aquaculture household survey

Field	Question	Answer		
SECTION A. HOUSEHOLD IDENTIFICATION				
A1 *(required)*	What is the location: Region		ER	Eastern Region
			VR	Volta Region
			BA	Brong Ahafo Region
			AS	Ashanti Region
			777	Other (specify)___
A1i *(required)*	Please specify Region___ *Question relevant when: selected(${A1} , '777')*			

Field	Question	Answer	
A2 *(required)*	What is the location: Zone *Question relevant when: not(selected(${A1} , '777'))*	1	Adansi Zone
		2	Ahafo Offin Zone
		3	Amansie Zone
		4	Asante Akim Zone
		5	Atwima Zone
		6	Sekyere Zone
		7	Azunafo Zone
		8	Dormaa Zone
		9	Kintampo Zone
		10	Sunyani Zone
		11	Tano Zone
		12	Techiman Zone
		13	Afram Plains Zone
		14	Akosombo Zone
		15	Kwaebibirem Zone
		16	New Juaben Zone
		17	KMA Zone
		18	Abutia
		19	Adaklu
		20	Adukope
		21	Agbokofe
		22	Agorta
		23	Akwetey
		24	Anloga-Zico
		25	Aveyime
		26	Bakpa tademe
		27	Blekope
		28	Gbi Atabu
		29	Godenu
		30	Have
		31	Hehekpoe
		32	Ho
		33	Hohoe
		34	Keta-Anyanui
		35	Keta-Kedzi
		36	Keta-Kedzokope
		37	Keta-Tegbi
		38	Keta-Abutiakope
		39	Kpenoe
		40	Kpeve
		41	Krachi East
		42	Nkwanta
		43	Sokode
		44	Tafi Atome
		45	Tefle
		46	Vodze
		47	Woadze Tornu
		48	Ziavi
		777	Other (specify)___
		7777	Other (specify)____
		77777	Other (specify)___
		777777	Other (specify)___
A2i *(required)*	Please specify Zone *Question relevant when: selected(${A2} , '777777') or selected(${A2} , '77777') or selected(${A2} , '7777') or selected(${A2} , '777') or selected(${A1} , '777')*		
A2_i *(required)*	What is the location: District *Question relevant when: not(selected(${A2} , '777777')) and not(selected(${A2} , '77777')) and not(selected(${A2} , '7777')) and not(selected(${A2} , '777')) and not(selected(${A1} , '777'))*	1	Adansi North
		2	Obuasi Municipal
		3	Asante-Akim North
		4	Asante-Akim South
		5	Offinso North
		6	Offinso South

Field	Question	Answer	
		7	Amansie Central
		8	Amansie West
		9	Bekwai Municipality
		10	Asante-Akim Central
		11	Asante-Akim North
		12	Asante-Akim South
		13	Atwima Kwanwoma
		14	Atwima Mponua
		15	Atwima Nwabiagya
		16	Ejura Sekye Domase
		17	Sekyere Central
		18	Sekyere East
		19	Sekyere South
		20	Afigya Kwabre
		21	Ejisu-Juaben
		22	KMA
		23	Kwabre East
		24	Asunafo North
		25	Asunafo South
		26	Berekum
		27	Dormaa East
		28	Dormaa Municipal
		29	Dormaa West
		30	Jaman Soth
		31	Wenchi Municipal
		32	Berekum
		33	Sunyani Municipal
		34	Sunyani West
		35	Tano North
		36	Tano South
		37	Kintampo Municipal
		38	Nkoranza North
		39	Nkoranza South
		40	Techiman Municipal
		41	Techiman North
		42	Fanteakwa
		43	Kwahu Afram Plains North
		44	Kwahu East
		45	Kwahu South
		46	Kwahu West
		47	Asuogyaman
		48	Lower Manya Krobo
		49	Upper Manya Krobo
		50	Akyemmansa
		51	Asene-Manso-Akroso
		52	Birim North
		53	Birim South
		54	Denkyembour
		55	Kwaebibirem
		56	Abuakwa North
		57	Abuakwa South
		58	Adeiso
		59	Atiwa East
		60	Ayensuano
		61	New Juaben North
		62	Nsawam Addoagyiri
		63	Suhum
		64	Upper West Akim
		65	West Akim
		66	Ho West
		67	Adaklu
		68	Adaklu
		69	Ho

Field	Question	Answer	
		70	Keta
		71	North Tongu
		72	South Tongu
		73	Adaklu
		74	Hohoe Municipal
		75	Hohoe Municipal
		76	Hohoe Municipal
		77	Adaklu
		78	Ho
		79	Afadzato South
		80	Biakoye
		81	Hohoe Municipal
		82	Kajebi
		83	Kpando Municipality
		84	North Dayi
		85	South Dayi
		86	Keta
		87	Keta
		88	Keta
		89	Keta
		90	Keta
		91	Ho
		92	South Dayi
		93	Krachi East
		94	Krachi East
		95	Ho
		96	Hohoe Municipal
		97	South Tongu
		98	Adaklu
		99	Afadzato South
		100	Ho
		101	Ho
		102	South Tongu
		501	Other (specify)___
		503	Other (specify)___
		505	Other (specify)___
		507	Other (specify)___
		509	Other (specify)___
		511	Other (specify)___
		513	Other (specify)___
		515	Other (specify)___
		517	Other (specify)___
		519	Other (specify)___
		521	Other (specify)___
		523	Other (specify)___
		525	Other (specify)___
		527	Other (specify)___
		529	Other (specify)___
		531	Other (specify)___
		533	Other (specify)___
		535	Other (specify)___
		537	Other (specify)___
		539	Other (specify)___
		541	Other (specify)___
		543	Other (specify)___
		544	Other (specify)___
		545	Other (specify)___
		546	Other (specify)___
		547	Other (specify)___
		548	Other (specify)___
		549	Other (specify)___
		550	Other (specify)___
		551	Other (specify)___

Field	Question	Answer		
			552	Other (specify)___
			553	Other (specify)___
			554	Other (specify)___
			555	Other (specify)___
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			557	Other (specify)___
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			561	Other (specify)___
			562	Other (specify)___
			563	Other (specify)___
			564	Other (specify)___
			565	Other (specify)___
			566	Other (specify)___
			567	Other (specify)___
			568	Other (specify)___
			569	Other (specify)___
A2_ii *(required)*	Please specify District___ *Question relevant when: selected(${A2} , '777777') or selected(${A2} , '77777') or selected(${A2} , '7777') or selected(${A2} , '777') or selected(${A1} , '777') or selected(${A2_i} , '501') or selected(${A2_i} , '503') or selected(${A2_i} , '505') or selected(${A2_i} , '507') or selected(${A2_i} , '509') or selected(${A2_i} , '511') or selected(${A2_i} , '513') or selected(${A2_i} , '515') or selected(${A2_i} , '517') or selected(${A2_i} , '519') or selected(${A2_i} , '521') or selected(${A2_i} , '523') or selected(${A2_i} , '525') or selected(${A2_i} , '527') or selected(${A2_i} , '529') or selected(${A2_i} , '531') or selected(${A2_i} , '533') or selected(${A2_i} , '535') or selected(${A2_i} , '537') or selected(${A2_i} , '539') or selected(${A2_i} , '541') or selected(${A2_i} , '543') or selected(${A2_i} , '544') or selected(${A2_i} , '545') or selected(${A2_i} , '546') or selected(${A2_i} , '547') or selected(${A2_i} , '548') or selected(${A2_i} , '549') or selected(${A2_i} , '550') or selected(${A2_i} , '551') or selected(${A2_i} , '552') or selected(${A2_i} , '553') or selected(${A2_i} , '554') or selected(${A2_i} , '555') or selected(${A2_i} , '556') or selected(${A2_i} , '557') or selected(${A2_i} , '558') or selected(${A2_i} , '559') or selected(${A2_i} , '560') or selected(${A2_i} , '561') or selected(${A2_i} , '562') or selected(${A2_i} , '563') or selected(${A2_i} , '564') or selected(${A2_i} , '565') or selected(${A2_i} , '566') or selected(${A2_i} , '567') or selected(${A2_i} , '568') or selected(${A2_i} , '569')*			
A3 *(required)*	Name of community			
A10	Specific location or address *[To easily locate farmer on our next visit, mark or note any distinct landmark]*			
A4	GPS coordinates of farm *GPS coordinates can only be collected when outside.*			
HHID *(required)*	Household ID *[Kindly double-check that it is correct]*			
Consent *(required)*	CONSENT FORM	1	Yes. I am willing to participate voluntarily	

CONSENT FORM

Field	Question	Answer
Consent *(required)*		1 Yes, I am willing to participate voluntarily
		0 No, I am not willing to participate in the survey
	My name is _____ and I work for FMMS, Water Research Institute (WRI) and the International Food Policy Research Institute (IFPRI). We are conducting this survey and study to help understand the constraints and opportunities in the tilapia sector in Ghana. You are randomly-chosen from the full list of about 800 cage and pond tilapia farmers compiled and updated by the Fisheries Commission. You, as the most knowledgeable person on tilapia farming, are chosen to respond to this interview. This interview will last about 2.5 hours; and will mainly consist of questions about your tilapia production, costs, and sales, and a few questions about the household. If other members of the household or other employee/manager of the farm can best answer some of the questions, please feel free to ask them or to include them in some parts of the interview. We will ask to interview separately for about 20 minutes another primary decisionmaker in your household (of the opposite gender), such as your spouse, to understand from their perspective their participation in fish farming and other livelihoods of the household. Your participation to this survey is voluntary. If you choose to participate, you may refuse to answer certain questions, or you may stop participating at any time. There is no foreseen risk to your participation in this survey, except for the 2.5 hours you will spend with our survey team. We ask for your support by responding to the questions as honestly and fully as possible. Your responses will be kept COMPLETELY CONFIDENTIAL. This is not an assessment of your efforts and there are no right or wrong answers. We just would want to know your actual practices and the challenges you face in order to understand how we can improve the fish seed, technologies and services we develop and promote. The answers you provide will not be shared with regulators or any accreditation team. There will be no names that will be linked to any responses or data. Your responses will be summed together with those of 800 other farmers in Ghana and general averages from analysis will be reported. These averages and general trends and patterns by region or farming system will be very useful for the researchers, breeders and policymakers in improving seeds, technologies and services available to fish farmers. In two years (2021), we will visit you again to identify and assess what changes have occurred in your practices and farming operations as part of the evaluation of the project. We hope that you will again welcome us and support us in that next round of survey. If you have questions about this survey or study, you may contact any of the following: Dr. Seth Agyakwah at WRI [email: agyaseth@yahoo.com| telephone numbers: (+233) 343020786] Dr. Eduardo Maruyama, Institutional Review Board in IFPRI in Washington DC, USA [email: ifpri-irb@cgiar.org | telephone number: (+1) 202-862-5630]. You can ask questions concerning the study, both before agreeing to be involved and during the course of the study. Do you indicate your voluntary consent to participate in this interview: may we begin?	

Consented

Group relevant when: selected(${Consent} , '1')

A01 *(required)*	Is your farm operational or non-operational?	1	Active farmer (farmed in 2018/2019)
		2	New farmer (Completed production but did not harvested yet)
		3	New farmer (have not started production yet or just started)
		4	Inactive (have not farmed in 2018/2019)

Consented > Inactive

Group relevant when: selected(${A01} , '4')

A02 *(required)*	Last year of operation	
	Response constrained to: . <= date('2019-12-31')	

A03 *(required)*	Why did you stop operation?	1 High fingerling mortality

Field	Question	Answer	
	~~A03 (required)~~	~~Why did you stop operation?~~	1 ~~High fingerling mortality~~
		2 Fish disease
		3 ~~High fish mortality~~
		4 No/low demand/market for tilapia
		5 Very high prices of inputs
		6 No capital/funds to continue operations
		7 Found other more profitable business/livelihood
		777 Other (specify)___
A03_i *(required)*	Please specify *Question relevant when: selected(${A03} , '777')*	
A04 *(required)*	Do you plan to re-start your fish farming operation?	1 Yes
		0 No
A05 *(required)*	If we provide training and technical support on fish farming, would you like to attend?	1 Yes
		0 No
A06 *(required)*	If we provide training, technical support and good quality fingerlings, would you be interested to re-start (a potential project can only support through these, and not financial support)?	1 Yes
		0 No

Consented > Active

   Group relevant when: selected(${A04} , '1') or selected(${A05} , '1') or selected(${A06} , '1') or selected(${A01} , '1') or selected(${A01} , '2') or selected(${A01} , '3')

Consented > Active > SECTION B. RESPONDENT'S PROFILE

Field	Question	Answer	
B1	What is the name of your farm? *If farm does not have a name, continue*	
B2 *(required)*	How far is your farm from your home? *Enter 999 if farmer don't know*	
B2i *(required)*	Unit for distance from farm to home *Question relevant when: ${B2} > 0 and ${B2} != 999*	1 Km
		2 Miles
		3 Meters
		5 Minutes (walk)
		4 Can't answer
B3 *(required)*	Main respondent's name	
B4 *(required)*	Main respondent's role in the farm	1 Owner/investor
		2 Manager/Caretaker
		777 Other (specify)____
B4i *(required)*	Please specify your role in the farm *Question relevant when: selected(${B4} , '777')*	
B5	Main respondent's telephone number *Response constrained to: ((string-length(.)>=10 and string-length(.)<=10) and not(regex(.,'^(.*)[\p{Alpha}](.*)$')) and not(regex(.,'^(.*)\s(.*)$')) and not(regex(.,'^(.*)[\p{Punct}](.*)$')))*	
B6	Second phone number *Response constrained to: string-length(.)=10*	
B7 *(required)*	What is the main respondent's gender? *Enumerator should just fill this out, don't ask*	1 Male
		0 Female
B8	Age of main respondent *A rough estimate is fine*	
B9 *(required)*	What is your (main respondent's) highest education level?	1 No schooling
		2 Primary school
		3 Junior Secondary School (JSS/JHS)
		4 Technical or Vocational (after Junior High)
		5 Senior Secondary School (SSS/SHS)
		6 Polytechnic/Diploma (after Senior High)
		7 University/College degree
		8 Postgraduate/Master's degree
		9 Doctorate Degree
		777 Other (Specify)__
B9i *(required)*	Specify your highest education level *Question relevant when: selected(${B9} , '777')*	
B10 *(required)*	What is your marital status?	1 Married/consensual union
		2 Single
		3 Separated
		4 Divorced
		5 Co-habitation/living together
		6 Widowed/widower
B11 *(required)*	What is your type of household?	1 Household with both male and female adults

Field	Question	Answer	
	What is your type of household?	1	Household with both male and female adults
	(Read out loud the options) [ADULT is defined as those 18 years old and above, including self, spouse, children and other household members. Household is defined as those eating together in same pot and stay in the home for at least 6 moths in a year.]	2	Household with male adult(s) only
		3	Household with female adult(s) only
B12 *(required)*	Is your household polygamous or monogamous?	1	Polygamous
	Question relevant when: selected(${B10} , '1')	2	Monogamous
		888	Refuse to answer
B13 *(required)*	Is your husband/wife absent for more than 5 months in the year?	1	Yes
	Question relevant when: selected(${B10} , '1')	0	No
B14 *(required)*	What is your religion?	4	None
		1	Christian
		2	Muslim
		3	Traditional
		888	Refuse to answer
		777	Other (please specify)_____
B14i *(required)*	Please specify your religion		
	Question relevant when: selected(${B14} , '777')		
B15 *(required)*	Is the owner of the farm the same person as the farm manager?	1	Yes
		0	No

Consented > Active > SECTION B. RESPONDENT'S PROFILE > Owner/investor profile

Group relevant when: (selected(${B4} , '777') and selected(${B15} , '1')) or (selected(${B4} , '777') and selected(${B15} , '0')) or (selected(${B4} , '2') and selected(${B15} , '0'))

Field	Question	Answer	
B2a *(required)*	How far is the farm/firm to the owner's home?		
	Enter 999 if farmer don't know		
B2ai *(required)*	Unit of distance from farm to owners home	1	Km
	Question relevant when: ${B2a} > 0 and ${B2a} != 999	2	Miles
		3	Meters
		5	Minutes (walk)
		4	Can't answer
B3a	What is the owner's name?		
	Response constrained to: not(regex(.,'^(.*)|\d(.*)$'))		
B5a	What is the owner's telephone number		
	Response constrained to: (string-length(.)>=10 and string-length(.)<=10)		
B6a	Owner's second telephone number		
	Response constrained to: ((string-length(.)>=10 and string-length(.)<=10) and not(regex(.,'^(.*)[\p{Alpha}](.*)$')) and not(regex(.,'^(.*)\|s(.*)$')) and not(regex(.,'^(.*)[\p{Punct}](.*)$')))		
B7a *(required)*	What is the owner's gender?	1	Male
		0	Female
B8a	What is the owner's age?		
	Rough estimate is fine		
B9a	What is the highest education level of the owner?	1	No schooling
		2	Primary school
		3	Junior Secondary School (JSS/JHS)
		4	Technical or Vocational (after Junior High)
		5	Senior Secondary School (SSS/SHS)
		6	Polytechnic/Diploma (after Senior High)
		7	University/College degree
		8	Postgraduate/Master's degree
		9	Doctorate Degree
		777	Other (Specify)__
B9ai *(required)*	Please specify education level		
	Question relevant when: selected(${B9a} , '777')		

Consented > Active > SECTION B. RESPONDENT'S PROFILE > Manager/Caretaker

Group relevant when: (selected(${B4} , '1') and selected(${B15} , '0')) or (selected(${B4} , '777') and selected(${B15} , '0'))

Field	Question	Answer	
B2c *(required)*	How far is the farm/firm to the manager/caretaker's home?		
	Enter 999 if farmer don't know		
B2ci *(required)*	Unit of distance from farm to manager's home	1	Km
	Question relevant when: ${B2c} > 0 and ${B2c} != 999	2	Miles
		3	Meters
		5	Minutes (walk)
		4	Can't answer
B3c *(required)*	What is the manager/caretaker's name?		
B4c	What is the manager/caretaker's telephone number?		

Field	Question	Answer	
	Enter 999 and proceed, if don't know *Response constrained to: ((string-length(.)>=10 and string-length(.)<=10) and not(regex(.,'^(.*)*		
	[\p{Alpha}](.*)$')) and not(regex(.,'^(.*)\s(.*)$')) and not(regex(.,'^(.*)[\p{Punct}](.*)$'))) or .='999'		
B5c	Manger/caretaker's second telephone number		
	Enter 999 and proceed, if don't know *Response constrained to: ((string-length(.)>=10 and string-length(.)<=10) and not(regex(.,'^(.*)*		
	[\p{Alpha}](.*)$')) and not(regex(.,'^(.*)\s(.*)$')) and not(regex(.,'^(.*)[\p{Punct}](.*)$'))) or .='999'		
B6c *(required)*	What is the manager/caretaker's gender?	1	Male
		0	Female
B7c	What is the manager/caretaker's age? *A rough estimate is fine*		
B8c *(required)*	What is the manager/caretaker's highest level of education?	1	No schooling
		2	Primary school
		3	Junior Secondary School (JSS/JHS)
		4	Technical or Vocational (after Junior High)
		5	Senior Secondary School (SSS/SHS)
		6	Polytechnic/Diploma (after Senior High)
		7	University/College degree
		8	Postgraduate/Master's degree
		9	Doctorate Degree
		777	Other (Specify)__
B8ci *(required)*	Please specify the manager/caretaker's highest level of education *Question relevant when: selected(${B8c} , '777')*		
C0 *(required)*	Do you keep any of these written records? *if multiple, select all that applies* *Response constrained to: if(selected(., '5'), count-selected(.) =1, count-selected(.) >=1)*	5	None
		1	Sketch plan of the farm indicating structures, water sources and layout
		2	Harvest record
		3	Sales record
		4	Record on stocking density, size of fish at stocking and date of stocking
Consented > Active > Record-keeping practices (1)		*(Repeated group)*	
Group relevant when: not(selected(${C0} , '5'))			
C0b *(required)*	Did respondent show a proof/document for the (Sketch plan of the farm indicating structures, water sources and layout)? *Ask for a proof/document* *Question relevant when: selected(${C0} , ${C0_id})*	1	Yes
		0	No
Consented > Active > Record-keeping practices (2)		*(Repeated group)*	
Group relevant when: not(selected(${C0} , '5'))			
C0b *(required)*	Did respondent show a proof/document for the (Harvest record)? *Ask for a proof/document* *Question relevant when: selected(${C0} , ${C0_id})*	1	Yes
		0	No
Consented > Active > Record-keeping practices (3)		*(Repeated group)*	
Group relevant when: not(selected(${C0} , '5'))			
C0b *(required)*	Did respondent show a proof/document for the (Sales record)? *Ask for a proof/document* *Question relevant when: selected(${C0} , ${C0_id})*	1	Yes
		0	No
Consented > Active > Record-keeping practices (4)		*(Repeated group)*	
Group relevant when: not(selected(${C0} , '5'))			
C0b *(required)*	Did respondent show a proof/document for the (Record on stocking density, size of fish at stocking and date of stocking)? *Ask for a proof/document* *Question relevant when: selected(${C0} , ${C0_id})*	1	Yes
		0	No
Pb_1 *(required)*	Please I will like to ask you some questions about the characteristics of your farm. Can you remember the following about your farm? Number of cages or ponds used, stocking rate, harvest, source of fingerlings etc. *Question relevant when: selected(${A01} , '4')*	1	Yes, I can remember
		0	No, I can't remember
Pb_1_i *(required)*	What production culture did you practice? *Question relevant when: selected(${Pb_1} , '0')*	1	Cage
		2	Pond
		3	Both cage and pond
Pb_1_ii *(required)*	How many operational cages did you have during your last full production season/cycle? *Question relevant when: selected(${Pb_1} , '0') and not(selected(${Pb_1_i} , '2'))*		
Pb_1_iii *(required)*	How many operation ponds did you have during your last full production season/cycle *Question relevant when: selected(${Pb_1} , '0') and not(selected(${Pb_1_i} , '1'))*		
nC *(required)*	What production culture do you practice?	1	Cage

Field	Question	Answer	
	What production culture do you practise?	1	Cage
	Question relevant when: ((selected(${A04} , '1') or selected(${A05} , '1') or selected(${A06} , '1')) and selected(${Pb_1} , '1')) or selected(${A01} , '1') or selected(${A01} , '2') or selected(${A01} , '3')	2	Pond
		3	Both cage and pond

Consented > Active > Fish farm characteristics and species

Consented > Active > Fish farm characteristics and species > CAGE CULTURE (production and harvest for the last 1 full season or cycle)

Group relevant when: selected(${nC} , '1') or selected(${nC} , '3')

Field	Question	Answer	
C1 *(required)*	What species do you farm? *Select all that apply. If polyculture, select more than 1 specie*	1	Tilapia only
		2	Cat fish only
		3	Heterotis only
		4	Tilapia and Cat fish
		777	Other (specify)___
C1i *(required)*	Please specify specie Question relevant when: selected(${C1} , '777')		
C2 *(required)*	How many cages do you have set-up (both operational and not operational)?		
C3 *(required)*	How many cages did you use during last full production season/cycle?		

Consented > Active > Fish farm characteristics and species > CAGE CULTURE (production and harvest for the last 1 full season or cycle) > Cat fish and tilapia

Group relevant when: selected(${C1} ,4)

Field	Question	Answer	
C4_xa *(required)*	What are the sizes of the cages you used for (Tilapia and Cat fish) during last full production season/cycle? *If multiple, select all that applies*	1	5 x 5 x 5
		2	6 x 6 x 6
		3	7 x 7 x 7
		4	10 x 10 x 10
		777	other (specify)___
C4_xai *(required)*	Specify other cage size for (Tilapia and Cat fish) Question relevant when: selected(${C4_xa} , '777')		
C4_xb *(required)*	Most common cage size for (Tilapia and Cat fish) production on your farm?	1	5 x 5 x 5
		2	6 x 6 x 6
		3	7 x 7 x 7
		4	10 x 10 x 10
		777	...
C4_xc_i *(required)*	Stocking rate per cage for (Tilapia) in this most common cage size [[cage_size_name1tc]]? *Stocking rate = (Number of fingerlings)*		
C4_xc_ii *(required)*	Stocking rate per cage for (Cat fish) in this most common cage size [[cage_size_name1tc]]? *Stocking rate = number of fingerlings*		
C4_xd_i *(required)*	What is the survival rate for (Tilapia) in this most common cage size [[cage_size_name1tc]]? *[of the total number of fingerlings stocked, how many survived upon harvest - in percentage or total number] Enter 999 if don't know*		
C4_xd_i_i *(required)*	Unit for survival rate Question relevant when: ${C4_xd_i} > 0 and ${C4_xd_i} != 999	1	Number of fingerlings that survived
		2	Percentage of fingerlings that survived
C4_xd_ii *(required)*	What is the survival rate for (Cat fish) in this most common cage size [[cage_size_name1tc]]? *[of the total number of fingerlings stocked, how many survived upon harvest - in percentage or total number] Enter 999 if don't know*		
C4_xd_ii_i *(required)*	Unit for survival rate Question relevant when: ${C4_xd_ii} > 0 and ${C4_xd_ii} != 999	1	Number of fingerlings that survived
		2	Percentage of fingerlings that survived
C4_xe *(required)*	Total harvest for (Tilapia) during the most recent full production season/cycle (tonnes) in 1 single ([cage_size_name1tc]) cage? *(1 tonne = 1000 kg) Enter 999 if don't know* Question relevant when: selected(${A01} , '1') or selected(${A01} , '4')		
C4_xe_ii *(required)*	Total harvest for (Cat fish) during the most recent full production season/cycle (tonnes) in 1 single ([cage_size_name1tc]) cage? *(1 ton = 1000kg) Enter 999 if don't know* Question relevant when: selected(${A01} , '1') or selected(${A01} , '4')		
C4_xf *(required)*	What is the 2nd most common cage size for (Tilapia and Cat fish) production? Question relevant when: count-selected(${C4_xa}) > 1	1	5 x 5 x 5
		2	6 x 6 x 6
		3	7 x 7 x 7
		4	10 x 10 x 10
		777	...
C4_xg_i *(required)*	Stocking rate per cage for (Tilapia) in this 2nd most common cage size [[cage_size_name2tc]]? *Stocking rate = (Number of fingerlings)* Question relevant when: count-selected(${C4_xa}) > 1		
C4_xg_ii *(required)*	Stocking rate per cage for (Cat fish) in this 2nd most common cage size [[cage_size_name2tc]]? *Stocking rate = (Number of fingerlings)* Question relevant when: count-selected(${C4_xa}) > 1		

Field	C4_xh_i *(required)*	Question What is the survival rate for (Tilapia) in this 2nd most common cage size [[cage_size_name2tc]]?	Answer	
		[of the total number of fingerlings stocked, how many survived upon harvest - in percentage or total number] Enter 999 if don't know		
		Question relevant when: count-selected(${C4_xa}) > 1		
	C4_xh_i_i *(required)*	Unit for survival rate	1	Number of fingerlings that survived
		Question relevant when: ${C4_xh_i} > 0 and ${C4_xh_i} != 999	2	Percentage of fingerlings that survived
	C4_xh_ii *(required)*	What is the survival rate for (Cat fish) in this 2nd most common cage size [[cage_size_name2tc]]?		
		[of the total number of fingerlings stocked, how many survived upon harvest - in percentage or total number] Enter 999 if don't know		
		Question relevant when: count-selected(${C4_xa}) > 1		
	C4_xh_ii_i *(required)*	Unit for survival rate	1	Number of fingerlings that survived
		Question relevant when: ${C4_xh_ii} > 0 and ${C4_xh_ii} != 999	2	Percentage of fingerlings that survived
	C4_xi *(required)*	What was the starting month for your most recent full production cycle for (Tilapia and Cat fish)?	1	January
		if multiple, select all that applies	2	February
			3	March
			4	April
			5	May
			6	June
			7	July
			8	August
			9	September
			10	October
			11	November
			12	December
	C4_xj *(required)*	What was the starting year for your most recent full production cycle for (Tilapia and Cat fish)?	1	2014
			2	2015
			3	2016
			4	2017
			5	2018
			6	2019
	C4_xk *(required)*	How many months was the most recent full production cycle from stocking to last harvest for (Tilapia and Cat fish)		
		If 6 months 2 weeks, write 6.5; if 6 months 1 week, write 6.25 Enter 666 if new farmer		
	C4_xl *(required)*	How many cages did you use during last full production cycle/season for (Tilapia and Cat fish)?		
		666 = I am a new farmer		
		Question relevant when: ${C4_xk} != 666		
	C4_xm1 *(required)*	How many tonnes of (Tilapia) did you harvest in the ([C4_xl]) cages?		
		(1 tonne = 1000 kg) Enter 999 if don't know		
		Question relevant when: (selected(${A01} , '1') or selected(${A01} , '4')) and ${C4_xk} != 666		
	C4_xm2 *(required)*	How many tonnes of (Cat fish) did you harvest in the ([C4_xl]) cages?		
		1 ton = 1000kg Enter 999 if don't know		
		Question relevant when: (selected(${A01} , '1') or selected(${A01} , '4')) and ${C4_xk} != 666		
	C4_xn *(required)*	Is your production/harvest of (Tilapia and Cat fish) increasing or decreasing over the last 5 years?	1	increasing
		Question relevant when: selected(${A01} , '1')	2	decreasing
			3	same
			4	Not applicable (I am a new farmer)
	C4_xo *(required)*	What do you think is the reason production/harvest is ([C4_xn_name])?	1	high and increasing fish price
		If multiple, select all that applies	2	high and increasing demand from market
		Question relevant when: selected(${C4_xn} , '1') or selected(${C4_xn} , '2')	3	higher yield/productivity
			4	I am becoming an expert and I have improved technical knowledge now
			5	diseases and fish/fingerling mortality
			6	higher inputs prices
			7	unavailable inputs
			8	lower fish prices and lower market demand
			9	theft issues
			10	Don't know/Can't tell
			777	Other (specify)___
	C4_xoi *(required)*	Please specify reason		
		Question relevant when: selected(${C4_xo} , '777')		
	Consented > Active > Fish farm characteristics and species > CAGE CULTURE (production and harvest for the last 1 full season or cycle) > Tilapia only (1)		(Repeated group)	
		Group relevant when: selected(${C1} , '1') or selected(${C1} , '2') or selected(${C1} , '3') or selected(${C1} , '777')		

Field	Question	Answer
	Consented > Active > Fish farm characteristics and species > CAGE CULTURE (production and harvest for the last 1 full season or cycle) > cage (1) > cage production	
	Group relevant when: if(index() <= 3, selected(${C1} ,index()), selected(${C1} ,'777'))	

Field	Question		Answer
C4 *(required)*	What are the sizes of the cages you used for (Tilapia only) during last full production season/cycle? *If multiple, select all that applies*	1	5 x 5 x 5
		2	6 x 6 x 6
		3	7 x 7 x 7
		4	10 x 10 x 10
		777	other (specify)___
C4i *(required)*	Specify other cage size for (Tilapia only) *Question relevant when: selected(${C4} , '777')*		
C4a *(required)*	Most common cage size for (Tilapia only) production on your farm?	1	5 x 5 x 5
		2	6 x 6 x 6
		3	7 x 7 x 7
		4	10 x 10 x 10
		777	...
C4b *(required)*	Stocking rate per cage for (Tilapia only) in this most common cage size [[cage_size_name1]]? *Stocking rate = (Number of fingerlings)*		
C4bi *(required)*	What is the survival rate for (Tilapia only) in this most common cage size [[cage_size_name1]]? *[of the total number of fingerlings stocked, how many survived upon harvest - in percentage or total number] Enter 999 if don't know*		
C4bi_i *(required)*	Unit for survival rate *Question relevant when: ${C4bi} > 0 and ${C4bi} != 999*	1	Number of fingerlings that survived
		2	Percentage of fingerlings that survived
C5a *(required)*	Total harvest for (Tilapia only) during the most recent full production season/cycle (tonnes) in 1 single ([cage_size_name1]) cage? *(1 tonne = 1000 kg) Enter 999 if don't know or 666 if new farmer* *Question relevant when: selected(${A01} , '1') or selected(${A01} , '4')*		
C4c *(required)*	What is the 2nd most common cage size for (Tilapia only) production? *Question relevant when: count-selected(${C4}) > 1*	1	5 x 5 x 5
		2	6 x 6 x 6
		3	7 x 7 x 7
		4	10 x 10 x 10
		777	...
C4d *(required)*	Stocking rate per cage for (Tilapia only) in this 2nd most common cage size [[cage_size_name2]]? *Stocking rate = (Number of fingerlings)* *Question relevant when: count-selected(${C4}) > 1*		
C4di *(required)*	What is the survival rate for Tilapia only in this 2nd most common cage size [[cage_size_name2]]? *[of the total number of fingerlings stocked, how many survived upon harvest - in percentage or total number] Enter 999 if don't know* *Question relevant when: count-selected(${C4}) > 1*		
C4di_i *(required)*	Unit for survival rate *Question relevant when: ${C4di} > 0 and ${C4di} != 999*	1	Number of fingerlings that survived
		2	Percentage of fingerlings that survived
C5b *(required)*	What was the starting month for your most recent full production cycle for (Tilapia only)? *if multiple, select all that applies*	1	January
		2	February
		3	March
		4	April
		5	May
		6	June
		7	July
		8	August
		9	September
		10	October
		11	November
		12	December
C5bi *(required)*	What was the starting year for your most recent full production cycle for (Tilapia only)?	1	2014
		2	2015
		3	2016
		4	2017
		5	2018
		6	2019
C5c *(required)*	How many months was the most recent full production cycle from stocking to last harvest for (Tilapia only) *If 6 months 2 weeks, write 6.5; if 6 months 1 week, write 6.25 Enter 666 if new farmer*		
C5cii *(required)*	How many cages did you use during last full production cycle/season for (Tilapia only)? *0 if none 666 = I am a new farmer* *Question relevant when: ${C5c} != 666*		

Field		Question	Answer	
	C5d *(required)*	How many tonnes of (Tilapia only) did you harvest in all the ([C5cii]) cages (tonnes)? *(1 tonne = 1000 kg)* *Question relevant when: (selected(${A01} , '1') or selected(${A01} , '4')) and ${C5c} != 666*		
	C6 *(required)*	Is your production/harvest of (Tilapia only) increasing or decreasing over the last 5 years? *Question relevant when: selected(${A01} , '1')*	1	increasing
			2	decreasing
			3	same
			4	Not applicable (I am a new farmer)
	C6i *(required)*	What do you think is the reason production/harvest is ([c6_name])? *If multiple, select all that applies* *Question relevant when: selected(${C6} , '1') or selected(${C6} , '2')*	1	high and increasing fish price
			2	high and increasing demand from market
			3	higher yield/productivity
			4	I am becoming an expert and I have improved technical knowledge now
			5	diseases and fish/fingerling mortality
			6	higher inputs prices
			7	unavailable inputs
			8	lower fish prices and lower market demand
			9	theft issues
			10	Don't know/Can't tell
			777	Other (specify)___
	C6ii *(required)*	Please specify reason *Question relevant when: selected(${C6i} , '777')*		

Consented > Active > Fish farm characteristics and species > CAGE CULTURE (production and harvest for the last 1 full season or cycle) > Cat fish only (2)   (Repeated group)
  Group relevant when: selected(${C1} , '1') or selected(${C1} , '2') or selected(${C1} , '3') or selected(${C1} , '777')

Consented > Active > Fish farm characteristics and species > CAGE CULTURE (production and harvest for the last 1 full season or cycle) > Cat fish only (2) > cage production
  Group relevant when: if(index() <= 3, selected(${C1} ,index()), selected(${C1} ,'777'))

Field		Question	Answer	
	C4 *(required)*	What are the sizes of the cages you used for (Cat fish only) during last full production season/cycle? *If multiple, select all that applies*	1	5 x 5 x 5
			2	6 x 6 x 6
			3	7 x 7 x 7
			4	10 x 10 x 10
			777	other (specify)___
	C4i *(required)*	Specify other cage size for (Cat fish only) *Question relevant when: selected(${C4} , '777')*		
	C4a *(required)*	Most common cage size for (Cat fish only) production on your farm?	1	5 x 5 x 5
			2	6 x 6 x 6
			3	7 x 7 x 7
			4	10 x 10 x 10
			777	...
	C4b *(required)*	Stocking rate per cage for (Cat fish only) in this most common cage size [[cage_size_name1]]? *Stocking rate = (Number of fingerlings)*		
	C4bi *(required)*	What is the survival rate for (Cat fish only) in this most common cage size [[cage_size_name1]]? *[of the total number of fingerlings stocked, how many survived upon harvest - in percentage or total number] Enter 999 if don't know*		
	C4bi_i *(required)*	Unit for survival rate *Question relevant when: ${C4bi} > 0 and ${C4bi} != 999*	1	Number of fingerlings that survived
			2	Percentage of fingerlings that survived
	C5a *(required)*	Total harvest for (Cat fish only) during the most recent full production season/cycle (tonnes) in 1 single ([cage_size_name1]) cage? *(1 tonne = 1000 kg) Enter 999 if don't know or 666 if new farmer* *Question relevant when: selected(${A01} , '1') or selected(${A01} , '4')*		
	C4c *(required)*	What is the 2nd most common cage size for (Cat fish only) production? *Question relevant when: count-selected(${C4}) > 1*	1	5 x 5 x 5
			2	6 x 6 x 6
			3	7 x 7 x 7
			4	10 x 10 x 10
			777	...
	C4d *(required)*	Stocking rate per cage for (Cat fish only) in this 2nd most common cage size [[cage_size_name2]]? *Stocking rate = (Number of fingerlings)* *Question relevant when: count-selected(${C4}) > 1*		
	C4di *(required)*	What is the survival rate for Cat fish only in this 2nd most common cage size [[cage_size_name2]]? *[of the total number of fingerlings stocked, how many survived upon harvest - in percentage or total number] Enter 999 if don't know* *Question relevant when: count-selected(${C4}) > 1*		
	C4di_i *(required)*	Unit for survival rate *Question relevant when: ${C4di} > 0 and ${C4di} != 999*	1	Number of fingerlings that survived
			2	Percentage of fingerlings that survived

Field	Question	Answer
C5b *(required)*	What was the starting month for your most recent full production cycle for (Cat fish only)? *if multiple, select all that applies*	1 January
		2 February
		3 March
		4 April
		5 May
		6 June
		7 July
		8 August
		9 September
		10 October
		11 November
		12 December
C5bi *(required)*	What was the starting year for your most recent full production cycle for (Cat fish only)?	1 2014
		2 2015
		3 2016
		4 2017
		5 2018
		6 2019
C5c *(required)*	How many months was the most recent full production cycle from stocking to last harvest for (Cat fish only) *If 6 months 2 weeks, write 6.5; if 6 months 1 week, write 6.25 Enter 666 if new farmer*	
C5cii *(required)*	How many cages did you use during last full production cycle/season for (Cat fish only)? *0 if none 666 = I am a new farmer* *Question relevant when: ${C5c} != 666*	
C5d *(required)*	How many tonnes of (Cat fish only) did you harvest in all the ([C5cii]) cages (tonnes)? *(1 tonne = 1000 kg)* *Question relevant when: (selected(${A01} , '1') or selected(${A01} , '4')) and ${C5c} != 666*	
C6 *(required)*	Is your production/harvest of (Cat fish only) increasing or decreasing over the last 5 years? *Question relevant when: selected(${A01} , '1')*	1 increasing
		2 decreasing
		3 same
		4 Not applicable (I am a new farmer)
C6i *(required)*	What do you think is the reason production/harvest is ([c6_name])? *If multiple, select all that applies* *Question relevant when: selected(${C6} , '1') or selected(${C6} , '2')*	1 high and increasing fish price
		2 high and increasing demand from market
		3 higher yield/productivity
		4 I am becoming an expert and I have improved technical knowledge now
		5 diseases and fish/fingerling mortality
		6 higher inputs prices
		7 unavailable inputs
		8 lower fish prices and lower market demand
		9 theft issues
		10 Don't know/Can't tell
		777 Other (specify)___
C6ii *(required)*	Please specify reason *Question relevant when: selected(${C6i} , '777')*	

Consented > Active > Fish farm characteristics and species > CAGE CULTURE (production and harvest for the last 1 full season or cycle) > Heterotis only (3)   (Repeated group)
  Group relevant when: selected(${C1} , '1') or selected(${C1} , '2') or selected(${C1} , '3') or selected(${C1} , '777')

Consented > Active > Fish farm characteristics and species > CAGE CULTURE (production and harvest for the last 1 full season or cycle) > Heterotis only (3) > cage production
  Group relevant when: if(index() <= 3, selected(${C1} ,index()), selected(${C1} ,'777'))

Field	Question	Answer
C4 *(required)*	What are the sizes of the cages you used for (Heterotis only) during last full production season/cycle? *If multiple, select all that applies*	1 5 x 5 x 5
		2 6 x 6 x 6
		3 7 x 7 x 7
		4 10 x 10 x 10
		777 other (specify)___
C4i *(required)*	Specify other cage size for (Heterotis only) *Question relevant when: selected(${C4} , '777')*	
C4a *(required)*	Most common cage size for (Heterotis only) production on your farm?	1 5 x 5 x 5
		2 6 x 6 x 6
		3 7 x 7 x 7
		4 10 x 10 x 10
		777 ...

