

Cassava Producer household survey

Name of enumerator	Name of supervisor	Date	Time	Survey ID
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This survey is being conducted by _____ together with the International Center for Tropical Agriculture and the University of Queensland, Australia. The survey is related to cassava production and marketing and includes questions on other livelihood activities that your family is involved in. The aim of the survey is to help develop practical recommendations to improve your cassava production and marketing that are suited to cassava farmers in your community.

The information you share with us will not be shared with others in a way in which you can be personally identified. While your participation in the survey is highly valued, it is voluntary. You may choose to withdraw at any time without restricting your involvement to future activities.

Do you agree to participate in the survey? Yes/No

Section A – Location of field site and respondent details

Country	Province	District
Commune	Village	GPS Location

Name of household head	Ethnicity of Household Head	Age of Household Head	Education level of Household Head <i>(1) No formal education</i> <i>(2) Primary</i> <i>(3) 1-2 years high school</i> <i>(4) 3-4 years high school</i> <i>(5) 5-6 years high school</i> <i>(6) Graduate high school</i> <i>(7) College</i> <i>(8) University</i>	Marital status of Household Head
(If married) Name of spouse	Ethnicity of spouse	Age of spouse	Education level of spouse <i>(1) No formal education</i> <i>(2) Primary</i> <i>(3) 1-2 years high school</i> <i>(4) 3-4 years high school</i> <i>(5) 5-6 years high school</i> <i>(6) Graduate high school</i> <i>(7) College</i> <i>(8) University</i>	Who is the interview being conducted with: Household Head Spouse Other
Telephone number				

Information on respondent (if other)

Name of respondent	Relationship to household head	Gender of respondent
Age of respondent	Education level of respondent <i>(1) No formal education</i> <i>(2) Primary</i> <i>(3) 1-2 years high school</i> <i>(4) 3-4 years high school</i> <i>(5) 5-6 years high school</i> <i>(6) Graduate high school</i> <i>(7) College</i> <i>(8) University</i>	Telephone number of respondent

Household composition

How many resident members are there in your household?						How many non-resident members are there in your household?							
						Involvement in cassava production, harvesting, selling and marketing							
	Relationship to Household Head	Gender	Age	Education *-code	Resident 0-No 1-Yes	Work in Agriculture 0-No 1-Yes	Land Preparation	Planting	Manual Weeding	Apply Herbicide	Pest Management	Harvesting	Selling and marketing
1													
2													
3													
4													
5													
6													
7													
8													
9													
10													

* 1. No formal education; 2. Primary; 3. 1-2 years high school; 4. 3-4 years high school; 5. 5-6 years high school; 6. Graduate high school; 7. College; 8. University

Land resources

History of land ownership

How many years has your family been living and farming in this area?	If your family migrated to this area, where did you migrate from?
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Paddy land

Does your household own any paddy land? <i>0-No</i> <i>1-Yes</i>	Area of paddy land?	Unit of measure <i>[1] Hectare</i> <i>[2] Rai</i> <i>[3] Sao</i>	Does the paddy land have access to irrigation? <i>0-No</i> <i>1-Yes</i>	Distance from home? (time)	Mode of travel <i>[1] Walk</i> <i>[2] Motorbike</i> <i>[3] Car</i>	What is the ownership status of this land? <i>[1] Own with title</i> <i>[2] Own but no title</i> <i>[3] Rented-in</i> <i>[4] Sharecrop</i> <i>[5] Other (sp)</i>
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Upland fields

Do you own any upland crop land? <i>0-No</i> <i>1-Yes</i>	Number of upland cropland parcel cultivated in 2016?	Do you own any fallow land? <i>0-No</i> <i>1-Yes</i>	Number of fallow parcels in 2016?	Do you own any Treecrop land parcels? <i>0-No</i> <i>1-Yes</i>	Number of Treecrop land parcels	Do you own any other land e.g. Grazing land, gardens <i>0-No</i> <i>1-Yes</i>	Specify	Number of other parcels
To confirm, you own _____ parcel of upland fields.								

