegal drugs or other criminal behavior).

You are unlikely to benefit directly from participation in this study, except that you can choose to learn the results of tests for dioxins, furans, PCBs and lipids in your blood. However, this study will increase the scientific understanding of how dioxins, furans and PCBs get into people's blood or breast milk in South East Asia.

You should be aware that almost everyone has measurable levels of dioxins, furans and/or PCBs in their blood. And, there is no medical treatment for removing these chemicals from our bodies.

Please indicate whether you want to receive the results of analyses of your Blood/milk for dioxins, furans, PCBs and lipids by initialing one of the following choices:

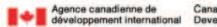
- I want to receive results of analyses for dioxins, furans, PCBs and lipids in my blood/milk.
- I do NOT want to receive results of analyses for dioxins, furans, PCBs and lipids in my blood/milk.

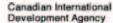
You can change your decision about receiving results by notifying the Principal Investigator in writing.

#### 9. Management of Physical Injury

Should you get physically injured as a result of research-related procedures, the POPS Project team will provide first-aid medical treatment. Additional medical treatment will be provided, if the POPS Project team determines that it is responsible to provide such treatment. However, the POPS Project team does not provide compensation to a person injured while taking part as a subject in research.









#### 10. Costs to subject resulting from participation in the study

There are no costs associated with participation in the questionnaire and blood sampling phase of this study.

#### 11. Payments to subject for participation in the study

Subjects who agree to participate in this study will be paid \$10 USD for completing the questionnaire and providing a blood and/or milk sample. Subjects who provide both a blood and milk sample will be paid \$20 USD.

#### 12. Confidentiality of records/data

Individual subjects will not be identified in any reports on this study. Research records will be kept confidential to the extent possible.

The researchers will not make any disclosure of information that would identify you as a participant in this research unless you provide written authorization to the Principal Investigator to do so.

#### 13. Contact Information

If you have questions about this research, you may contact:

Thomas Boivin, M.Sc. R.P. Bio (tboivin@hatfieldgroup.com)

Sokhem Pech, M.A. (spech@hatfieldgroup.com)

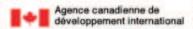
#### 14. Voluntary nature of participation

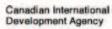
Your participation in this project is voluntary. Even after you sign this informed consent document, you may decide to stop further participation in the study at any time without penalty or loss of benefits to which you may otherwise be entitled. Data and specimens that have already been collected will remain in the study. You may skip or refuse to answer any survey question without affecting your study compensation.

#### 16. Documentation of the consent

One copy of this document will be kept together with the research records of this study. Also, you will be given a copy to keep.









#### 17. Consent of the subject:

I have read [or been informed] of the information given above. Mr. Boivin or his representative has offered to answer any questions I may have concerning the study. I hereby consent to participate in the study.

ADULT SUBJECT OF RESEARCH					
Consenting signature	Printed Name				
Witness signature	Printed Name				
Date	_				