Field		Question	Answer	
	C4b *(required)*	Stocking rate per cage for (Heterotis only) in this most common cage size [[cage_size_name1]]? *Stocking rate = (Number of fingerlings)*		
	C4bi *(required)*	What is the survival rate for (Heterotis only) in this most common cage size [[cage_size_name1]]? *[of the total number of fingerlings stocked, how many survived upon harvest - in percentage or total number] Enter 999 if don't know*		
	C4bi_i *(required)*	Unit for survival rate *Question relevant when: ${C4bi} > 0 and ${C4bi} != 999*	1	Number of fingerlings that survived
			2	Percentage of fingerlings that survived
	C5a *(required)*	Total harvest for (Heterotis only) during the most recent full production season/cycle (tonnes) in 1 single ([cage_size_name1]) cage? *(1 tonne = 1000 kg) Enter 999 if don't know or 666 if new farmer* *Question relevant when: selected(${A01} , '1') or selected(${A01} , '4')*		
	C4c *(required)*	What is the 2nd most common cage size for (Heterotis only) production? *Question relevant when: count-selected(${C4}) > 1*	1	5 x 5 x 5
			2	6 x 6 x 6
			3	7 x 7 x 7
			4	10 x 10 x 10
			777	...
	C4d *(required)*	Stocking rate per cage for (Heterotis only) in this 2nd most common cage size [[cage_size_name2]]? *Stocking rate = (Number of fingerlings)* *Question relevant when: count-selected(${C4}) > 1*		
	C4di *(required)*	What is the survival rate for Heterotis only in this 2nd most common cage size [[cage_size_name2]]? *[of the total number of fingerlings stocked, how many survived upon harvest - in percentage or total number] Enter 999 if don't know* *Question relevant when: count-selected(${C4}) > 1*		
	C4di_i *(required)*	Unit for survival rate *Question relevant when: ${C4di} > 0 and ${C4di} != 999*	1	Number of fingerlings that survived
			2	Percentage of fingerlings that survived
	C5b *(required)*	What was the starting month for your most recent full production cycle for (Heterotis only)? *if multiple, select all that applies*	1	January
			2	February
			3	March
			4	April
			5	May
			6	June
			7	July
			8	August
			9	September
			10	October
			11	November
			12	December
	C5bi *(required)*	What was the starting year for your most recent full production cycle for (Heterotis only)?	1	2014
			2	2015
			3	2016
			4	2017
			5	2018
			6	2019
	C5c *(required)*	How many months was the most recent full production cycle from stocking to last harvest for (Heterotis only) *If 6 months 2 weeks, write 6.5; if 6 months 1 week, write 6.25 Enter 666 if new farmer*		
	C5cii *(required)*	How many cages did you use during last full production cycle/season for (Heterotis only)? *0 if none 666 = I am a new farmer* *Question relevant when: ${C5c} != 666*		
	C5d *(required)*	How many tonnes of (Heterotis only) did you harvest in all the ([C5cii]) cages (tonnes)? *(1 tonne = 1000 kg)* *Question relevant when: (selected(${A01} , '1') or selected(${A01} , '4')) and ${C5c} != 666*		
	C6 *(required)*	Is your production/harvest of (Heterotis only) increasing or decreasing over the last 5 years? *Question relevant when: selected(${A01} , '1')*	1	increasing
			2	decreasing
			3	same
			4	Not applicable (I am a new farmer)

Field		Question	Answer	high and increasing fish price
	C6i *(required)*	What do you think is the reason production/harvest is ([c6_name])?		
		If multiple, select all that applies	2	high and increasing demand from market
		Question relevant when: selected(${C6} , '1') or selected(${C6} , '2')	3	higher yield/productivity
			4	I am becoming an expert and I have improved technical knowledge now
			5	diseases and fish/fingerling mortality
			6	higher inputs prices
			7	unavailable inputs
			8	lower fish prices and lower market demand
			9	theft issues
			10	Don't know/Can't tell
			777	Other (specify)___
	C6ii *(required)*	Please specify reason		
		Question relevant when: selected(${C6i} , '777')		

Consented > Active > Fish farm characteristics and species > CAGE CULTURE (production and harvest for the last 1 full season or cycle) > [C1_name] (4)   (Repeated group)
  Group relevant when: selected(${C1} , '1') or selected(${C1} , '2') or selected(${C1} , '3') or selected(${C1} , '777')

Consented > Active > Fish farm characteristics and species > CAGE CULTURE (production and harvest for the last 1 full season or cycle) > [C1_name] (4) > cage production
  Group relevant when: if(index() <= 3, selected(${C1} ,index()), selected(${C1} ,'777'))

Field	Question		Answer
C4 *(required)*	What are the sizes of the cages you used for ([C1_name]) during last full production season/cycle?	1	5 x 5 x 5
	If multiple, select all that applies	2	6 x 6 x 6
		3	7 x 7 x 7
		4	10 x 10 x 10
		777	other (specify)___
C4i *(required)*	Specify other cage size for ([C1_name])		
	Question relevant when: selected(${C4} , '777')		
C4a *(required)*	Most common cage size for ([C1_name]) production on your farm?	1	5 x 5 x 5
		2	6 x 6 x 6
		3	7 x 7 x 7
		4	10 x 10 x 10
		777	...
C4b *(required)*	Stocking rate per cage for ([C1_name]) in this most common cage size [[cage_size_name1]]?		
	Stocking rate = (Number of fingerlings)		
C4bi *(required)*	What is the survival rate for ([C1_name]) in this most common cage size [[cage_size_name1]]?		
	[of the total number of fingerlings stocked, how many survived upon harvest - in percentage or total number] Enter 999 if don't know		
C4bi_i *(required)*	Unit for survival rate	1	Number of fingerlings that survived
	Question relevant when: ${C4bi} > 0 and ${C4bi} != 999	2	Percentage of fingerlings that survived
C5a *(required)*	Total harvest for ([C1_name]) during the most recent full production season/cycle (tonnes) in 1 single ([cage_size_name1]) cage?		
	(1 tonne = 1000 kg) Enter 999 if don't know or 666 if new farmer		
	Question relevant when: selected(${A01} , '1') or selected(${A01} , '4')		
C4c *(required)*	What is the 2nd most common cage size for ([C1_name]) production?	1	5 x 5 x 5
	Question relevant when: count-selected(${C4}) > 1	2	6 x 6 x 6
		3	7 x 7 x 7
		4	10 x 10 x 10
		777	...
C4d *(required)*	Stocking rate per cage for ([C1_name]) in this 2nd most common cage size [[cage_size_name2]]?		
	Stocking rate = (Number of fingerlings)		
	Question relevant when: count-selected(${C4}) > 1		
C4di *(required)*	What is the survival rate for [C1_name] in this 2nd most common cage size [[cage_size_name2]]?		
	[of the total number of fingerlings stocked, how many survived upon harvest - in percentage or total number] Enter 999 if don't know		
	Question relevant when: count-selected(${C4}) > 1		
C4di_i *(required)*	Unit for survival rate	1	Number of fingerlings that survived
	Question relevant when: ${C4di} > 0 and ${C4di} != 999	2	Percentage of fingerlings that survived

Field		Question	Answer	
	C5b *(required)*	When the starting month for your most recent full production cycle for ([C1_name])? *if multiple, select all that applies*		January
			2	February
			3	March
			4	April
			5	May
			6	June
			7	July
			8	August
			9	September
			10	October
			11	November
			12	December
	C5bi *(required)*	What was the starting year for your most recent full production cycle for ([C1_name])?	1	2014
			2	2015
			3	2016
			4	2017
			5	2018
			6	2019
	C5c *(required)*	How many months was the most recent full production cycle from stocking to last harvest for ([C1_name]) *If 6 months 2 weeks, write 6.5; if 6 months 1 week, write 6.25 Enter 666 if new farmer*		
	C5cii *(required)*	How many cages did you use during last full production cycle/season for ([C1_name])? *0 if none 666 = I am a new farmer* Question relevant when: ${C5c} != 666		
	C5d *(required)*	How many tonnes of ([C1_name]) did you harvest in all the ([C5cii]) cages (tonnes)? *(1 tonne = 1000 kg)* Question relevant when: (selected(${A01} , '1') or selected(${A01} , '4')) and ${C5c} != 666		
	C6 *(required)*	Is your production/harvest of ([C1_name]) increasing or decreasing over the last 5 years? Question relevant when: selected(${A01} , '1')	1	increasing
			2	decreasing
			3	same
			4	Not applicable (I am a new farmer)
	C6i *(required)*	What do you think is the reason production/harvest is ([c6_name])? *If multiple, select all that applies* Question relevant when: selected(${C6} , '1') or selected(${C6} , '2')	1	high and increasing fish price
			2	high and increasing demand from market
			3	higher yield/productivity
			4	I am becoming an expert and I have improved technical knowledge now
			5	diseases and fish/fingerling mortality
			6	higher inputs prices
			7	unavailable inputs
			8	lower fish prices and lower market demand
			9	theft issues
			10	Don't know/Can't tell
			777	Other (specify)___
	C6ii *(required)*	Please specify reason Question relevant when: selected(${C6i} , '777')		
	C23 *(required)*	Do you have plans to increase or expand production under cage culture in the next 3 years? Question relevant when: selected(${A01} , '1') or selected(${A01} , '2') or selected(${A01} , '3')	1	Increase
			2	Decrease
			3	Keep the same
			4	Don't know
	C23i *(required)*	Why__ Question relevant when: selected(${C23} , '1') or selected(${C23} , '2')	1	High market demand
			2	Low market demand
			3	High fish prices
			4	Low fish prices
			5	Very profitable
			6	Not profitable
			7	Low cost of production/inputs
			8	High cost of production/inputs
			9	Disease and high fish/fingerling mortality
			10	I want to expand and export
			11	I want to expand to processing
			777	Other (specify)__

Field	Question	Answer		
C23ii *(required)*	Please specify___ *Question relevant when: selected(${C23i} , '777')*			

Consented > Active > Fish farm characteristics and species > POND CULTURE
Group relevant when: selected(${nC} , '2') or selected(${nC} , '3')

Field	Question	Answer		
C7 *(required)*	How many ponds does your household have (operational and non-operational)			
C8 *(required)*	How many ponds did your household use during last full production season/cycle?			

Consented > Active > Fish farm characteristics and species > POND CULTURE > Pond # (1) (1) — (Repeated group)

Field	Question	Answer		
C9 *(required)*	What species do you farm in your pond # (1)? *Select all that apply. If polyculture, select more than 1 specie*	1	Tilapia	
		2	Cat fish	
		3	Heterotis	
		777	Other (specify)___	
C9i *(required)*	Please specify specie__ *Question relevant when: selected(${C9} , '777')*			
C10a *(required)*	What is the Length of the pond # (1)? *Please enter 999 if do not know* *Response constrained to: (.>=1 and .<=100000) or .=999*			
C10ai *(required)*	What is the unit of length *Question relevant when: ${C10a} > 0 and ${C10a} != 999*	1	Feet	
		2	Meter	
C10b *(required)*	What is the Width of the pond # (1)? *Please enter 999 if do not know* *Response constrained to: .<=20000 or .=999*			
C10bi *(required)*	What is the unit of width *Question relevant when: ${C10b} > 0 and ${C10b} != 999*	1	Feet	
		2	Meter	
C10c *(required)*	What is the DEEP Depth of pond # (1)? *Please enter 999 if do not know* *Response constrained to: .<=20000 or .=999*			
C10ci *(required)*	Unit of Deep depth *Question relevant when: ${C10c} > 0 and ${C10c} != 999*	1	Feet	
		2	Meter	
C10d *(required)*	What is the SHALLOW depth of the pond # (1)? *Please enter 999 if do not know* *Response constrained to: .<=20000 or .=999*			
C10di *(required)*	Unit of shallow depth *Question relevant when: ${C10d} > 0 and ${C10d} != 999*	1	Feet	
		2	Meter	
C11 *(required)*	What type of pond is pond # (1)?	1	Concrete	
		2	Earthen pond	
		3	Earthen with plastic	
		4	Hapas installed in ponds	
		5	Earthen + Concrete	
		6	Dam	
		7	Tank	
		777	Other (specify)___	
C11i *(required)*	Please specify the type of pond *Question relevant when: selected(${C11} , '777')*			

Consented > Active > Fish farm characteristics and species > POND CULTURE > Single pond
Group relevant when: ${C8} = 1

Consented > Active > Fish farm characteristics and species > POND CULTURE > Single pond > Tilapia (1) — (Repeated group)

Field	Question	Answer		
C14x_i *(required)*	Stocking rate for (Tilapia) in your pond during last full production cycle (number of fingerlings) *[of the total number of fingerlings stocked, how many survived upon harvest - in percentage or total number] Enter 999 if don't know* *Question relevant when: if(index() <= 3, selected(${C9} , index()), selected(${C9} , '777'))*			
C14x_ii *(required)*	Survival rate for (Tilapia) in your pond *Question relevant when: if(index() <= 3, selected(${C9} , index()), selected(${C9} , '777'))*			
C14x_ii_i *(required)*	Unit for survival rate *Question relevant when: ${C14x_ii} > 0 and ${C14x_ii} != 999*	1	Number of fingerlings that survived	
		2	Percentage of fingerlings that survived	
C14x_iii *(required)*	How many tonnes of (Tilapia) did you harvest in your most recent full production season/cycle from this pond? *1 ton = 1000kg* *Question relevant when: if(index() <= 3, selected(${C9} , index()), selected(${C9} , '777'))*			

Consented > Active > Fish farm characteristics and species > POND CULTURE > Single pond > Cat fish (2) — (Repeated group)

Field	Question	Answer		
C14x_i *(required)*	Stocking rate for (Cat fish) in your pond during last full production cycle (number of fingerlings) *[of the total number of fingerlings stocked, how many survived upon harvest - in percentage or total number] Enter 999 if don't know* *Question relevant when: if(index() <= 3, selected(${C9} , index()), selected(${C9} , '777'))*			

Field		Question	Answer	
	C14x_ii *(required)*	Survival rate for (Cat fish) in your pond *Question relevant when: if(index() <= 3, selected(${C9} , index()), selected(${C9} , '777'))*		
	C14x_ii_i *(required)*	Unit for survival rate *Question relevant when: ${C14x_ii} > 0 and ${C14x_ii} != 999*	1	Number of fingerlings that survived
			2	Percentage of fingerlings that survived
	C14x_iii *(required)*	How many tonnes of (Cat fish) did you harvest in your most recent full production season/cycle from this pond? *1 ton = 1000kg* *Question relevant when: if(index() <= 3, selected(${C9} , index()), selected(${C9} , '777'))*		
Consented > Active > Fish farm characteristics and species > POND CULTURE > Single pond > Heterotis (3)			(Repeated group)	
	C14x_i *(required)*	Stocking rate for (Heterotis) in your pond during last full production cycle (number of fingerlings) *[of the total number of fingerlings stocked, how many survived upon harvest - in percentage or total number] Enter 999 if don't know* *Question relevant when: if(index() <= 3, selected(${C9} , index()), selected(${C9} , '777'))*		
	C14x_ii *(required)*	Survival rate for (Heterotis) in your pond *Question relevant when: if(index() <= 3, selected(${C9} , index()), selected(${C9} , '777'))*		
		Unit for survival rate *Question relevant when: ${C14x_ii} > 0 and ${C14x_ii} != 999*	1	Number of fingerlings that survived
			2	Percentage of fingerlings that survived
	C14x_ii_i *(required)*			
	C14x_iii *(required)*	How many tonnes of (Heterotis) did you harvest in your most recent full production season/cycle from this pond? *1 ton = 1000kg* *Question relevant when: if(index() <= 3, selected(${C9} , index()), selected(${C9} , '777'))*		
Consented > Active > Fish farm characteristics and species > POND CULTURE > Single pond > [C14x_name] (4)			(Repeated group)	
	C14x_i *(required)*	Stocking rate for ([C14x_name]) in your pond during last full production cycle (number of fingerlings) *[of the total number of fingerlings stocked, how many survived upon harvest - in percentage or total number] Enter 999 if don't know* *Question relevant when: if(index() <= 3, selected(${C9} , index()), selected(${C9} , '777'))*		
	C14x_ii *(required)*	Survival rate for ([C14x_name]) in your pond *Question relevant when: if(index() <= 3, selected(${C9} , index()), selected(${C9} , '777'))*		
	C14x_ii_i *(required)*	Unit for survival rate *Question relevant when: ${C14x_ii} > 0 and ${C14x_ii} != 999*	1	Number of fingerlings that survived
			2	Percentage of fingerlings that survived
	C14x_iii *(required)*	How many tonnes of ([C14x_name]) did you harvest in your most recent full production season/cycle from this pond? *1 ton = 1000kg* *Question relevant when: if(index() <= 3, selected(${C9} , index()), selected(${C9} , '777'))*		
	C14x_iv *(required)*	What was the starting month for the most recent full production season/cycle for this pond *If multiple, select all that apply*	1	January
			2	February
			3	March
			4	April
			5	May
			6	June
			7	July
			8	August
			9	September
			10	October
			11	November
			12	December
	C14x_v *(required)*	What was the starting year for the most recent full production season/cycle for this pond? *If multiple, select all that apply*	1	2014
			2	2015
			3	2016
			4	2017
			5	2018
			6	2019
	C14x_vi *(required)*	How many months was the most recent full production cycle from stocking to last harvest? *If 6 months and 2 weeks, write 6.5; if 7 months and 1 week, write 7.25 etc.*		
Consented > Active > Fish farm characteristics and species > POND CULTURE > Biggest tilapia pond *Group relevant when: ${C8} > 1*				
	C12a *(required)*	What species do you grow in your biggest tilapia pond? *If more than 1 specie in same pond, select all that applies*	1	Tilapia
			2	Cat fish
			3	Heterotis
			777	Other (specify)___
	C12ai *(required)*	Please specify specie__ *Question relevant when: selected(${C12a} , '777')*		
Consented > Active > Fish farm characteristics and species > POND CULTURE > Biggest tilapia pond > Tilapia (1)			(Repeated group)	

Field	Question	Answer
Consented > Active > Fish farm characteristics and species > POND CULTURE > Biggest tilapia pond > Tilapia (1) > production big pond		
Group relevant when: if(index() <=3, selected(${C12a} , ${C12a_id}), selected(${C12a} , '777'))		
bp_stocking *(required)*	Stocking rate for (Tilapia) in your **biggest tilapia pond** during last full production cycle (number of fingerlings) *Enter 999 to proceed, if don't know*	
bp_survival *(required)*	Survival rate for (Tilapia) in your biggest tilapia pond *[of the total number of fingerlings stocked, how many survived upon harvest - in percentage or total number] Enter 999 if don't know*	
bp_survival_i *(required)*	Unit for survival rate *Question relevant when: ${bp_survival} > 0 and ${bp_survival} != 999*	1 Number of fingerlings that survived 2 Percentage of fingerlings that survived
bp_harvest *(required)*	How many tonnes of (Tilapia) did you harvest in your most recent full production season/cycle from this pond? *1 tonne = 1,000kg* *Question relevant when: selected(${A01} , '1')*	
Consented > Active > Fish farm characteristics and species > POND CULTURE > Biggest tilapia pond > Cat fish (2)	(Repeated group)	
Consented > Active > Fish farm characteristics and species > POND CULTURE > Biggest tilapia pond > Cat fish (2) > production big pond		
Group relevant when: if(index() <=3, selected(${C12a} , ${C12a_id}), selected(${C12a} , '777'))		
bp_stocking *(required)*	Stocking rate for (Cat fish) in your **biggest tilapia pond** during last full production cycle (number of fingerlings) *Enter 999 to proceed, if don't know*	
bp_survival *(required)*	Survival rate for (Cat fish) in your biggest tilapia pond *[of the total number of fingerlings stocked, how many survived upon harvest - in percentage or total number] Enter 999 if don't know*	
bp_survival_i *(required)*	Unit for survival rate *Question relevant when: ${bp_survival} > 0 and ${bp_survival} != 999*	1 Number of fingerlings that survived 2 Percentage of fingerlings that survived
bp_harvest *(required)*	How many tonnes of (Cat fish) did you harvest in your most recent full production season/cycle from this pond? *1 tonne = 1,000kg* *Question relevant when: selected(${A01} , '1')*	
Consented > Active > Fish farm characteristics and species > POND CULTURE > Biggest tilapia pond > Heterotis (3)	(Repeated group)	
Consented > Active > Fish farm characteristics and species > POND CULTURE > Biggest tilapia pond > Heterotis (3) > production big pond		
Group relevant when: if(index() <=3, selected(${C12a} , ${C12a_id}), selected(${C12a} , '777'))		
bp_stocking *(required)*	Stocking rate for (Heterotis) in your **biggest tilapia pond** during last full production cycle (number of fingerlings) *Enter 999 to proceed, if don't know*	
bp_survival *(required)*	Survival rate for (Heterotis) in your biggest tilapia pond *[of the total number of fingerlings stocked, how many survived upon harvest - in percentage or total number] Enter 999 if don't know*	
bp_survival_i *(required)*	Unit for survival rate *Question relevant when: ${bp_survival} > 0 and ${bp_survival} != 999*	1 Number of fingerlings that survived 2 Percentage of fingerlings that survived
bp_harvest *(required)*	How many tonnes of (Heterotis) did you harvest in your most recent full production season/cycle from this pond? *1 tonne = 1,000kg* *Question relevant when: selected(${A01} , '1')*	
Consented > Active > Fish farm characteristics and species > POND CULTURE > Biggest tilapia pond > [C12a_name] (4)	(Repeated group)	
Consented > Active > Fish farm characteristics and species > POND CULTURE > Biggest tilapia pond > [C12a_name] (4) > production big pond		
Group relevant when: if(index() <=3, selected(${C12a} , ${C12a_id}), selected(${C12a} , '777'))		
bp_stocking *(required)*	Stocking rate for ([C12a_name]) in your **biggest tilapia pond** during last full production cycle (number of fingerlings) *Enter 999 to proceed, if don't know*	
bp_survival *(required)*	Survival rate for ([C12a_name]) in your biggest tilapia pond *[of the total number of fingerlings stocked, how many survived upon harvest - in percentage or total number] Enter 999 if don't know*	
bp_survival_i *(required)*	Unit for survival rate *Question relevant when: ${bp_survival} > 0 and ${bp_survival} != 999*	1 Number of fingerlings that survived 2 Percentage of fingerlings that survived
bp_harvest *(required)*	How many tonnes of ([C12a_name]) did you harvest in your most recent full production season/cycle from this pond? *1 tonne = 1,000kg* *Question relevant when: selected(${A01} , '1')*	
Consented > Active > Fish farm characteristics and species > POND CULTURE > Biggest tilapia pond > Total production and harvest		

Field	Question	Answer	
C12_ia *(required)*	What was the starting month for the most recent full production season/cycle for this pond *if multiple, select all that applies*	1	January
		2	February
		3	March
		4	April
		5	May
		6	June
		7	July
		8	August
		9	September
		10	October
		11	November
		12	December
C12_iai *(required)*	What was the starting year for the most recent full production season/cycle for this pond?	1	2014
		2	2015
		3	2016
		4	2017
		5	2018
		6	2019
C12_ibi *(required)*	How many months was the most recent full production cycle from stocking to last harvest? *If 6 months and 2 weeks, write 6.5; if 7 months and 1 week, write 7.25 etc.* *Question relevant when: selected(${A01} , '1')*		
Consented > Active > Fish farm characteristics and species > POND CULTURE > Smallest tilapia pond *Group relevant when: ${C8} > 1*			
C13a *(required)*	What species do you grow in your **smallest tilapia pond**? *If more than 1 specie in same pond, select all that applies*	1	Tilapia
		2	Cat fish
		3	Heterotis
		777	Other (specify)___
C13ai *(required)*	Please specify the specie *Question relevant when: selected(${C13a} , '777')*		
Consented > Active > Fish farm characteristics and species > POND CULTURE > Smallest tilapia pond > Tilapia (1)		(Repeated group)	
Consented > Active > Fish farm characteristics and species > POND CULTURE > Smallest tilapia pond > Tilapia (1) > Production small pond *Group relevant when: if(index() <=3, selected(${C13a} , ${C13a_id}), selected(${C13a} , '777'))*			
sp_stocking *(required)*	Stocking rate for (Tilapia) in your **smallest tilapia pond** during last full production season/cycle (number of fingerlings)? *Enter 999 to proceed, if don't know*		
sp_survival *(required)*	Survival rate for (Tilapia) in your smallest tilapia pond *[of the total number of fingerlings stocked, how many survived upon harvest - in percentage or total number] Enter 999 if don't know*		
sp_survival_i *(required)*	Unit for survival rate *Question relevant when: ${sp_survival} > 0 and ${sp_survival} > 999*	1	Number of fingerlings that survived
		2	Percentage of fingerlings that survived
sp_harvest *(required)*	How many tonnes of (Tilapia) did you harvest in your most recent full production season/cycle from this pond? *1 tonne = 1,000 kg* *Question relevant when: selected(${A01} , '1')*		
Consented > Active > Fish farm characteristics and species > POND CULTURE > Smallest tilapia pond > Cat fish (2)		(Repeated group)	
Consented > Active > Fish farm characteristics and species > POND CULTURE > Smallest tilapia pond > Cat fish (2) > Production small pond *Group relevant when: if(index() <=3, selected(${C13a} , ${C13a_id}), selected(${C13a} , '777'))*			
sp_stocking *(required)*	Stocking rate for (Cat fish) in your **smallest tilapia pond** during last full production season/cycle (number of fingerlings)? *Enter 999 to proceed, if don't know*		
sp_survival *(required)*	Survival rate for (Cat fish) in your smallest tilapia pond *[of the total number of fingerlings stocked, how many survived upon harvest - in percentage or total number] Enter 999 if don't know*		
sp_survival_i *(required)*	Unit for survival rate *Question relevant when: ${sp_survival} > 0 and ${sp_survival} > 999*	1	Number of fingerlings that survived
		2	Percentage of fingerlings that survived
sp_harvest *(required)*	How many tonnes of (Cat fish) did you harvest in your most recent full production season/cycle from this pond? *1 tonne = 1,000 kg* *Question relevant when: selected(${A01} , '1')*		
Consented > Active > Fish farm characteristics and species > POND CULTURE > Smallest tilapia pond > Heterotis (3)		(Repeated group)	
Consented > Active > Fish farm characteristics and species > POND CULTURE > Smallest tilapia pond > Heterotis (3) > Production small pond *Group relevant when: if(index() <=3, selected(${C13a} , ${C13a_id}), selected(${C13a} , '777'))*			
sp_stocking *(required)*	Stocking rate for (Heterotis) in your **smallest tilapia pond** during last full production season/cycle (number of fingerlings)? *Enter 999 to proceed, if don't know*		

Field	Question	Answer	
sp_survival *(required)*	Survival rate for (Heterotis) in your smallest tilapia pond *[of the total number of fingerlings stocked, how many survived upon harvest - in percentage or total number] Enter 999 if don't know*		
sp_survival_i *(required)*	Unit for survival rate *Question relevant when: ${sp_survival} > 0 and ${sp_survival} > 999*	1	Number of fingerlings that survived
		2	Percentage of fingerlings that survived
sp_harvest *(required)*	How many tonnes of (Heterotis) did you harvest in your most recent full production season/cycle from this pond? *1 tonne = 1,000 kg* *Question relevant when: selected(${A01} , '1')*		
Consented > Active > Fish farm characteristics and species > POND CULTURE > Smallest tilapia pond > [C13a_name] (4)		(Repeated group)	
Consented > Active > Fish farm characteristics and species > POND CULTURE > Smallest tilapia pond > [C13a_name] (4) > Production small pond			
Group relevant when: if(index() <=3, selected(${C13a} , ${C13a_id}), selected(${C13a} , '777'))			
sp_stocking *(required)*	Stocking rate for ([C13a_name]) in your **smallest tilapia pond** during last full production season/cycle (number of fingerlings)? *Enter 999 to proceed, if don't know*		
sp_survival *(required)*	Survival rate for ([C13a_name]) in your smallest tilapia pond *[of the total number of fingerlings stocked, how many survived upon harvest - in percentage or total number] Enter 999 if don't know*		
sp_survival_i *(required)*	Unit for survival rate *Question relevant when: ${sp_survival} > 0 and ${sp_survival} > 999*	1	Number of fingerlings that survived
		2	Percentage of fingerlings that survived
sp_harvest *(required)*	How many tonnes of ([C13a_name]) did you harvest in your most recent full production season/cycle from this pond? *1 tonne = 1,000 kg* *Question relevant when: selected(${A01} , '1')*		
Consented > Active > Fish farm characteristics and species > POND CULTURE > Smallest tilapia pond > Total production and harvest			
C13_ia *(required)*	What was the starting month for the most recent full production season/cycle for this pond? *if multiple, select all that applies*	1	January
		2	February
		3	March
		4	April
		5	May
		6	June
		7	July
		8	August
		9	September
		10	October
		11	November
		12	December
C13_iai *(required)*	What was the starting year for the most recent full production season/cycle for this pond?	1	2014
		2	2015
		3	2016
		4	2017
		5	2018
		6	2019
C13_ibi *(required)*	How many months was the most recent full production cycle form stocking to last harvest? *If 6 months and 2 weeks, write 6.5; if 7 months and 1 week, write 7.25 etc.* *Question relevant when: selected(${A01} , '1')*		
C15 *(required)*	Is production/harvest increasing or decreasing over the last 5 years? *Question relevant when: selected(${A01} , '1')*	1	increasing
		2	decreasing
		3	same
		4	Not applicable (I am a new farmer)
C15i *(required)*	What do you think is the reason production/harvest is ([C15_name])? *if multiple, select all that applies* *Question relevant when: selected(${C15} , '1') or selected(${C15} , '2')*	1	high and increasing fish price
		2	high and increasing demand from market
		3	higher yield/productivity
		4	I am becoming an expert and I have improved technical knowledge now
		5	diseases and fish/fingerling mortality
		6	higher inputs prices
		7	unavailable inputs
		8	lower fish prices and lower market demand
		9	theft issues
		10	Don't know/Can't tell
		777	Other (specify)___
C15ii *(required)*	Please specify reason *Question relevant when: selected(${C15i} , '777')*		

Field	Question	Answer	
C14b *(required)*	How many months on average from the last harvest to the next stocking in the same pond? *If 6 months and 2 weeks, write 6.5; if 7 months and 1 week, write 7.25 etc.* Question relevant when: selected(${A01} , '1')		
C14a *(required)*	How many production cycles do you have in a year? Question relevant when: selected(${A01} , '1')		
C24 *(required)*	Do you have plans to increase or expand production under pond culture in the next 3 years?	1	Increase
		2	Decrease
		3	Keep the same
		4	Don't know
C24i *(required)*	Why__ *if multiple, select all that applies* Question relevant when: selected(${C24} , '1') or selected(${C24} , '2')	1	High market demand
		2	Low market demand
		3	High fish prices
		4	Low fish prices
		5	Very profitable
		6	Not profitable
		7	Low cost of production/inputs
		8	High cost of production/inputs
		9	Disease and high fish/fingerling mortality
		10	I want to expand and export
		11	I want to expand to processing
		777	Other (specify)__
C24ii *(required)*	Please specify why__ Question relevant when: selected(${C24i} , '777')		
C16 *(required)*	Do you have a hatchery or do you produce fingerlings?	1	Yes (operational)
		2	No
		3	We have the structure but not operational

Consented > Active > Fish farm characteristics and species > FINGERLINGS PRODUCTION
   Group relevant when: selected(${C16} , '1')

Field	Question	Answer	
C18 *(required)*	What fish species of fingerlings do you produce? Question relevant when: selected(${C16} , '1')	1	Tilapia
		2	Catfish
		3	Heterotis
		777	Other (specify)____
C18i *(required)*	Specify fingerling specie Question relevant when: selected(${C18} , '777')		

Consented > Active > Fish farm characteristics and species > FINGERLINGS PRODUCTION > Tilapia (1)   (Repeated group)

   Consented > Active > Fish farm characteristics and species > FINGERLINGS PRODUCTION > Tilapia (1) > fingerling-production
    Group relevant when: if(index() <= 3,selected(${C18} ,index()),selected(${C18} ,'777'))

Field	Question	Answer	
C19 *(required)*	What is the source of broodstock for (Tilapia) fingerlings production?	1	ARDEC
		2	Ashaiman
		777	Other (specify)___
C19i *(required)*	Please specify the source of your broodstock Question relevant when: selected(${C19} , '777')		
C20 *(required)*	What is the size of (Tilapia) fingerlings produced? (grams)		
C26 *(required)*	How many days does it take for a 2 gram (Tilapia) fingerling to grow to 5 grams in your hatchery (growth rate performance)? *Enter 999 if don't know*		
C21a *(required)*	What was the total harvest/production of (Tilapia) fingerlings for the whole of last year (2018)? *(number of fingerlings)*		
C27 *(required)*	What is the survival rate from egg to fingerlings *Enter 999 if don't know*		
C27i *(required)*	Unit for survival rate Question relevant when: ${C27} > 0 and ${C27} != 999	1	Number of fingerlings that survived
		2	Percentage of fingerlings that survived
C22 *(required)*	Is your production of (Tilapia) fingerlings increasing or decreasing over the last 5 years?	1	increasing
		2	decreasing
		3	same
		4	Not applicable (I am a new farmer)

Field	Question	Answer	
~~C22i~~ *(required)*	~~What do you think is the reason production/harvest is ([C22_name])?~~ *if multiple, select all that applies* *Question relevant when: selected(${C22} , '1') or selected(${C22} , '2')*	1	high and increasing fish price
		2	high and increasing demand from market
		3	higher yield/productivity
		4	I am becoming an expert and I have improved technical knowledge now
		5	diseases and fish/fingerling mortality
		6	higher inputs prices
		7	unavailable inputs
		8	lower fish prices and lower market demand
		9	theft issues
		10	Don't know/Can't tell
		777	Other (specify)___
C22ii *(required)*	Please specify reason *Question relevant when: selected(${C22i} , '777')*		
Consented > Active > Fish farm characteristics and species > FINGERLINGS PRODUCTION > Catfish (2)		(Repeated group)	
Consented > Active > Fish farm characteristics and species > FINGERLINGS PRODUCTION > Catfish (2) > fingerling-production			
Group relevant when: if(index() <= 3,selected(${C18} ,index()),selected(${C18} ,'777'))			
C19 *(required)*	What is the source of broodstock for (Catfish) fingerlings production?	1	ARDEC
		2	Ashaiman
		777	Other (specify)___
C19i *(required)*	Please specify the source of your broodstock *Question relevant when: selected(${C19} , '777')*		
C20 *(required)*	What is the size of (Catfish) fingerlings produced? (grams)		
C26 *(required)*	How many days does it take for a 2 gram (Catfish) fingerling to grow to 5 grams in your hatchery (growth rate performance)? *Enter 999 if don't know*		
C21a *(required)*	What was the total harvest/production of (Catfish) fingerlings for the whole of last year (2018)? *(number of fingerlings)*		
C27 *(required)*	What is the survival rate from egg to fingerlings *Enter 999 if don't know*		
C27i *(required)*	Unit for survival rate *Question relevant when: ${C27} > 0 and ${C27} != 999*	1	Number of fingerlings that survived
		2	Percentage of fingerlings that survived
C22 *(required)*	Is your production of (Catfish) fingerlings increasing or decreasing over the last 5 years?	1	increasing
		2	decreasing
		3	same
		4	Not applicable (I am a new farmer)
C22i *(required)*	What do you think is the reason production/harvest is ([C22_name])? *if multiple, select all that applies* *Question relevant when: selected(${C22} , '1') or selected(${C22} , '2')*	1	high and increasing fish price
		2	high and increasing demand from market
		3	higher yield/productivity
		4	I am becoming an expert and I have improved technical knowledge now
		5	diseases and fish/fingerling mortality
		6	higher inputs prices
		7	unavailable inputs
		8	lower fish prices and lower market demand
		9	theft issues
		10	Don't know/Can't tell
		777	Other (specify)___
C22ii *(required)*	Please specify reason *Question relevant when: selected(${C22i} , '777')*		
Consented > Active > Fish farm characteristics and species > FINGERLINGS PRODUCTION > Heterotis (3)		(Repeated group)	
Consented > Active > Fish farm characteristics and species > FINGERLINGS PRODUCTION > Heterotis (3) > fingerling-production			
Group relevant when: if(index() <= 3,selected(${C18} ,index()),selected(${C18} ,'777'))			
C19 *(required)*	What is the source of broodstock for (Heterotis) fingerlings production?	1	ARDEC
		2	Ashaiman
		777	Other (specify)___
C19i *(required)*	Please specify the source of your broodstock *Question relevant when: selected(${C19} , '777')*		
C20 *(required)*	What is the size of (Heterotis) fingerlings produced? (grams)		
C26 *(required)*	How many days does it take for a 2 gram (Heterotis) fingerling to grow to 5 grams in your hatchery (growth rate performance)? *Enter 999 if don't know*		