Livelihood activities and income

Annual crops grown in 2016

Crop	Production (kg)	Sold (kg)	Average price (per kg)	Currency Unit	Cash income (check if correct)
Paddy rice (Wet-season)					
Paddy rice (Dry season)					
Cassava					
Upland rice					
Maize					
Sugarcane					
Jobs tears					
Peanuts					
Mungbean					
Soybean					
Sesame					
Other (specify)					

Tree Crops

Tree crop	Number of trees owned	Area of tree crop	Area Unit [1] Hectare [2] Rai [3] Sao	Year established	Amount sold in last 12 months	Total cash income in last 12 months	Currency Unit
Cashews							
Rubber							
Coffee							
Tea							
Other (specify)							

Livestock

Livestock	Current number owned	Number sold in last 12 months	Number consumed in last 12 months	Amount of income from sales in last 12 months?	Currency Unit
Cattle					
Buffalo					
Goats					
Pigs					
Chickens					
Ducks					
Others (specify)					

Other activities

Activity	Members of HH earn income from this activity	Estimated income in last 12 months	Currency Unit
Agricultural Off-farm wages	<i>0-No</i> <i>1-Yes</i>		
Irregular non-farm work (construction,	<i>0-No</i> <i>1-Yes</i>		
Regular non-farm salaries (school teacher, government worker, office worker)	<i>0-No</i> <i>1-Yes</i>		
Remittances	<i>0-No</i> <i>1-Yes</i>		
Non-timber forest products	<i>0-No</i> <i>1-Yes</i>		
Natural Timber sales	<i>0-No</i> <i>1-Yes</i>		
Fishing	<i>0-No</i> <i>1-Yes</i>		
Hunting	<i>0-No</i> <i>1-Yes</i>		
Other income sources	Specify		

Ranking of livelihood activities

	What is the three most important activity for your household's food security	What is the three most important activity for your household's cash income	Considering both food security and cash income, what are the three most important activities
1			
2			
3			

Access to credit

Do you have a bank account or savings at a financial institution? <i>0-No</i> <i>1-Yes</i>	If yes, what is the name of the bank or financial institution?	Are you a member of a village savings group? <i>0-No</i> <i>1-Yes</i>	Have you ever received any credit from a cassava industry stakeholder <i>1. Collection point</i> <i>2. Trader</i> <i>3. Starch factory</i> <i>4. Chip factory</i>	
Can you purchase fertiliser on credit in a store in your area? <i>0-No</i> <i>1-Yes</i>	Have you ever purchased fertiliser on credit? <i>0-No</i> <i>1-Yes</i>	If yes, What was the cost of fertiliser on credit?	If no, what is the reason you did not purchase fertiliser on credit?	What is the cost of fertiliser without credit?

<p>In the last 12 months, did you get a loan? <i>1=Yes 0= No</i></p>			
	Loan 1	Loan 2	Loan 3
What was the total value of this loan when it was taken out?			
<p>Was the original stated purpose of the loan for:</p> <p><i>1 – Agricultural production</i> <i>2 – Purchase capital item for business</i> <i>3 – Other business</i> <i>4 - Consumption</i></p>			
<p>Was the actual use of the loan for:</p> <p><i>1 – Agricultural production</i> <i>2 – Purchase capital item for business</i> <i>3 – Other business</i> <i>4 - Consumption</i></p>			
What was the interest rate on this loan (% per month)?			
What was the source of credit?			
When do you think you will have paid off this loan (months)?			

How manageable is your current level of debt?
[1] very manageable, no concern
[2] manageable
[3] some concern
[4] unmanageable
[5] very unmanageable

Access to information

<p>What are your major sources of information on agricultural production?</p> <p>[1] Family [2] Friends and neighbours in the village [3] Friends and neighbours outside the village [4] District government extension [5] Province government extension staff [6] Non government organisation [7] Farmer group [8] Cassava Traders [9] Cassava processors [10] Researchers [11] Tv [12] Radio [13] Internet [14] Other (specify)</p>	<p>What are your major sources of information on agricultural markets?</p> <p>[1] Family [2] Friends and neighbours in the village [3] Friends and neighbours outside the village [4] District government extension [5] Province government extension staff [6] Non government organisation [7] Farmer group [8] Cassava Traders [9] Cassava processors [10] Researchers [11] Tv [12] Radio [13] Internet [14] Other (specify)</p>
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Group membership

Does any member of your household belong to any groups or mass organisations? 1=Yes 0= No			
Name of organisation	Type of organisation [1] Farmer group [2] savings group [3] political group [4] religious group [5] other (specify)	Does the group provide information on agricultural production? 1=Yes , 0= No	Does the group provide information of agricultural markets? 1=Yes , 0= No

Household assets

Does your family own any of the following assets?	1 = Yes 0 =No
Truck	
Car	
Motorbike	
2 wheel tractor	
Tractor (4wheel)	
Water pump	
Generator for electricity	
Mobile phone	
Smart phone (internet)	
TV	
DVD player	
Radio	
Refrigerator	

<p>What is your roof made from? <i>[1] Tiles [2] Metal (tin, iron) [3] Natural material (grass etc.)</i></p>	<p>What are your house walls made from? <i>[1] Bamboo [2] Wood [3] Metal sheet (tin, iron) [4] cement blocks [5] bricks</i></p>	<p>Does your house have electricity? <i>[1] No electricity [2] Mains electricity [3] solar electricity [4] Own electricity generator [5] other source (specify)</i></p>
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Cassava production

What was the first year you first grew cassava?	Are you growing cassava this season? (2017)	Do you think you will be growing cassava in 5 years' time? <i>[1] yes [2] no [3] unsure</i>
If no, why not?	What do you think you will do with the land where you currently grow cassava?	

