Appendices I-III

Appendix I

Consent from and questionnaire used in 2008

ENGLISH - CONSENT FORM

Request for participation

We ask you to participate in a research study related to work in coffee production and health. The aim of this study is to assess the dust exposures and the associated respiratory health problems among workers. This study will help us come up with recommendations on how to improve the work environment.

We are going to interview you on your demographic characteristics and respiratory symptoms. Please answer the questions as frankly and accurately as possible.

[For some of the workers: We will also take some measurements on lung function before, during and after your work shift, and ask about your work tasks and symptoms at work. You will also be asked to carry a pump for sampling of dust.]

Your participation in this interview and every aspect of this study is completely voluntary.

Those found with respiratory disorders will be referred to the district hospital.

All the questionnaires with the information will be destroyed when this study ends, in 2010.

ALL INFORMATION OBTAINED IN THIS STUDY WILL BE KEPT CONFIDENTIAL AND USED FOR MEDICAL RESEARCH ONLY. Your personal physician will be informed on the test results if you desire.

CONSENT FORM	
I	agree to participate in this study
Date	Signature

QUESTIONNAIRE FOR ASSESSING RESPIRATORY HEALTH PROBLEMS IN COFFEE PRODUCTION

(the questions will be administered by a researcher, interviewing)

1.	1. Identification number IDNO: []_	_]]	
Na	me		
2.	Sex [1] Male [2] Female		
3.	Date of birth		(day/month/year)
4.	Education level by number of school years:		
5.	For how long have you been working in thi	s factory? (Mor	nths and years)
6.	How long have you been working in coffee	industry, sumr	narizing all periods?
7.	Have you ever worked in other dusty types 1. [Yes]	of work? 0. [No	p]
8.	If yes, for how long have you worked in an	y of the following	ing types of work? (years)
	Mines [_]_] Foundry [_]_] Stone quarry [_]_] Asbestos [_]_] Other dusty industry [_]_]	Cotton Sisal, flax Flower indust Millet proces Other dusty a	sing [_]_]
9.	Do you have you own small coffee farm?	1[Yes]	0 [No]
10.	Do you process coffee at home	1[Yes]	0 [No]
11.	Are you normally cooking food at home?	1[Yes]	0 [No]
12.	Have you sprayed with pesticides the past y	ear? 1[Yes]	0 [No]
	If yes, what type of pesticides did ye	ou use?	
13.	Where is cooking normally taking place in	your home?	
	[Inside house] or [Outside house]		

14. What kind of fuel do you use in your home for cooking?

a. [Charcoal] or [Fire wood]?

I am going to ask you some questions,	mainly about your	chest. I would like you to
answer Yes or No wherever possible.		

will we red or the wife ever possible.		
COUGH 15. Do you usually cough first thing in the morning 16. Do you usually cough during the day or at night	1. [Yes] 1. [Yes]	0 [No] 0 [No]
If yes to any of the above:17. Do you usually cough as much as 4-6 times a day for18. Do you cough like this on most of days for as much in a year	1. [Yes]	0 [No]
COUGH WITH SPUTUM PRODUCTION 19. Do you usually cough with sputum when you wake 20. Do you usually cough with sputum during the day of	1. [Yes]	0 [No]
If yes to any of the above: 21. Do you usually cough with sputum as much as 4 –6 a week	times a day, or 4 or m	ore days in 0 [No]
22. Do you cough with sputum on most of days for as r more in a year	nuch as 3 consecutive 1. [Yes]	months or 0 [No]
BREATHLESSNESS 23. Are you troubled by shortness of breath when hurry up slight hill? 24. Do you get shortness of breath walking with other p ground?	1. [Yes]	0 [No]
If yes to any of the above: 25. Do you have to stop for breath when walking at you	ur own pace on level gr 1. [Yes]	round? 0 [No]