Field	Question	Answer	
C21a *(required)*	What was the total harvest/production of (Heterotis) fingerlings for the whole of last year (2018)? *(number of fingerlings)*		
C27 *(required)*	What is the survival rate from egg to fingerlings *Enter 999 if don't know*		
C27i *(required)*	Unit for survival rate *Question relevant when: ${C27} > 0 and ${C27} != 999*	1	Number of fingerlings that survived
		2	Percentage of fingerlings that survived
C22 *(required)*	Is your production of (Heterotis) fingerlings increasing or decreasing over the last 5 years?	1	increasing
		2	decreasing
		3	same
		4	Not applicable (I am a new farmer)
C22i *(required)*	What do you think is the reason production/harvest is ([C22_name])? *if multiple, select all that applies* *Question relevant when: selected(${C22} , '1') or selected(${C22} , '2')*	1	high and increasing fish price
		2	high and increasing demand from market
		3	higher yield/productivity
		4	I am becoming an expert and I have improved technical knowledge now
		5	diseases and fish/fingerling mortality
		6	higher inputs prices
		7	unavailable inputs
		8	lower fish prices and lower market demand
		9	theft issues
		10	Don't know/Can't tell
		777	Other (specify)___
C22ii *(required)*	Please specify reason *Question relevant when: selected(${C22i} , '777')*		
Consented > Active > Fish farm characteristics and species > FINGERLINGS PRODUCTION > [C18_name] (4)		(Repeated group)	
Consented > Active > Fish farm characteristics and species > FINGERLINGS PRODUCTION > [C18_name] (4) > fingerling-production			
Group relevant when: if(index() <= 3,selected(${C18} ,index()),selected(${C18} ,'777'))			
C19 *(required)*	What is the source of broodstock for ([C18_name]) fingerlings production?	1	ARDEC
		2	Ashaiman
		777	Other (specify)___
C19i *(required)*	Please specify the source of your broodstock *Question relevant when: selected(${C19} , '777')*		
C20 *(required)*	What is the size of ([C18_name]) fingerlings produced? (grams)		
C26 *(required)*	How many days does it take for a 2 gram ([C18_name]) fingerling to grow to 5 grams in your hatchery (growth rate performance)? *Enter 999 if don't know*		
C21a *(required)*	What was the total harvest/production of ([C18_name]) fingerlings for the whole of last year (2018)? *(number of fingerlings)*		
C27 *(required)*	What is the survival rate from egg to fingerlings *Enter 999 if don't know*		
C27i *(required)*	Unit for survival rate *Question relevant when: ${C27} > 0 and ${C27} != 999*	1	Number of fingerlings that survived
		2	Percentage of fingerlings that survived
C22 *(required)*	Is your production of ([C18_name]) fingerlings increasing or decreasing over the last 5 years?	1	increasing
		2	decreasing
		3	same
		4	Not applicable (I am a new farmer)
C22i *(required)*	What do you think is the reason production/harvest is ([C22_name])? *if multiple, select all that applies* *Question relevant when: selected(${C22} , '1') or selected(${C22} , '2')*	1	high and increasing fish price
		2	high and increasing demand from market
		3	higher yield/productivity
		4	I am becoming an expert and I have improved technical knowledge now
		5	diseases and fish/fingerling mortality
		6	higher inputs prices
		7	unavailable inputs
		8	lower fish prices and lower market demand
		9	theft issues
		10	Don't know/Can't tell
		777	Other (specify)___
C22ii *(required)*	Please specify reason *Question relevant when: selected(${C22i} , '777')*		
C21b *(required)*	How many months on average from the harvest to the next spawning in the same hatchery? *If 6 months and 2 weeks, write 6.5; if 7 months and 1 week, write 7.25 etc.*		

Field	Question	Answer	
C21c *(required)*	How many spawning cycles do you have in a year?		
C25 *(required)*	Do you have plans to increase or expand production in the next 3 years?	1	Increase
		2	Decrease
		3	Keep the same
		4	Don't know
C25i *(required)*	Why__ *If multiple, select all that apply* *Question relevant when: selected(${C25} , '1') or selected(${C25} , '2')*	1	High market demand
		2	Low market demand
		3	High fish prices
		4	Low fish prices
		5	Very profitable
		6	Not profitable
		7	Low cost of production/inputs
		8	High cost of production/inputs
		9	Disease and high fish/fingerling mortality
		10	I want to expand and export
		11	I want to expand to processing
		777	Other (specify)__
C25ii *(required)*	Please specify why__ *Question relevant when: selected(${C25i} , '777')*		
Consented > Active > History of fish farming			
D1 *(required)*	When (what year) did you start tilapia farming? *Response constrained to: .<= date('2019-12-31')*		
D2 *(required)*	Where or from whom did you learn about fish farming for the first time?	1	Extension agent
		2	Training/advice from project
		3	Training/advice from government
		4	Training/advice from private company
		5	Input supplier
		6	Other farmers/Friends/Neighbors/Family members
		7	Group/Association/Organisation
		8	News paper or other printed materials
		9	Internet
		777	Other (specify)____
D2i *(required)*	Specify from whom you learn about fish farming for the first time *Question relevant when: selected(${D2} , '777')*		
D3 *(required)*	Did you seek any advice or technical support since you started?	1	Yes
		0	No
D4 *(required)*	Where or from whom did you seek advice or technical support on fish farming? *Question relevant when: selected(${D3} , '1')*	1	Extension agent
		2	Training/advice from project
		3	Training/advice from government
		4	Training/advice from private company
		5	Input supplier
		6	Other farmers/Friends/Neighbors/Family members
		7	Group/Association/Organisation
		8	News paper or other printed materials
		9	Internet
		777	Other (specify)____
D4i *(required)*	Please specify from whom did you seek advice or technical support on fish farming? *Question relevant when: selected(${D4} , '777')*		
D5 *(required)*	Where did you get your first fingerlings/brood-stock when you started?	1	ARDEC
		2	PAC
		3	Ashaiman ADC
		4	Private hatchery
		5	Friend/neighbors
		6	Own farm
		7	From the wild
		777	Other (specify)_____
D5i *(required)*	Please specify from where you get your fingerlings/brood-stock when you started *Question relevant when: selected(${D5} , '777')*		

Field	Question	Answer	
Consented > Active > History of fish farming > Changes in inputs/input source/farming practices			
Group relevant when: selected(${A01} , '1') or selected(${A01} , '4')			
Consented > Active > History of fish farming > Changes in inputs/input source/farming practices > Fish species			
D6ai *(required)*	Did you change anything (e.g. source or practice) with regards to fish species?	1	Yes
		0	No
		98	NA
D6bi *(required)*	What was the change? Question relevant when: selected(${D6ai} , '1')		
D6ci *(required)*	Why did you change? What made you change? Question relevant when: selected(${D6ai} , '1')	1	Availability
		2	Based on training/advice from experts/friends
		3	Price
		4	Lower mortality
		5	Greater stocking density
		6	Greater disease resistance
		7	High mortality
		8	unavailability of money/capital
		777	Other (specify)_____
D6ci_other *(required)*	Please specify what made you change Question relevant when: selected(${D6ci} , '777')		
D6di *(required)*	Based on your experience and changes you made, what can you recommend as best practice? Enter 999 if can't answer/don't know Question relevant when: selected(${D6ai} , '1') Response constrained to: (string-length(.)>=1 and string-length(.)<=100) or .='999'		
Consented > Active > History of fish farming > Changes in inputs/input source/farming practices > Fingerlings			
D6aii *(required)*	Did you change anything (e.g. source or practice) with regards to fingerlings?	1	Yes
		0	No
		98	NA
D6bii *(required)*	What was the change? Question relevant when: selected(${D6aii} , '1')		
D6cii *(required)*	Why did you change? What made you change? Question relevant when: selected(${D6aii} , '1')	1	Availability
		2	Based on training/advice from experts/friends
		3	Price
		4	Lower mortality
		5	Greater stocking density
		6	Greater disease resistance
		7	High mortality
		8	unavailability of money/capital
		777	Other (specify)_____
D6cii_other *(required)*	Please specify what made you change Question relevant when: selected(${D6cii} , '777')		
D6dii *(required)*	Based on your experience and changes you made, what can you recommend as best practice? Enter 999 if can't answer/don't know Question relevant when: selected(${D6aii} , '1') Response constrained to: (string-length(.)>=1 and string-length(.)<=100) or .='999'		
Consented > Active > History of fish farming > Changes in inputs/input source/farming practices > Feed			
D6aiii *(required)*	Did you change anything (e.g. source or practice) with regards to feed?	1	Yes
		0	No
		98	NA
D6biii *(required)*	What was the change? Question relevant when: selected(${D6aiii} , '1')		
D6ciii *(required)*	Why did you change? What made you change? Question relevant when: selected(${D6aiii} , '1')	1	Availability
		2	Based on training/advice from experts/friends
		3	Price
		4	Lower mortality
		5	Greater stocking density
		6	Greater disease resistance
		7	High mortality
		8	unavailability of money/capital
		777	Other (specify)_____

Field	Question	Answer	
~~D6ciii_other~~ *(required)*	~~Please specify what made you change~~		
	Question relevant when: selected(${D6ciii} , '777')		
D6diii *(required)*	Based on your experience and changes you made, what can you recommend as best practice?		
	Enter 999 if can't answer/don't know		
	Question relevant when: selected(${D6aiii} , '1')		
	Response constrained to: (string-length(.)>=1 and string-length(.)<=100) or .='999'		
Consented > Active > History of fish farming > Changes in inputs/input source/farming practices > Water management			
D6aiv *(required)*	Did you change anything (e.g. source or practice) with regards to water management?	1	Yes
		0	No
		98	NA
D6biv *(required)*	What was the change?		
	Question relevant when: selected(${D6aiv} , '1')		
D6civ *(required)*	Why did you change? What made you change?	1	Availability
	Question relevant when: selected(${D6aiv} , '1')	2	Based on training/advice from experts/friends
		3	Price
		4	Lower mortality
		5	Greater stocking density
		6	Greater disease resistance
		7	High mortality
		8	unavailability of money/capital
		777	Other (specify)_____
D6civ_other *(required)*	Pleases specify what made you change		
	Question relevant when: selected(${D6civ} , '777')		
D6div *(required)*	Based on your experience and changes you made, what can you recommend as best practice?		
	Enter 999 if can't answer/don't know		
	Question relevant when: selected(${D6aiv} , '1')		
	Response constrained to: (string-length(.)>=1 and string-length(.)<=100) or .='999'		
Consented > Active > History of fish farming > Changes in inputs/input source/farming practices > use of chemicals/drugs/antibiotics			
D6av *(required)*	Did you change anything (e.g. source or practice) with regards to use of chemicals/drugs/antibiotics?	1	Yes
		0	No
		98	NA
D6bv *(required)*	What was the change?		
	Question relevant when: selected(${D6av} , '1')		
D6cv *(required)*	Why did you change? What made you change?	1	Availability
	Question relevant when: selected(${D6av} , '1')	2	Based on training/advice from experts/friends
		3	Price
		4	Lower mortality
		5	Greater stocking density
		6	Greater disease resistance
		7	High mortality
		8	unavailability of money/capital
		777	Other (specify)_____
D6cv_other *(required)*	Pleases specify what made you change		
	Question relevant when: selected(${D6cv} , '777')		
D6dv *(required)*	Based on your experience and changes you made, what can you recommend as best practice?		
	Enter 999 if can't answer/don't know		
	Question relevant when: selected(${D6av} , '1')		
	Response constrained to: (string-length(.)>=1 and string-length(.)<=100) or .='999'		
Consented > Active > History of fish farming > Changes in inputs/input source/farming practices > stocking rate			
D6avi *(required)*	Did you change anything (e.g. source or practice) with regards to stocking rate?	1	Yes
		0	No
		98	NA
D6bvi *(required)*	What was the change?		
	Question relevant when: selected(${D6avi} , '1')		

Field	Question	Answer	
~~D6cvi~~ *(required)*	~~Why did you change? What made you change?~~	1	Availability
	Question relevant when: selected(${D6avi} , '1')	2	Based on training/advice from experts/friends
		3	Price
		4	Lower mortality
		5	Greater stocking density
		6	Greater disease resistance
		7	High mortality
		8	unavailability of money/capital
		777	Other (specify)_____
D6cvi_other *(required)*	Pleases specify what made you change *Question relevant when: selected(${D6cvi} , '777')*		
D6dvi *(required)*	Based on your experience and changes you made, what can you recommend as best practice? *Enter 999 if can't answer/don't know* *Question relevant when: selected(${D6avi} , '1')* *Response constrained to: (string-length(.)>=1 and string-length(.)<=100) or .='999'*		
Consented > Active > History of fish farming > Changes in inputs/input source/farming practices > site/location			
D6avii *(required)*	Did you change anything (e.g. source or practice) with regards to site/location?	1	Yes
		0	No
		98	NA
D6bvii *(required)*	What was the change? *Question relevant when: selected(${D6avii} , '1')*		
D6cvii *(required)*	Why did you change? What made you change? *Question relevant when: selected(${D6avii} , '1')*	1	Availability
		2	Based on training/advice from experts/friends
		3	Price
		4	Lower mortality
		5	Greater stocking density
		6	Greater disease resistance
		7	High mortality
		8	unavailability of money/capital
		777	Other (specify)_____
D6cvii_other *(required)*	Pleases specify what made you change *Question relevant when: selected(${D6cvii} , '777')*		
D6dvii *(required)*	Based on your experience and changes you made, what can you recommend as best practice? *Enter 999 if can't answer/don't know* *Question relevant when: selected(${D6avii} , '1')* *Response constrained to: (string-length(.)>=1 and string-length(.)<=100) or .='999'*		
Consented > Active > History of fish farming > Changes in inputs/input source/farming practices > dimensions of the cage/pond			
D6aviii *(required)*	Did you change anything (e.g. source or practice) with regards to dimensions of the cage/pond?	1	Yes
		0	No
		98	NA
D6bviii *(required)*	What was the change? *Question relevant when: selected(${D6aviii} , '1')*		
D6cviii *(required)*	Why did you change? What made you change? *Question relevant when: selected(${D6aviii} , '1')*	1	Availability
		2	Based on training/advice from experts/friends
		3	Price
		4	Lower mortality
		5	Greater stocking density
		6	Greater disease resistance
		7	High mortality
		8	unavailability of money/capital
		777	Other (specify)_____
D6cviii_other *(required)*	Pleases specify what made you change *Question relevant when: selected(${D6cviii} , '777')*		
D6dviii *(required)*	Based on your experience and changes you made, what can you recommend as best practice? *Enter 999 if can't answer/don't know* *Question relevant when: selected(${D6aviii} , '1')* *Response constrained to: (string-length(.)>=1 and string-length(.)<=100) or .='999'*		
Consented > Active > History of fish farming > Changes in inputs/input source/farming practices > packaging or transporting fingerlings/broodstock			

Field	Question	Answer	
~~D6aix~~ *(required)*	Did you change anything (e.g. source or practice) with regards to packaging or transporting fingerlings/broodstock?	1	Yes
		0	No
		98	NA
D6bix *(required)*	What was the change? *Question relevant when: selected(${D6aix} , '1')*		
D6cix *(required)*	Why did you change? What made you change? *Question relevant when: selected(${D6aix} , '1')*	1	Availability
		2	Based on training/advice from experts/friends
		3	Price
		4	Lower mortality
		5	Greater stocking density
		6	Greater disease resistance
		7	High mortality
		8	unavailability of money/capital
		777	Other (specify)_____
D6cix_other *(required)*	Pleases specify what made you change *Question relevant when: selected(${D6cix} , '777')*		
D6dix *(required)*	Based on your experience and changes you made, what can you recommend as best practice? *Enter 999 if can't answer/don't know* *Question relevant when: selected(${D6aix} , '1')* *Response constrained to: (string-length(.)>=1 and string-length(.)<=100) or .='999'*		
Consented > Active > History of fish farming > Changes in inputs/input source/farming practices > size of fingerlings bought			
D6ax *(required)*	Did you change anything (e.g. source or practice) with regards to size of fingerlings bought?	1	Yes
		0	No
		98	NA
D6bx *(required)*	What was the change? *Question relevant when: selected(${D6ax} , '1')*		
D6cx *(required)*	Why did you change? What made you change? *Question relevant when: selected(${D6ax} , '1')*	1	Availability
		2	Based on training/advice from experts/friends
		3	Price
		4	Lower mortality
		5	Greater stocking density
		6	Greater disease resistance
		7	High mortality
		8	unavailability of money/capital
		777	Other (specify)_____
D6cx_other *(required)*	Pleases specify what made you change *Question relevant when: selected(${D6cx} , '777')*		
D6dx *(required)*	Based on your experience and changes you made, what can you recommend as best practice? *Enter 999 if can't answer/don't know* *Question relevant when: selected(${D6ax} , '1')* *Response constrained to: (string-length(.)>=1 and string-length(.)<=100) or .='999'*		
Consented > Active > History of fish farming > Changes in inputs/input source/farming practices > labour			
D6axi *(required)*	Did you change anything (e.g. source or practice) with regards to labour?	1	Yes
		0	No
		98	NA
D6bxi *(required)*	What was the change? *Question relevant when: selected(${D6axi} , '1')*		
D6cxi *(required)*	Why did you change? What made you change? *Question relevant when: selected(${D6axi} , '1')*	1	Availability
		2	Based on training/advice from experts/friends
		3	Price
		4	Lower mortality
		5	Greater stocking density
		6	Greater disease resistance
		7	High mortality
		8	unavailability of money/capital
		777	Other (specify)_____
D6cxi_other *(required)*	Pleases specify what made you change *Question relevant when: selected(${D6cxi} , '777')*		

Field	Question	Answer	
~~D6dxi~~ *(required)*	Based on your experience and changes you made, what can you recommend as best practice? *Enter 999 if can't answer/don't know* *Question relevant when: selected(${D6axi} , '1')* *Response constrained to: (string-length(.)>=1 and string-length(.)<=100) or .='999'*		
D7 *(required)*	How did the farm/firm come into existence?	1	Started by self/partnership
		2	Inherited
		3	Purchased
		4	Gift
		888	Refuse to answer
		999	Don't know
D7a	How did this firm/farm come about or start? *(type in what the respondent is saying) Proceed if respondent does not provide an answer*		
D8 *(required)*	What is your primary motivation for starting this type of farm/firm? *Enumerator: Do not read out options. Select based on respondent's answer*	1	Availability of raw material
		2	Others were successful and profitable in this fish farming
		3	There was a high market demand for this product
		4	I received training or advice
		5	I received government/NGO assistance
		6	My capital could only finance this business
		999	Don't know
		777	Other (please specify)_____
D8i *(required)*	Please specify your primary motivation for starting this type of farm *Question relevant when: selected(${D8} , '777')*		
D9 *(required)*	What were your reasons for locating the farm at this location? *Enumerator: Do not read out options. Select based on respondent's answer*	1	Proximity to water source
		2	Proximity to owner's residence
		3	Proximity to required infrastructure (e.g. roads)
		4	Proximity to other fish farms
		5	Proximity to raw material supply
		6	Proximity to output markets or customers
		777	Other (please specify)_____
D9i *(required)*	Please specify your reason for locating the farm at its location *Question relevant when: selected(${D9} , '777')*		
D10 *(required)*	What were your livelihood and income-generating activities before tilapia farming? *Select all that apply [Refers to whoever is answering Owner or Manager]* *Response constrained to: if(selected(., 1), count-selected(.) = 1, count-selected(.) >= 1)*	1	None
		2	Crop farming
		3	Other business enterprise (or self-employed)
		4	Farm wage
		5	Wage/salary from employment with government/private sector
		6	Trading
		7	Capture fishing
		8	I am a retiree
		999	Don't know
		777	Other (please specify)_____
D10i *(required)*	Please specify your livelihood and income-generation activity before tilapia farming *Question relevant when: selected(${D10} , '777')*		
D14 *(required)*	Right now, what income generating activities are you engaged in? *Select all that apply [Refers to whoever is answering Owner or Manager]*	1	None
		2	Crop farming
		3	Other business enterprise (or self-employed)
		4	Farm wage
		5	Wage/salary from employment with government/private sector
		6	Trading
		7	Capture fishing
		8	I am a retiree
		999	Don't know
		777	Other (please specify)_____
D14i *(required)*	Please specify other income generating activities you are currently engaged in *Question relevant when: selected(${D14} , '777')*		

Field	Question	Answer	
~~D15~~ *(required)*	~~How much of your household's income is supplied by this tilapia farming enterprise?~~ *[Refers to whoever is answering Owner or Manager]*	1	Nearly all
		2	More than half
		3	About half
		4	Less than half
		5	Almost none
		98	Not applicable (am a new farmer)
D16 *(required)*	What other income generating activities are more successful or more profitable than fish farming right now based on your knowledge? *Select all that apply [Refers to whoever is answering Owner or Manager]*	1	None
		2	Crop farming
		3	Other business enterprise (or self-employed)
		4	Farm wage
		5	Wage/salary from employment with government/private sector
		6	Trading
		7	Capture fishing
		8	I am a retiree
		999	Don't know
		777	Other (please specify)_____
D16i *(required)*	Please specify income generating activities you believe are more successful or profitable than fish farming *Question relevant when: selected(${D16} , '777')*		
D11a *(required)*	Which category of crop did you grow in 2018? *Question relevant when: selected(${D14} , '2')*	FC	Field Crop
		TC	Tree Crop
		V	Vegetable
D11b *(required)*	Which type of crop did you grow in 2018? *Question relevant when: selected(${D14} , '2')*	1	Bambara beans
		2	Cassava
		3	Citronella
		4	Cocoyam/Taro
		5	Cotton
		6	Cowpeas
		7	Flowers
		8	Ginger
		9	Groundnuts
		10	Jute
		11	Kenaf
		12	Maize
		13	Millet
		14	Pepper (hot)
		15	Pigeon peas
		16	Pumpkins
		17	Rice
		18	Sisal
		19	Sorghum
		20	Soyabeans
		21	Sugarcane
		22	Sweet potato
		23	Tabacco
		24	Watermelon
		25	Yam
		26	Potato
		27	Avocado
		28	Banana
		29	Cashew
		30	Cocoa
		31	Coconut
		32	Coffee
		33	Cola
		34	Lime
		35	Mango
		36	Nutmeg
		37	Oil palm
		38	Oranges
		39	Pawpaw

Field	Question	Answer	
		40	Pineapples
		41	Plantain
		42	Rubber
		43	Shear-nut
		44	Sweet berry
		45	Dawadawa
		46	Neem
		47	Fig
		48	Kapok
		49	Acacia
		50	Teak
		51	Asian vegetable
		52	Cabbage
		53	Carrots
		54	Cucumber
		55	Garden eggs
		56	Lettuce
		57	Groundnuts, fresh
		58	Maize, fresh
		59	Melon (agusi)
		60	Okra
		61	Onion
		62	Pepper (black)
		63	Pepper (sweet)
		64	Pumpkin leaves
		65	Shallots
		66	Talinum leaves
		67	Tomatos
		68	Yellow melon
		69	Henna
		70	Hibiscus
		777	Other crop (specify)___
D11bi *(required)*	Please specify other crop *Question relevant when: selected(${D11b} , '777')*		
D12 *(required)*	What is the total area cultivated in 2018? *Question relevant when: selected(${D14} , '2')*		
D12a *(required)*	What is the area unit *Question relevant when: ${D12} > 0*	1	Acres
		2	Hectares
		3	Poles
		4	Rope
		5	Arm stretch
		6	Square meters
		7	Square yards
		8	Square feet
		777	Other (Specify...)
D12ai *(required)*	Please specify the unit for the area cultivated *Question relevant when: selected(${D12a} , '777')*		
D12b *(required)*	Is the land used for crop farming owned or rented? *Question relevant when: selected(${D14} , '2')*	1	Inherited land
		2	Outright purchase
		3	Given free from chief (allocated skin land or community land)
		4	Given free by relatives (allocated family land)
		5	Given free by government (allocated government land)
		6	Rented (with rental fee)
		7	Borrowed (for free use)
		8	Sharecropping agreement with landowner
		9	Just walked in (e.g. cleared virgin land)
		777	Other (Specify...)

Field	Question	Answer	
~~D12bi~~ *(required)*	~~Please specify mode of crop land acquisition~~		
	Question relevant when: selected(${D12b} , '777')		
D13 *(required)*	Is the land used for fish farming owned or rented? Please specify the mode of land acquisition	1	Inherited land
	Question relevant when: selected(${nC} , '2') or selected(${nC} , '3')	2	Outright purchase
		3	Given free from chief (allocated skin land or community land)
		4	Given free by relatives (allocated family land)
		5	Given free by government (allocated government land)
		6	Rented (with rental fee)
		7	Borrowed (for free use)
		8	Sharecropping agreement with landowner
		9	Just walked in (e.g. cleared virgin land)
		777	Other (Specify...)
D13i *(required)*	Please specify mode of land acquisition		
	Question relevant when: selected(${D13} , '777')		
Consented > Active > Sources of inputs			
Consented > Active > Sources of inputs > Fingerlings			
E1 *(required)*	Which tilapia strain did you use during last season/cycle?	1	ARDEC/Akosombo
	Select all that apply	2	Chinese
		3	Half-cast (Mixed breed between Chinese and Ghanaian strain)
		4	Wild
		999	Do not know
		777	Other (specify)__
E1i *(required)*	Please specify tilapia strain		
	Question relevant when: selected(${E1} , '777')		
E2 *(required)*	What was the source of the tilapia stock or strain?	1	ARDEC
	[if recycled from last season, what was the source when they bought the last time]	2	PAC
		3	Ashaiman ADC
		4	Private hatchery
		5	Friends/neighbors
		6	Own farm
		7	Own hatchery or fingerling production
		8	From the wild
		777	Other (please specify)___
E2i *(required)*	Please specify the source of the tilapia stock or strain		
	Question relevant when: selected(${E2} , '777')		
Consented > Active > Sources of inputs > Fingerlings > Fingerlings			
Consented > Active > Sources of inputs > Fingerlings > Fingerlings > Fingerling type 1			
E36a *(required)*	What is your first/major fingerling source?	1	ARDEC
		2	PAC
		3	Ashaiman ADC
		4	Private hatchery
		5	Friends/neighbors
		6	Own farm
		7	Own hatchery or fingerling production
		8	From the wild
		777	...
E38a *(required)*	Distance from your first/major fingerling source ([E36a_name]) to your farm?		
	0 = Own farm Enter 999 if don't know		
	Question relevant when: selected(${E36a} , '4') or selected(${E36a} , '5') or selected(${E36a} , '7') or selected(${E36a} , '8') or selected(${E36a} , '777')		
	Response constrained to: (.>=0 and .<=998) or .=999		
E38ai *(required)*	Unit of distance	1	Km
	Question relevant when: ${E38a} > 0 and ${E38a} != 999	2	Miles
		3	Minutes (walk)
		4	Meters

Field	Question	Answer	
E39a *(required)*	What is your perception on quality of your first/major fingerling type ([E36a_name])	1	Very good
		2	Good
		3	Somewhat good
		4	Not good
E40a *(required)*	What is your perception of availability of your first/major fingerling type ([E36a_name])	1	Very good
		2	Good
		3	Somewhat good
		4	Not good
E41a *(required)*	What is your perception on affordability of your first/major fingerling type ([E36a_name])?	1	Very good
		2	Good
		3	Somewhat good
		4	Not good
Consented > Active > Sources of inputs > Fingerlings > Fingerlings > Fingerling type 2 *Group relevant when: ${num_E2} > 1*			
E36b *(required)*	What is the name of your second major fingerling source?	1	ARDEC
		2	PAC
		3	Ashaiman ADC
		4	Private hatchery
		5	Friends/neighbors
		6	Own farm
		7	Own hatchery or fingerling production
		8	From the wild
		777	...
E38b *(required)*	Distance from your second major fingerling source ([E36b_name]) to your farm? *0 = Own farm Enter 999 if don't know* *Question relevant when: selected(${E36b} , '4') or selected(${E36b} , '5') or selected(${E36b} , '7') or selected(${E36b} , '8') or selected(${E36b} , '777')* *Response constrained to: (.>=0 and .<=998) or .=999*		
E38bi *(required)*	Unit of distance *Question relevant when: ${E38b} > 0 and ${E38b} != 999*	1	Km
		2	Miles
		3	Minutes (walk)
		4	Meters
E39b *(required)*	What is your perception on quality of your second major fingerling type ([E36b_name])?	1	Very good
		2	Good
		3	Somewhat good
		4	Not good
E40b *(required)*	What is your perception of availability of your second major fingerling type ([E36b_name])?	1	Very good
		2	Good
		3	Somewhat good
		4	Not good
E41b *(required)*	What is your perception on affordability of your second major fingerling type ([E36b_name])?	1	Very good
		2	Good
		3	Somewhat good
		4	Not good
E41 *(required)*	Do you have any comments/story for your ratings on fingerlings quality, affordability or availability?		
E42 *(required)*	What do you look for to know or judge the "quality" of fingerlings/broodstock you purchase? *if multiple, select all that applies*	1	I trust the source
		2	I trust the person/expert who told me that the source or type of fingerling is of good quality
		3	Appearance and method of packaging
		4	Method of transportation
		5	Past experience of using same fingerlings or same source
		6	Appearance of fingerlings
		8	Don't know
		9	Don't check fingerling quality
		777	Other (specify)___
E42i *(required)*	Please specify___ *Question relevant when: selected(${E42} , '777')*		

Field	Question	Answer	
E42_i *(required)*	Who is this "person"? *Question relevant when: selected(${E42} , '2')*	1	ARDEC
		2	PAC
		3	Ashaiman
		4	Extension or zonal officer
		5	Friend
		6	Association/group leader
		7	Feed company
		777	Other (specify)___
E43 *(required)*	Do you use or heard of "certified seeds" used for crop farming? *[Certified seed means planting material that is well packaged in a bag with name/source and other details written on the package and comes from well established/registered source or supplier]*	1	Yes
		0	No
		98	Not applicable
E44 *(required)*	Kindly rate your level of trust or confidence on the quality and performance of "certified crop seed" compared to non-certified crop seed *Question relevant when: selected(${E43} , '1')*	1	No trust
		2	Little trust
		3	Some trust
		4	Strong trust
		5	Complete trust
E45 *(required)*	What is your reason for the rating? *Question relevant when: selected(${E43} , '1')*	1	I trust the source/supplier/seller
		2	I do not trust the source/supplier/seller
		3	I trust the certification/inspection unit/agency
		4	I do not trust the certification/inspection unit/agency
		5	I tried and experienced it and it is better than none certified seed
		6	I tried and experienced it and its worse compared to the none certified seed
		777	Other (specify)___
E46 *(required)*	Are the fingerlings/broodstock you buy "certified" or are the coming from "certified, established or registered sources"?	1	Yes
		0	No
		999	Don't know
E47 *(required)*	Would you prefer to buy a certified fingerlings/broodstock (or fingerlings/broodstock from certified, established or registered source) than not a certified source?	1	Yes
		0	No
		999	Don't know
E48 *(required)*	Would you be willing to pay higher price for fingerling/broodstock to get it from certified or registered sources? *Question relevant when: selected(${E47} , '1')*	1	Yes
		0	No
E49 *(required)*	How much (GHC) extra will you be willing to pay per fingerling/broodstock given the current price of fingerlings you buy *Question relevant when: selected(${E48} , '1')*		
E50 *(required)*	Kindly rate your level of trust or confidence on the quality and performance of certified fingerlings/broodstock (or fingerlings/broodstock from certified, established or registered source) compared to those not certified ones?	1	No trust
		2	Little trust
		3	Some trust
		4	Strong trust
		5	Complete trust
		999	Don't know
E51 *(required)*	What is your reason for the rating *Question relevant when: not(selected(${E50} , '999'))*	1	I trust the source/supplier/seller
		2	I do not trust the source/supplier/seller
		3	I trust the certification/inspection unit/agency
		4	I do not trust the certification/inspection unit/agency
		5	I tried and experienced it and it is better than none certified seed
		6	I tried and experienced it and its worse compared to the none certified seed
		777	Other (specify)___
E51i *(required)*	Please specify *Question relevant when: selected(${E51} , '777')*		
E52 *(required)*	You can also get your fish farm certified by government or independent private certification agency, like EcoMark Africa or Best Aquaculture Practices (BAP Certified), some fish farms in other countries apply for these certification scheme to export, get bigger market share and get higher prices for their fish. Do you think your buyers or consumer will be willing to buy more or willing to pay higher prices for certified tilapia than those not?	1	Yes
		0	No
		999	Don't know

Field	Question	Answer	
E53 *(required)*	Do you think you would like to adopt, apply or comply for certification system?	1	Yes
		0	No
		999	Don't know
E54 *(required)*	What is the reason for your answer? *If multiple, select all that apply* *Question relevant when: selected(${E53} , '1') or selected(${E53} , '0')*	1	Not interested
		2	Too expensive
		3	Buyer/consumer will not care if certified or not and will not pay higher prices
		4	No plans to expand or export
		5	I have plans to expand and export
		6	I want to have more buyers and get higher prices
		7	Benefits exceed cost of certification
		8	Costs exceed benefits of certification
		777	Other (specify)___
E55 *(required)*	Please specify *Question relevant when: selected(${E54} , '777')*		
E3 *(required)*	What type of broodstock/fingerling did you buy during your last production cycle? *Question relevant when: selected(${E2} , '1') or selected(${E2} , '2') or selected(${E2} , '3') or* *selected(${E2} , '4') or selected(${E2} , '5') or selected(${E2} , '7') or selected(${E2} , '777')*	1	Single sex
		2	Mixed sex
		999	Don't know

Consented > Active > Sources of inputs > Fingerlings > Other fingerling sources
  Group relevant when: selected(${E2} , '4') or selected(${E2} , '5') or selected(${E2} , '777')

Field	Question	Answer	
E4 *(required)*	What is the name of the source of your broodstock/fingerling? *(list up to two main sources)*		
E5 *(required)*	What is the location: Region	ER	Eastern Region
		VR	Volta Region
		BA	Brong Ahafo Region
		AS	Ashanti Region
		777	Other (specify)___
E5i *(required)*	Please specify Region___ *Question relevant when: selected(${E5} , '777')*		

Field	Question	Answer	
E5a	What is the location: Zone *Question relevant when: not(selected(${E5} , '777'))*	1	Adansi Zone
		2	Ahafo Offin Zone
		3	Amansie Zone
		4	Asante Akim Zone
		5	Atwima Zone
		6	Sekyere Zone
		7	Azunafo Zone
		8	Dormaa Zone
		9	Kintampo Zone
		10	Sunyani Zone
		11	Tano Zone
		12	Techiman Zone
		13	Afram Plains Zone
		14	Akosombo Zone
		15	Kwaebibirem Zone
		16	New Juaben Zone
		17	KMA Zone
		18	Abutia
		19	Adaklu
		20	Adukope
		21	Agbokofe
		22	Agorta
		23	Akwetey
		24	Anloga-Zico
		25	Aveyime
		26	Bakpa tademe
		27	Blekope
		28	Gbi Atabu
		29	Godenu
		30	Have
		31	Hehekpoe
		32	Ho
		33	Hohoe
		34	Keta-Anyanui
		35	Keta-Kedzi
		36	Keta-Kedzokope
		37	Keta-Tegbi
		38	Keta-Abutiakope
		39	Kpenoe
		40	Kpeve
		41	Krachi East
		42	Nkwanta
		43	Sokode
		44	Tafi Atome
		45	Tefle
		46	Vodze
		47	Woadze Tornu
		48	Ziavi
		777	Other (specify)___
		7777	Other (specify)____
		77777	Other (specify)___
		777777	Other (specify)___
E5ai	Please specify Zone *Question relevant when: selected(${E5a} , '777777') or selected(${E5a} , '77777') or selected(${E5a} , '7777') or selected(${E5a} , '777') or selected(${E5} , '777')*		
E5b	What is the location: District *Question relevant when: not(selected(${E5a} , '777777')) and not(selected(${E5a} , '77777')) and not(selected(${E5a} , '7777')) and not(selected(${E5a} , '777')) and not(selected(${E5} , '777'))*	1	Adansi North
		2	Obuasi Municipal
		3	Asante-Akim North
		4	Asante-Akim South
		5	Offinso North
		6	Offinso South