Production 2016 and future outlook

<p>What was the total amount of cassava harvested in 2016?</p> <p>Production</p> <p>Area</p>	<p>How would you rate this yield?</p> <p><i>[1] Very low</i> <i>[2] Lower than normal</i> <i>[3] Average</i> <i>[4] Higher than normal</i> <i>[5] Very high</i></p>	<p>What is the highest yield that you have produced in the past 5 years?</p> <p>Year</p> <p>Production</p> <p>Area</p>	<p>What is the lowest yield that you have produced in the past 5 years?</p> <p>Year</p> <p>Production</p> <p>Area</p>
<p>How would you describe the current yield trend?</p> <p><i>[1] Declining rapidly</i> <i>[2] Declining moderately</i> <i>[3] Relatively constant</i> <i>[4] Increasing</i> <i>[5] Increasing rapidly</i> <i>[6] Fluctuating, but with no clear trend</i></p>	<p>If yield is falling, what do you think are the main reason?</p>	<p>If yields are increasing, what do you think are the main reasons?</p>	<p>At current prices, at what yield do you think you would stop growing cassava?</p> <p>Production</p> <p>From Area:</p>

Land preparation for Cassava

<p>How do you cultivate the soil?</p> <p>[1] None (only dibble) [2] Manual (hoe etc) [3] Buffalo or cattle [4] 2 wheel Tractor [5] 4 wheel tractor</p>	<p>How many cultivations do you do?</p>	<p>Do you create ridges during land preparation?</p> <p>[1] yes [2] no</p>
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Intercropping

<p>Have you ever grown any intercrops with your cassava?</p> <p>1 = Yes 0 =No</p>	<p>Do you currently grow any intercrops with your cassava?</p> <p>1 = Yes 0 =No</p>	<p>If yes, what crops?</p>	<p>What are the benefits of this intercrop(s)</p>	<p>What are the problems with this intercrop(s)?</p>
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<p>What characteristics must an intercrop have?</p>	<p>What characteristics must and intercrop not have?</p>	<p>Are you interested in trialling new intercrops?</p> <p>1 = Yes 0 =No</p>	<p>If yes, what crops are you interested in?</p>
<p>If no, why are you not interested in intercropping?</p>			

Planting and varieties

How many cassava varieties do you grow in 2017?					How many varieties are for eating (sweet)?		How many of these varieties are for commercial purpose (bitter)					
C0	C1	C4	C5	C6	C8	C9	C10			C11		
Variety	Variety name. <i>(Write 99 if no name)</i>	In which year did you start to plant this variety for the first time?	Source of planting material for the first time on your farm? Code	Source of planting material this season? Code	What do you mainly use this variety of Cassava for? <i>[1] own consumption [2] own livestock [3] To sell as dried chips [4] To sell-fresh [5] Other, specify</i>	In the last five years, have you increased, decreased or not changed the area planted to this variety on your farm? <i>[1]. Increased [2]. decreased [3]. Not changed</i>	What do you LIKE about this variety? <i>(List up to three features in the descending order of importance)</i> <i>[1] Starch content [2] early mature [3] High yielding (dry matter) [4] Root colour [5] Fast cooking [6] Taste [7] Resistant to pest and diseases [8] Stores for a long time after harvest [98] Other cooking/processing quality (specify) [99] Other agronomic characteristic (specify)</i>			What do you NOT LIKE about this variety? <i>(List up to three features in the descending order of importance)</i> <i>[1] Starch content [2] Late mature [4] Low yield [5] Unstable starch [6] Susceptible to pest and diseases [7] Branchy [99] Other agronomic characteristic (specify)</i>		
							1 st	2 nd	3 rd	1 st	2 nd	3 rd
1												
2												
3												
4												
5												
6												
7												

[1] Friend/neighbour/relative WITHIN the community [2] Friend/neighbor/relative OUTSIDE the community [3] Local market [4] Regional market [5] Cassava trader at collection point [6] Cassava trader come to village [7] Other trader in village [8] Government extension office [9] Government research office [10] Non government organisation (NGO) [11] Other (specify)