	WHEEZING 26. Have had attacks of wheezing in your ches	st at any t	ime	
	27. How long do you have wheezing in your c (e.g. 5 years and 4 months [0]5]	hest?	1. [Yes]	0 [No] []]months
	If yes to any of the above: 28. Do you usually experience chest tightness 29. For how long do you have this problem?	while at	work or just af 1. [Yes] []]	iter work 0 [No] []]
	CHRONIC BRONCHITIS 30. During the past 3 years have you had a per sputum production for as long as three week			with increased 0 [No]
PR	EVIOUS DISEASES			
	Have you ever had any of the following:			
	31. An injury/operation affecting your chest.	1. [Ye	s]	0 [No]
	32. Heart trouble	1. [Ye		0 [No]
	33. Bronchitis	1. [Ye		0 [No]
	34. Pneumonia	1. [Ye		0 [No]
	35. Pleurisy	1. [Ye		0 [No]
	36. Pulmonary tuberculosis	1. [Ye		0 [No]
	37. Bronchial asthma	1. [Ye		0 [No]
	38. Any other chest trouble? 39. SPECIFY	1. [Ye	s]	0 [No]
	CICADETTE CMOVING			
	CIGARETTE SMOKING 40. Have you ever smoked cigarettes?	1. [Ye	-1	0 [No]
	41. At what age did you started smoking?		years	o [No]
	42. Do you now smoke cigarettes daily? IF NO, GO TO QUESTION 44	1. [Ye		0 [No]
	43. For how long have you being smoking dail	ly?	[]	years
	44. How many cigarettes do you normally smo		ay now?[]] number No.48
	45. How long did you smoke?	•	[]	years
	46. How long ago did you give up cigarette sm	noking?	[]] years
	47. How many cigarettes did you normally sm	oke wher		
			[]] 1	number
	DANAGO A A A CEL GANDEN CENTRO			
	PHYSICAL MEASUREMENTS	. 1: •	. 1.	r 1 1 1
	48. Weight []] kg 49. S	tanding l	neight	[]] cm

APPENDIX II

Consent form and questionnaire used in 2010

ENGLISH - CONSENT FORM 2010



MUHIMBILI UNIVERSITY OF HEALTH AND ALLIED SCIENCES DIRECTORATE OF RESEARCH AND PUBLICATIONS, MUHAS

			INF	<i>ORME</i>	ED CO	JNS	ENT	FORM	1				
ID-NO													
Consent to Partic	ıpate	ın a s	tudy	titled	"Dus	t ex	posu	re an	ı resp	orato	ry he	alth an	nong
workers processing Arabica and Robusta coffee in Tanzania."													

Greetings! My name is Ms Gloria Sakwari; I am a PhD student working on this research project with the objective of determining dust levels and examining respiratory health among workers in coffee processing factories.

Purpose of the Study

We are examining respiratory health of all production workers in this factory by measuring lung function and the amount of exhaled nitric oxide to determine the status of the lungs. This will enable us to tell if you have healthy lungs or if you have a problem in your lungs.

What Participation Involves

If you agree to join the study, you will be required to participate in an interview which will be on your personal background, some respiratory symptoms and information on your previous job experiences. Your lung function will be examined by a non invasive machine and the level of Nitric oxide in your exhaled air will also be measured.

Some of you will be requested to carry dust sampling pumps which measure the amount of dust in your breathing zone for the whole shift.

Confidentiality

All information obtained from you will be kept confidentially in a computer using the identification number. The information will only be used for the purpose of this research.

Your employer will have neither access to any of the information you gave us nor the results of your lung function test.

Risks

We do not expect that any harm will happen to you because of joining this study.

Rights to Withdraw and Alternatives

Your participation in the interview and every aspect of this study is completely voluntary. You have the choice to participate or not to. Your employer will have no access to your decision to participate or not.

Benefits

If you decide to participate you will get to know the state of your lungs so you can take better care. In case you are found to have problems in your airway you will be referred to the regional hospital for more investigation and treatment if needed. Sharing of your lung function results with any physician will be your decision.

In Case of Injury

We do not anticipate that any harm will occur to you in the course of this study.

Who to Contact

If you ever have questions about this study, you should contact the study Coordinator **Dr. Simon Mamuya** or the Principal Investigator **Ms Gloria Sakwari** Muhimbili University College of Health Sciences, P.O.Box 65001, Dar es Salaam). If you ever have questions about your rights as a participant, you may call **Prof. Aboud**, Chairman of the College Research and Publications Committee, P.O. Box 65001, Dar es Salaam. Tel: 2150302-6.

ENGLISH - QUESTIONNAIRE FOR ASSESSING RESPIRATORY HEALTH PROBLEMS IN COFFEE PROCESSING WORKERS

(the questions will be administered by the researcher)

1. Identification numb	er IDNO: []]	
Name		
5. For how long have you6. How long have you[]]7. Have you ever work	been working in coffee industrial working industrial w	(day/month/year) ory? (years and Months) []] stry, summarizing all periods? ork? 1. [Yes] 0. [No] the following types of work? (year
Mines Foundry Stone quarry Asbestos Other dusty industry	Cotton Sisal, flax Flower indu Millet proc Other dusty	
10. Do you process coff 11. Are you normally co	ooking food at home? vith pesticides the past year?	1[Yes] 0 [No] 1[Yes] 0 [No] 1[Yes] 0 [No] 1[Yes] 0 [No]
1. [Inside house]14. What kind of fuel d	ormally taking place in your 2. [Outside house in open o you use in your home for coire wood] 3. [Kerosene]?	area] 3. [Outside in a kitchen]
um going to ask you some s or No wherever possibl	_	r chest. I would like you to answe
	gh first thing in the morning gh during the day or at night	1. [Yes] 0 [No] 1. [Yes] 0 [No]