Field	Question	Answer		
			7	Amansie Central
			8	Amansie West
			9	Bekwai Municipality
			10	Asante-Akim Central
			11	Asante-Akim North
			12	Asante-Akim South
			13	Atwima Kwanwoma
			14	Atwima Mponua
			15	Atwima Nwabiagya
			16	Ejura Sekye Domase
			17	Sekyere Central
			18	Sekyere East
			19	Sekyere South
			20	Afigya Kwabre
			21	Ejisu-Juaben
			22	KMA
			23	Kwabre East
			24	Asunafo North
			25	Asunafo South
			26	Berekum
			27	Dormaa East
			28	Dormaa Municipal
			29	Dormaa West
			30	Jaman Soth
			31	Wenchi Municipal
			32	Berekum
			33	Sunyani Municipal
			34	Sunyani West
			35	Tano North
			36	Tano South
			37	Kintampo Municipal
			38	Nkoranza North
			39	Nkoranza South
			40	Techiman Municipal
			41	Techiman North
			42	Fanteakwa
			43	Kwahu Afram Plains North
			44	Kwahu East
			45	Kwahu South
			46	Kwahu West
			47	Asuogyaman
			48	Lower Manya Krobo
			49	Upper Manya Krobo
			50	Akyemmansa
			51	Asene-Manso-Akroso
			52	Birim North
			53	Birim South
			54	Denkyembour
			55	Kwaebibirem
			56	Abuakwa North
			57	Abuakwa South
			58	Adeiso
			59	Atiwa East
			60	Ayensuano
			61	New Juaben North
			62	Nsawam Addoagyiri
			63	Suhum
			64	Upper West Akim
			65	West Akim
			66	Ho West
			67	Adaklu
			68	Adaklu
			69	Ho

Field	Question	Answer	
		70	Keta
		71	North Tongu
		72	South Tongu
		73	Adaklu
		74	Hohoe Municipal
		75	Hohoe Municipal
		76	Hohoe Municipal
		77	Adaklu
		78	Ho
		79	Afadzato South
		80	Biakoye
		81	Hohoe Municipal
		82	Kajebi
		83	Kpando Municipality
		84	North Dayi
		85	South Dayi
		86	Keta
		87	Keta
		88	Keta
		89	Keta
		90	Keta
		91	Ho
		92	South Dayi
		93	Krachi East
		94	Krachi East
		95	Ho
		96	Hohoe Municipal
		97	South Tongu
		98	Adaklu
		99	Afadzato South
		100	Ho
		101	Ho
		102	South Tongu
		501	Other (specify)___
		503	Other (specify)___
		505	Other (specify)___
		507	Other (specify)___
		509	Other (specify)___
		511	Other (specify)___
		513	Other (specify)___
		515	Other (specify)___
		517	Other (specify)___
		519	Other (specify)___
		521	Other (specify)___
		523	Other (specify)___
		525	Other (specify)___
		527	Other (specify)___
		529	Other (specify)___
		531	Other (specify)___
		533	Other (specify)___
		535	Other (specify)___
		537	Other (specify)___
		539	Other (specify)___
		541	Other (specify)___
		543	Other (specify)___
		544	Other (specify)___
		545	Other (specify)___
		546	Other (specify)___
		547	Other (specify)___
		548	Other (specify)___
		549	Other (specify)___
		550	Other (specify)___
		551	Other (specify)___

Field	Question	Answer		
		552	Other (specify)___	
		553	Other (specify)___	
		554	Other (specify)___	
		555	Other (specify)___	
		556	Other (specify)___	
		557	Other (specify)___	
		558	Other (specify)___	
		559	Other (specify)___	
		560	Other (specify)___	
		561	Other (specify)___	
		562	Other (specify)___	
		563	Other (specify)___	
		564	Other (specify)___	
		565	Other (specify)___	
		566	Other (specify)___	
		567	Other (specify)___	
		568	Other (specify)___	
		569	Other (specify)___	
E5bi	Please specify District___ Question relevant when: selected(${E5a} , '777777') or selected(${E5a} , '77777') or selected(${E5a} , '7777') or selected(${E5a} , '777') or selected(${E5} , '777') or selected(${E5b} , '501') or selected(${E5b} , '503') or selected(${E5b} , '505') or selected(${E5b} , '507') or selected(${E5b} , '509') or selected(${E5b} , '511') or selected(${E5b} , '513') or selected(${E5b} , '515') or selected(${E5b} , '517') or selected(${E5b} , '519') or selected(${E5b} , '521') or selected(${E5b} , '523') or selected(${E5b} , '525') or selected(${E5b} , '527') or selected(${E5b} , '529') or selected(${E5b} , '531') or selected(${E5b} , '533') or selected(${E5b} , '535') or selected(${E5b} , '537') or selected(${E5b} , '539') or selected(${E5b} , '541') or selected(${E5b} , '543') or selected(${E5b} , '544') or selected(${E5b} , '545') or selected(${E5b} , '546') or selected(${E5b} , '547') or selected(${E5b} , '548') or selected(${E5b} , '549') or selected(${E5b} , '550') or selected(${E5b} , '551') or selected(${E5b} , '552') or selected(${E5b} , '553') or selected(${E5b} , '554') or selected(${E5b} , '555') or selected(${E5b} , '556') or selected(${E5b} , '557') or selected(${E5b} , '558') or selected(${E5b} , '559') or selected(${E5b} , '560') or selected(${E5b} , '561') or selected(${E5b} , '562') or selected(${E5b} , '563') or selected(${E5b} , '564') or selected(${E5b} , '565') or selected(${E5b} , '566') or selected(${E5b} , '567') or selected(${E5b} , '568') or selected(${E5b} , '569')			
E7a *(required)*	What is the name of person you purchased the fingerlings from			
E7b	What is his telephone number?			
E8a *(required)*	How did you know or learn about them?	1	Project	
		2	MoFA extension agent	
		3	Hatchery's own marketing and promotion	
		4	Friends/neighbors	
		5	Farmer associations	
		777	Other (please specify)_____	
E8ai *(required)*	Please specify how you know or learn about them Question relevant when: selected(${E8a} , '777')			
E9 *(required)*	Do you have any preference where or which source you buy from? Question relevant when: selected(${E2} , '4') or selected(${E2} , '5') or selected(${E2} , '777')	1	Yes	
		0	No	
E10 *(required)*	Which source is your most prefered?	1	ARDEC	

Field	Question	Answer	PAC
	Question relevant when: selected(${E9} , '1')	2	PAC
		3	Ashaiman ADC
		4	Private hatchery
		5	Friends/neighbors
		6	Own farm
		7	Own hatchery or fingerling production
		8	From the wild
		777	Other (please specify)____
E10i *(required)*	Please specify your most preferred source		
	Question relevant when: selected(${E10} , '777')		
E11 *(required)*	Why is ([E10_name]) your most preferred source?		
	Question relevant when: selected(${E9} , '1')		
Consented > Active > Sources of inputs > Fingerlings > E12--E25			
Group relevant when: selected(${E2} , '1') or selected(${E2} , '2') or selected(${E2} , '3') or selected(${E2} , '4') or selected(${E2} , '5') or selected(${E2} , '777')			
E12 *(required)*	What is the size of the fingerlings bought during last season/cycle? (in grams)		
E13 *(required)*	What is your preferred size of fingerlings that come from hatchery? (in grams)		
E14 *(required)*	The size of fingerlings you bought last season and your preferred size of fingerlings are different, what is the reason for this?		
	Question relevant when: ${E12} != ${E13}		
E15 *(required)*	How is the broodstock/fingerling packaged?	1	Fish tank
		2	Double bag
		777	Other (please specify)_____
E15i *(required)*	Specify how the broodstock/fingerling is packaged		
	Question relevant when: selected(${E15} , '777')		
E16 *(required)*	Do you have preference on how the broodstock/fingerling should be packaged?	1	Yes
		0	No
E17 *(required)*	What is your preferred broodstock/fingerling packaging method?	1	Fish tank
	Question relevant when: selected(${E16} , '1')	2	Double bag
		777	Other (please specify)_____
E17i *(required)*	Please specify your preferred broodstock/fingerling packaging method		
	Question relevant when: selected(${E17} , '777')		
E18 *(required)*	What is the reason for the difference in how the broodstock/fingerling you bought are packaged and your preferred broodstock/fingerling packaging method?		
	Question relevant when: not(selected(${E15} , ${E17})) and ${E16} = 1		
E19 *(required)*	Do you have some influence on the type of packaging used?	1	Yes
		0	No
E20 *(required)*	How was the broodstock/fingerling transported?	1	Own vehicle
		2	Hatchery vehicle
		3	I hired transport
		4	Hatchery hires transporter
		777	Other (please specify)_____
E20i *(required)*	Please specify how broodstock/fingerling was transported		
	Question relevant when: selected(${E20} , '777')		
E21 *(required)*	Do you have preference on how the fingerlings should be transported?	1	Yes
		0	No
E22 *(required)*	What is your preference fingerling/broodstock transportation method?	1	Own vehicle
	Question relevant when: selected(${E21} , '1')	2	Hatchery vehicle
		3	I hired transport
		4	Hatchery hires transporter
		777	Other (please specify)_____
E22i *(required)*	Please specify your preferred broodstock/fingerling transportation method		
	Question relevant when: selected(${E22} , '777')		
E23 *(required)*	Your preferred broodstock/fingerling transportation method and how your broodstock/fingerling are transported is different, what is the reason?		
	Question relevant when: not(selected(${E20} , ${E22})) and ${E21} = 1		
E24 *(required)*	Do you have some influence on how the broodstock/fingerling are transported?	1	Yes
		0	No
E25 *(required)*	Are you responsible or in charge of transporting the broodstock/fingerling?	1	Yes
		0	No
E25a *(required)*	In the last or most recent fingerling transport, what was the mortality rate? (%)		

Field	Question	Answer	
	[mortality rate is the percentage of fingerlings that died during transport] *Response constrained to: (.) <=100*		
E26 *(required)*	At what stage (what grams) of fingerlings or fish have you experienced the most mortality? (range in grams) *Provide range* *Response constrained to: (string-length(.)>=1 and string-length(.)<=10)*		
E27 *(required)*	In other countries, nurseries (i.e., producing fingerlings of up to 10g - 15g for grow-out farmers) are profitable business venture, when managed properly. Greater mortality rates occur at fingerling and juvenile production stages, so nursery operation can be potentially riskier, more knowledge-intensive and more capital intensive business than grow-out farms. But with intensive training and technical support and high enough prices for the juveniles to be sold to farmers, nursery operation may prove to be profitable. One of the aims of this study is to assess the feasibility and test a few pilot nurseries in Ghana. Are you interested and willing to pilot-test a nursery operation (i.e., producing fingerlings of up to 10g - 15g for grow-out farmers) to add to your existing grow-out farm?	1	Yes
		0	No
		2	I do not know yet (I need more information)
E28 *(required)*	Why YES or NO? *Question relevant when: selected(${E27} , '1') or selected(${E27} , '0')*		
E29 *(required)*	Do you have the required additional investments to upgrade into nursery and to be sustainable (a potential project can only provide technical support but not financial support)? *Question relevant when: selected(${E27} , '1') or selected(${E27} , '2')*	1	Yes
		0	No
E300 *(required)*	Do you have a quarantine system for new or returning seed/fish (not necessarily new building, it can be just a compartment/section/hapas system to separate new broodstock/fish from existing or main ones)	1	Yes
		0	No
E301 *(required)*	Do you conduct in-house training for staff/employees?	1	Yes
		0	No
E302 *(required)*	Would you be interested and willing to start a hatchery operation or expand your hatchery operation (if you already have one), either on its own or to add to your existing grow-out farm?	1	Yes
		0	No
E303 *(required)*	Do you have the required additional investment to upgrade into hatchery operation and to be sustainable (a potential project can only provide technical support but not financial support)? *Question relevant when: selected(${E302} , '1')*	1	Yes
		0	No
Consented > Active > Sources of inputs > Water			
E30 *(required)*	What is the source of water used in tilapia farming	1	Well
		2	River/stream
		3	Groundwater/borehole
		4	Tap water
		5	Lake
		6	Dam/irrigation
		7	Harvested rainwater
		777	Other (specify)___
E30i *(required)*	Please specify the source of water *Question relevant when: selected(${E30} , '777')*		
E32 *(required)*	Do you treat your water before discharge? *Question relevant when: selected(${nC} , '2') or selected(${nC} , '3')*	1	Yes
		0	No
E33 *(required)*	What is your source of water for post-harvest? *Response constrained to: if(selected(., 9), count-selected(.) = 1, count-selected(.) >= 1)*	9	Do not undertake any post harvest processing
		1	Well
		2	River/stream
		3	Groundwater/borehole
		4	Tap water
		5	Lake
		6	Dam/irrigation
		7	Harvested rainwater
		777	Other (please specify)____
E33i *(required)*	Please specify your source of water for post-harvest *Question relevant when: selected(${E33} , '777')*		
E304 *(required)*	Do you have water quality record?	1	Yes
		0	No
E304a *(required)*	Did farmer show you a proof of his/her water quality record? *Question relevant when: selected(${E304} , '1')*	1	Yes
		0	No
E305 *(required)*	How do you check water quality?	1	Use instruments/gadgets to check

Field	*if multiple, select all applicable* Question	Answer	
		2	Through observing the colour of water
		3	Presence of algae
		4	Behavior of the fish
		5	Smell of the water
		777	Other (specify)____
E305i *(required)*	Please specify how you check water quality *Question relevant when: selected(${E305} , '777')*		
E306 *(required)*	How often do you check/observe water quality?	1	Daily
		2	Weekly
		3	Monthly
		4	Few times a year
		5	Almost never
		777	Other (specify)____
E306i *(required)*	Please specify how often you check/observe water quality *Question relevant when: selected(${E306} , '777')*		
E307 *(required)*	Do you have effluent (waste water) management record? *Question relevant when: selected(${nC} , '2') or selected(${nC} , '3')*	1	Yes
		0	No
E307a *(required)*	Did respondent show any proof/documentation for effluent management record? *Question relevant when: selected(${E307} , '1')*	1	Yes
		0	No
E307b *(required)*	What is the reason respondent was unable to show a proof/documentation for effluent management record? *Question relevant when: selected(${E307a} , '0')*		
E308 *(required)*	How do you dispose of waste water? *Question relevant when: selected(${nC} , '2') or selected(${nC} , '3')*		
E309 *(required)*	How often do you change, add or renew pond water? *Question relevant when: selected(${nC} , '2') or selected(${nC} , '3')*	1	Daily
		2	Weekly
		3	Monthly
		4	Few times a year
		5	Almost never
		777	Other (specify)____
E309i *(required)*	Please specify how often you change, add or renew pond water *Question relevant when: selected(${E309} , '777')*		
E310 *(required)*	Did you dispose the sediment of this facility? *Question relevant when: selected(${nC} , '2') or selected(${nC} , '3')*	1	Yes
		0	No
E310a *(required)*	After how many cycles did you remove the sediments? (number of cycles) *Question relevant when: selected(${E310} , '1')*		
E310b *(required)*	To where did you dispose the sediment? *Question relevant when: selected(${E310} , '1')*	1	River
		2	On the dyke
		3	Crop field
		777	Other (specify)___
E310c *(required)*	Please specify where you dispose off the sediment *Question relevant when: selected(${E310b} , '777')*		
E39n *(required)*	What is your perception on quality of water source for your pond/cage? *Question relevant when: selected(${nC} , '1') or selected(${nC} , '2') or selected(${nC} , '3')*	1	Very good
		2	Good
		3	Somewhat good
		4	Not good
E40n *(required)*	What is your perception of availability of water source for your pond? *Question relevant when: selected(${nC} , '2') or selected(${nC} , '3')*	1	Very good
		2	Good
		3	Somewhat good
		4	Not good
Consented > Active > Sources of inputs > Water source for post-harvest *Group relevant when: not(selected(${E33} , '9'))*			
E38o *(required)*	What is the distance from the point of post-harvest to the nearest source of water for post-harvest? *0 = Own farm Enter 999 if don't know*		
E38oi *(required)*	Unit of distance *Question relevant when: ${E38o} > 0 and ${E38o} !=999*	1	Km
		2	Miles
		3	Minutes (walk)
		4	Meters
E39o *(required)*	What is your perception on quality of water source for post-harvest?	1	Very good

Field	Question	Answer	
		2	Good
		3	Somewhat good
		4	Not good
E40o *(required)*	What is your perception of availability of water source for post-harvest?	1	Very good
		2	Good
		3	Somewhat good
		4	Not good
E41o *(required)*	What is your perception on affordability of water source for post-harvest? *Question relevant when: not(selected(${E33} , '2')) or not(selected(${E33} , '5')) or not(selected(${E33} , '7'))*	1	Very good
		2	Good
		3	Somewhat good
		4	Not good
Consented > Active > Sources of inputs > Feed			
E34 *(required)*	What starter feeds do you use *If multiple, select all that applies*	1	Raanan
		2	Multifeed
		3	Aller Aqua
		4	Coppens
		5	On farm production
		777	Other (please specify)___
E34i *(required)*	Please specify the starter feed you use *Question relevant when: selected(${E34} , '777')*		
E34a *(required)*	If on farm production selected, specify the raw materials/ingredients *Question relevant when: selected(${E34} , '5')*	1	Hay
		2	Corn
		3	Maggot
		4	Poultry dropping
		5	Tiny fish meal
		6	Bran
		7	Cassava
		8	Legumes/beans/peas
		9	Palm kernel
		777	Other (specify)____
E34ai *(required)*	Please specify raw materials/ingredients *Question relevant when: selected(${E34a} , '777')*		
Consented > Active > Sources of inputs > Feed > Starter feed			
Consented > Active > Sources of inputs > Feed > Starter feed > Starter Feed type 1			
E36c *(required)*	First/major starter feed type/source?	1	Raanan
		2	Multifeed
		3	Aller Aqua
		4	Coppens
		5	On farm production
		777	...
E38c *(required)*	Distance from your source of ([E36c_name]) to your farm? *0 = Own farm Enter 999 if don't know* *Question relevant when: not(selected(${E36c} , '5'))* *Response constrained to: (.>=0 and .<=998) or .=999*		
E38ci *(required)*	Unit of distance *Question relevant when: ${E38c} > 0 and ${E38c} != 999*	1	Km
		2	Miles
		3	Minutes (walk)
		4	Meters
E39c *(required)*	What is your perception on the quality of ([E36c_name])? *Question relevant when: not(selected(${E36c} , '5'))*	1	Very good
		2	Good
		3	Somewhat good
		4	Not good
E40c *(required)*	What is your perception of the availability of ([E36c_name])? *Question relevant when: not(selected(${E36c} , '5'))*	1	Very good
		2	Good
		3	Somewhat good
		4	Not good
E41c *(required)*	What is your perception on affordability of ([E36c_name])? *Question relevant when: not(selected(${E36c} , '5'))*	1	Very good
		2	Good
		3	Somewhat good
		4	Not good
Consented > Active > Sources of inputs > Feed > Starter feed > Starter feed type 2			

Field	Question	Answer	
Group relevant when: ${num_stfeed} > 1			
E36d *(required)*	Second major starter feed type/source	1	Raanan
		2	Multifeed
		3	Aller Aqua
		4	Coppens
		5	On farm production
		777	...
E38d *(required)*	Distance from your source of ([E36d_name]) to your farm?		
	0 = Own farm Enter 999 if don't know		
	Question relevant when: not(selected(${E36d} , '5'))		
E38di *(required)*	Unit of distance	1	Km
	Question relevant when: ${E38d} > 0 and ${E38d} != 999	2	Miles
		3	Minutes (walk)
		4	Meters
E39d *(required)*	What is your perception on the quality of ([E36d_name])?	1	Very good
	Question relevant when: not(selected(${E36d} , '5'))	2	Good
		3	Somewhat good
		4	Not good
E40d *(required)*	What is your perception of the availability of ([E36d_name])	1	Very good
	Question relevant when: not(selected(${E36d} , '5'))	2	Good
		3	Somewhat good
		4	Not good
E41d *(required)*	What is your perception on affordability of ([E36d_name])?	1	Very good
	Question relevant when: not(selected(${E36d} , '5'))	2	Good
		3	Somewhat good
		4	Not good
Consented > Active > Sources of inputs > Feed > Starter feed > Starter ingredients_1			
Group relevant when: selected(${E34} , '5') and (selected(${E36c} , '5') or selected(${E36d} , '5'))			
E36c_i *(required)*	First/major starter feed ingredient type/source?	1	Hay
		2	Corn
		3	Maggot
		4	Poultry dropping
		5	Tiny fish meal
		6	Bran
		7	Cassava
		8	Legumes/beans/peas
		9	Palm kernel
		777	...
E38c_i *(required)*	Distance from your source of ([E36c_i_name]) to your farm		
	Enter 999 if don't know		
E38c_ii *(required)*	Unit of distance	1	Km
	Question relevant when: ${E38c_i} > 0 and ${E38c_i} !=999	2	Miles
		3	Minutes (walk)
		4	Meters
E39c_i *(required)*	What is your perception on the quality of ([E36c_i_name])?	1	Very good
		2	Good
		3	Somewhat good
		4	Not good
E40c_i *(required)*	What is your perception of availability of ([E36c_i_name])?	1	Very good
		2	Good
		3	Somewhat good
		4	Not good
E41c_i *(required)*	What is your perception on affordability of ([E36c_i_name])?	1	Very good
		2	Good
		3	Somewhat good
		4	Not good
Consented > Active > Sources of inputs > Feed > Starter feed > Starter ingredients_2			
Group relevant when: (selected(${E36c} , '5') or selected(${E36d} , '5')) and count-selected(${E34a}) >1			
E36d_i *(required)*	Second major starter feed ingredient type/source?	1	Hay

Field	Question	Answer		
			2	Corn
			3	Maggot
			4	Poultry dropping
			5	Tiny fish meal
			6	Bran
			7	Cassava
			8	Legumes/beans/peas
			9	Palm kernel
			777	...
E38d_i *(required)*	Distance from your source of ([E36d_i_name]) to your farm? *Enter 999 if don't know*			
E38d_ii *(required)*	Unit of distance *Question relevant when: ${E38d_i} > 0 and ${E38d_i} !=999*		1	Km
			2	Miles
			3	Minutes (walk)
			4	Meters
E39_i *(required)*	What is your perception on the quality of ([E36d_i_name])?		1	Very good
			2	Good
			3	Somewhat good
			4	Not good
E40_i *(required)*	What is your perception of the availability of ([E36d_i_name])?		1	Very good
			2	Good
			3	Somewhat good
			4	Not good
E41_i *(required)*	What is your perception of affordability of ([E36d_i_name])?		1	Very good
			2	Good
			3	Somewhat good
			4	Not good
E35 *(required)*	What grow-out feeds do you use? *If multiple, select all that applies*		1	Raanan
			2	Multifeed
			3	Aller Aqua
			4	Coppens
			5	On farm production
			777	Other (specify)___
E35i *(required)*	Please specify the grow-out feed you use *Question relevant when: selected(${E35} , '777')*			
E35a *(required)*	If on farm production selected, specify the raw material/ingredients *If multiple, select all that applies* *Question relevant when: selected(${E35} , '5')*		1	Hay
			2	Corn
			3	Maggot
			4	Poultry dropping
			5	Tiny fish meal
			6	Bran
			7	Cassava
			8	Legumes/beans/peas
			9	Palm kernel
			777	Other (specify)____
E35ai *(required)*	Please specify raw materials/ingredients *Question relevant when: selected(${E35a} , '777')*			
Consented > Active > Sources of inputs > Feed > Grow-out feed				
Consented > Active > Sources of inputs > Feed > Grow-out feed > Grow-out Feed type 1				
E36e *(required)*	First/major grow-out feed type/source?		1	Raanan
			2	Multifeed
			3	Aller Aqua
			4	Coppens
			5	On farm production
			777	...
E38e *(required)*	Distance from your source of ([E36e_name]) to your farm? *0 = Own farm Enter 999 if don't know* *Question relevant when: not(selected(${E36e} , '5'))*			
E38ei *(required)*	Unit of distance		1	Km

Field	Question		Answer
	Question relevant when: ${E38e} > 0 and ${E38e} != 999	2	Miles
		3	Minutes (walk)
		4	Meters
E39e *(required)*	What is your perception on the quality of ([E36e_name])?	1	Very good
	Question relevant when: not(selected(${E36e} , '5'))	2	Good
		3	Somewhat good
		4	Not good
E40e *(required)*	What is your perception on the availability of ([E36e_name])?	1	Very good
	Question relevant when: not(selected(${E36e} , '5'))	2	Good
		3	Somewhat good
		4	Not good
E41e *(required)*	What is your perception of affordability of ([E36e_name])?	1	Very good
	Question relevant when: not(selected(${E36e} , '5'))	2	Good
		3	Somewhat good
		4	Not good
Consented > Active > Sources of inputs > Feed > Grow-out feed > Grow-out feed type 2			
Group relevant when: ${num_gofeed} > 1			
E36f *(required)*	Second major grow-out feed type?	1	Raanan
		2	Multifeed
		3	Aller Aqua
		4	Coppens
		5	On farm production
		777	...
E38f *(required)*	Distance from your source of ([E36f_name]) to your farm?		
	0 = Own farm Enter 999 if don't know		
	Question relevant when: not(selected(${E36f} , '5'))		
E38fi *(required)*	Unit of distance	1	Km
	Question relevant when: ${E38f} > 0 and ${E38f} != 999	2	Miles
		3	Minutes (walk)
		4	Meters
E39f *(required)*	What is your perception of the quality of ([E36f_name])?	1	Very good
	Question relevant when: not(selected(${E36f} , '5'))	2	Good
		3	Somewhat good
		4	Not good
E40f *(required)*	What is your perception of the availability of ([E36f_name])?	1	Very good
	Question relevant when: not(selected(${E36f} , '5'))	2	Good
		3	Somewhat good
		4	Not good
E41f *(required)*	What is your perception of affordability of ([E36f_name])?	1	Very good
	Question relevant when: not(selected(${E36f} , '5'))	2	Good
		3	Somewhat good
		4	Not good
Consented > Active > Sources of inputs > Feed > Grow-out feed > Grow-out ingredients_1			
Group relevant when: selected(${E36e} , '5') or selected(${E36f} , '5')			
E36e_i *(required)*	First/major grow-out feed ingredient?	1	Hay
	Question relevant when: selected(${E35} , '5')	2	Corn
		3	Maggot
		4	Poultry dropping
		5	Tiny fish meal
		6	Bran
		7	Cassava
		8	Legumes/beans/peas
		9	Palm kernel
		777	...
E38e_i *(required)*	Distance from your source of ([E36e_i_name]) to your farm?		
	Enter 999 if don't know		
	Question relevant when: selected(${E35} , '5')		
E38e_ii *(required)*	Unit of distance	1	Km

Field	Question		Answer	
	Question relevant when: ${E38e_i} > 0 and ${E38e_i} !=999	2	Miles	
		3	Minutes (walk)	
		4	Meters	
E39e_i *(required)*	What is your perception on the quality of ([E36e_i_name])	1	Very good	
	Question relevant when: selected(${E35} , '5')	2	Good	
		3	Somewhat good	
		4	Not good	
E40e_i *(required)*	What is your perception on the availability of ([E36e_i_name])?	1	Very good	
	Question relevant when: selected(${E35} , '5')	2	Good	
		3	Somewhat good	
		4	Not good	
E41e_i *(required)*	What is your perception of affordability of ([E36e_i_name])?	1	Very good	
	Question relevant when: selected(${E35} , '5')	2	Good	
		3	Somewhat good	
		4	Not good	
Consented > Active > Sources of inputs > Feed > Grow-out feed > grow-out feed ingredient				
Group relevant when: (selected(${E36e} , '5') or selected(${E36f} , '5')) and count-selected(${E35a}) >1				
E36f_i *(required)*	Second major grow-out feed ingredient	1	Hay	
		2	Corn	
		3	Maggot	
		4	Poultry dropping	
		5	Tiny fish meal	
		6	Bran	
		7	Cassava	
		8	Legumes/beans/peas	
		9	Palm kernel	
		777	...	
E38f_i *(required)*	Distance from your source of ([E36f_i_name]) to your farm? *Enter 999 if don't know*			
E38f_ii *(required)*	Unit of distance	1	Km	
	Question relevant when: ${E38f_i} > 0 and ${E38f_i} !=999	2	Miles	
		3	Minutes (walk)	
		4	Meters	
E39f_i *(required)*	What is your perception of the quality of ([E36f_i_name])	1	Very good	
		2	Good	
		3	Somewhat good	
		4	Not good	
E40f_i *(required)*	What is your perception of the availability of ([E36f_i_name])?	1	Very good	
		2	Good	
		3	Somewhat good	
		4	Not good	
E41f_i *(required)*	What is your perception of the affordability of ([E36f_i_name])?	1	Very good	
		2	Good	
		3	Somewhat good	
		4	Not good	
E336 *(required)*	Do you have feeds and feeding records?	1	Yes	
		0	No	
E336a *(required)*	Did farmer show you any proof/documentation for feed and feeding record?	1	Yes	
	Question relevant when: selected(${E336} , '1')	0	No	
E337 *(required)*	How do you determine feeding amount? *If multiple, select all that applies*	1	Recommended by feed supplier	
		2	Based on fish feeding behaviour	
		3	Fish body weight	
		777	Other (specify)___	
E337i *(required)*	Please specify how you determine feeding amount			
	Question relevant when: selected(${E337} , '777')			
E388 *(required)*	Do you use drugs/chemical/antibiotics for your farm?	1	Yes	
		0	No	
E338a *(required)*	Do you keep records of drugs/chemical/antibiotic use?	1	Yes	
	Question relevant when: selected(${E388} , '1')	0	No	
E338b *(required)*	Did farmer show you a proof/documentation for drug/chemical/antibiotic use record?	1	Yes	

Field	Question	Answer	
	Question relevant when: selected(${E338a} , '1')	0	No
E338d *(required)*	What is the name of the major drug/chemical/antibiotics you use?		
	Question relevant when: selected(${E388} , '1')		
E36g *(required)*	Do you use fertilizer for your fish pond?	1	Yes
	Question relevant when: selected(${nC} , '2') or selected(${nC} , '3')	0	No
Consented > Active > Sources of inputs > Fertilizer for fish pond			
Group relevant when: selected(${E36g} , '1')			
E37g *(required)*	What is the source of fertilizer for your fish pond?	1	Agro-input dealer shop
		2	Fisheries commission extension agent
		3	Hatchery
		4	Colleague farmer
		5	MoFA extension agent
		6	Market
		7	Own farm
		777	Other (specify)____
E37gi *(required)*	Please specify the source of fertilizer for your fish pond		
	Question relevant when: selected(${E37g} , '777')		
	Response constrained to: (string-length(.)<=40 and not(regex(.,'^(.)\d(.*)$')))*		
E38g *(required)*	What is the distance from the nearest source of fertilizer for your fish pond?		
	Enter 999 if don't know		
E38gi *(required)*	Unit of distance	1	Km
	Question relevant when: ${E38g} > 0 and ${E38g} !=999	2	Miles
		3	Minutes (walk)
		4	Meters
E39g *(required)*	What is your perception on quality of fertilizer for your fish pond?	1	Very good
		2	Good
		3	Somewhat good
		4	Not good
E40g *(required)*	What is your perception of availability of fertilizer for your fish pond?	1	Very good
		2	Good
		3	Somewhat good
		4	Not good
E41g *(required)*	What is your perception on affordability of fertilizer for your fish pond?	1	Very good
		2	Good
		3	Somewhat good
		4	Not good
E36h *(required)*	Do you use lime for your fish pond?	1	Yes
	Question relevant when: selected(${nC} , '2') or selected(${nC} , '3')	0	No
Consented > Active > Sources of inputs > Lime for fish pond			
Group relevant when: selected(${E36h} , '1')			
E37h *(required)*	What is the source of lime for your fish pond?	1	Agro-input dealer shop
		2	FC extension agent
		3	Hatchery
		4	Colleague farmers
		5	MoFA extension agents
		6	Market
		7	Own farm
		777	Other (please specify)_____
E37hi *(required)*	Please specify the source of lime for your pond		
	Question relevant when: selected(${E37h} , '777')		
E38h *(required)*	What is the distance from the nearest source of lime for your fish pond?		
	0 = Own farm Enter 999 if don't know		
E38hi *(required)*	Unit of distance	1	Km
	Question relevant when: ${E38h} > 0 and ${E38h} !=999	2	Miles
		3	Minutes (walk)
		4	Meters
E39h *(required)*	What is your perception on quality of lime for your fish pond?	1	Very good
		2	Good
		3	Somewhat good
		4	Not good
E40h *(required)*	What is your perception of availability of lime for your fish pond?	1	Very good

Field	Question	Answer	
		2	Good
		3	Somewhat good
		4	Not good
E41h *(required)*	What is your perception on affordability of lime for your fish pond?	1	Very good
		2	Good
		3	Somewhat good
		4	Not good
E36k *(required)*	Do you use Agro-chemicals?	1	Yes
	Question relevant when: selected(${D14} , '2')	0	No
Consented > Active > Sources of inputs > Agro-chemicals			
Group relevant when: selected(${E36k} , '1')			
E37k *(required)*	What is the source of Agro-chemicals you buy?	1	Agro-input dealer shop
		2	FC extension agent
		3	Hatchery
		4	Colleague farmers
		5	MoFA extension agents
		6	Market
		7	Own farm
		777	Other (please specify)_____
E37ki *(required)*	Please specify the source of agro-chemicals you buy		
	Question relevant when: selected(${E37k} , '777')		
	Response constrained to: string-length(.)<=40		
E38k *(required)*	What is the distance from the nearest source of Agro-chemicals?		
	Enter 999 if don't know		
E38ki *(required)*	Unit of distance	1	Km
	Question relevant when: ${E38k} > 0 and ${E38k} !=999	2	Miles
		3	Minutes (walk)
		4	Meters
E39k *(required)*	What is your perception on quality of Agro-chemicals you use on your farm?	1	Very good
		2	Good
		3	Somewhat good
		4	Not good
E40k *(required)*	What is your perception of availability of Agro-chemicals you use on your farm?	1	Very good
		2	Good
		3	Somewhat good
		4	Not good
E41k *(required)*	What is your perception on affordability of Agro-chemicals you use on your farm?	1	Very good
		2	Good
		3	Somewhat good
		4	Not good
E36p *(required)*	Do you use transporters in your fish farming?	1	Yes
		0	No
Consented > Active > Sources of inputs > Transporters			
Group relevant when: selected(${E36p} , '1')			
E37p *(required)*	What is your source of transporters?	1	GPRTU/commercial transport
		2	Own transport/vehicle
		3	government transport
		4	private company
		777	Other (specify)_____
E37pi *(required)*	Please specify your source of transport		
	Question relevant when: selected(${E37p} , '777')		
	Response constrained to: string-length(.)<=40		
E38p *(required)*	What is the distance to the nearest source of transport?		
	Enter 999 if don't know		
E38pi *(required)*	Unit of distance	1	Km
	Question relevant when: ${E38p} > 0 and ${E38p} !=999	2	Miles
		3	Minutes (walk)
		4	Meters
E39p *(required)*	What is your perception on quality of transport?	1	Very good

Field	Question	Answer	
		2	Good
		3	Somewhat good
		4	Not good
E40p *(required)*	What is your perception of availability of transport?	1	Very good
		2	Good
		3	Somewhat good
		4	Not good
E41p *(required)*	What is your perception on affordability of transport?	1	Very good
		2	Good
		3	Somewhat good
		4	Not good
E36q *(required)*	Did you make any purchases of material needed for pond and cage construction/maintenance?	1	Yes
		0	No
Consented > Active > Sources of inputs > Materials needed for pond and cage construction/maintenance			
Group relevant when: selected(${E36q} , '1')			
E37q *(required)*	What is the source for the materials need for cage or pond construction/maintenance?	1	Agro-input dealer shop
		2	FC extension agent
		3	Hatchery
		4	Colleague farmers
		5	MoFA extension agents
		6	Market
		7	Own farm
		777	Other (please specify)_____

E37qi *(required)*	Please specify your source of materials needed for cage or pond construction/maintenance
	  Question relevant when: selected(${E37q} , '777')
	  Response constrained to: string-length(.)<=40		

E38q *(required)*	What is the distance to the nearest source of material needed for cage or pond construction/maintenance? *Enter 999 if don't know*		
E38qi *(required)*	Unit of distance *Question relevant when: ${E38q} > 0 and ${E38q} !=999*	1	Km
		2	Miles
		3	Minutes (walk)
		4	Meters
E39q *(required)*	What is your perception on quality of materials needed for cage and pond construction/maintenance?	1	Very good
		2	Good
		3	Somewhat good
		4	Not good
E40q *(required)*	What is your perception of availability of materials needed for cage and pond construction/maintenance?	1	Very good
		2	Good
		3	Somewhat good
		4	Not good
E41q *(required)*	What is your perception on affordability of materials needed for cage and pond construction/maintenace?	1	Very good
		2	Good
		3	Somewhat good
		4	Not good
Pb_2 *(required)*	Please can you remember your farms's costs of production during your last full production cycle? Mainly input costs and other operating/maintenance costs? *Question relevant when: selected(${A01} , '4')*	1	Yes, I can remember
		0	No, I can't remember
Consented > Active > Tilapia farm cost of production			
Group relevant when: selected(${A01} , '1') or selected(${A01} , '2') or selected(${Pb_2} , '1')			
Consented > Active > Tilapia farm cost of production > Cage Culture			
Group relevant when: selected(${nC} , '1') or selected(${nC} , '3')			
Consented > Active > Tilapia farm cost of production > Cage Culture > Cage Fixed Costs			
F1a *(required)*	Please do you have the following land and building items? *Please select all applicable* *Response constrained to: if(selected(. , '3'), count-selected(.) =1, count-selected(.) >=1)*	3	None
		1	Warehouse [for equipment and feed]
		2	Offices and on-site housing facilities
		777	Other (specify)___
F1a_i *(required)*	Specify land and building item *Question relevant when: selected(${F1a} , '777')*		
Consented > Active > Tilapia farm cost of production > Cage Culture > Cage Fixed Costs > Land and building costs (1)	*(Repeated group)*		

Field	Question	Answer	
Group relevant when: not(selected(${F1a} , '3'))			
	Consented > Active > Tilapia farm cost of production > Cage Culture > Cage Fixed Costs > Land and building costs (1) > land-buildingc		
Group relevant when: if(index() <= 2,selected(${F1a} ,index()),selected(${F1a} ,'777'))			
F4a *(required)*	Cost of purchase or rental/lease of (Warehouse [for equipment and feed]) (GHS) *Enter 999 and proceed if don't know* *Response constrained to: (.>=1 and .<=500000) or .=999*		
F5a *(required)*	Please specify if the cost given for (Warehouse [for equipment and feed]) is for 1 cage or all cage operations *Question relevant when: ${F4a} !=999*	1	Only 1 cage
		2	All cages
		98	Not applicable
		777	Other (please specify)_____
F5ai *(required)*	Please specify the number of cages the cost given for (Warehouse [for equipment and feed]) covers *Question relevant when: selected(${F5a} , '777')*		
F6a *(required)*	Please specify the number of years this cost applies to (Warehouse [for equipment and feed]) *(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5]* *Question relevant when: ${F4a} !=999*		
Consented > Active > Tilapia farm cost of production > Cage Culture > Cage Fixed Costs > Land and building costs (2)		(Repeated group)	
Group relevant when: not(selected(${F1a} , '3'))			
	Consented > Active > Tilapia farm cost of production > Cage Culture > Cage Fixed Costs > Land and building costs (2) > land-buildingc		
Group relevant when: if(index() <= 2,selected(${F1a} ,index()),selected(${F1a} ,'777'))			
F4a *(required)*	Cost of purchase or rental/lease of (Offices and on-site housing facilities) (GHS) *Enter 999 and proceed if don't know* *Response constrained to: (.>=1 and .<=500000) or .=999*		
F5a *(required)*	Please specify if the cost given for (Offices and on-site housing facilities) is for 1 cage or all cage operations *Question relevant when: ${F4a} !=999*	1	Only 1 cage
		2	All cages
		98	Not applicable
		777	Other (please specify)_____
F5ai *(required)*	Please specify the number of cages the cost given for (Offices and on-site housing facilities) covers *Question relevant when: selected(${F5a} , '777')*		
F6a *(required)*	Please specify the number of years this cost applies to (Offices and on-site housing facilities) *(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5]* *Question relevant when: ${F4a} !=999*		
Consented > Active > Tilapia farm cost of production > Cage Culture > Cage Fixed Costs > Land and building costs (3)		(Repeated group)	
Group relevant when: not(selected(${F1a} , '3'))			
	Consented > Active > Tilapia farm cost of production > Cage Culture > Cage Fixed Costs > Land and building costs (3) > land-buildingc		
Group relevant when: if(index() <= 2,selected(${F1a} ,index()),selected(${F1a} ,'777'))			
F4a *(required)*	Cost of purchase or rental/lease of ([land-building_name]) (GHS) *Enter 999 and proceed if don't know* *Response constrained to: (.>=1 and .<=500000) or .=999*		
F5a *(required)*	Please specify if the cost given for ([land-building_name]) is for 1 cage or all cage operations *Question relevant when: ${F4a} !=999*	1	Only 1 cage
		2	All cages
		98	Not applicable
		777	Other (please specify)_____
F5ai *(required)*	Please specify the number of cages the cost given for ([land-building_name]) covers *Question relevant when: selected(${F5a} , '777')*		
F6a *(required)*	Please specify the number of years this cost applies to ([land-building_name]) *(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5]* *Question relevant when: ${F4a} !=999*		
F7a *(required)*	Did you incur site evaluation and selection cost?	1	Yes
		0	No
F7ai *(required)*	What is the cost of site evaluation and selection (GHC)? *Enter 999 if don't know* *Question relevant when: selected(${F7a} , '1')*		
F7aii *(required)*	Please specify if the cost given is for 1 cage or all cage operations *Question relevant when: selected(${F7a} , '1') and ${F7ai} !=999*	1	Only 1 cage
		2	All cages
		98	Not applicable
		777	Other (please specify)_____
F7aiii *(required)*	Please specify the number of cages the cost given for site selection and evaluation covers		

Field	Question	Answer	
	Question relevant when: selected(${F7aii} , '777')		
F7aiv *(required)*	Please specify the number of year the cost for site selection and evaluation applies		
	(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5]		
	Question relevant when: selected(${F7a} , '1') and ${F7ai} !=999		
F1b *(required)*	Please do you have the following fishing gears?	5	None
	Please select all applicable	1	Fish cages constructed and installed with platforms
	Response constrained to: if(selected(. , '5'), count-selected(.) =1, count-selected(.) >=1)	2	Canoe and accessories
		3	Outboard motors
		4	Protective gears [life jackets, scoop nets etc.]
		777	Other (specify)__
F1b_i *(required)*	Specify fishing gear item		
	Question relevant when: selected(${F1b} , '777')		
Consented > Active > Tilapia farm cost of production > Cage Culture > Cage Fixed Costs > fishing gear costs (1)		(Repeated group)	
Group relevant when: not(selected(${F1b} , '5'))			
Consented > Active > Tilapia farm cost of production > Cage Culture > Cage Fixed Costs > fishing gear costs (1) > fishing-gearc			
Group relevant when: if(index() <= 4,selected(${F1b} ,index()),selected(${F1b} ,'777'))			
F4b *(required)*	Cost of purchase or rental/lease of (Fish cages constructed and installed with platforms) (GHS)		
	Enter 999 and proceed if don't know		
	Response constrained to: (.>=1 and .<=500000) or .=999		
F5b *(required)*	Please specify if the cost given for (Fish cages constructed and installed with platforms) is for 1 cage or all cage operations	1	Only 1 cage
		2	All cages
	Question relevant when: ${F4b} !=999	98	Not applicable
		777	Other (please specify)_____
F5bi *(required)*	Please specify the number of cages the cost given for (Fish cages constructed and installed with platforms) covers		
	Question relevant when: selected(${F5b} , '777')		
F6b *(required)*	Please specify the number of years this cost applies to (Fish cages constructed and installed with platforms)		
	(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5]		
	Question relevant when: ${F4b} !=999		
Consented > Active > Tilapia farm cost of production > Cage Culture > Cage Fixed Costs > fishing gear costs (2)		(Repeated group)	
Group relevant when: not(selected(${F1b} , '5'))			
Consented > Active > Tilapia farm cost of production > Cage Culture > Cage Fixed Costs > fishing gear costs (2) > fishing-gearc			
Group relevant when: if(index() <= 4,selected(${F1b} ,index()),selected(${F1b} ,'777'))			
F4b *(required)*	Cost of purchase or rental/lease of (Canoe and accessories) (GHS)		
	Enter 999 and proceed if don't know		
	Response constrained to: (.>=1 and .<=500000) or .=999		
F5b *(required)*	Please specify if the cost given for (Canoe and accessories) is for 1 cage or all cage operations	1	Only 1 cage
	Question relevant when: ${F4b} !=999	2	All cages
		98	Not applicable
		777	Other (please specify)_____
F5bi *(required)*	Please specify the number of cages the cost given for (Canoe and accessories) covers		
	Question relevant when: selected(${F5b} , '777')		
F6b *(required)*	Please specify the number of years this cost applies to (Canoe and accessories)		
	(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5]		
	Question relevant when: ${F4b} !=999		
Consented > Active > Tilapia farm cost of production > Cage Culture > Cage Fixed Costs > fishing gear costs (3)		(Repeated group)	
Group relevant when: not(selected(${F1b} , '5'))			
Consented > Active > Tilapia farm cost of production > Cage Culture > Cage Fixed Costs > fishing gear costs (3) > fishing-gearc			
Group relevant when: if(index() <= 4,selected(${F1b} ,index()),selected(${F1b} ,'777'))			
F4b *(required)*	Cost of purchase or rental/lease of (Outboard motors) (GHS)		
	Enter 999 and proceed if don't know		
	Response constrained to: (.>=1 and .<=500000) or .=999		
F5b *(required)*	Please specify if the cost given for (Outboard motors) is for 1 cage or all cage operations	1	Only 1 cage
	Question relevant when: ${F4b} !=999	2	All cages
		98	Not applicable
		777	Other (please specify)_____
F5bi *(required)*	Please specify the number of cages the cost given for (Outboard motors) covers		

Field	Question	Answer
	Question relevant when: selected(${F5b} , '777')	
F6b *(required)*	Please specify the number of years this cost applies to (Outboard motors)	
	(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5]	
	Question relevant when: ${F4b} !=999	
Consented > Active > Tilapia farm cost of production > Cage Culture > Cage Fixed Costs > fishing gear costs (4)		(Repeated group)
Group relevant when: not(selected(${F1b} , '5'))		
Consented > Active > Tilapia farm cost of production > Cage Culture > Cage Fixed Costs > fishing gear costs (4) > fishing-gearc		
Group relevant when: if(index() <= 4,selected(${F1b} ,index()),selected(${F1b} ,'777'))		
F4b *(required)*	Cost of purchase or rental/lease of (Protective gears [life jackets, scoop nets etc.]) (GHS) *Enter 999 and proceed if don't know* *Response constrained to: (.>=1 and .<=500000) or .=999*	
F5b *(required)*	Please specify if the cost given for (Protective gears [life jackets, scoop nets etc.]) is for 1 cage or all cage operations *Question relevant when: ${F4b} !=999*	1 Only 1 cage 2 All cages 98 Not applicable 777 Other (please specify)_____
F5bi *(required)*	Please specify the number of cages the cost given for (Protective gears [life jackets, scoop nets etc.]) covers *Question relevant when: selected(${F5b} , '777')*	
F6b *(required)*	Please specify the number of years this cost applies to (Protective gears [life jackets, scoop nets etc.]) *(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5]* *Question relevant when: ${F4b} !=999*	
Consented > Active > Tilapia farm cost of production > Cage Culture > Cage Fixed Costs > fishing gear costs (5)		(Repeated group)
Group relevant when: not(selected(${F1b} , '5'))		
Consented > Active > Tilapia farm cost of production > Cage Culture > Cage Fixed Costs > fishing gear costs (5) > fishing-gearc		
Group relevant when: if(index() <= 4,selected(${F1b} ,index()),selected(${F1b} ,'777'))		
F4b *(required)*	Cost of purchase or rental/lease of ([fishing-gear_name]) (GHS) *Enter 999 and proceed if don't know* *Response constrained to: (.>=1 and .<=500000) or .=999*	
F5b *(required)*	Please specify if the cost given for ([fishing-gear_name]) is for 1 cage or all cage operations *Question relevant when: ${F4b} !=999*	1 Only 1 cage 2 All cages 98 Not applicable 777 Other (please specify)_____
F5bi *(required)*	Please specify the number of cages the cost given for ([fishing-gear_name]) covers *Question relevant when: selected(${F5b} , '777')*	
F6b *(required)*	Please specify the number of years this cost applies to ([fishing-gear_name]) *(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5]* *Question relevant when: ${F4b} !=999*	
F1c *(required)*	Please do you have the following machinery, equipment? *Please select all applicable* *Response constrained to: if(selected(. , '7'), count-selected(.) =1, count-selected(.) >=1)*	7 None 1 Generator 2 Ice making machine 3 Cold storage or cold chain 4 Deep freezer 5 Water quality equipment [including oxygen meter] 6 Security/monitoring equipment [CCTV camera, lights etc.] 777 Other (specify)__
F1c_i *(required)*	Specify machinery and equipment item *Question relevant when: selected(${F1c} , '777')*	
Consented > Active > Tilapia farm cost of production > Cage Culture > Cage Fixed Costs > machinery and equipment costs (1)		(Repeated group)
Group relevant when: not(selected(${F1c} , '7'))		
Consented > Active > Tilapia farm cost of production > Cage Culture > Cage Fixed Costs > machinery and equipment costs (1) > machinery-equipc		
Group relevant when: if(index() <= 6,selected(${F1c} ,index()),selected(${F1c} ,'777'))		
F4c *(required)*	Cost of purchase or rental/lease of (Generator) (GHS) *Enter 999 and proceed if don't know* *Response constrained to: (.>=1 and .<=500000) or .=999*	
F5c *(required)*	Please specify if the cost given for (Generator) is for 1 cage or all cage operations	1 Only 1 cage

Field	Question	Answer	
	Question relevant when: ${F4c} !=999	2	All cages
		98	Not applicable
		777	Other (please specify)_____
F5ci *(required)*	Please specify the number of cages the cost given for (Generator) covers		
	Question relevant when: selected(${F5c} , '777')		
F6c *(required)*	Please specify the number of years this cost applies to (Generator)		
	(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5]		
	Question relevant when: ${F4c} !=999		
Consented > Active > Tilapia farm cost of production > Cage Culture > Cage Fixed Costs > machinery and equipment costs (2)		(Repeated group)	
Group relevant when: not(selected(${F1c} , '7'))			
Consented > Active > Tilapia farm cost of production > Cage Culture > Cage Fixed Costs > machinery and equipment costs (2) > machinery-equipc			
Group relevant when: if(index() <= 6,selected(${F1c} ,index()),selected(${F1c} ,'777'))			
F4c *(required)*	Cost of purchase or rental/lease of (Ice making machine) (GHS)		
	Enter 999 and proceed if don't know		
	Response constrained to: (.>=1 and .<=500000) or .=999		
F5c *(required)*	Please specify if the cost given for (Ice making machine) is for 1 cage or all cage operations	1	Only 1 cage
	Question relevant when: ${F4c} !=999	2	All cages
		98	Not applicable
		777	Other (please specify)_____
F5ci *(required)*	Please specify the number of cages the cost given for (Ice making machine) covers		
	Question relevant when: selected(${F5c} , '777')		
F6c *(required)*	Please specify the number of years this cost applies to (Ice making machine)		
	(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5]		
	Question relevant when: ${F4c} !=999		
Consented > Active > Tilapia farm cost of production > Cage Culture > Cage Fixed Costs > machinery and equipment costs (3)		(Repeated group)	
Group relevant when: not(selected(${F1c} , '7'))			
Consented > Active > Tilapia farm cost of production > Cage Culture > Cage Fixed Costs > machinery and equipment costs (3) > machinery-equipc			
Group relevant when: if(index() <= 6,selected(${F1c} ,index()),selected(${F1c} ,'777'))			
F4c *(required)*	Cost of purchase or rental/lease of (Cold storage or cold chain) (GHS)		
	Enter 999 and proceed if don't know		
	Response constrained to: (.>=1 and .<=500000) or .=999		
F5c *(required)*	Please specify if the cost given for (Cold storage or cold chain) is for 1 cage or all cage operations	1	Only 1 cage
	Question relevant when: ${F4c} !=999	2	All cages
		98	Not applicable
		777	Other (please specify)_____
F5ci *(required)*	Please specify the number of cages the cost given for (Cold storage or cold chain) covers		
	Question relevant when: selected(${F5c} , '777')		
F6c *(required)*	Please specify the number of years this cost applies to (Cold storage or cold chain)		
	(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5]		
	Question relevant when: ${F4c} !=999		
Consented > Active > Tilapia farm cost of production > Cage Culture > Cage Fixed Costs > machinery and equipment costs (4)		(Repeated group)	
Group relevant when: not(selected(${F1c} , '7'))			
Consented > Active > Tilapia farm cost of production > Cage Culture > Cage Fixed Costs > machinery and equipment costs (4) > machinery-equipc			
Group relevant when: if(index() <= 6,selected(${F1c} ,index()),selected(${F1c} ,'777'))			
F4c *(required)*	Cost of purchase or rental/lease of (Deep freezer) (GHS)		
	Enter 999 and proceed if don't know		
	Response constrained to: (.>=1 and .<=500000) or .=999		
F5c *(required)*	Please specify if the cost given for (Deep freezer) is for 1 cage or all cage operations	1	Only 1 cage
	Question relevant when: ${F4c} !=999	2	All cages
		98	Not applicable
		777	Other (please specify)_____
F5ci *(required)*	Please specify the number of cages the cost given for (Deep freezer) covers		
	Question relevant when: selected(${F5c} , '777')		
F6c *(required)*	Please specify the number of years this cost applies to (Deep freezer)		
	(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5]		
	Question relevant when: ${F4c} !=999		
Consented > Active > Tilapia farm cost of production > Cage Culture > Cage Fixed Costs > machinery and equipment costs (5)		(Repeated group)	
Group relevant when: not(selected(${F1c} , '7'))			

Consented > Active > Tilapia farm cost of production > Cage Culture > Cage Fixed Costs > machinery and equipment costs (5) > machinery-equipc

	Group relevant when: if(index() <= 6,selected(${F1c} ,index()),selected(${F1c} , '777'))	
Field	**Question**	**Answer**
F4c *(required)*	Cost of purchase or rental/lease of (Water quality equipment [including oxygen meter]) (GHS)	
	Enter 999 and proceed if don't know	
	Response constrained to: (.>=1 and .<=500000) or .=999	

F5c *(required)*	Please specify if the cost given for (Water quality equipment [including oxygen meter]) is for 1 cage or all cage operations	1	Only 1 cage
	Question relevant when: ${F4c} !=999	2	All cages
		98	Not applicable
		777	Other (please specify)_____

F5ci *(required)*	Please specify the number of cages the cost given for (Water quality equipment [including oxygen meter]) covers	
	Question relevant when: selected(${F5c} , '777')	

F6c *(required)*	Please specify the number of years this cost applies to (Water quality equipment [including oxygen meter])	
	(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5]	
	Question relevant when: ${F4c} !=999	

Consented > Active > Tilapia farm cost of production > Cage Culture > Cage Fixed Costs > machinery and equipment costs (6)	*(Repeated group)*
Group relevant when: not(selected(${F1c} , '7'))	

Consented > Active > Tilapia farm cost of production > Cage Culture > Cage Fixed Costs > machinery and equipment costs (6) > machinery-equipc	
Group relevant when: if(index() <= 6,selected(${F1c} ,index()),selected(${F1c} , '777'))	

F4c *(required)*	Cost of purchase or rental/lease of (Security/monitoring equipment [CCTV camera, lights etc.]) (GHS)	
	Enter 999 and proceed if don't know	
	Response constrained to: (.>=1 and .<=500000) or .=999	

F5c *(required)*	Please specify if the cost given for (Security/monitoring equipment [CCTV camera, lights etc.]) is for 1 cage or all cage operations	1	Only 1 cage
	Question relevant when: ${F4c} !=999	2	All cages
		98	Not applicable
		777	Other (please specify)_____

F5ci *(required)*	Please specify the number of cages the cost given for (Security/monitoring equipment [CCTV camera, lights etc.]) covers	
	Question relevant when: selected(${F5c} , '777')	

F6c *(required)*	Please specify the number of years this cost applies to (Security/monitoring equipment [CCTV camera, lights etc.])	
	(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5]	
	Question relevant when: ${F4c} !=999	

Consented > Active > Tilapia farm cost of production > Cage Culture > Cage Fixed Costs > machinery and equipment costs (7)	*(Repeated group)*
Group relevant when: not(selected(${F1c} , '7'))	

Consented > Active > Tilapia farm cost of production > Cage Culture > Cage Fixed Costs > machinery and equipment costs (7) > machinery-equipc	
Group relevant when: if(index() <= 6,selected(${F1c} ,index()),selected(${F1c} , '777'))	

F4c *(required)*	Cost of purchase or rental/lease of ([mach-equip_name]) (GHS)	
	Enter 999 and proceed if don't know	
	Response constrained to: (.>=1 and .<=500000) or .=999	

F5c *(required)*	Please specify if the cost given for ([mach-equip_name]) is for 1 cage or all cage operations	1	Only 1 cage
	Question relevant when: ${F4c} !=999	2	All cages
		98	Not applicable
		777	Other (please specify)_____

F5ci *(required)*	Please specify the number of cages the cost given for ([mach-equip_name]) covers	
	Question relevant when: selected(${F5c} , '777')	

F6c *(required)*	Please specify the number of years this cost applies to ([mach-equip_name])	
	(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5]	
	Question relevant when: ${F4c} !=999	

F1d *(required)*	Please do you have the following permits?	6	None
	Please select all applicable	1	Environmental permit
	Response constrained to: if(selected(. , '6'), count-selected(.) =1, count-selected(.) >=1)	2	Water use permit from Water Resources Commission (WRC)
		3	Operational permit from FC
		4	District assembly permit
		5	Volta River Authority (VRA) water allocation permit
		777	Other (specify)__

F1d_i *(required)*	Please specify permit	

Field	Question	Answer

Question relevant when: selected(${F1d} , '777')

Consented > Active > Tilapia farm cost of production > Cage Culture > Cage Fixed Costs > permits costs (1) | (Repeated group)

Group relevant when: not(selected(${F1d} , '6'))

Consented > Active > Tilapia farm cost of production > Cage Culture > Cage Fixed Costs > permits costs (1) > permitsc

Group relevant when: if(index() <= 5,selected(${F1d} ,index()),selected(${F1d} ,'777'))

Field	Question	Answer	
F3d *(required)*	Is the respondent able to show any proof/document for (Environmental permit)?	1	Yes
		0	No
F3di *(required)*	What is the reason why respondent was unable to show proof/documentation? *Question relevant when: selected(${F3d} , '0')*		
F4d *(required)*	What is the cost of acquiring (Environmental permit) (GHS) *Enter 999 and proceed if don't know* *Response constrained to: (.>=1 and .<=500000) or .=999*		
F5d *(required)*	Please specify if the cost given for (Environmental permit) is for 1 cage or all cage operations *Question relevant when: ${F4d} !=999*	1	Only 1 cage
		2	All cages
		98	Not applicable
		777	Other (please specify)_____
F5di *(required)*	Please specify the number of cages the cost given for (Environmental permit) covers *Question relevant when: selected(${F5d} , '777')*		
F6d *(required)*	Please specify the number of years this cost applies to (Environmental permit) *(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5]* *Question relevant when: ${F4d} !=999*		

Consented > Active > Tilapia farm cost of production > Cage Culture > Cage Fixed Costs > permits costs (2) | (Repeated group)

Group relevant when: not(selected(${F1d} , '6'))

Consented > Active > Tilapia farm cost of production > Cage Culture > Cage Fixed Costs > permits costs (2) > permitsc

Group relevant when: if(index() <= 5,selected(${F1d} ,index()),selected(${F1d} ,'777'))

Field	Question	Answer	
F3d *(required)*	Is the respondent able to show any proof/document for (Water use permit from Water Resources Commission (WRC))?	1	Yes
		0	No
F3di *(required)*	What is the reason why respondent was unable to show proof/documentation? *Question relevant when: selected(${F3d} , '0')*		
F4d *(required)*	What is the cost of acquiring (Water use permit from Water Resources Commission (WRC)) (GHS) *Enter 999 and proceed if don't know* *Response constrained to: (.>=1 and .<=500000) or .=999*		
F5d *(required)*	Please specify if the cost given for (Water use permit from Water Resources Commission (WRC)) is for 1 cage or all cage operations *Question relevant when: ${F4d} !=999*	1	Only 1 cage
		2	All cages
		98	Not applicable
		777	Other (please specify)_____
F5di *(required)*	Please specify the number of cages the cost given for (Water use permit from Water Resources Commission (WRC)) covers *Question relevant when: selected(${F5d} , '777')*		
F6d *(required)*	Please specify the number of years this cost applies to (Water use permit from Water Resources Commission (WRC)) *(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5]* *Question relevant when: ${F4d} !=999*		

Consented > Active > Tilapia farm cost of production > Cage Culture > Cage Fixed Costs > permits costs (3) | (Repeated group)

Group relevant when: not(selected(${F1d} , '6'))

Consented > Active > Tilapia farm cost of production > Cage Culture > Cage Fixed Costs > permits costs (3) > permitsc

Group relevant when: if(index() <= 5,selected(${F1d} ,index()),selected(${F1d} ,'777'))

Field	Question	Answer	
F3d *(required)*	Is the respondent able to show any proof/document for (Operational permit from FC)?	1	Yes
		0	No
F3di *(required)*	What is the reason why respondent was unable to show proof/documentation? *Question relevant when: selected(${F3d} , '0')*		
F4d *(required)*	What is the cost of acquiring (Operational permit from FC) (GHS) *Enter 999 and proceed if don't know* *Response constrained to: (.>=1 and .<=500000) or .=999*		
F5d *(required)*	Please specify if the cost given for (Operational permit from FC) is for 1 cage or all cage operations *Question relevant when: ${F4d} !=999*	1	Only 1 cage
		2	All cages
		98	Not applicable
		777	Other (please specify)_____
F5di *(required)*	Please specify the number of cages the cost given for (Operational permit from FC) covers		

Field	Question	Answer
	Question relevant when: selected(${F5d} , '777')	
F6d *(required)*	Please specify the number of years this cost applies to (Operational permit from FC)	
	(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5]	
	Question relevant when: ${F4d} !=999	
Consented > Active > Tilapia farm cost of production > Cage Culture > Cage Fixed Costs > permits costs (4)		(Repeated group)
Group relevant when: not(selected(${F1d} , '6'))		
Consented > Active > Tilapia farm cost of production > Cage Culture > Cage Fixed Costs > permits costs (4) > permitsc		
Group relevant when: if(index() <= 5,selected(${F1d} ,index()),selected(${F1d} ,'777'))		
F3d *(required)*	Is the respondent able to show any proof/document for (District assembly permit)?	1	Yes
		0	No
F3di *(required)*	What is the reason why respondent was unable to show proof/documentation?	
	Question relevant when: selected(${F3d} , '0')	
F4d *(required)*	What is the cost of acquiring (District assembly permit) (GHS)	
	Enter 999 and proceed if don't know	
	Response constrained to: (.>=1 and .<=500000) or .=999	
F5d *(required)*	Please specify if the cost given for (District assembly permit) is for 1 cage or all cage operations	1	Only 1 cage
	Question relevant when: ${F4d} !=999	2	All cages
		98	Not applicable
		777	Other (please specify)_____
F5di *(required)*	Please specify the number of cages the cost given for (District assembly permit) covers	
	Question relevant when: selected(${F5d} , '777')	
F6d *(required)*	Please specify the number of years this cost applies to (District assembly permit)	
	(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5]	
	Question relevant when: ${F4d} !=999	
Consented > Active > Tilapia farm cost of production > Cage Culture > Cage Fixed Costs > permits costs (5)		(Repeated group)
Group relevant when: not(selected(${F1d} , '6'))		
Consented > Active > Tilapia farm cost of production > Cage Culture > Cage Fixed Costs > permits costs (5) > permitsc		
Group relevant when: if(index() <= 5,selected(${F1d} ,index()),selected(${F1d} ,'777'))		
F3d *(required)*	Is the respondent able to show any proof/document for (Volta River Authority (VRA) water allocation permit)?	1	Yes
		0	No
F3di *(required)*	What is the reason why respondent was unable to show proof/documentation?	
	Question relevant when: selected(${F3d} , '0')	
F4d *(required)*	What is the cost of acquiring (Volta River Authority (VRA) water allocation permit) (GHS)	
	Enter 999 and proceed if don't know	
	Response constrained to: (.>=1 and .<=500000) or .=999	
F5d *(required)*	Please specify if the cost given for (Volta River Authority (VRA) water allocation permit) is for 1 cage or all cage operations	1	Only 1 cage
		2	All cages
	Question relevant when: ${F4d} !=999	98	Not applicable
		777	Other (please specify)_____
F5di *(required)*	Please specify the number of cages the cost given for (Volta River Authority (VRA) water allocation permit) covers	
	Question relevant when: selected(${F5d} , '777')	
F6d *(required)*	Please specify the number of years this cost applies to (Volta River Authority (VRA) water allocation permit)	
	(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5]	
	Question relevant when: ${F4d} !=999	
Consented > Active > Tilapia farm cost of production > Cage Culture > Cage Fixed Costs > permits costs (6)		(Repeated group)
Group relevant when: not(selected(${F1d} , '6'))		
Consented > Active > Tilapia farm cost of production > Cage Culture > Cage Fixed Costs > permits costs (6) > permitsc		
Group relevant when: if(index() <= 5,selected(${F1d} ,index()),selected(${F1d} ,'777'))		
F3d *(required)*	Is the respondent able to show any proof/document for ([permits_name])?	1	Yes
		0	No
F3di *(required)*	What is the reason why respondent was unable to show proof/documentation?	
	Question relevant when: selected(${F3d} , '0')	
F4d *(required)*	What is the cost of acquiring ([permits_name]) (GHS)	
	Enter 999 and proceed if don't know	
	Response constrained to: (.>=1 and .<=500000) or .=999	
F5d *(required)*	Please specify if the cost given for ([permits_name]) is for 1 cage or all cage operations	1	Only 1 cage

Field	Question	Answer	
	Question relevant when: ${F4d} !=999	2	All cages
		98	Not applicable
		777	Other (please specify)_____
F5di *(required)*	Please specify the number of cages the cost given for ([permits_name]) covers *Question relevant when: selected(${F5d} , '777')*		
F6d *(required)*	Please specify the number of years this cost applies to ([permits_name]) *(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5]* *Question relevant when: ${F4d} !=999*		
F1e *(required)*	Please do you have the following other tools? *Please select all applicable* *Response constrained to: if(selected(. , '4'), count-selected(.) =1, count-selected(.) >=1)*	4	None
		1	Pelleting machine
		2	Vehicles
		3	Incubator or incubation system
		777	Other (specify)___
F1e_i *(required)*	Please specify other tool *Question relevant when: selected(${F1e} , '777')*		
Consented > Active > Tilapia farm cost of production > Cage Culture > Cage Fixed Costs > other tools costs (1) *Group relevant when: not(selected(${F1e} , '3'))*		(Repeated group)	
Consented > Active > Tilapia farm cost of production > Cage Culture > Cage Fixed Costs > other tools costs (1) > other-toolsc *Group relevant when: if(index() <= 3,selected(${F1e} ,index()),selected(${F1e} ,'777'))*			
F4e *(required)*	Cost of purchase or rental/lease of (Pelleting machine) (GHS) *Enter 999 and proceed if don't know* *Response constrained to: (.>=1 and .<=500000) or .=999*		
F5e *(required)*	Please specify if the cost given for (Pelleting machine) is for 1 cage or all cage operations *Question relevant when: ${F4e} !=999*	1	Only 1 cage
		2	All cages
		98	Not applicable
		777	Other (please specify)_____
F5ei *(required)*	Please specify the number of cages the cost given for (Pelleting machine) covers *Question relevant when: selected(${F5e} , '777')*		
F6e *(required)*	Please specify the number of years this cost applies to (Pelleting machine) *(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5]* *Question relevant when: ${F4e} !=999*		
Consented > Active > Tilapia farm cost of production > Cage Culture > Cage Fixed Costs > other tools costs (2) *Group relevant when: not(selected(${F1e} , '3'))*		(Repeated group)	
Consented > Active > Tilapia farm cost of production > Cage Culture > Cage Fixed Costs > other tools costs (2) > other-toolsc *Group relevant when: if(index() <= 3,selected(${F1e} ,index()),selected(${F1e} ,'777'))*			
F4e *(required)*	Cost of purchase or rental/lease of (Vehicles) (GHS) *Enter 999 and proceed if don't know* *Response constrained to: (.>=1 and .<=500000) or .=999*		
F5e *(required)*	Please specify if the cost given for (Vehicles) is for 1 cage or all cage operations *Question relevant when: ${F4e} !=999*	1	Only 1 cage
		2	All cages
		98	Not applicable
		777	Other (please specify)_____
F5ei *(required)*	Please specify the number of cages the cost given for (Vehicles) covers *Question relevant when: selected(${F5e} , '777')*		
F6e *(required)*	Please specify the number of years this cost applies to (Vehicles) *(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5]* *Question relevant when: ${F4e} !=999*		
Consented > Active > Tilapia farm cost of production > Cage Culture > Cage Fixed Costs > other tools costs (3) *Group relevant when: not(selected(${F1e} , '3'))*		(Repeated group)	
Consented > Active > Tilapia farm cost of production > Cage Culture > Cage Fixed Costs > other tools costs (3) > other-toolsc *Group relevant when: if(index() <= 3,selected(${F1e} ,index()),selected(${F1e} ,'777'))*			
F4e *(required)*	Cost of purchase or rental/lease of (Incubator or incubation system) (GHS) *Enter 999 and proceed if don't know* *Response constrained to: (.>=1 and .<=500000) or .=999*		
F5e *(required)*	Please specify if the cost given for (Incubator or incubation system) is for 1 cage or all cage operations *Question relevant when: ${F4e} !=999*	1	Only 1 cage
		2	All cages
		98	Not applicable
		777	Other (please specify)_____
F5ei *(required)*	Please specify the number of cages the cost given for (Incubator or incubation system) covers		

Field	Question	Answer
	Question relevant when: selected(${F5e} , '777')	
F6e *(required)*	Please specify the number of years this cost applies to (Incubator or incubation system)	
	(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5]	
	Question relevant when: ${F4e} !=999	
Consented > Active > Tilapia farm cost of production > Cage Culture > Cage Fixed Costs > other tools costs (4)		(Repeated group)
Group relevant when: not(selected(${F1e} , '3'))		
Consented > Active > Tilapia farm cost of production > Cage Culture > Cage Fixed Costs > other tools costs (4) > other-toolsc		
Group relevant when: if(index() <= 3,selected(${F1e} ,index()),selected(${F1e} ,'777'))		
F4e *(required)*	Cost of purchase or rental/lease of ([othertools_name]) (GHS) *Enter 999 and proceed if don't know* *Response constrained to: (.>=1 and .<=500000) or .=999*	
F5e *(required)*	Please specify if the cost given for ([othertools_name]) is for 1 cage or all cage operations *Question relevant when: ${F4e} !=999*	1 Only 1 cage 2 All cages 98 Not applicable 777 Other (please specify)_____
F5ei *(required)*	Please specify the number of cages the cost given for ([othertools_name]) covers *Question relevant when: selected(${F5e} , '777')*	
F6e *(required)*	Please specify the number of years this cost applies to ([othertools_name]) *(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5]* *Question relevant when: ${F4e} !=999*	
F8 *(required)*	Please did you purchase or use any of the following items last full production season/cycle (5-6 months)?	1 Fingerling/broodstock (pieces) 2 Starter Feed 3 Grow-out Feed 4 Chemicals (salts, potassium permanganate) 5 Drugs (antibiotics, etc.) 6 Hormones 7 Vaccines 8 Fuel 9 Transportation cost (aside fuel cost) 10 Electricity (e.g. cold storage) 11 Disinfectants 12 New anchor to re-position cage (items purchased aside labor) 13 Items purchased for pond Mending of nets (items purchased aside labor cost) 14 Re-fabricating galvanized pipes (items purchased aside labor cost) 15 Replacement of worn-out barrels 777 Other (please specify)___
F8i *(required)*	Please specify item purchased *Question relevant when: selected(${F8} , '777')*	
Consented > Active > Tilapia farm cost of production > Cage Culture > Fingerling/broodstock (pieces) (1)		(Repeated group)
Consented > Active > Tilapia farm cost of production > Cage Culture > Fingerling/broodstock (pieces) (1) > operations-costc		
Group relevant when: if(index() <= 15,selected(${F8} ,index()),selected(${F8} ,'777'))		
cg_quantity *(required)*	What quantity/amount of (Fingerling/broodstock (pieces)) did you use in last production season/cycle? *If item was purchased in bulk without a defined unit, enter 1 for Quantity*	
cg_unit *(required)*	Unit for quantity of (Fingerling/broodstock (pieces)) used *If item was purchased in bulk without a defined unit, enter 1 for Quantity, select bulk purchase for Unit*	1 1kg 2 20kg 3 50kg 4 Litre(s) 5 Bulk purchase in GHS (One time payment) 6 Piece(s) 7 Gallon(s) 8 Gram(s) 777 Other (specify)____
cg_unit_i *(required)*	Please specify unit *Question relevant when: selected(${cg_unit} , '777')*	
cg_cost *(required)*	What is the cost per unit (GHS/unit) of (Fingerling/broodstock (pieces)) used?	

Field	Question	Answer		
	If item was purchased in bulk without a defined unit, enter 1 for Quantity, select bulk purchase for Unit and enter total cost here...			
cg_totalcost	GHC [totalvc_cage]			
	Total cost of Fingerling/broodstock (pieces) (GHS)			
Consented > Active > Tilapia farm cost of production > Cage Culture > Starter Feed (2)		(Repeated group)		
Consented > Active > Tilapia farm cost of production > Cage Culture > Starter Feed (2) > operations-costc				
Group relevant when: if(index() <= 15,selected(${F8} ,index()),selected(${F8} ,'777'))				
cg_quantity *(required)*	What quantity/amount of (**Starter Feed**) did you use in last production season/cycle? *If item was purchased in bulk without a defined unit, enter 1 for Quantity*			
cg_unit *(required)*	Unit for quantity of (**Starter Feed**) used *If item was purchased in bulk without a defined unit, enter 1 for Quantity, select bulk purchase for Unit*	1	1kg	
		2	20kg	
		3	50kg	
		4	Litre(s)	
		5	Bulk purchase in GHS (One time payment)	
		6	Piece(s)	
		7	Gallon(s)	
		8	Gram(s)	
		777	Other (specify)_____	
cg_unit_i *(required)*	Please specify unit *Question relevant when: selected(${cg_unit} , '777')*			
cg_cost *(required)*	What is the cost per unit (GHS/unit) of (**Starter Feed**) used? *If item was purchased in bulk without a defined unit, enter 1 for Quantity, select bulk purchase for Unit and enter total cost here...*			
cg_totalcost	GHC [totalvc_cage]			
	Total cost of Starter Feed (GHS)			
Consented > Active > Tilapia farm cost of production > Cage Culture > Grow-out Feed (3)		(Repeated group)		
Consented > Active > Tilapia farm cost of production > Cage Culture > Grow-out Feed (3) > operations-costc				
Group relevant when: if(index() <= 15,selected(${F8} ,index()),selected(${F8} ,'777'))				
cg_quantity *(required)*	What quantity/amount of (**Grow-out Feed**) did you use in last production season/cycle? *If item was purchased in bulk without a defined unit, enter 1 for Quantity*			
cg_unit *(required)*	Unit for quantity of (**Grow-out Feed**) used *If item was purchased in bulk without a defined unit, enter 1 for Quantity, select bulk purchase for Unit*	1	1kg	
		2	20kg	
		3	50kg	
		4	Litre(s)	
		5	Bulk purchase in GHS (One time payment)	
		6	Piece(s)	
		7	Gallon(s)	
		8	Gram(s)	
		777	Other (specify)_____	
cg_unit_i *(required)*	Please specify unit *Question relevant when: selected(${cg_unit} , '777')*			
cg_cost *(required)*	What is the cost per unit (GHS/unit) of (**Grow-out Feed**) used? *If item was purchased in bulk without a defined unit, enter 1 for Quantity, select bulk purchase for Unit and enter total cost here...*			
cg_totalcost	GHC [totalvc_cage]			
	Total cost of Grow-out Feed (GHS)			
Consented > Active > Tilapia farm cost of production > Cage Culture > Chemicals (salts, potassium permanganate) (4)		(Repeated group)		
Consented > Active > Tilapia farm cost of production > Cage Culture > Chemicals (salts, potassium permanganate) (4) > operations-costc				
Group relevant when: if(index() <= 15,selected(${F8} ,index()),selected(${F8} ,'777'))				
cg_quantity *(required)*	What quantity/amount of (**Chemicals (salts, potassium permanganate)**) did you use in last production season/cycle? *If item was purchased in bulk without a defined unit, enter 1 for Quantity*			
cg_unit *(required)*	Unit for quantity of (**Chemicals (salts, potassium permanganate)**) used *If item was purchased in bulk without a defined unit, enter 1 for Quantity, select bulk purchase for Unit*	1	1kg	
		2	20kg	
		3	50kg	
		4	Litre(s)	
		5	Bulk purchase in GHS (One time payment)	
		6	Piece(s)	
		7	Gallon(s)	
		8	Gram(s)	
		777	Other (specify)_____	
cg_unit_i *(required)*	Please specify unit *Question relevant when: selected(${cg_unit} , '777')*			
cg_cost *(required)*	What is the cost per unit (GHS/unit) of (**Chemicals (salts, potassium permanganate)**) used?			