COUGH WITH SPUTUM PRODUCTION		
17. Do you usually cough with sputum first thing	in the morning	
, , , , , , , , , , , , , , , , , , , ,	1. [Yes]	0 [No]
18. Do you usually cough with sputum during the		
	1. [Yes]	0 [No]
ASTHMA ATTACKS		
19. Have you ever in the past 12 months woken up	p and felt that you h	ad problems with
breathing	1. [Yes]	0 [No]
20. Have you ever in the past 12 months had attac	ks of breathing prob	olems during the
day when you have been sitting still?	1. [Yes]	0 [No]
21. Have you ever in the past 12 months had attac	ks of breathing prob	olems after physical
strain?	1. [Yes]	0 [No]
22. Have you ever in the past 12 months woken up	p because you have	had an attack of
breathing problems?	1. [Yes]	0 [No]
0.		
BREATHLESSNESS		
23. Are you troubled by shortness of breath when	hurrying on level gr	round or walking
up slight hill?	1. [Yes]	0 [No]
24. Do you get shortness of breath walking with o	ther people of your	own age on level
ground?	1. [Yes]	0 [No]
25. Do you have to stop for breath when walking	at your own pace on	level ground?
	1. [Yes]	0 [No]
WHEEZING		
26. Have you ever had attacks of wheezing in you	r chest at any time	
	1. [Yes]	0 [No]
27. Have you ever the past 12 months had attacks	_	ne chest?
	1. [Yes]	0 [No]
28. Do you usually experience chest tightness whi	ile at work or just af	ter work
	1. [Yes]	0 [No]
29. For how long do you have this problem?	Yrs.[]]	Months []]
CUR ON IC DRONGLUTUS		
CHRONIC BRONCHITIS	C: 1 1	
30. During the past 3 years have you had a period	_	
sputum production for as long as three weeks	or more? 1.[Yes	s]0 [No]
PREVIOUS ILLNESS		
Have a doctor ever told you had any of the follow	ing:	
	. [Yes]	0 [No]
	_	

32. Heart trouble	1. [Yes]	0 [No]
33. Bronchitis	1. [Yes]	0 [No]
34. Pneumonia	1. [Yes]	0 [No]
35. Pleurisy	1. [Yes]	0 [No]
36. Pulmonary tuberculosis	1. [Yes]	0 [No]
37. Bronchial asthma	1. [Yes]	0 [No]
38. Any other chest trouble?	1. [Yes]	0 [No]
39. SPECIFY		
SMOKING		
	1 [\$7]	O.D.Y. I
40. Have you ever smoked cigarettes daily?		
41. Do you now smoke cigarettes daily?	1. [Yes]	0 [No]
IF NO, GO TO QUESTION 44		
42. For how long have you being smoking da	ilv []] years
43. How many cigarettes do you normally sm	-	
46	loke per day no	w: [jjnumber Qn No
44. How long ago did you give up cigarette si	moking?	[]] years
45. How many cigarettes did you normally sn	noke when you	smoked earlier?
, ,	,	[]] number
PHYSICAL MEASUREMENTS		
46. Weight [_]_] kg 47.	Standing height	[]]] cm

Temp Rain Wind Weather conditions.....

Date

Sampling time			
Vol. sampled			
Flow rate			
Flow End rate time			
Flow rate			
Time			
Flow rate			
Job Description Start time			
Pump No			
DNO Sample IDNo			
IDNO			

IDNO	IDNO Job Description

Errata for

Dust exposure and respiratory health among Tanzanian Coffee factory workers

Gloria Sakwari



Thesis for the degree philosophiae doctor (PhD) at the University of Bergen

litoria Sakwari Khita

(signature of candidate)

(signature of faculty)

Errata

Paper II

Page 848 Subtitle; Exhaled Nitric Oxide

The second sentence should read "The mean level of exhaled NO was 24 ppb and standard error was 4 ppb among the coffee workers."

Paper III

Page 178 Table 3;

The titles for columns 5 and 7 should read "Total dust (mg/m^3) " and "Endotoxin (mg/m^3) ", respectively