Field	Question	Answer
	If item was purchased in bulk without a defined unit, enter 1 for Quantity, select bulk purchase for Unit and enter total cost here...	
cg_totalcost	GHC [totalvc_cage]	
	Total cost of Chemicals (salts, potassium permanganate) (GHS)	

Consented > Active > Tilapia farm cost of production > Cage Culture > Drugs (antibiotics, etc.) (5)		(Repeated group)

Consented > Active > Tilapia farm cost of production > Cage Culture > Drugs (antibiotics, etc.) (5) > operations-costc

Group relevant when: if(index() <= 15,selected(${F8} ,index()),selected(${F8} ,'777'))

Field	Question		Answer
cg_quantity *(required)*	What quantity/amount of (Drugs (antibiotics, etc.)) did you use in last production season/cycle? *If item was purchased in bulk without a defined unit, enter 1 for Quantity*		
cg_unit *(required)*	Unit for quantity of (Drugs (antibiotics, etc.)) used *If item was purchased in bulk without a defined unit, enter 1 for Quantity, select bulk purchase for Unit*	1	1kg
		2	20kg
		3	50kg
		4	Litre(s)
		5	Bulk purchase in GHS (One time payment)
		6	Piece(s)
		7	Gallon(s)
		8	Gram(s)
		777	Other (specify)____
cg_unit_i *(required)*	Please specify unit *Question relevant when: selected(${cg_unit} , '777')*		
cg_cost *(required)*	What is the cost per unit (GHS/unit) of (Drugs (antibiotics, etc.)) used? *If item was purchased in bulk without a defined unit, enter 1 for Quantity, select bulk purchase for Unit and enter total cost here...*		
cg_totalcost	GHC [totalvc_cage] *Total cost of Drugs (antibiotics, etc.) (GHS)*		

Consented > Active > Tilapia farm cost of production > Cage Culture > Hormones (6)		(Repeated group)

Consented > Active > Tilapia farm cost of production > Cage Culture > Hormones (6) > operations-costc

Group relevant when: if(index() <= 15,selected(${F8} ,index()),selected(${F8} ,'777'))

Field	Question		Answer
cg_quantity *(required)*	What quantity/amount of (Hormones) did you use in last production season/cycle? *If item was purchased in bulk without a defined unit, enter 1 for Quantity*		
cg_unit *(required)*	Unit for quantity of (Hormones) used *If item was purchased in bulk without a defined unit, enter 1 for Quantity, select bulk purchase for Unit*	1	1kg
		2	20kg
		3	50kg
		4	Litre(s)
		5	Bulk purchase in GHS (One time payment)
		6	Piece(s)
		7	Gallon(s)
		8	Gram(s)
		777	Other (specify)____
cg_unit_i *(required)*	Please specify unit *Question relevant when: selected(${cg_unit} , '777')*		
cg_cost *(required)*	What is the cost per unit (GHS/unit) of (Hormones) used? *If item was purchased in bulk without a defined unit, enter 1 for Quantity, select bulk purchase for Unit and enter total cost here...*		
cg_totalcost	GHC [totalvc_cage] *Total cost of Hormones (GHS)*		

Consented > Active > Tilapia farm cost of production > Cage Culture > Vaccines (7)		(Repeated group)

Consented > Active > Tilapia farm cost of production > Cage Culture > Vaccines (7) > operations-costc

Group relevant when: if(index() <= 15,selected(${F8} ,index()),selected(${F8} ,'777'))

Field	Question		Answer
cg_quantity *(required)*	What quantity/amount of (Vaccines) did you use in last production season/cycle? *If item was purchased in bulk without a defined unit, enter 1 for Quantity*		
cg_unit *(required)*	Unit for quantity of (Vaccines) used *If item was purchased in bulk without a defined unit, enter 1 for Quantity, select bulk purchase for Unit*	1	1kg
		2	20kg
		3	50kg
		4	Litre(s)
		5	Bulk purchase in GHS (One time payment)
		6	Piece(s)
		7	Gallon(s)
		8	Gram(s)
		777	Other (specify)____
cg_unit_i *(required)*	Please specify unit *Question relevant when: selected(${cg_unit} , '777')*		
cg_cost *(required)*	What is the cost per unit (GHS/unit) of (Vaccines) used? *If item was purchased in bulk without a defined unit, enter 1 for Quantity, select bulk purchase for Unit and enter total cost here...*		
cg_totalcost	GHC [totalvc_cage]		

Field	Question	Answer
	Total cost of Vaccines (GHS)	
Consented > Active > Tilapia farm cost of production > Cage Culture > Fuel (8)		(Repeated group)
Consented > Active > Tilapia farm cost of production > Cage Culture > Fuel (8) > operations-costc		
Group relevant when: if(index() <= 15,selected(${F8} ,index()),selected(${F8} ,'777'))		
cg_quantity *(required)*	What quantity/amount of (Fuel) did you use in last production season/cycle? *If item was purchased in bulk without a defined unit, enter 1 for Quantity*	
cg_unit *(required)*	Unit for quantity of (Fuel) used *If item was purchased in bulk without a defined unit, enter 1 for Quantity, select bulk purchase for Unit*	1 1kg / 2 20kg / 3 50kg / 4 Litre(s) / 5 Bulk purchase in GHS (One time payment) / 6 Piece(s) / 7 Gallon(s) / 8 Gram(s) / 777 Other (specify)____
cg_unit_i *(required)*	Please specify unit *Question relevant when: selected(${cg_unit} , '777')*	
cg_cost *(required)*	What is the cost per unit (GHS/unit) of (Fuel) used? *If item was purchased in bulk without a defined unit, enter 1 for Quantity, select bulk purchase for Unit and enter total cost here...*	
cg_totalcost	GHC [totalvc_cage] *Total cost of Fuel (GHS)*	
Consented > Active > Tilapia farm cost of production > Cage Culture > Transportation cost (aside fuel cost) (9)		(Repeated group)
Consented > Active > Tilapia farm cost of production > Cage Culture > Transportation cost (aside fuel cost) (9) > operations-costc		
Group relevant when: if(index() <= 15,selected(${F8} ,index()),selected(${F8} ,'777'))		
cg_quantity *(required)*	What quantity/amount of (Transportation cost (aside fuel cost)) did you use in last production season/cycle? *If item was purchased in bulk without a defined unit, enter 1 for Quantity*	
cg_unit *(required)*	Unit for quantity of (Transportation cost (aside fuel cost)) used *If item was purchased in bulk without a defined unit, enter 1 for Quantity, select bulk purchase for Unit*	1 1kg / 2 20kg / 3 50kg / 4 Litre(s) / 5 Bulk purchase in GHS (One time payment) / 6 Piece(s) / 7 Gallon(s) / 8 Gram(s) / 777 Other (specify)____
cg_unit_i *(required)*	Please specify unit *Question relevant when: selected(${cg_unit} , '777')*	
cg_cost *(required)*	What is the cost per unit (GHS/unit) of (Transportation cost (aside fuel cost)) used? *If item was purchased in bulk without a defined unit, enter 1 for Quantity, select bulk purchase for Unit and enter total cost here...*	
cg_totalcost	GHC [totalvc_cage] *Total cost of Transportation cost (aside fuel cost) (GHS)*	
Consented > Active > Tilapia farm cost of production > Cage Culture > Electricity (e.g. cold storage) (10)		(Repeated group)
Consented > Active > Tilapia farm cost of production > Cage Culture > Electricity (e.g. cold storage) (10) > operations-costc		
Group relevant when: if(index() <= 15,selected(${F8} ,index()),selected(${F8} ,'777'))		
cg_quantity *(required)*	What quantity/amount of (Electricity (e.g. cold storage)) did you use in last production season/cycle? *If item was purchased in bulk without a defined unit, enter 1 for Quantity*	
cg_unit *(required)*	Unit for quantity of (Electricity (e.g. cold storage)) used *If item was purchased in bulk without a defined unit, enter 1 for Quantity, select bulk purchase for Unit*	1 1kg / 2 20kg / 3 50kg / 4 Litre(s) / 5 Bulk purchase in GHS (One time payment) / 6 Piece(s) / 7 Gallon(s) / 8 Gram(s) / 777 Other (specify)____
cg_unit_i *(required)*	Please specify unit *Question relevant when: selected(${cg_unit} , '777')*	
cg_cost *(required)*	What is the cost per unit (GHS/unit) of (Electricity (e.g. cold storage)) used? *If item was purchased in bulk without a defined unit, enter 1 for Quantity, select bulk purchase for Unit and enter total cost here...*	
cg_totalcost	GHC [totalvc_cage]	

Field	Question	Answer
	Total cost of Electricity (e.g. cold storage) (GHS)	
Consented > Active > Tilapia farm cost of production > Cage Culture > Disinfectants (11)		(Repeated group)
Consented > Active > Tilapia farm cost of production > Cage Culture > Disinfectants (11) > operations-costc		
Group relevant when: if(index() <= 15,selected(${F8} ,index()),selected(${F8} ,'777'))		

Field	Question	Answer		
cg_quantity *(required)*	What quantity/amount of (**Disinfectants**) did you use in last production season/cycle? *If item was purchased in bulk without a defined unit, enter 1 for Quantity*			
cg_unit *(required)*	Unit for quantity of (**Disinfectants**) used *If item was purchased in bulk without a defined unit, enter 1 for Quantity, select bulk purchase for Unit*	1	1kg	
		2	20kg	
		3	50kg	
		4	Litre(s)	
		5	Bulk purchase in GHS (One time payment)	
		6	Piece(s)	
		7	Gallon(s)	
		8	Gram(s)	
		777	Other (specify)____	
cg_unit_i *(required)*	Please specify unit *Question relevant when: selected(${cg_unit} , '777')*			
cg_cost *(required)*	What is the cost per unit (GHS/unit) of (**Disinfectants**) used? *If item was purchased in bulk without a defined unit, enter 1 for Quantity, select bulk purchase for Unit and enter total cost here...*			
cg_totalcost	GHC [totalvc_cage] *Total cost of Disinfectants (GHS)*			
Consented > Active > Tilapia farm cost of production > Cage Culture > New anchor to re-position cage (items purchased aside labor) (12)		(Repeated group)		
Consented > Active > Tilapia farm cost of production > Cage Culture > New anchor to re-position cage (items purchased aside labor) (12) > operations-costc				
Group relevant when: if(index() <= 15,selected(${F8} ,index()),selected(${F8} ,'777'))				
cg_quantity *(required)*	What quantity/amount of (**New anchor to re-position cage (items purchased aside labor)**) did you use in last production season/cycle? *If item was purchased in bulk without a defined unit, enter 1 for Quantity*			
cg_unit *(required)*	Unit for quantity of (**New anchor to re-position cage (items purchased aside labor)**) used *If item was purchased in bulk without a defined unit, enter 1 for Quantity, select bulk purchase for Unit*	1	1kg	
		2	20kg	
		3	50kg	
		4	Litre(s)	
		5	Bulk purchase in GHS (One time payment)	
		6	Piece(s)	
		7	Gallon(s)	
		8	Gram(s)	
		777	Other (specify)____	
cg_unit_i *(required)*	Please specify unit *Question relevant when: selected(${cg_unit} , '777')*			
cg_cost *(required)*	What is the cost per unit (GHS/unit) of (**New anchor to re-position cage (items purchased aside labor)**) used? *If item was purchased in bulk without a defined unit, enter 1 for Quantity, select bulk purchase for Unit and enter total cost here...*			
cg_totalcost	GHC [totalvc_cage] *Total cost of New anchor to re-position cage (items purchased aside labor) (GHS)*			
Consented > Active > Tilapia farm cost of production > Cage Culture > Items purchased for pond Mending of nets (items purchased aside labor cost) (13)		(Repeated group)		
Consented > Active > Tilapia farm cost of production > Cage Culture > Items purchased for pond Mending of nets (items purchased aside labor cost) (13) > operations-costc				
Group relevant when: if(index() <= 15,selected(${F8} ,index()),selected(${F8} ,'777'))				
cg_quantity *(required)*	What quantity/amount of (**Items purchased for pond Mending of nets (items purchased aside labor cost)**) did you use in last production season/cycle? *If item was purchased in bulk without a defined unit, enter 1 for Quantity*			
cg_unit *(required)*	Unit for quantity of (**Items purchased for pond Mending of nets (items purchased aside labor cost)**) used *If item was purchased in bulk without a defined unit, enter 1 for Quantity, select bulk purchase for Unit*	1	1kg	
		2	20kg	
		3	50kg	
		4	Litre(s)	
		5	Bulk purchase in GHS (One time payment)	
		6	Piece(s)	
		7	Gallon(s)	
		8	Gram(s)	
		777	Other (specify)____	
cg_unit_i *(required)*	Please specify unit *Question relevant when: selected(${cg_unit} , '777')*			
cg_cost *(required)*	What is the cost per unit (GHS/unit) of (Items purchased for pond Mending of nets (items			

Field	Question	Answer		
	purchased aside labor cost)) used? *If item was purchased in bulk without a defined unit, enter 1 for Quantity, select bulk purchase for Unit and enter total cost here...*			
cg_totalcost	GHC [totalvc_cage] *Total cost of Items purchased for pond Mending of nets (items purchased aside labor cost) (GHS)*			
Consented > Active > Tilapia farm cost of production > Cage Culture > Re-fabricating galvanized pipes (items purchased aside labor cost) (14)		(Repeated group)		
Consented > Active > Tilapia farm cost of production > Cage Culture > Re-fabricating galvanized pipes (items purchased aside labor cost) (14) > operations-costc				
Group relevant when: if(index() <= 15,selected(${F8} ,index()),selected(${F8} ,'777'))				
cg_quantity *(required)*	What quantity/amount of (Re-fabricating galvanized pipes (items purchased aside labor cost)) did you use in last production season/cycle? *If item was purchased in bulk without a defined unit, enter 1 for Quantity*			
cg_unit *(required)*	Unit for quantity of (Re-fabricating galvanized pipes (items purchased aside labor cost)) used *If item was purchased in bulk without a defined unit, enter 1 for Quantity, select bulk purchase for Unit*	1	1kg	
		2	20kg	
		3	50kg	
		4	Litre(s)	
		5	Bulk purchase in GHS (One time payment)	
		6	Piece(s)	
		7	Gallon(s)	
		8	Gram(s)	
		777	Other (specify)____	
cg_unit_i *(required)*	Please specify unit *Question relevant when: selected(${cg_unit} , '777')*			
cg_cost *(required)*	What is the cost per unit (GHS/unit) of (Re-fabricating galvanized pipes (items purchased aside labor cost)) used? *If item was purchased in bulk without a defined unit, enter 1 for Quantity, select bulk purchase for Unit and enter total cost here...*			
cg_totalcost	GHC [totalvc_cage] *Total cost of Re-fabricating galvanized pipes (items purchased aside labor cost) (GHS)*			
Consented > Active > Tilapia farm cost of production > Cage Culture > Replacement of worn-out barrels (15)		(Repeated group)		
Consented > Active > Tilapia farm cost of production > Cage Culture > Replacement of worn-out barrels (15) > operations-costc				
Group relevant when: if(index() <= 15,selected(${F8} ,index()),selected(${F8} ,'777'))				
cg_quantity *(required)*	What quantity/amount of (Replacement of worn-out barrels) did you use in last production season/cycle? *If item was purchased in bulk without a defined unit, enter 1 for Quantity*			
cg_unit *(required)*	Unit for quantity of (Replacement of worn-out barrels) used *If item was purchased in bulk without a defined unit, enter 1 for Quantity, select bulk purchase for Unit*	1	1kg	
		2	20kg	
		3	50kg	
		4	Litre(s)	
		5	Bulk purchase in GHS (One time payment)	
		6	Piece(s)	
		7	Gallon(s)	
		8	Gram(s)	
		777	Other (specify)____	
cg_unit_i *(required)*	Please specify unit *Question relevant when: selected(${cg_unit} , '777')*			
cg_cost *(required)*	What is the cost per unit (GHS/unit) of (Replacement of worn-out barrels) used? *If item was purchased in bulk without a defined unit, enter 1 for Quantity, select bulk purchase for Unit and enter total cost here...*			
cg_totalcost	GHC [totalvc_cage] *Total cost of Replacement of worn-out barrels (GHS)*			
Consented > Active > Tilapia farm cost of production > Cage Culture > [cagevc_name] (16)		(Repeated group)		
Consented > Active > Tilapia farm cost of production > Cage Culture > [cagevc_name] (16) > operations-costc				
Group relevant when: if(index() <= 15,selected(${F8} ,index()),selected(${F8} ,'777'))				
cg_quantity *(required)*	What quantity/amount of ([cagevc_name]) did you use in last production season/cycle? *If item was purchased in bulk without a defined unit, enter 1 for Quantity*			
cg_unit *(required)*	Unit for quantity of ([cagevc_name]) used	1	1kg	

Field	*If item was purchased in bulk without a defined unit, enter 1 for Quantity, select bulk purchase for Unit* Question	Answer		
		2	20kg	
		3	50kg	
		4	Litre(s)	
		5	Bulk purchase in GHS (One time payment)	
		6	Piece(s)	
		7	Gallon(s)	
		8	Gram(s)	
		777	Other (specify)____	
cg_unit_i *(required)*	Please specify unit *Question relevant when: selected(${cg_unit} , '777')*			
cg_cost *(required)*	What is the cost per unit (GHS/unit) of ([cagevc_name]) used? *If item was purchased in bulk without a defined unit, enter 1 for Quantity, select bulk purchase for Unit and enter total cost here...*			
cg_totalcost	GHC [totalvc_cage] *Total cost of [cagevc_name] (GHS)*			

Consented > Active > Tilapia farm cost of production > Cage Culture > Vaccines, drugs, antibiotics, other chemicals
Group relevant when: selected(${F8} , '5') or selected(${F8} , '7')

Field	Question	Answer	
E37i *(required)*	What is the source of vaccines, drugs, antibiotics and other chemicals used on your farm?	1	Agro-input dealer shop
		2	FC extension agent
		3	Hatchery
		4	Colleague farmers
		5	MoFA extension agents
		6	Market
		7	Own farm
		777	Other (please specify)_____
E37ii *(required)*	Please specify the source of vaccines, drugs, antibiotics and other chemicals used on your farm *Question relevant when: selected(${E37i} , '777')*		
E38i *(required)*	What is the distance from the nearest source of vaccines, drugs, antibiotics and other chemicals to your farm? *Enter 999 if don't know*		
E38ii *(required)*	Unit of distance *Question relevant when: ${E38i} > 0 and ${E38i} != 999*	1	Km
		2	Miles
		3	Minutes (walk)
		4	Meters
E39i *(required)*	What is your perception on quality of vaccines, drugs, antibiotics, and other chemicals used on your farm?	1	Very good
		2	Good
		3	Somewhat good
		4	Not good
E40i *(required)*	What is your perception of availability of vaccines, drugs, antibiotics and other chemicals used on your farm?	1	Very good
		2	Good
		3	Somewhat good
		4	Not good
E41i *(required)*	What is your perception on affordability of vaccines, drugs, antibiotics and other chemicals used on your farm?	1	Very good
		2	Good
		3	Somewhat good
		4	Not good

Consented > Active > Tilapia farm cost of production > Pond Culture
Group relevant when: selected(${nC} , '2') or selected(${nC} , '3')

Field	Question	Answer	
F13 *(required)*	Are the costs given for largest pond or all operational ponds?	1	largest pond only
		0	all operational ponds

Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production

Field	Question	Answer	
F14a *(required)*	Please do you have the following land and building items? *Response constrained to: if(selected(. , '4'), count-selected(.) =1, count-selected(.) >=1)*	4	None
		1	Land
		2	Warehouse [for equipment and feed]
		3	Offices and on-site housing facilities
		777	Other (specify)___
F14a_i *(required)*	Please specify land and building item *Question relevant when: selected(${F14a} , '777')*		

Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > Land and building costs (1)   (Repeated group)
Group relevant when: not(selected(${F14a} , '4'))

Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > Land and building costs (1) > land-buildingp

Field	Question	Answer
Group relevant when: if(index() <=3, selected(${F14a} , index()), selected(${F14a} , '777'))		
F17a *(required)*	Cost of purchase or rental/lease of (Land) (GHS) *Enter 999 and proceed if don't know* *Response constrained to: (.>=1 and .<=500000) or .=999*	
F19a *(required)*	Please specify the number of years this cost applies to (Land) *(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5]* *Question relevant when: ${F17a} !=999*	
Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > Land and building costs (2) *Group relevant when: not(selected(${F14a} , '4'))*		(Repeated group)
Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > Land and building costs (2) > land-buildingp *Group relevant when: if(index() <=3, selected(${F14a} , index()), selected(${F14a} , '777'))*		
F17a *(required)*	Cost of purchase or rental/lease of (Warehouse [for equipment and feed]) (GHS) *Enter 999 and proceed if don't know* *Response constrained to: (.>=1 and .<=500000) or .=999*	
F19a *(required)*	Please specify the number of years this cost applies to (Warehouse [for equipment and feed]) *(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5]* *Question relevant when: ${F17a} !=999*	
Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > Land and building costs (3) *Group relevant when: not(selected(${F14a} , '4'))*		(Repeated group)
Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > Land and building costs (3) > land-buildingp *Group relevant when: if(index() <=3, selected(${F14a} , index()), selected(${F14a} , '777'))*		
F17a *(required)*	Cost of purchase or rental/lease of (Offices and on-site housing facilities) (GHS) *Enter 999 and proceed if don't know* *Response constrained to: (.>=1 and .<=500000) or .=999*	
F19a *(required)*	Please specify the number of years this cost applies to (Offices and on-site housing facilities) *(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5]* *Question relevant when: ${F17a} !=999*	
Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > Land and building costs (4) *Group relevant when: not(selected(${F14a} , '4'))*		(Repeated group)
Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > Land and building costs (4) > land-buildingp *Group relevant when: if(index() <=3, selected(${F14a} , index()), selected(${F14a} , '777'))*		
F17a *(required)*	Cost of purchase or rental/lease of ([pland-building_name]) (GHS) *Enter 999 and proceed if don't know* *Response constrained to: (.>=1 and .<=500000) or .=999*	
F19a *(required)*	Please specify the number of years this cost applies to ([pland-building_name]) *(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5]* *Question relevant when: ${F17a} !=999*	
F20a *(required)*	Did you incur site evaluation and selection cost?	1 Yes 0 No
F21a *(required)*	What is the cost of site evaluation and selection (GHC)? *Enter 999 if don't know* *Question relevant when: selected(${F20a} , '1')*	
F14b *(required)*	Please do you have the following pond construction items? *Please select all applicable* *Response constrained to: if(selected(. , '7'), count-selected(.) =1, count-selected(.) >=1)*	7 None 1 Construction and installation of fish pond 2 Water system [water inlet and outlet/monk] 3 Plumbing/pipping system 4 Pumps 5 Aerators 6 Protective gears [life jackets, scoop nets etc.] 777 Other (specify)____
F14b_i *(required)*	Specify pond construction item *Question relevant when: selected(${F14b} , '777')*	
Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > pond construction costs (1) *Group relevant when: not(selected(${F14b} , '7'))*		(Repeated group)
Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > pond construction costs (1) > constructionp *Group relevant when: if(index() <=6, selected(${F14b} , index()), selected(${F14b} , '777'))*		
F17b *(required)*	Cost of purchase or rental/lease of (Construction and installation of fish pond) (GHS)	

Field	Question	Answer
	Enter 999 and proceed if don't know *Response constrained to: (.>=1 and .<=500000) or .=999*	
F19b *(required)*	Please specify the number of years this cost applies to (Construction and installation of fish pond) *(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5]* *Question relevant when: ${F17b} !=999*	
Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > pond construction costs (2) *Group relevant when: not(selected(${F14b} , '7'))*		(Repeated group)
Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > pond construction costs (2) > constructionp *Group relevant when: if(index() <=6, selected(${F14b} , index()), selected(${F14b} , '777'))*		
F17b *(required)*	Cost of purchase or rental/lease of (Water system [water inlet and outlet/monk]) (GHS) *Enter 999 and proceed if don't know* *Response constrained to: (.>=1 and .<=500000) or .=999*	
F19b *(required)*	Please specify the number of years this cost applies to (Water system [water inlet and outlet/monk]) *(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5]* *Question relevant when: ${F17b} !=999*	
Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > pond construction costs (3) *Group relevant when: not(selected(${F14b} , '7'))*		(Repeated group)
Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > pond construction costs (3) > constructionp *Group relevant when: if(index() <=6, selected(${F14b} , index()), selected(${F14b} , '777'))*		
F17b *(required)*	Cost of purchase or rental/lease of (Plumbing/pipping system) (GHS) *Enter 999 and proceed if don't know* *Response constrained to: (.>=1 and .<=500000) or .=999*	
F19b *(required)*	Please specify the number of years this cost applies to (Plumbing/pipping system) *(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5]* *Question relevant when: ${F17b} !=999*	
Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > pond construction costs (4) *Group relevant when: not(selected(${F14b} , '7'))*		(Repeated group)
Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > pond construction costs (4) > constructionp *Group relevant when: if(index() <=6, selected(${F14b} , index()), selected(${F14b} , '777'))*		
F17b *(required)*	Cost of purchase or rental/lease of (Pumps) (GHS) *Enter 999 and proceed if don't know* *Response constrained to: (.>=1 and .<=500000) or .=999*	
F19b *(required)*	Please specify the number of years this cost applies to (Pumps) *(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5]* *Question relevant when: ${F17b} !=999*	
Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > pond construction costs (5) *Group relevant when: not(selected(${F14b} , '7'))*		(Repeated group)
Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > pond construction costs (5) > constructionp *Group relevant when: if(index() <=6, selected(${F14b} , index()), selected(${F14b} , '777'))*		
F17b *(required)*	Cost of purchase or rental/lease of (Aerators) (GHS) *Enter 999 and proceed if don't know* *Response constrained to: (.>=1 and .<=500000) or .=999*	
F19b *(required)*	Please specify the number of years this cost applies to (Aerators) *(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5]* *Question relevant when: ${F17b} !=999*	
Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > pond construction costs (6) *Group relevant when: not(selected(${F14b} , '7'))*		(Repeated group)
Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > pond construction costs (6) > constructionp *Group relevant when: if(index() <=6, selected(${F14b} , index()), selected(${F14b} , '777'))*		
F17b *(required)*	Cost of purchase or rental/lease of (Protective gears [life jackets, scoop nets etc.]) (GHS) *Enter 999 and proceed if don't know* *Response constrained to: (.>=1 and .<=500000) or .=999*	
F19b *(required)*	Please specify the number of years this cost applies to (Protective gears [life jackets, scoop	

Field	Question	Answer
	nets etc.]) (life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5] *Question relevant when: ${F17b} !=999*	
Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > pond construction costs (7) *Group relevant when: not(selected(${F14b} , '7'))*		(Repeated group)
Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > pond construction costs (7) > constructionp *Group relevant when: if(index() <=6, selected(${F14b} , index()), selected(${F14b} , '777'))*		
F17b *(required)*	Cost of purchase or rental/lease of ([pondconstruction_name]) (GHS) *Enter 999 and proceed if don't know* *Response constrained to: (.>=1 and .<=500000) or .=999*	
F19b *(required)*	Please specify the number of years this cost applies to ([pondconstruction_name]) *(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5]* *Question relevant when: ${F17b} !=999*	
F14c *(required)*	Please do you have the following machinery, equipment? *Please select all applicable* *Response constrained to: if(selected(. , '7'), count-selected(.) =1, count-selected(.) >=1)*	7 None 1 Generator 2 Ice making machine 3 Cold storage or cold chain 4 Deep freezer 5 Water quality equipment [including oxygen meter] 6 Security/monitoring equipment [CCTV camera, lights etc.] 777 Other (specify)__
F14c_i *(required)*	Specify machinery and equipment item *Question relevant when: selected(${F14c} , '777')*	
Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > machinery and equipment costs (1) *Group relevant when: not(selected(${F14c} , '7'))*		(Repeated group)
Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > machinery and equipment costs (1) > mach-equipp *Group relevant when: if(index() <=6, selected(${F14c} , index()), selected(${F14c} , '777'))*		
F17c *(required)*	Cost of purchase or rental/lease of (Generator) (GHS) *Enter 999 and proceed if don't know* *Response constrained to: (.>=1 and .<=500000) or .=999*	
F19c *(required)*	Please specify the number of years this cost applies to (Generator) *(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5]* *Question relevant when: ${F17c} !=999*	
Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > machinery and equipment costs (2) *Group relevant when: not(selected(${F14c} , '7'))*		(Repeated group)
Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > machinery and equipment costs (2) > mach-equipp *Group relevant when: if(index() <=6, selected(${F14c} , index()), selected(${F14c} , '777'))*		
F17c *(required)*	Cost of purchase or rental/lease of (Ice making machine) (GHS) *Enter 999 and proceed if don't know* *Response constrained to: (.>=1 and .<=500000) or .=999*	
F19c *(required)*	Please specify the number of years this cost applies to (Ice making machine) *(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5]* *Question relevant when: ${F17c} !=999*	
Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > machinery and equipment costs (3) *Group relevant when: not(selected(${F14c} , '7'))*		(Repeated group)
Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > machinery and equipment costs (3) > mach-equipp *Group relevant when: if(index() <=6, selected(${F14c} , index()), selected(${F14c} , '777'))*		
F17c *(required)*	Cost of purchase or rental/lease of (Cold storage or cold chain) (GHS) *Enter 999 and proceed if don't know* *Response constrained to: (.>=1 and .<=500000) or .=999*	
F19c *(required)*	Please specify the number of years this cost applies to (Cold storage or cold chain) *(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5]* *Question relevant when: ${F17c} !=999*	
Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > machinery and equipment costs		(Repeated group)

Field	Question	Answer
(4) *Group relevant when: not(selected(${F14c} , '7'))*		
Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > machinery and equipment costs (4) > mach-equipp		
Group relevant when: if(index() <=6, selected(${F14c} , index()), selected(${F14c} , '777'))		
F17c *(required)*	Cost of purchase or rental/lease of (Deep freezer) (GHS) *Enter 999 and proceed if don't know* *Response constrained to: (.>=1 and .<=500000) or .=999*	
F19c *(required)*	Please specify the number of years this cost applies to (Deep freezer) *(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5]* *Question relevant when: ${F17c} !=999*	
Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > machinery and equipment costs (5) *Group relevant when: not(selected(${F14c} , '7'))*		(Repeated group)
Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > machinery and equipment costs (5) > mach-equipp		
Group relevant when: if(index() <=6, selected(${F14c} , index()), selected(${F14c} , '777'))		
F17c *(required)*	Cost of purchase or rental/lease of (Water quality equipment [including oxygen meter]) (GHS) *Enter 999 and proceed if don't know* *Response constrained to: (.>=1 and .<=500000) or .=999*	
F19c *(required)*	Please specify the number of years this cost applies to (Water quality equipment [including oxygen meter]) *(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5]* *Question relevant when: ${F17c} !=999*	
Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > machinery and equipment costs (6) *Group relevant when: not(selected(${F14c} , '7'))*		(Repeated group)
Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > machinery and equipment costs (6) > mach-equipp		
Group relevant when: if(index() <=6, selected(${F14c} , index()), selected(${F14c} , '777'))		
F17c *(required)*	Cost of purchase or rental/lease of (Security/monitoring equipment [CCTV camera, lights etc.]) (GHS) *Enter 999 and proceed if don't know* *Response constrained to: (.>=1 and .<=500000) or .=999*	
F19c *(required)*	Please specify the number of years this cost applies to (Security/monitoring equipment [CCTV camera, lights etc.]) *(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5]* *Question relevant when: ${F17c} !=999*	
Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > machinery and equipment costs (7) *Group relevant when: not(selected(${F14c} , '7'))*		(Repeated group)
Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > machinery and equipment costs (7) > mach-equipp		
Group relevant when: if(index() <=6, selected(${F14c} , index()), selected(${F14c} , '777'))		
F17c *(required)*	Cost of purchase or rental/lease of ([pmach-equip_name]) (GHS) *Enter 999 and proceed if don't know* *Response constrained to: (.>=1 and .<=500000) or .=999*	
F19c *(required)*	Please specify the number of years this cost applies to ([pmach-equip_name]) *(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5]* *Question relevant when: ${F17c} !=999*	

Field	Question	Answer	
F14d *(required)*	Please do you have the following permits? *Please select all applicable* *Response constrained to: if(selected(. , '4'), count-selected(.) =1, count-selected(.) >=1)*	4	None
		1	Environmental permit
		2	Operational permit from FC
		3	District assembly permit
		777	Other (please specify)___
F14d_i *(required)*	Specify permit *Question relevant when: selected(${F14d} , '777')*		

Field	Question	Answer	
Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > permits costs (1) *Group relevant when: not(selected(${F14d} , '4'))*		(Repeated group)	
Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > permits costs (1) > permitsp			
Group relevant when: if(index() <=3, selected(${F14d} , index()), selected(${F14d} , '777'))			
F15d *(required)*	Did respondent show you any proof/document for (Environmental permit)?	1	Yes
		0	No
F17d *(required)*	Cost of purchase or rental/lease of (Environmental permit) (GHS)		

Field	Question	Answer
	Enter 999 and proceed if don't know *Response constrained to: (.>=1 and .<=500000) or .=999*	
F19d *(required)*	Please specify the number of years this cost applies to (Environmental permit) *(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5]* *Question relevant when: ${F17d} !=999*	
Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > permits costs (2) *Group relevant when: not(selected(${F14d} , '4'))*		(Repeated group)
Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > permits costs (2) > permitsp *Group relevant when: if(index() <=3, selected(${F14d} , index()), selected(${F14d} , '777'))*		
F15d *(required)*	Did respondent show you any proof/document for (Operational permit from FC)?	1 Yes 0 No
F17d *(required)*	Cost of purchase or rental/lease of (Operational permit from FC) (GHS) *Enter 999 and proceed if don't know* *Response constrained to: (.>=1 and .<=500000) or .=999*	
F19d *(required)*	Please specify the number of years this cost applies to (Operational permit from FC) *(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5]* *Question relevant when: ${F17d} !=999*	
Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > permits costs (3) *Group relevant when: not(selected(${F14d} , '4'))*		(Repeated group)
Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > permits costs (3) > permitsp *Group relevant when: if(index() <=3, selected(${F14d} , index()), selected(${F14d} , '777'))*		
F15d *(required)*	Did respondent show you any proof/document for (District assembly permit)?	1 Yes 0 No
F17d *(required)*	Cost of purchase or rental/lease of (District assembly permit) (GHS) *Enter 999 and proceed if don't know* *Response constrained to: (.>=1 and .<=500000) or .=999*	
F19d *(required)*	Please specify the number of years this cost applies to (District assembly permit) *(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5]* *Question relevant when: ${F17d} !=999*	
Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > permits costs (4) *Group relevant when: not(selected(${F14d} , '4'))*		(Repeated group)
Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > permits costs (4) > permitsp *Group relevant when: if(index() <=3, selected(${F14d} , index()), selected(${F14d} , '777'))*		
F15d *(required)*	Did respondent show you any proof/document for ([ppermits_name])?	1 Yes 0 No
F17d *(required)*	Cost of purchase or rental/lease of ([ppermits_name]) (GHS) *Enter 999 and proceed if don't know* *Response constrained to: (.>=1 and .<=500000) or .=999*	
F19d *(required)*	Please specify the number of years this cost applies to ([ppermits_name]) *(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5]* *Question relevant when: ${F17d} !=999*	
F14e *(required)*	Please do you have the following other tools? *Please select all applicable* *Response constrained to: if(selected(. , '4'), count-selected(.) =1, count-selected(.) >=1)*	4 None 1 Pelleting machine 2 Vehicles 3 Incubator or incubation system 777 Other (specify)___
F14e_i *(required)*	Specify other tool *Question relevant when: selected(${F14e} , '777')*	
Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > other tools costs (1) *Group relevant when: not(selected(${F14e} , '4'))*		(Repeated group)
Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > other tools costs (1) > othertoolsp *Group relevant when: if(index() <=3, selected(${F14e} , index()), selected(${F14e} , '777'))*		
F17e *(required)*	Cost of purchase or rental/lease of (Pelleting machine) (GHS) *Enter 999 and proceed if don't know* *Response constrained to: (.>=1 and .<=500000) or .=999*	
F19e *(required)*	Please specify the number of years this cost applies to (Pelleting machine)	

Field	Question	Answer		
	(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5] *Question relevant when: ${F17e} !=999*			
Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > other tools costs (2)		(Repeated group)		
Group relevant when: not(selected(${F14e} , '4'))				
Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > other tools costs (2) > othertoolsp				
Group relevant when: if(index() <=3, selected(${F14e} , index()), selected(${F14e} , '777'))				
F17e *(required)*	Cost of purchase or rental/lease of (Vehicles) (GHS) *Enter 999 and proceed if don't know* *Response constrained to: (.>=1 and .<=500000) or .=999*			
F19e *(required)*	Please specify the number of years this cost applies to (Vehicles) *(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5]* *Question relevant when: ${F17e} !=999*			
Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > other tools costs (3)		(Repeated group)		
Group relevant when: not(selected(${F14e} , '4'))				
Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > other tools costs (3) > othertoolsp				
Group relevant when: if(index() <=3, selected(${F14e} , index()), selected(${F14e} , '777'))				
F17e *(required)*	Cost of purchase or rental/lease of (Incubator or incubation system) (GHS) *Enter 999 and proceed if don't know* *Response constrained to: (.>=1 and .<=500000) or .=999*			
F19e *(required)*	Please specify the number of years this cost applies to (Incubator or incubation system) *(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5]* *Question relevant when: ${F17e} !=999*			
Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > other tools costs (4)		(Repeated group)		
Group relevant when: not(selected(${F14e} , '4'))				
Consented > Active > Tilapia farm cost of production > Pond Culture > Pond fixed costs of production > other tools costs (4) > othertoolsp				
Group relevant when: if(index() <=3, selected(${F14e} , index()), selected(${F14e} , '777'))				
F17e *(required)*	Cost of purchase or rental/lease of ([pothertools_name]) (GHS) *Enter 999 and proceed if don't know* *Response constrained to: (.>=1 and .<=500000) or .=999*			
F19e *(required)*	Please specify the number of years this cost applies to ([pothertools_name]) *(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5]* *Question relevant when: ${F17e} !=999*			
F19 *(required)*	Are the costs given for largest pond or all operational ponds?	1	largest pond only	
		0	all operational ponds	
F20 *(required)*	Please did you purchase or use any of the following items last season (5-6 months)?	1	Fingerlings	
		2	Feed	
		3	Lime for pond	
		4	Fertilizer for pond	
		5	Drugs (antibiotics, etc.)	
		6	Hormones	
		7	Vaccines	
		8	Fuel	
		9	Transportation cost (aside from fuel)	
		10	Electricity (e.g., cold storage)	
		11	Disinfectants	
		12	Items purchased for pond maintenance	
		777	Other (specify)___	
F20i *(required)*	Please specify the item you purchase or use last season *Question relevant when: selected(${F20} , '777')*			
Consented > Active > Tilapia farm cost of production > Pond Culture > Fingerlings (1)		(Repeated group)		
Consented > Active > Tilapia farm cost of production > Pond Culture > Fingerlings (1) > operationcostp				
Group relevant when: if(index() <=12, selected(${F20} , index()), selected(${F20} , '777'))				
pd_quantity *(required)*	What quantity of (Fingerlings) did you use in last production season/cycle? *If item was purchased in bulk without a defined unit, enter 1 for Quantity*			
pd_unit *(required)*	Unit for quantity of (Fingerlings) used	1	1kg	

Field	Question		
	If item was purchased in bulk without a defined unit, enter 1 for Quantity, select bulk purchase for Unit	2	20kg
		3	50kg
		4	Litre(s)
		5	Bulk purchase in GHS (One time payment)
		6	Piece(s)
		7	Gallon(s)
		8	Gram(s)
		777	Other (specify)____
pd_uniti *(required)*	Please specify quantity unit for (Fingerlings) *Question relevant when: selected(${pd_unit} , '777')*		
pd_cost *(required)*	What is the cost per unit (GHS/unit) of (Fingerlings) you used *If item was purchased in bulk without a defined unit, enter 1 for Quantity, select bulk purchase for Unit and enter total cost here...*		
pd_totalcost	GHC [totalvc_pond] *Total cost of Fingerlings (GHS)*		
Consented > Active > Tilapia farm cost of production > Pond Culture > Feed (2)		(Repeated group)	
Consented > Active > Tilapia farm cost of production > Pond Culture > Feed (2) > operationcostp			
Group relevant when: if(index() <=12, selected(${F20} , index()), selected(${F20} , '777'))			
pd_quantity *(required)*	What quantity of (Feed) did you use in last production season/cycle? *If item was purchased in bulk without a defined unit, enter 1 for Quantity*		
pd_unit *(required)*	Unit for quantity of (Feed) used *If item was purchased in bulk without a defined unit, enter 1 for Quantity, select bulk purchase for Unit*	1	1kg
		2	20kg
		3	50kg
		4	Litre(s)
		5	Bulk purchase in GHS (One time payment)
		6	Piece(s)
		7	Gallon(s)
		8	Gram(s)
		777	Other (specify)____
pd_uniti *(required)*	Please specify quantity unit for (Feed) *Question relevant when: selected(${pd_unit} , '777')*		
pd_cost *(required)*	What is the cost per unit (GHS/unit) of (Feed) you used *If item was purchased in bulk without a defined unit, enter 1 for Quantity, select bulk purchase for Unit and enter total cost here...*		
pd_totalcost	GHC [totalvc_pond] *Total cost of Feed (GHS)*		
Consented > Active > Tilapia farm cost of production > Pond Culture > Lime for pond (3)		(Repeated group)	
Consented > Active > Tilapia farm cost of production > Pond Culture > Lime for pond (3) > operationcostp			
Group relevant when: if(index() <=12, selected(${F20} , index()), selected(${F20} , '777'))			
pd_quantity *(required)*	What quantity of (Lime for pond) did you use in last production season/cycle? *If item was purchased in bulk without a defined unit, enter 1 for Quantity*		
pd_unit *(required)*	Unit for quantity of (Lime for pond) used *If item was purchased in bulk without a defined unit, enter 1 for Quantity, select bulk purchase for Unit*	1	1kg
		2	20kg
		3	50kg
		4	Litre(s)
		5	Bulk purchase in GHS (One time payment)
		6	Piece(s)
		7	Gallon(s)
		8	Gram(s)
		777	Other (specify)____
pd_uniti *(required)*	Please specify quantity unit for (Lime for pond) *Question relevant when: selected(${pd_unit} , '777')*		
pd_cost *(required)*	What is the cost per unit (GHS/unit) of (Lime for pond) you used *If item was purchased in bulk without a defined unit, enter 1 for Quantity, select bulk purchase for Unit and enter total cost here...*		
pd_totalcost	GHC [totalvc_pond] *Total cost of Lime for pond (GHS)*		
Consented > Active > Tilapia farm cost of production > Pond Culture > Fertilizer for pond (4)		(Repeated group)	
Consented > Active > Tilapia farm cost of production > Pond Culture > Fertilizer for pond (4) > operationcostp			
Group relevant when: if(index() <=12, selected(${F20} , index()), selected(${F20} , '777'))			
pd_quantity *(required)*	What quantity of (Fertilizer for pond) did you use in last production season/cycle? *If item was purchased in bulk without a defined unit, enter 1 for Quantity*		
pd_unit *(required)*	Unit for quantity of (Fertilizer for pond) used	1	1kg

Field	Question	Answer	
	If item was purchased in bulk without a defined unit, enter 1 for Quantity, select bulk purchase for Unit	2	20kg
		3	50kg
		4	Litre(s)
		5	Bulk purchase in GHS (One time payment)
		6	Piece(s)
		7	Gallon(s)
		8	Gram(s)
		777	Other (specify)____
pd_uniti *(required)*	Please specify quantity unit for (Fertilizer for pond) *Question relevant when: selected(${pd_unit} , '777')*		
pd_cost *(required)*	What is the cost per unit (GHS/unit) of (Fertilizer for pond) you used *If item was purchased in bulk without a defined unit, enter 1 for Quantity, select bulk purchase for Unit and enter total cost here...*		
pd_totalcost	GHC [totalvc_pond] *Total cost of Fertilizer for pond (GHS)*		
Consented > Active > Tilapia farm cost of production > Pond Culture > Drugs (antibiotics, etc.) (5)		(Repeated group)	
Consented > Active > Tilapia farm cost of production > Pond Culture > Drugs (antibiotics, etc.) (5) > operationcostp			
Group relevant when: if(index() <=12, selected(${F20} , index()), selected(${F20} , '777'))			
pd_quantity *(required)*	What quantity of (Drugs (antibiotics, etc.)) did you use in last production season/cycle? *If item was purchased in bulk without a defined unit, enter 1 for Quantity*		
pd_unit *(required)*	Unit for quantity of (Drugs (antibiotics, etc.)) used *If item was purchased in bulk without a defined unit, enter 1 for Quantity, select bulk purchase for Unit*	1	1kg
		2	20kg
		3	50kg
		4	Litre(s)
		5	Bulk purchase in GHS (One time payment)
		6	Piece(s)
		7	Gallon(s)
		8	Gram(s)
		777	Other (specify)____
pd_uniti *(required)*	Please specify quantity unit for (Drugs (antibiotics, etc.)) *Question relevant when: selected(${pd_unit} , '777')*		
pd_cost *(required)*	What is the cost per unit (GHS/unit) of (Drugs (antibiotics, etc.)) you used *If item was purchased in bulk without a defined unit, enter 1 for Quantity, select bulk purchase for Unit and enter total cost here...*		
pd_totalcost	GHC [totalvc_pond] *Total cost of Drugs (antibiotics, etc.) (GHS)*		
Consented > Active > Tilapia farm cost of production > Pond Culture > Hormones (6)		(Repeated group)	
Consented > Active > Tilapia farm cost of production > Pond Culture > Hormones (6) > operationcostp			
Group relevant when: if(index() <=12, selected(${F20} , index()), selected(${F20} , '777'))			
pd_quantity *(required)*	What quantity of (Hormones) did you use in last production season/cycle? *If item was purchased in bulk without a defined unit, enter 1 for Quantity*		
pd_unit *(required)*	Unit for quantity of (Hormones) used *If item was purchased in bulk without a defined unit, enter 1 for Quantity, select bulk purchase for Unit*	1	1kg
		2	20kg
		3	50kg
		4	Litre(s)
		5	Bulk purchase in GHS (One time payment)
		6	Piece(s)
		7	Gallon(s)
		8	Gram(s)
		777	Other (specify)____
pd_uniti *(required)*	Please specify quantity unit for (Hormones) *Question relevant when: selected(${pd_unit} , '777')*		
pd_cost *(required)*	What is the cost per unit (GHS/unit) of (Hormones) you used *If item was purchased in bulk without a defined unit, enter 1 for Quantity, select bulk purchase for Unit and enter total cost here...*		
pd_totalcost	GHC [totalvc_pond] *Total cost of Hormones (GHS)*		
Consented > Active > Tilapia farm cost of production > Pond Culture > Vaccines (7)		(Repeated group)	
Consented > Active > Tilapia farm cost of production > Pond Culture > Vaccines (7) > operationcostp			
Group relevant when: if(index() <=12, selected(${F20} , index()), selected(${F20} , '777'))			
pd_quantity *(required)*	What quantity of (Vaccines) did you use in last production season/cycle? *If item was purchased in bulk without a defined unit, enter 1 for Quantity*		
pd_unit *(required)*	Unit for quantity of (Vaccines) used	1	1kg

Field	Question	Answer	
	If item was purchased in bulk without a defined unit, enter 1 for Quantity, select bulk purchase for Unit	2	20kg
		3	50kg
		4	Litre(s)
		5	Bulk purchase in GHS (One time payment)
		6	Piece(s)
		7	Gallon(s)
		8	Gram(s)
		777	Other (specify)____
pd_uniti *(required)*	Please specify quantity unit for (Vaccines) *Question relevant when: selected(${pd_unit} , '777')*		
pd_cost *(required)*	What is the cost per unit (GHS/unit) of (Vaccines) you used *If item was purchased in bulk without a defined unit, enter 1 for Quantity, select bulk purchase for Unit and enter total cost here...*		
pd_totalcost	GHC [totalvc_pond] *Total cost of Vaccines (GHS)*		
Consented > Active > Tilapia farm cost of production > Pond Culture > Fuel (8)		(Repeated group)	
Consented > Active > Tilapia farm cost of production > Pond Culture > Fuel (8) > operationcostp			
Group relevant when: if(index() <=12, selected(${F20} , index()), selected(${F20} , '777'))			
pd_quantity *(required)*	What quantity of (Fuel) did you use in last production season/cycle? *If item was purchased in bulk without a defined unit, enter 1 for Quantity*		
pd_unit *(required)*	Unit for quantity of (Fuel) used *If item was purchased in bulk without a defined unit, enter 1 for Quantity, select bulk purchase for Unit*	1	1kg
		2	20kg
		3	50kg
		4	Litre(s)
		5	Bulk purchase in GHS (One time payment)
		6	Piece(s)
		7	Gallon(s)
		8	Gram(s)
		777	Other (specify)____
pd_uniti *(required)*	Please specify quantity unit for (Fuel) *Question relevant when: selected(${pd_unit} , '777')*		
pd_cost *(required)*	What is the cost per unit (GHS/unit) of (Fuel) you used *If item was purchased in bulk without a defined unit, enter 1 for Quantity, select bulk purchase for Unit and enter total cost here...*		
pd_totalcost	GHC [totalvc_pond] *Total cost of Fuel (GHS)*		
Consented > Active > Tilapia farm cost of production > Vaccines, drugs, antibiotics, other chemicals			
Group relevant when: (selected(${F20} , '5') or selected(${F20} , '7')) and selected(${nC} , '2')			
E37zi *(required)*	What is the source of vaccines, drugs, antibiotics and other chemicals used on your farm?	1	Agro-input dealer shop
		2	FC extension agent
		3	Hatchery
		4	Colleague farmers
		5	MoFA extension agents
		6	Market
		7	Own farm
		777	Other (please specify)_____
E37zii *(required)*	Please specify the source of vaccines, drugs, antibiotics and other chemicals used on your farm *Question relevant when: selected(${E37zi} , '777')*		
E38zi *(required)*	What is the distance from the nearest source of vaccines, drugs, antibiotics and other chemicals to your farm? *Enter 999 if don't know*		
E38zii *(required)*	Unit of distance *Question relevant when: (${E38zi} > 0) and (${E38zi} != 999)*	1	Km
		2	Miles
		3	Minutes (walk)
		4	Meters
E39zi *(required)*	What is your perception on quality of vaccines, drugs, antibiotics, and other chemicals used on your farm?	1	Very good
		2	Good
		3	Somewhat good
		4	Not good
E40zi *(required)*	What is your perception of availability of vaccines, drugs, antibiotics and other chemicals used on your farm?	1	Very good
		2	Good
		3	Somewhat good
		4	Not good
E41zi *(required)*	What is your perception on affordability of vaccines, drugs, antibiotics and other chemicals used on	1	Very good

Field	Question	Answer	
	your farm?	2	Good
		3	Somewhat good
		4	Not good

Consented > Active > Tilapia farm cost of production > Tilapia fingerling production

Group relevant when: selected(${C16} , '1')

Field	Question	Answer	
hatchery_fixedcost_intro *(required)*	What is the dimension of your tilapia hatchery?		
hatchery_unit *(required)*	Unit for hatchery dimension	1	Feet/foot
		2	Meters
		3	Centimeters
		4	Yard

Consented > Active > Tilapia farm cost of production > Tilapia fingerling production > Hatchery Fixed Costs

Field	Question	Answer	
F25a *(required)*	Please do you have or have undertaken the following hatchery construction items/activities?	1	Construction and installation of pond
		2	Water system [water inlet and outlet/work]
		3	Plumbing/pipping system
		4	Pumps
		5	Aerators
		6	Protective gears [life jackets, scoop nets etc.]
		7	Incubator or incubation system
		777	Other (please specify)____
F25ai *(required)*	Please specify the hatchery construction activity *Question relevant when: selected(${F25a} , '777')*		

Consented > Active > Tilapia farm cost of production > Tilapia fingerling production > Hatchery Fixed Costs > hatchery construction (1)   (Repeated group)

Consented > Active > Tilapia farm cost of production > Tilapia fingerling production > Hatchery Fixed Costs > hatchery construction (1) > hatchery-const

Group relevant when: if(index() <=7, selected(${F25a} , index()), selected(${F25a} , '777'))

Field	Question	Answer	
F28a *(required)*	Cost of purchase or rental/lease of (Construction and installation of pond) (GHS)		
F29a *(required)*	Please specify if the cost given for (Construction and installation of pond) is for this hatchery or all hatchery operations or including grow-out	1	Only 1 hatchery
		2	All hatcheries
		3	All hatcheries + grow-out
		777	Other (specify)___
F29ai *(required)*	Please specify the number of hatcheries the cost given for (Construction and installation of pond) covers *Question relevant when: selected(${F29a} , '777')*		
F30a *(required)*	Please specify the number of years this cost applies to (Construction and installation of pond) *(life span of the equipment or asset or length of lease/rental/permit) [e.g., if lifespan of warehouse built is 10 years, type in 10; if land lease is for 20 years, type in 20; if permit is for 6 months renewal, type in 0.5]*		
F30 *(required)*	Now I will ask you about inputs used, quantity used and prices for the tilapia hatchery. Will you like to provide the input data for the period... (which is more convenient for you)?	1	Full year 2018
		2	Monthly
		3	Spawning season/cycle
		777	Other (specify)___
F30i *(required)*	Please specify *Question relevant when: selected(${F30} , '777')*		
F31 *(required)*	Do you purchase or use any of the following items within the period ([F30_name])?	1	Broodstock
		2	Feed
		3	Fertilizer for pond
		4	Drugs (antibiotics, etc.)
		5	Hormones
		6	Vaccines
		7	Fuel
		8	Transportation cost (aside from fuel)
		9	Permits; District assembly fee (yearly)
		10	Electricity (e.g., cold storage)
		11	Disinfectants
		12	Items purchased for hatchery maintenance
		777	Other (please specify)_____
F31i *(required)*	Please specify item *Question relevant when: selected(${F31} , '777')*		

Consented > Active > Tilapia farm cost of production > Tilapia fingerling production > Broodstock (1)   (Repeated group)

Consented > Active > Tilapia farm cost of production > Tilapia fingerling production > Broodstock (1) > operations-costh

Group relevant when: if(index() <=12, selected(${F31} , index()), selected(${F31} , '777'))

Field	Question	Answer	
ht_quantity *(required)*	What quantity of (Broodstock) is used per ([F30_name])		

Field	Question	Answer	
	If item was purchased in bulk without a defined unit, enter 1 for Quantity	1	1kg
ht_unit *(required)*	What is the Quantity of (Broodstock) used		
	If item was purchased in bulk without a defined unit, enter 1 for Quantity, select bulk purchase for Unit	2	20kg
		3	50kg
		4	Litre(s)
		5	Bulk purchase in GHS (One time payment)
		6	Piece(s)
		7	Gallon(s)
		8	Gram(s)
		777	Other (specify)____
ht_unit_i *(required)*	Please specify unit		
	Question relevant when: selected(${ht_unit} , '777')		
ht_cost *(required)*	What is the cost per unit (GHS/unit) of (Broodstock) used per ([F30_name])		
	If item was purchased in bulk without a defined unit, enter 1 for Quantity, select bulk purchase for Unit and enter total cost here...		
ht_totalcost	GHC [totalvc_hatchery]		
	Total cost of (Broodstock) (GHS)		
Consented > Active > Tilapia farm cost of production > Tilapia fingerling production > Hormones for hatchery			
Group relevant when: selected(${F31} , '5')			
E37j *(required)*	What is the source of Hormones for your hatchery?	1	Agro-input dealer shop
		2	FC extension agent
		3	Hatchery
		4	Colleague farmers
		5	MoFA extension agents
		6	Market
		7	Own farm
		777	Other (please specify)_____
E37ji *(required)*	Please specify the source of hormones for your farm		
	Question relevant when: selected(${E37j} , '777')		
E38j *(required)*	What is the distance from the nearest source of Hormones?		
	Enter 999 if don't know		
E38ji *(required)*	Unit of distance	1	Km
	Question relevant when: ${E38j} > 0 and ${E38j} !=999	2	Miles
		3	Minutes (walk)
		4	Meters
E39j *(required)*	What is your perception on quality of Hormones you use on your farm?	1	Very good
		2	Good
		3	Somewhat good
		4	Not good
E40j *(required)*	What is your perception on availability of Hormones you use on your farm?	1	Very good
		2	Good
		3	Somewhat good
		4	Not good
E41j *(required)*	What is your perception of affordability of Hormones you use on your farm?	1	Very good
		2	Good
		3	Somewhat good
		4	Not good
Consented > Active > HOUSEHOLD SIZE			
G0 *(required)*	In which of the following year groups do your household members fall?	1	0 - 5 yrs
	select all that applies	2	6 - 17 yrs
		3	18 - 30 yrs
		4	31 - 35 yrs
		5	36 - 50 yrs
		6	51 - 65 yrs
		7	> 65 yrs
Consented > Active > HOUSEHOLD SIZE > 0 - 5 yrs (1)		(Repeated group)	
Male *(required)*	How many members of your household within the ages (0 - 5 yrs) are MALE?		
	Question relevant when: selected(${G0} , ${G0_id})		
Female *(required)*	How many members of your household within the ages (0 - 5 yrs) are FEMALE?		
	Question relevant when: selected(${G0} , ${G0_id})		
Consented > Active > HOUSEHOLD SIZE > Total household size			

Field	Question	Answer
Malet	Total Male = 0	
Femalet	Total Female = 0	
Totalall	Total household size = 0	
Pb_3 *(required)*	Please Can you remember the amount and cost of labor for your fish farm during your last full production cycle? *Question relevant when: selected(${A01} , '4')*	1 Yes, I can remember 0 No, I can't remember
Consented > Active > Labour *Group relevant when: selected(${A01} , '1') or selected(${A01} , '2') or selected(${Pb_3} , '1')*		
Famlabour_intro	FAMILY LABOUR (including respondent)	
G2a *(required)*	Did you use (free) family labor for your tilapia ponds (or cages) in your most recent full production season/cycle?	1 Yes 0 No
G3a *(required)*	On which of the following activities did you use communal or family labor during the last full production cycle? *Mention each activity to the respond and select if yes* *Question relevant when: selected(${G2a} , '1')* *Response constrained to: if(selected(., '11'), count-selected(.) =1, count-selected(.) >=1)*	11 None 1 Stocking 2 Fertilization 3 Feeding, application of drugs/hormones/chemicals 4 Harvesting 5 Post-harvest [e.g. packaging, de-gutting, transporting, marketing, selling] 6 Pond maintenance [e.g. cleaning inlet and outlet, water management, removal of weeds from pond etc.] 7 Cage maintenance [e.g. new anchor to re-position cage, sewing/mending of nets, re-fabricating galvanized pipes, replacement of worn-out barrels, etc.] 8 Hatchery maintenance [e.g. cleaning inlet and outlet, water management, etc.] 9 Diving 10 Security 777 Other (specify)____
G3ai *(required)*	Please specify activity for which you used family or communal labor *Question relevant when: selected(${G3a} , '777')*	
G3b *(required)*	Did you use the following family labor? *Question relevant when: selected(${G2a} , '1') and not(selected(${G3a} , '11'))*	1 Younger men (=< 35 years of age) 2 Older men (> 35 years of age) 3 Younger women (=< 35 years of age) 4 Older women (> 35 years of age)
Consented > Active > Labour > FAMILY LABOUR *Group relevant when: selected(${G2a} , '1')*		
Consented > Active > Labour > FAMILY LABOUR > Stocking (1)		(Repeated group)
Consented > Active > Labour > FAMILY LABOUR > Stocking (1) > family-labor *Group relevant when: if(index() <=10, selected(${G3a} , index()), selected(${G3a} , '777'))*		
Younger_men *(required)*	How many Younger Men (=< 35 yrs of age) worked on (Stocking) for the entire cycle? *Enter 999 if don't know* *Question relevant when: selected(${G3b} , '1')*	
Older_men *(required)*	How many Older Men (> 35 yrs of age) worked on (Stocking) for the entire cycle? *Enter 999 if don't know* *Question relevant when: selected(${G3b} , '2')*	
Younger_women *(required)*	How many Younger Women (=< 35 yrs of age) worked on (Stocking) for the entire cycle? *Enter 999 if don't know* *Question relevant when: selected(${G3b} , '3')*	
Older_women *(required)*	How many Older Women (>35 yrs of age) worked on (Stocking) for the entire cycle? *Enter 999 if don't know* *Question relevant when: selected(${G3b} , '4')*	
hrs_younger_men *(required)*	How many Hours Younger Men (=< 35 yrs of age) work on (Stocking) per day? *If different hours, enter average hours worked by all* *Question relevant when: ${Younger_men} > 0 and ${Younger_men} !=999*	
days_younger_men *(required)*	How many day(s) did Younger Men (=< 35 yrs) take to complete (Stocking) for the entire cycle? *Question relevant when: ${Younger_men} > 0 and ${Younger_men} !=999*	
hrs_older_men *(required)*	How many Hours did Older Men (> 35 yrs of age) worked on (Stocking) per day? *If different hours, enter average hours worked by all* *Question relevant when: ${Older_men} > 0 and ${Older_men} !=999*	

Field	Question	Answer	
days_older_men *(required)*	How many day(s) did Older Men (> 35 yrs of age) take to complete (Stocking) for the entire cycle? *Question relevant when: ${Older_men} > 0 and ${Older_men} !=999*		
hrs_younger_women *(required)*	How many hours did Younger women (=< 35 yrs of age) work on (Stocking) per day? *If different hours, enter average hours worked by all* *Question relevant when: ${Younger_women} > 0 and ${Younger_women} !=999*		
days_younger_women *(required)*	How many day(s) did Younger women (=< 35 yrs of age) take to complete (Stocking) for the entire cycle? *Question relevant when: ${Younger_women} > 0 and ${Younger_women} !=999*		
hrs_older_women *(required)*	How many hours did Older women (> 35 yrs of age) work on (Stocking) per day *If different hours, enter average hours worked by all* *Question relevant when: ${Older_women} > 0 and ${Older_women} !=999*		
days_older_women *(required)*	How many day(s) did Older women (> 35 yrs of age) take to complete (Stocking) for the entire cycle? *Question relevant when: ${Older_women} > 0 and ${Older_women} !=999*		
hiredlabor_intro	HIRED LABOUR		
G7 *(required)*	Did you use hired labor or had any staff/employee for your tilapia farming or hatchery during the last full production cycle?	1	Yes
		0	No
Consented > Active > Labour > HIRED LABOUR *Group relevant when: selected(${G7} , '1')*			
G9 *(required)*	Do your farm have permanent employees for the following activities *select all that applies (you can select none only)* *Response constrained to: if(selected(., '5'), count-selected(.) =1, count-selected(.) >=1)*	1	Management
		2	Finance
		3	Administrative/secretarial
		4	Aquaculture/hatchery operations
		5	None
G12 *(required)*	Which of the following permanent employees do you have? *If multiple, select all* *Question relevant when: not(selected(${G9} , '5'))*	1	MALE
		0	FEMALE
Consented > Active > Labour > HIRED LABOUR > Management (1) *Group relevant when: selected(${G9} , '1') or selected(${G9} , '2') or selected(${G9} , '3') or selected(${G9} , '4')*		(Repeated group)	
G10 *(required)*	What is the total number of MALE permanent employees for (Management) *Enter 999 if don't know* *Question relevant when: selected(${G9} , ${G9_id}) and selected(${G12} , '1')* *Response constrained to: (.>=0 and .<=100) or .=999*		
G10a *(required)*	How many of the permanent (Management) employees are Younger Men (=< 35 year of age) *If don't know ages and cannot separate based on age cut-off, skip the breakdown; Enter 999]* *Question relevant when: ${G10} !=999 and ${G10} > 0* *Response constrained to: (.>=0 and .<=100) or .=999*		
G10b *(required)*	How many of the permanent (Management) employees are Older Men (> 35 years of age) *If don't know ages and cannot separate based on age cut-off, skip the breakdown; Enter 999]* *Question relevant when: ${G10} !=999 and ${G10} > 0* *Response constrained to: (.>=0 and .<=100) or .=999*		
G11 *(required)*	What is the total number of FEMALE permanent employees for (Management) *Enter 999 if don't know* *Question relevant when: selected(${G9} , ${G9_id}) and selected(${G12} , '0')* *Response constrained to: (.>=0 and .<=100) or .=999*		
G11a *(required)*	How many of the permanent (Management) employees are Younger women (=< 35 years of age) *If don't know ages and cannot separate based on age cut-off, skip the breakdown; Enter 999]* *Question relevant when: ${G11} !=999 and ${G11} > 0* *Response constrained to: (.>=0 and .<=100) or .=999*		
G11b *(required)*	How many of the permanent (Management) employees are Older women (> 35 year of age) *If don't know ages and cannot separate based on age cut-off, skip the breakdown; Enter 999]* *Question relevant when: ${G11} !=999 and ${G11} > 0* *Response constrained to: (.>=0 and .<=100) or .=999*		
G11c *(required)*	What is the average monthly/weekly salary to (Management) staff (GHC)? *Enter 999 if don't know* *Question relevant when: not(selected(${G9} , '5'))*		
G11ci *(required)*	Specify if monthly or weekly *Question relevant when: ${G11c} > 0 and ${G11c} !=999*	1	Monthly
		2	Weekly

Field	Question	Answer	
G16 *(required)*	In addition to the management/admin/finance staff you just reported, did you employ ADDITIONAL hired labor for any of the following activities? *Response constrained to: if(selected(., '11'), count-selected(.) =1, count-selected(.) >=1)*	11	None
		1	Stocking
		2	Fertilization
		3	Feeding, application of drugs/hormones/chemicals
		4	Harvesting
		5	Post-harvest [e.g. packaging, de-gutting, transporting, marketing, selling]
		6	Pond maintenance [e.g. cleaning inlet and outlet, water management, removal of weeds from pond etc.]
		7	Cage maintenance [e.g. new anchor to re-position cage, sewing/mending of nets, re-fabricating galvanized pipes, replacement of worn-out barrels, etc.]
		8	Hatchery maintenance [e.g. cleaning inlet and outlet, water management, etc.]
		9	Diving
		10	Security
		777	Other (specify)____
G16i *(required)*	Please specify activity for which you employed hired labor *Question relevant when: selected(${G16} , '777')*		
G17 *(required)*	Did you use the following hired labor *Question relevant when: not(selected(${G16} , '11'))*	1	Younger men (=< 35 years of age)
		2	Older men (> 35 years of age)
		3	Younger women (=< 35 years of age)
		4	Older women (> 35 years of age)

Consented > Active > Labour > HIRED LABOUR > Stocking (1)   (Repeated group)
Group relevant when: not(selected(${G16} , '11'))

Consented > Active > Labour > HIRED LABOUR > Stocking (1) > hired-labor
Group relevant when: if(index() <=11, selected(${G16} , index()), selected(${G16} , '777'))

Field	Question	Answer	
hYounger_men *(required)*	How many Younger Men (=< 35 year of age) worked on (Stocking) for the entire cycle (as hired labor)? *[If don't know ages and cannot separate based on age cut-off split equally into 2] Enter 999 if don't know* *Question relevant when: selected(${G17} , '1')*		
hOlder_men *(required)*	How many Older Men (> 35 year of age) worked on (Stocking) for the entire cycle (as hired labor)? *[If don't know ages and cannot separate based on age cut-off split equally into 2] Enter 999 if don't know* *Question relevant when: selected(${G17} , '2')*		
hYounger_women *(required)*	How many Younger women (=< 35 year of age) worked on (Stocking) for the entire cycle (as hired labor) *[If don't know ages and cannot separate based on age cut-off split equally into 2] Enter 999 if don't know* *Question relevant when: selected(${G17} , '3')*		
hOlder_women *(required)*	How many Older women (> 35 years of age) worked on (Stocking) for the entire cycle (as hired labor)? *[If don't know ages and cannot separate based on age cut-off split equally into 2] Enter 999 if don't know* *Question relevant when: selected(${G17} , '4')*		
hrs_hYounger_men *(required)*	How many hours did Younger Men (=< 35 years of age) work on (Stocking) per day (as hired labor)? *If different hours, enter average hours worked by all* *Question relevant when: ${hYounger_men} > 0 and ${hYounger_men} !=999*		
hrs_hOlder_men *(required)*	How many hours did Older Men (> 35 years of age) work on (Stocking) per day (as hired labor)? *If different hours, enter average hours worked by all* *Question relevant when: ${hOlder_men} > 0 and ${hOlder_men} !=999*		
hrs_hYounger_women *(required)*	How many hours did Younger women (=< 35 years of age) work on (Stocking) per day (as hired labor)? *If different hours, enter average hours worked by all* *Question relevant when: ${hYounger_women} > 0 and ${hYounger_women} !=999*		
hrs_hOlder_women *(required)*	How many hours did Older women (> 35 years of age) work on (Stocking) per day (as hired labor)? *If different hours, enter average hours worked by all* *Question relevant when: ${hOlder_women} > 0 and ${hOlder_women} !=999*		

Field	Question	Answer	
days_hYounger_men *(required)*	How many day(s) did Younger Men (=< 35 yrs of age) take to complete (Stocking) for the entire cycle? *Question relevant when: ${hYounger_men} > 0 and ${hYounger_men} !=999*		
days_hOlder_men *(required)*	How many day(s) did Older Men (> 35 yrs of age) take to complete (Stocking) for the entire cycle? *Question relevant when: ${hOlder_men} > 0 and ${hOlder_men} !=999*		
days_hYounger_women *(required)*	How many day(s) did Younger women (=< 35 yrs of age) take to complete (Stocking) for the entire cycle? *Question relevant when: ${hYounger_women} > 0 and ${hYounger_women} !=999*		
days_hOlder_women *(required)*	How many day(s) did Older women (> 35 yrs of age) take to complete (Stocking) for the entire cycle? *Question relevant when: ${hOlder_women} > 0*		
Consented > Active > Labour > HIRED LABOUR > Stocking (1) > Wage rate per activity			
G20 *(required)*	What is the wage rate for (Stocking)? *Question relevant when: selected(${G16} , ${G16_id})*		
G20a *(required)*	Unit of wage rate *Question relevant when: selected(${G16} , ${G16_id})*	1	Per day
		2	Per hour
		3	Whole activity
		4	Whole pond/cage
		5	Per month
		777	Other (specify)____
G20ai *(required)*	Please specify unit for wage rate *Question relevant when: selected(${G20a} , '777')*		
G21a *(required)*	Is the wage rate for (Stocking) the same between male and female *Question relevant when: selected(${G16} , ${G16_id})*	1	Yes
		0	No
G21b *(required)*	Is the wage rate for (Stocking) the same between youth and non-youth? *Question relevant when: selected(${G16} , ${G16_id})*	1	Yes
		0	No
G22 *(required)*	Male wage rate for (Stocking) *Question relevant when: selected(${G21a} , '0')*		
G22i *(required)*	Unit for male wage rate for (Stocking) *Question relevant when: selected(${G21a} , '0')*	1	Per day
		2	Per hour
		3	Whole activity
		4	Whole pond/cage
		5	Per month
		777	Other (specify)____
G22ii *(required)*	Please specify unit for male wage rate *Question relevant when: selected(${G22i} , '777')*		
G23 *(required)*	Female wage rate for (Stocking) *Question relevant when: selected(${G21a} , '0')*		
G23i *(required)*	Unit for female wage rate for (Stocking) *Question relevant when: ${G23} > 0*	1	Per day
		2	Per hour
		3	Whole activity
		4	Whole pond/cage
		5	Per month
		777	Other (specify)____
G23ii *(required)*	Please specify unit for female wage rate *Question relevant when: selected(${G23i} , '777')*		
G24 *(required)*	What is the Youth wage rate for (Stocking) *Question relevant when: selected(${G21b} , '0')*		
G24i *(required)*	Unit for Youth wage rate for (Stocking) *Question relevant when: ${G24} > 0*	1	Per day
		2	Per hour
		3	Whole activity
		4	Whole pond/cage
		5	Per month
		777	Other (specify)____
G24ii *(required)*	Please specify unit for youth wage rate *Question relevant when: selected(${G24i} , '777')*		
G25 *(required)*	Older (> 35 year of age) wage rate for (Stocking) *Question relevant when: selected(${G21b} , '0')*		

Field	Question	Answer	
G25i *(required)*	Unit for Older wage rate for (Stocking)	1	Per day
	Question relevant when: ${G25} > 0	2	Per hour
		3	Whole activity
		4	Whole pond/cage
		5	Per month
		777	Other (specify)____
G25ii *(required)*	Please specify unit for older wage rate		
	Question relevant when: selected(${G25i} , '777')		
Consented > Active > Labour > HIRED LABOUR > Hired labor			
Group relevant when: not(selected(${G16} , '11'))			
E39m *(required)*	What is your perception on quality of hired labor?	1	Very good
		2	Good
		3	Somewhat good
		4	Not good
E40m *(required)*	What is your perception of availability of hired labor?	1	Very good
		2	Good
		3	Somewhat good
		4	Not good
E41m *(required)*	What is your perception of affordability of hired labor?	1	Very good
		2	Good
		3	Somewhat good
		4	Not good
Pb_4 *(required)*	Please Can you remember the amount of fish (including the various categories of fish sizes) you harvested and sales from your fish farm during your last full production cycle?	1	Yes, I can remember
		0	No, I can't remember
	Question relevant when: selected(${A01} , '4')		
Consented > Active > Harvest, sales and prices			
Group relevant when: selected(${A01} , '1') or selected(${Pb_4} , '1')			
H1 *(required)*	What categories of fish did you harvest/sell in your most recent full season/cycle?	1	size 4 (1 fishes is almost 1 kg)
		2	size 3 (3 fishes for 2 kg)
		3	size 2 (2 fishes for 1 kg)
		4	Size 1 (3 fishes for 1 kg)
		5	Regular (4-5 fishes for 1 kg)
		6	Economy (5-6 fishes for 1 kg)
		7	Small size (6-8 fishes for 1 kg)
		8	School boys (8-10 fishes for 1 kg)
		9	Reject (10-12 fishes for 1 kg)
		10	Mixed sizes
		999	Do not know
Consented > Active > Harvest, sales and prices > size 4 (1 fishes is almost 1 kg) (1)		(Repeated group)	
percentage_total_harvest *(required)*	what percentage of your total harvest is (size 4 (1 fishes is almost 1 kg))?		
	Question relevant when: selected(${H1} , ${H1_id})		
totalallsizes	Total percentage for all sizes harvested = 0 *This must add up to 100*		
Consented > Active > Harvest, sales and prices > size 4 (1 fishes is almost 1 kg) (1)		(Repeated group)	
H5 *(required)*	To whom did you sell (size 4 (1 fishes is almost 1 kg))? *Please select all that applies* *Question relevant when: selected(${H1} , ${H1_id2})*	1	Aggregator
		2	Sales/market outlet
		3	Supermarket
		4	Restaurant/schools
		777	other (specify...)
H5i *(required)*	Specify to whom you sold (size 4 (1 fishes is almost 1 kg))		
	Question relevant when: selected(${H5} , '777')		
H6 *(required)*	Who was your main buyer for (size 4 (1 fishes is almost 1 kg))?	1	Aggregator
	Question relevant when: selected(${H1} , ${H1_id2})	2	Sales/market outlet
		3	Supermarket
		4	Restaurant/schools
		777	other (specify...)
H6i *(required)*	Please specify who your main buyer for (size 4 (1 fishes is almost 1 kg)) is		
	Question relevant when: selected(${H6} , '777')		
H7 *(required)*	How much did you sell (size 4 (1 fishes is almost 1 kg)) to the main buyer (GHS)?		
	Question relevant when: selected(${H1} , ${H1_id2})		

Field	Question	Answer	
H7i *(required)*	What was the unit of sale of (size 4 (1 fishes is almost 1 kg)) to the main buyer?	1	Pieces
	Question relevant when: ${H7} > 0	2	Crate
		3	Kg
H8 *(required)*	Who was your second major buyer of (size 4 (1 fishes is almost 1 kg))?	1	Aggregator
	Question relevant when: ${num_H5} > 1	2	Sales/market outlet
		3	Supermarket
		4	Restaurant/schools
		777	other (specify...)
H8i *(required)*	Please specify who your second major buyer of (size 4 (1 fishes is almost 1 kg)) is		
	Question relevant when: selected(${H8} , '777')		
H9 *(required)*	How much did you sell (size 4 (1 fishes is almost 1 kg)) to the second buyer (GHS)?		
	Question relevant when: ${num_H5} > 1		
H9i *(required)*	What is the unit of sale of (size 4 (1 fishes is almost 1 kg)) to the second main buyer?	1	Pieces
	Question relevant when: ${H9} > 0	2	Crates
		3	Kg
H10 *(required)*	Who sells your products after harvest?	1	Self
		2	Spouse
		3	Other male family members
		4	Other female family members
		5	Fish dealer
		6	Sales persons in the farm/firm
		777	Other (please specify)_____
H10i *(required)*	Please specify who sells after harvest		
	Question relevant when: selected(${H10} , '777')		
H11 *(required)*	Who determines the prices of your products?	1	Self
	Do not read, select all that is mentioned	2	Aggregator
		3	Retailer
		4	Bigger farmers/firms
		777	Others (specify)____
H11i *(required)*	Please specify who determines the price of your fish		
	Question relevant when: selected(${H11} , '777')		
H12 *(required)*	How are the prices determined?	1	Prevailing market prices
		2	Based on cost of production
		3	Arbitrarily
		777	Other (please specify)_____
H12i *(required)*	Please specify how prices are determined for your product		
	Question relevant when: selected(${H12} , '777')		

Consented > Active > Harvest, sales and prices > Hatchery or fingerling production
  Group relevant when: selected(${C16} , '1')

Field	Question	Answer	
H13 *(required)*	How many types of fingerlings (in grams) did you sell the last cycle? *[Classification should be based on weight in grams]*		

Consented > Active > Harvest, sales and prices > Hatchery or fingerling production > Sizes of fingerlings (1)   (Repeated group)

Field	Question	Answer	
H14 *(required)*	What is the size of fingerling # 1 in grams		
H15 *(required)*	What percentage of the ([H14]) gram(s) fingerlings did you use in your own grow-out farm? *Response constrained to: .<=100*		
H16 *(required)*	Who were the buyers of your ([H14]) gram(s) fingerlings? *If multiple, select all applicable*	1	Minor or small scale farmer within zone
		2	Minor or small-scale farmer outside zone
		3	Medium scale farmers
		4	Large scale farmers
		777	Other (specify)_____
H16i *(required)*	Please specify the buyer of your ([H14]) gram(s) fingerlings		
	Question relevant when: selected(${H16} , '777')		
H17 *(required)*	Who was the main buyer of your ([H14]) gram(s) fingerlings?	1	Minor or small scale farmer within zone
		2	Minor or small-scale farmer outside zone
		3	Medium scale farmers
		4	Large scale farmers
		777	Other (specify)_____
H17i *(required)*	Please specify the main buyer of your ([H14]) gram(s) fingerlings		
	Question relevant when: selected(${H17} , '777')		
H18 *(required)*	At what price did you sell your ([H14]) gram(s) fingerlings to the main buyer (GHS/g)?		

Field	Question	Answer	
H19 *(required)*	Who was the second main buyer of your ([H14]) gram(s) fingerlings?	1	Minor or small scale farmer within zone
	Question relevant when: ${num_cust_fing} > 1	2	Minor or small-scale farmer outside zone
		3	Medium scale farmers
		4	Large scale farmers
		777	Other (specify)_____
H19i *(required)*	Please specify the main buyer of your ([H14]) gram(s) fingerlings		
	Question relevant when: selected(${H19} , '777')		
H20 *(required)*	At what price did you sell your ([H14]) gram(s) fingerlings to the second main buyer (GHS/g)?		
	Question relevant when: ${num_cust_fing} > 1		
Consented > Active > Shocks in the past 5 years			
J1 *(required)*	Did you experience any of the following adverse shocks that affected your fish farming in the past 5 years?	1	Disease causing mortality of fish
		2	Natural disaster (winds, drought/irregular rain storms) affecting fish production
	Select all applicable	3	Poor water quality
		4	Floods/landslide (due to heavy rains)
		5	Human epidemic/disease
		6	Livestock disease
		7	Devastating crop pest/disease
		8	Death of close family member
		9	Theft
		10	Unusually high prices of inputs
		11	Unusually low prices of tilapia
		12	Fire
		13	None
		777	Other (please specify)_____
J1i *(required)*	Please specify the adverse shock you experienced that affected your fish farming in the past 5 years		
	Question relevant when: selected(${J1} , '777')		
Consented > Active > Shocks in the past 5 years > Shock (1)		(Repeated group)	
Group relevant when: not(selected(${J1} , '13'))			
Consented > Active > Shocks in the past 5 years > Shock (1) > Disease causing mortality of fish			
Group relevant when: if(index() <=12, selected(${J1} , index()), selected(${J1} , '777'))			
J2 *(required)*	Your first year of experience of (Disease causing mortality of fish) (2014 to present)?	1	2014
		2	2015
		3	2016
		4	2017
		5	2018
		6	2019
		98	Not applicable
J3 *(required)*	Your second year of experience of (Disease causing mortality of fish) (2014 to present)?	1	2014
		2	2015
		3	2016
		4	2017
		5	2018
		6	2019
		98	Not applicable
J4 *(required)*	Your third year of experience of (Disease causing mortality of fish) (2014 to present)?	1	2014
		2	2015
		3	2016
		4	2017
		5	2018
		6	2019
		98	Not applicable
Consented > Active > Intrahousehold participation and decision making			
Consented > Active > Intrahousehold participation and decision making > Inputs to production decisions			

Field	Question	Answer	
K2.1 *(required)*	Did you participate in any of the following activities in the past 12 months *Select all applicable*	1	Fingerlings production
		2	Fingerlings purchase
		3	Tilapia culture (production)
		4	Tilapia marketing and trading
		5	Crop farming
		6	Other business enterprise (or self employment)
		7	Wages and salary earnings
		8	None
		777	Other (specify)____
K2.1i *(required)*	Please specify income generating activity you participated in the past 12 months *Question relevant when: selected(${K2.1} , '777')*		
Consented > Active > Intrahousehold participation and decision making > Inputs to production decisions > Fingerlings production (1) *Group relevant when: not(selected(${K2.1} , '8'))*		(Repeated group)	
Consented > Active > Intrahousehold participation and decision making > Inputs to production decisions > Fingerlings production (1) > income-gen-activity *Group relevant when: if(index() <=7, selected(${K2.1} , index()), selected(${K2.1} , '777'))*			
K2.3 *(required)*	How much input did you have in making decisions about (Fingerlings production)?	1	Little to no input in decisions
		2	Input into some decisions
		3	Input into most or all decisions
		98	Not applicable/no decision made
K2.6 *(required)*	How much input did you have in decisions about how to use output or income generated from (Fingerlings production)? *Question relevant when: ${K2.1_id} !=2*	1	Little to no input in decisions
		2	Input into some decisions
		3	Input into most or all decisions
		98	Not applicable/no decision made
K3.1 *(required)*	Does anyone in your household currently have any of the following ITEM(S)? *If pond farmer, don't ask, just select (Fish pond)*	1	Fish pond
		2	Fishing boat/canoes for fishing or transportation
		3	Land or facilities used for aquaculture business
		4	Equipment or materials used for aquaculture business
		5	Agricultural land
		6	None
Consented > Active > Intrahousehold participation and decision making > ownership of assets (1) (1) *Group relevant when: selected(${K3.1} , '1') or selected(${K3.1} , '2') or selected(${K3.1} , '3') or selected(${K3.1} , '4') or selected(${K3.1} , '5')*		(Repeated group)	
K3.2 *(required)*	Do you own the (Fish pond) yourself? *Read out loud the options* *Question relevant when: selected(${K3.1} , ${K3.1_id})*	1	Yes, solely
		2	Yes, jointly
		3	Yes, solely and jointly
		4	No
K3.3a *(required)*	Who's name is on the title, registration or other documents of the (Fish pond)? *Question relevant when: selected(${K3.1} , ${K3.1_id})*	1	Self
		2	Spouse (or partner)
		3	Other household member
		4	Government or other institution
		5	Clan (Group of relatives)
		98	Not applicable
K3.4a *(required)*	Who would you say is the FIRST person who can decide whether to sell, purchase, give away, mortgage or rent the (Fish pond) most of the time? *SELECT UP TO TWO (2) PERSONS WITH THE PRIMARY DECISION MAKER LISTED FIRST* *Question relevant when: selected(${K3.1} , ${K3.1_id})*	1	Self
		2	Spouse (or partner)
		3	Other household member
		4	Government or other institution
		5	Clan (Group of relatives)
		98	Not applicable
K3.4b *(required)*	Who would you say is the SECOND person who can decide whether to sell, purchase, give away, mortgage or rent the (Fish pond) most of the time? *Question relevant when: selected(${K3.1} , ${K3.1_id})*	1	Self
		2	Spouse (or partner)
		3	Other household member
		4	Government or other institution
		5	Clan (Group of relatives)
		98	Not applicable
Consented > Active > Intrahousehold participation and decision making > Ownership of assets (2)			

Field	Question	Answer	
K3.c *(required)*	Which of the following assets does your household own?	19	None
		1	Pickup/truck
		2	SUV
		3	Saloon car
		4	Motorbike
		5	Bicycle
		6	Air conditioner
		7	Refrigerator
		8	Cold chain
		9	TV set
		10	Radio
		11	Generator
		12	Water pump
		13	Water tank
		14	Borehole/protected well
		15	Large livestock (e.g. oxen and cattle)
		16	small livestock (e.g. goat, pigs, sheep)
		17	Poultry (e.g. chicken, guinea fowl, ducks, turkey)
		18	Cellphone
		777	Other (specify)_____
K3.c_i *(required)*	Please specify asset *Question relevant when: selected(${K3.c} , '777')*		

Consented > Active > Intrahousehold participation and decision making > Ownership of assets (2) > Pickup/truck (1)   (Repeated group)

Group relevant when: not(selected(${K3.c} , '19'))

Consented > Active > Intrahousehold participation and decision making > Ownership of assets (2) > Pickup/truck (1) > assets2

Group relevant when: if(index() <=18, selected(${K3.c} , index()), selected(${K3.c} , '777'))

Field	Question	Answer	
K3.13 *(required)*	How many Pickup/trucks do you own in 2019		
K3.14 *(required)*	How many Pickup/trucks do you own in 2014 (5 years ago)		
K3.15 *(required)*	If you were to sell Pickup/truck today, what is the value per unit? (GHS)		
K3.16 *(required)*	Do you own Pickup/truck yourself? *READ OUT LOUD. SELECT ONE*	1	Yes, solely
		2	Yes, jointly
		3	Yes, solely and jointly
		4	No
K3.17a *(required)*	Who's name is on the title, registration and other documents of the Pickup/truck?	1	Self
		2	Spouse (or partner)
		3	Other household member
		4	Government or other institution
		5	Clan (Group of relatives)
		98	Not applicable
K3.18a *(required)*	Who is the FIRST person you would say can decide whether to sell, purchase, give away, mortgage or rent Pickup/truck most of the time?	1	Self
		2	Spouse (or partner)
		3	Other household member
		4	Government or other institution
		5	Clan (Group of relatives)
		98	Not applicable
K3.18b *(required)*	Who is the SECOND person you would say can decide whether to sell, purchase, give away, mortgage or rent Pickup/truck most of the time?	1	Self
		2	Spouse (or partner)
		3	Other household member
		4	Government or other institution
		5	Clan (Group of relatives)
		98	Not applicable

Consented > Active > Intrahousehold participation and decision making > Access to Credit

Field	Question	Answer	
K4.1 *(required)*	Did anyone in your household ever apply for a loan or credit (in cash or in-kind) to support your CROP OR FISH FARMING OR ANY ECONOMIC ACTIVITIES in the last two years (2017-2019) either from friends, moneylenders, buyers, any association, bank or other financial institutions?	1	Yes
		0	No

Field	Question	Answer	
K4.2 *(required)*	Specifically for FISH FARMING (OR HATCHERY), did anyone in your household ever apply for a loan or credit (in cash or in-kind) to support your fish farming in the last two years (2017 - 2019), either from friends, family, moneylenders, buyers, association, bank, and other financial institutions? *Question relevant when: selected(${K4.1} , '1')*	1	Yes
		0	No
K4.3 *(required)*	Why did you not try to obtain a loan in the last two years? *Question relevant when: selected(${K4.1} , '0')*	1	No need for loan
		2	Inadequate collateral
		3	Had outstanding loan
		4	Past history of default
		5	Interest rate too high
		6	Lenders not located nearby
		7	Procedures too cumbersome
		777	Other (specify...)
K4.3i *(required)*	Specify the reason for not obtaining a loan in the last two years... *Question relevant when: selected(${K4.3} , '777')*		
K4.4 *(required)*	Would you or anyone in your household be able to take a loan or borrow cash/in-kind from any source if you wanted to?	1	Yes
		2	No
		3	Maybe
K4.4i *(required)*	Why? *Question relevant when: selected(${K4.4} , '2') or selected(${K4.4} , '3')*		
K4.5 *(required)*	An account can be used to save money, to make or receive payments, or to receive wages or financial help. Do you yourself have an account?	1	Yes, solely
		2	Yes, jointly
		3	Yes, solely and jointly
		4	No
K4.7 *(required)*	From whom did you attempt to get loan or credit (in cash or in kind) for fish farming? *Question relevant when: selected(${K4.2} , '1')*	1	Friends or family
		2	Cooperative/farmer organization
		3	Aggregator, trader, buyer (not under scheme)
		4	Private money lender
		5	Employer
		6	Commercial bank
		7	Micro-finance institution
		8	Non governmental or faith-based organisation
		9	Governmental or district body-run program
		10	Other projects
		777	Other (specify)___
K4.7i *(required)*	Please specify from whom you attempt to get loan/credit for your fish farming *Question relevant when: selected(${K4.7} , '777')*		
Consented > Active > Intrahousehold participation and decision making > Access to Credit > Friends or family (1) *Group relevant when: selected(${K4.1} , '1')*		(Repeated group)	
Consented > Active > Intrahousehold participation and decision making > Access to Credit > Friends or family (1) > loan/credit *Group relevant when: if(index() <=10, selected(${K4.7} , index()), selected(${K4.7} , '777'))*			
K4.8 *(required)*	Did you get the loan or credit from (Friends or family)?	1	Yes
		0	No
K4.9 *(required)*	What was the value of this loan/credit from (Friends or family) excluding interest, in GHC *(provide GHC equivalent if it was in-kind)* *Question relevant when: selected(${K4.8} , '1')*		
K4.12 *(required)*	What was the interest rate per year (%) on the loan from (Friends or family)? *Question relevant when: selected(${K4.8} , '1')*		
K4.13 *(required)*	Was collateral required to obtain the loan/credit from (Friends or family)? *Question relevant when: selected(${K4.8} , '1')*	0	No
		1	Yes
		2	Group security
K4.14a *(required)*	Who is the FIRST/major person who made the decision to borrow and what to do with the money or item borrowed from (Friends or family) most of the time? *SELECT UP TO TWO (2) PERSONS WITH THE PRIMARY DECISION MAKER LISTED FIRST* *Question relevant when: selected(${K4.13} , '1') or selected(${K4.13} , '2')*	1	Self
		2	Spouse (or partner)
		3	Other household member
		4	Government or other institution
		5	Clan (Group of relatives)
		98	Not applicable

Field	Question	Answer	
K4.14b *(required)*	Who is the SECOND person who made the decision to borrow and what to do with the money or item borrowed from (Friends or family) most of the time? *Question relevant when: selected(${K4.13} , '1') or selected(${K4.13} , '2')*	1	Self
		2	Spouse (or partner)
		3	Other household member
		4	Government or other institution
		5	Clan (Group of relatives)
		98	Not applicable
K4.16a *(required)*	Who is the FIRST person responsible for repaying the money or item borrowed from (Friends or family)? *Question relevant when: selected(${K4.13} , '1') or selected(${K4.13} , '2')*	1	Self
		2	Spouse (or partner)
		3	Other household member
		4	Government or other institution
		5	Clan (Group of relatives)
		98	Not applicable
K4.16b *(required)*	Who is the SECOND person responsible for repaying the money or item borrowed from (Friends or family) *Question relevant when: selected(${K4.13} , '1') or selected(${K4.13} , '2')*	1	Self
		2	Spouse (or partner)
		3	Other household member
		4	Government or other institution
		5	Clan (Group of relatives)
		98	Not applicable
Consented > Active > Intrahousehold participation and decision making > Sources of information or extension services			
K5.1 *(required)*	Where do your household get your fish farming advice and information from?	1	Fisheries Commission (FC) extension agents
		2	Where you buy fingerlings
		3	Chemical shop
		4	Other fish farmers in the community
		5	Leading/large scale farmers in the community
		6	Ministry of Food and Agriculture (MoFA)
		7	Leading or model farmers in other villages
		8	Farmer Based Organisations (FBO) or Cooperatives
		9	Other NGO/projects
		10	Radio
		11	Television
		12	Print media
		13	None
		999	Don't know
		777	Other (specify)___
K5.1i *(required)*	Please specify where your household gets fish farming advice and information from *Question relevant when: selected(${K5.1} , '777')*		
K5.2 *(required)*	Who in the household gets fish farming advice and information? *Select up to three (3) persons* *Question relevant when: not(selected(${K5.1} , '13'))* *Response constrained to: count-selected(.) <= 3*	1	Self
		2	Spouse (or partner)
		3	Other female household member
		4	Other male household member
		98	Not applicable
K5.3 *(required)*	Is the main source or provider of fish farming advice or information a male or female? *Question relevant when: not(selected(${K5.1} , '13'))*	1	Male
		2	Female
		3	Both
		4	Don't know
Consented > Active > Intrahousehold participation and decision making > Sources of information or extension services > Distance to nearest Fisheries Commission officer			
K5.4 *(required)*	What is the distance to the nearest Fisheries Commission Extension agent? *Enter 999 if don't know* *Response constrained to: (.>0 and .<=900) or .=999*		
K5.4a *(required)*	Unit of distance to the nearest Fisheries Commission Extension agent? *Question relevant when: ${K5.4} != 999*	1	Km
		2	Miles
		3	Meters
		5	Minutes (walk)
		4	Can't answer
K5.4b *(required)*	Do you receive advice from a Fisheries Commission Extension agent?	1	Yes
		0	No
K5.5 *(required)*	What is the gender of the Fisheries Commission Extension agent? *Question relevant when: selected(${K5.4b} , '1')*	1	Male
		0	Female

Field	Question	Answer	
K5.6 *(required)*	Did you receive advice (extension/technical services) on aquaculture production in 2018?	1	Yes
		0	No
	Consented > Active > Intrahousehold participation and decision making > Sources of information or extension services > Extension/technical service on fish farming *Group relevant when: selected(${K5.6} , '1')*		
K5.7 *(required)*	How often did you receive advice in 2018? *Question relevant when: selected(${K5.6} , '1')*		
K5.8 *(required)*	On which technology or subject did you receive advice? *Question relevant when: selected(${K5.6} , '1')*	1	Stocking density
		2	Proper feeding procedure
		3	Cage/pond construction
		4	Site evaluation and selection
		5	Processing and marketing of fish
		6	Hygienic handling of fish
		7	Water sampling
		8	Pipe management
		9	Hygienic pond care
		777	Other (specify)_____
K5.8i *(required)*	Please specify technology or subject you received advice on *Question relevant when: selected(${K5.8} , '777')*		
K5.9 *(required)*	Rate the usefulness of the information provided *Question relevant when: selected(${K5.6} , '1')*	1	Not useful
		2	Somewhat useful
		3	Useful
		4	Very useful
K5.10 *(required)*	Did you act on it or did you follow the advice provided? *Question relevant when: selected(${K5.6} , '1')*	1	Yes
		0	No
E37l *(required)*	What is the source of extension/technical service on fish farming?	1	Agro-input dealer shop
		2	FC extension agent
		3	Hatchery
		4	Colleague farmers
		5	MoFA extension agents
		6	Market
		7	Own farm
		777	Other (please specify)_____
E37li *(required)*	Please specify the source of extension/technical services on your fish farming *Question relevant when: selected(${E37l} , '777')* *Response constrained to: string-length(.)<=40*		
E38l *(required)*	What is the distance to the nearest source of extension/technical service?		
E38li *(required)*	Unit of distance *Question relevant when: ${E38l} > 0*	1	Km
		2	Miles
		3	Minutes (walk)
		4	Meters
E39l *(required)*	What is your perception on quality of extension/technical service?	1	Very good
		2	Good
		3	Somewhat good
		4	Not good
E40l *(required)*	What is your perception of availability of extension/technical service?	1	Very good
		2	Good
		3	Somewhat good
		4	Not good
E41l *(required)*	What is your perception on affordability of extension/technical service?	1	Very good
		2	Good
		3	Somewhat good
		4	Not good
K5.11 *(required)*	How many times did a veterinarian visit your fish farm during the last year? *To be answered by main respondent only*		
K5.12 *(required)*	Aside from extension agents and veterinarian above, how many other people do you yourself talk to about fish farming?		
K5.13 *(required)*	How many fish farmers do you know?		
K5.14 *(required)*	Are you a member of a group, association or organization, including any informal groups or social networks you belong to discuss issues and do joint activities?	1	Yes
		0	No

Field	Question	Answer	
K5.15 *(required)*	Are you a member of groups, associations or organizations, including any informal groups or social networks you belong to discuss issues and do joint activities related to **fish farming or marketing?** *Question relevant when: selected(${K5.14} , '1')*	1	Yes
		0	No
K5.16 *(required)*	Did you receive any other support or assistance other that training or technical support on fish farming from any project or program in the last 3 years?	1	Yes
		0	No
K5.17 *(required)*	What program or project? *Question relevant when: selected(${K5.16} , '1')*		
K5.18 *(required)*	What type of support or assistance did you receive on fish farming? *Select all applicable* *Question relevant when: selected(${K5.16} , '1')*	1	Credit/loan, at subsidized rate
		2	Free or subsidized seed/fingerlings
		3	Free or subsidized feed
		4	Free or subsidized equipment for cage/pond construction
		5	Free or subsidized materials/tools
		6	Free or subsidized chemicals/fertilizer/drugs/hormones/vaccines
		7	Market facilitation
		8	Input packages linked to model farmer or farm demos
		777	Other (please specify)_____
K5.18i *(required)*	Please specify what type of support or assistance you received on fish farming *Question relevant when: selected(${K5.18} , '777')*		
Places_male *(required)*	Do you visit the following places? *If multiple, select all that apply* *Question relevant when: selected(${B7} , '1')* *Response constrained to: if(selected(. , '6'), count-selected(.) = 1, count-selected(.) >=1)*	1	Market/trading place
		2	Visit family/relative/friends inside or outside the community
		3	Temple/church/mosque
		4	Public village gathering or community meeting
		5	Training venue for NGO/programs
		6	None
Places_female *(required)*	Do you visit the following places? *Select all that applies* *Question relevant when: selected(${B7} , '0')* *Response constrained to: if(selected(. , '6'), count-selected(.) = 1, count-selected(.) >=1)*	1	Market/trading place
		2	Visit family/relative/friends inside or outside the community
		3	Temple/church/mosque
		4	Public village gathering or community meeting
		5	Training venue for NGO/programs
		6	None
Consented > Active > Intrahousehold participation and decision making > Sources of information or extension services > Market/trading place (1) *Group relevant when: selected(${B7} , '0') and not(selected(${Places_female} , '6'))*		(Repeated group)	
K5.20 *(required)*	How often do you visit Market/trading place? *Question relevant when: selected(${Places_female} , ${place_id})*	1	Everyday
		2	Every week at least once
		3	Every 2 weeks at least once
		4	Every month at least once
		5	Less than once a month
		6	Never
K5.21 *(required)*	Do you feel you would be able to visit Market/trading place if you wanted to? *Question relevant when: selected(${Places_female} , ${place_id})*	1	Yes
		0	No
K5.22 *(required)*	Who usually decides whether you can go Market/trading place? *Question relevant when: selected(${K5.21} , '1')*	1	Self
		2	Spouse (or partner)
		3	Other household member
		4	Government or other institution
		5	Clan (Group of relatives)
		98	Not applicable
K5.23 *(required)*	Does your husband/partner or other household member object to you going alone to Market/trading place? *Question relevant when: selected(${K5.22} , '1') or selected(${K5.22} , '2') or selected(${K5.22} , '3') or selected(${K5.22} , '4') or selected(${K5.22} , '5') or selected(${K5.22} , '6') or selected(${K5.22} , '7') or selected(${K5.22} , '8')*	1	Yes
		0	No

Field	Question	Answer	
K5.24 *(required)*	Under what circumstances would this person NOT object to your going to Market/trading place? *Select all applicable* *Question relevant when: selected(${K5.23} , '1')*	1	If I have company (relatives, children)
		2	If I can arrange my own expenses (for transport)
		3	If I follow dress acceptably
		4	Under no circumstances will I be allowed to go
		777	Other (please specify)_____
K5.24i *(required)*	Please specify what circumstances this person would NOT object to your going to Market/trading place *Question relevant when: selected(${K5.24} , '777')*		
	Do these objections prevent you from going alone to Market/trading place? *Question relevant when: selected(${K5.24} , '1') or selected(${K5.24} , '2') or selected(${K5.24} , '3') or selected(${K5.24} , '777')*	1	Yes
K5.25 *(required)*		0	No
K5.26 *(required)*	How often do you listen to the radio?	1	Every day
		2	At least once a week
		3	At least once a month
		4	At least once a year
		5	Never
K5.27 *(required)*	Do you get agricultural and fish farming advice or information from the radio? *Question relevant when: not(selected(${K5.26} , '5'))*	1	Yes
		0	No
K5.28 *(required)*	How often do you watch television?	1	Every day
		2	At least once a week
		3	At least once a month
		4	At least once a year
		5	Never
K5.29 *(required)*	Do you get agricultural and fish farming advice or information from TV programs? *Question relevant when: not(selected(${K5.28} , '5'))*	1	Yes
		0	No
K5.30 *(required)*	How often do you talk on the phone?	1	Every day
		2	At least once a week
		3	At least once a month
		4	At least once a year
		5	Never
K5.31 *(required)*	Do you get agricultural and fish farming advice or information from the phone or mobile messaging? *Question relevant when: not(selected(${K5.30} , '5'))*	1	Yes
		0	No
intro_K6.1_K6.13	I am going to read out 13 statements about your own perception or opinions on the role of women and men in fish farming. Kindly tell me whether you Strongly Agree, Agree, Disagree, or Strongly Disagree. There are no wrong or correct answers and your responses are strictly confidential. We just would like to know how the gender roles are currently perceived so that we can cater for the technical support and project interventions accordingly		
Consented > Active > Intrahousehold participation and decision making > Gender attitudes			
K6.1 *(required)*	Women should leave fish farming to the men especially if there is an able man in the household to do it	1	Strongly Agree
		2	Agree
		3	Disagree
		4	Strongly Disagree
		999	Don't know
		888	Refuse to answer
K6.2 *(required)*	A man will be considered less of a man if his wife is involved in fish farming	1	Strongly Agree
		2	Agree
		3	Disagree
		4	Strongly Disagree
		999	Don't know
		888	Refuse to answer
K6.3 *(required)*	It is dangerous/risky for a woman to travel to suppliers, buyers or markets	1	Strongly Agree
		2	Agree
		3	Disagree
		4	Strongly Disagree
		999	Don't know
		888	Refuse to answer

Field	Question	Answer	
K6.4 *(required)*	Women should not own fish ponds or cages, fishing nets and other equipment and gadgets use for fish farming	1	Strongly Agree
		2	Agree
		3	Disagree
		4	Strongly Disagree
		999	Don't know
		888	Refuse to answer
K6.12 *(required)*	It brings benefits to the family to have women participate and be engaged in fish farming operations	1	Strongly Agree
		2	Agree
		3	Disagree
		4	Strongly Disagree
		999	Don't know
		888	Refuse to answer
K6.5 *(required)*	Women should primarily be the ones who clean and process fish	1	Strongly Agree
		2	Agree
		3	Disagree
		4	Strongly Disagree
		999	Don't know
		888	Refuse to answer
K6.6 *(required)*	Women should primarily be the ones who trade or market fish, not men	1	Strongly Agree
		2	Agree
		3	Disagree
		4	Strongly Disagree
		999	Don't know
		888	Refuse to answer
K6.13 *(required)*	Fish farming is a men's job, not a women's job	1	Strongly Agree
		2	Agree
		3	Disagree
		4	Strongly Disagree
		999	Don't know
		888	Refuse to answer
K6.7 *(required)*	Men should primarily be the ones who transport fish to a market for sale	1	Strongly Agree
		2	Agree
		3	Disagree
		4	Strongly Disagree
		999	Don't know
		888	Refuse to answer
K6.8 *(required)*	Men should primarily be the ones who control the earnings obtained from the sale of fish	1	Strongly Agree
		2	Agree
		3	Disagree
		4	Strongly Disagree
		999	Don't know
		888	Refuse to answer
K6.9 *(required)*	Women should primarily be the ones who prepare meals (including fish) for the family or if guests come to visit	1	Strongly Agree
		2	Agree
		3	Disagree
		4	Strongly Disagree
		999	Don't know
		888	Refuse to answer
K6.10 *(required)*	Men should mostly be the ones who belong to aquaculture or fisheries clubs, organizations, or associations, not women	1	Strongly Agree
		2	Agree
		3	Disagree
		4	Strongly Disagree
		999	Don't know
		888	Refuse to answer
K6.11 *(required)*	It brings benefits to the family to have women participate in training activities, such as aquaculture training	1	Strongly Agree
		2	Agree
		3	Disagree
		4	Strongly Disagree
		999	Don't know
		888	Refuse to answer

Field	Question	Answer	
	Consented > Active > Intrahousehold participation and decision making > Time constraints		
K7.1 *(required)*	If you want to do something (livelihood-related, training-related, self-care) will you be able to reorganize your tasks so that you can make time to do it?	1	Yes
		0	No
K7.2 *(required)*	If you wanted to do something (livelihood-related, training-related, self-care) and could not take your child with you, is there someone who could care for your child in your absence? *Select not applicable, if respondent does not have a child from 0 - 5 years old* Question relevant when: selected(${B7} , '0')	1	Yes
		0	No
		98	Not applicable
K7.3 *(required)*	If you had an additional 2 hours in your day to do anything, how would you spend that time? *Select two or less* Response constrained to: if(selected(. , '15'), count-selected(.) = 1, count-selected(.) <=2)	15	None
		1	Sleeping and resting/relaxing
		2	Eating and drinking
		3	Personal care
		4	School (incl. homework)
		5	Work as employed
		6	Own business work
		7	More time for farming
		8	Domestic work (incl. cooking, fetching water and fuel)
		9	Caring for children, caring for adults (sick, elderly)
		10	Travelling (not for work or school)
		11	Shopping/getting service (incl. health services)
		12	Exercising
		13	Social activities and hobbies
		14	Religious activities
		777	Other (specify)___
K7.3i *(required)*	Please specify how you would an additional 2 hours in your day if provided Question relevant when: selected(${K7.3} , '777')		
	Consented > Active > Intrahousehold participation and decision making > Female owner experience *Group relevant when: selected(${B7} , '0')*		
Q1 *(required)*	Based on your experience, name up to three advantages/opportunities for women who want to become managers/owners of fish farms? *Enter 999 if don't know or 888 if refuse to answer*		
Q2 *(required)*	Based on your experience, name up to three disadvantages/challenges for women who want to become managers/owners of fish farms? *Enter 999 if don't know or 888 if refuse to answer*		
Q3 *(required)*	Based on your experience, can you name up to three advantages/opportunities for women who will like to work as employees or as family or hired labor for fish farms? *Enter 999 if don't know or 888 if refuse to answer*		
Q4 *(required)*	Based on your experience, can you name up to three advantages/opportunities for women who will like to work as employees or as family or hired labor for fish farms? *Enter 999 if don't know or 888 if refuse to answer*		
Q5 *(required)*	What do you think can be done to encourage women as managers/owners of fish farms? *Enter 999 if don't know or 888 if refuse to answer*		
Q6 *(required)*	What do you think can be done to encourage more women as employees or as family or hired labor of fish farms? *Enter 999 if don't know or 888 if refuse to answer*		
intro_K8.1_K8.11	I would like to look around your facility. This is not an assessment and whatever we collect here will be strictly confidential and will not be shared with anyone or any regulatory agency. We just want to make some observations and some notes so that we can cater for the technical support and capacity strengthening activities of a potential project.		
	Consented > Active > Aquaculture and fish health management and practices *Group relevant when: selected(${A01} , '1') or selected(${A01} , '2') or selected(${A01} , '3')*		
K8.1 *(required)*	Overall appearance or order of the facility *Rank on a scale of 1 - 5 scale... (1 (bad) and 5 (excellent)* Response constrained to: .>=1 and .<=5		
K8.2 *(required)*	Does the facility have a toilet?	1	Yes
		0	No
K8.3 *(required)*	Overall sanitation/hygiene (how clean the facility/surroundings) *Rank on a scale of 1 - 5 scale... (1 (bad) and 5 (excellent)* Response constrained to: .>=1 and .<=5		
K8.4 *(required)*	Are there animals around/near the facility (anything you can see)	1	Yes
		0	No

Field	Question	Answer	
K8.5 *(required)*	Does the facility have changing room for staff/employees?	1	Yes
		0	No
K8.6 *(required)*	Sanitation and hygiene of the changing room *Rank on a scale of 1 - 5 scale... (1 (bad) and 5 (excellent)* *Question relevant when: selected(${K8.5} , '1')* *Response constrained to: .>=1 and .<=5*		
K8.7 *(required)*	How neatly arranged is the feed storage facility as well as its sanitation *Rank on a scale of 1 - 5 scale... (1 (bad) and 5 (excellent)* *Response constrained to: .>=1 and .<=5*		
K8.8 *(required)*	How is the feed stored?	1	Raised wooden platform
		2	Stacked and stored directly against the wall and/or concrete floors
		777	Other (specify)____
K8.8i *(required)*	Please specify how feed is stored *Question relevant when: selected(${K8.8} , '777')*		
K8.9 *(required)*	Does the farm have a written pest control plan for feed?	1	Yes
		0	No
K8.10 *(required)*	Does the farm have a storage cabinet or facility for drugs, antibiotics, hormones or chemicals?	1	Yes
		0	No
K8.12 *(required)*	Does the farm have a written sanitation and hygiene plan?	1	Yes
		0	No
M1 *(required)*	Please can I call you to ask updates on your production/harvest after 6 months?	1	Yes
		0	No
A5 *(required)*	Respondent's response status	1	Completed/Successful (CONTINUE)
		2	Entire household absent outside the area for extended period of time (END INTERVIEW)
		3	Refused - in general (END INTERVIEW)
		4	Refused to consent (END INTERVIEW)
		5	Postponed (RETURN FOR CALL-BACK)
		6	No household member at home or no competent respondent at home at time of visit (RETURN FOR CALL-BACK)
		7	Partial (RETURN FOR CALL-BACK)
		777	Other (please specify)_____
A5i *(required)*	Please specify respondent's response status *Question relevant when: selected(${A5} , '777')*		
A6 *(required)*	Name of enumerator	1	Mark Aduah
		2	Dan Kumi Ntow
		3	Akwesi Asare
		4	Emmanuel Sackey
		5	Paul Obeng
		6	Prince Sarbeng
		7	Gregory Sesime Anku
		8	Caleb Otchere
		9	Samuel Darko
		10	Richard Otoo
		11	Yahaya Suwar
		12	Sheriff Adams
		13	Angelina Awunor
		14	Zeinabu Abubakari
		15	Grace Bosompem
		16	Michael Darko
		17	Ivy Botchway
		18	Abednego Amoah
		19	Jeff Neequaye
		20	Evelyn Anthony
		21	Mavis Gyan
		777	Other (specify)___
A6i *(required)*	Specify name of enumerator *Question relevant when: selected(${A6} , '777')*		

Field	Question	Answer	
A11 *(required)*	Name of supervisor	1	Abednego Amoah
		2	Dan Kumi Ntow
		3	Paul Obeng
		4	Samuel Darko
		777	Other (specify)___
A11i *(required)*	Specify name of supervisor *Question relevant when: selected(${A11} , '777')*		
A7 *(required)*	Who were interviewed?	1	Alone
		2	With other staff present
		3	With other household members present
		4	With other staff and household members present
A8	Comments from enumerator		
L1	Can you provide me with the telephone number of your spouse (second respondent)? *Ask this if second respondent is not immediately available for the interview*	1	Yes
		0	No
L1a	Telephone number *Question relevant when: selected(${L1} , '1')* *Response constrained to: ((string-length(.)>=10 and string-length(.)<=10) and not(regex(.,'^(.*)[\p{Alpha}](.*)$')) and not(regex(.,'^(.*)\s(.*)$')) and not(regex(.,'^(.*)[\p{Punct}](.*)$')))*		
L1b *(required)*	Why? *Question relevant when: selected(${L1} , '0')*	1	Spouse (second respondent) is not at all involved in fish farming or marketing
		2	Refuse to give out number
		777	Other (specify)___
L1c *(required)*	Please specify respondent refuse to give number *Question relevant when: selected(${L1b} , '777')*		