Planting material

<p>In the past 5 years have you ever used planting material sourced from outside your own fields? <i>[1] Once [2] Twice [3] Three times [4] Four times [5] Every year [6] Never</i></p>			
<p>For the planting material used for the last crop you established, what percentage was: Own field _____ Exchanged with other farmers _____ Purchased _____</p>			
<p>For you own planting material, do you manage this area of the field differently in the previous season? <i>1=Yes 0= No</i></p>	<p>If yes, please specify how you manage differently.</p>	<p>Who in the household is responsible for planting material selection? <i>[1] male head of household [2] Female head of household or spouse [3]son [4] daughter [5] other (specify)</i></p>	<p>Do you select next year's planting material before or after harvest?</p>
<p>What characteristics are important when selecting planting material for next year?</p>	<p>Where do you store you own planting material? <i>[1] In the field (standing) [2] In field (laying down) [3]In the shade (under tree) [4] On roof [5]Other</i></p>		

Purchased planting material

<p>For purchased planting material, when did you purchase additional planting material?</p> <p><i>[1] First began farming cassava</i> <i>[2] When a new variety was available</i> <i>[3] When own stakes were lost (drought, flood, etc.)</i> <i>[4] When own planting material is not good quality</i> <i>[5] When I have a disease or pest problem in previous year</i> <i>[6] On a regular basis to improve seed stock</i> <i>[7] Other _____</i></p>	<p>How many different people have you purchased planting material from in the past 5 years?</p>	<p>How many different people have you sold planting material from in the past 5 years?</p>	<p>How many different people did you exchange planting material with (receive only) in the past 5 years?</p>
<p>How many different people did you exchange planting material with (give only) in the past 5 years?</p>		<p>How did you assess the quality of the planting material you purchased or exchanged?</p>	
<p>Have you ever purchased planting material that you had problems with? 1=Yes 0= No</p>	<p>If yes, specify.</p>	<p>To your knowledge, when was the last time a new variety became available in your area?</p>	<p>If a new variety is released, how do you normally get access to it?</p>

Stakes

Do you pre-treat your stakes with any product? <i>1=Yes 0= No</i>	If yes, what product?	What is this product for? <i>[1] Pest and disease management [2] Promote growth and high yields</i>
Which way do you place your stakes in the ground? <i>[1] Horizontal [2] vertical [3] slant</i>	What is the spacing between stakes? Distance 1 (m) _____ Distance 2 (m) _____	How do you normally determine when to plant your cassava?
When do you normally plant your cassava (normal year)? Week _____ Month _____	Has the planting date changed in the past 5 years? <i>[1] No change [2] Earlier [3] Later [4] Uncertain [5] shifts depending on season</i>	How often if the past 5 years have you had establishment failure and needed to replant due to poor weather?

Weeding

Do think that weeds are a limiting factor in the productivity of your cassava crop. <i>[1] No [2] Small problem [3] medium problem [4] large problem</i>	Do you conduct manual weeding? <i>1=Yes 0= No</i>	If yes, how many times do you manually weed per season?	When do you do manual weeding? <i>[1] 1 month after planting [2] 2 months after planting [3] 3 months after planting [4] 4 months after planting [5] 5 months after planting [6] Later than 5 months after planting</i>	Do you apply any herbicides? <i>1=Yes 0= No</i>
If yes, how many times per season do you apply herbicide?	When do you do apply herbicide? <i>[1] 1 month after planting [2] 2 months after planting [3] 3 months after planting [4] 4 months after planting [5] 5 months after planting [6] Later than 5 months after planting</i>	What type of herbicide do you use?	Have you received any training on herbicide use? <i>1=Yes 0= No</i>	Do you use protective clothing when applying? <i>1=Yes 0= No</i>

Harvesting

Who is responsible for harvesting your cassava crop? [1] Own responsibility [2] Trader [3] Other	Do you use a harvesting tool to pull the roots? 1=Yes 0= No	Can your roots be loaded onto a truck directly in your field or need to be carried elsewhere?	Estimated distance to loading point (m)?
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Labour use for cassava production in 2016

	Total labour use (<i>family and hired in person days</i>)					
	Male family	Female family	Exchange labour	Hired labour	Total	Daily Wage rate
Field Establishment						
Land preparation						
Planting material preparation						
Planting stakes						
Fertiliser application 1						
Fertiliser application 2						
Pest and disease control						
Weeding 1						
Weeding 2						
Harvest						
Transport						
Chipping and drying						
Other post-harvest						

Other costs for 2016 cassava production

	Purchase <i>1=Yes 0= No</i>	Amount purchased	Cost per unit	Total cost
Contracted land preparation				
Planting material				
Herbicide				
Pesticide				
Fertiliser				
Fertiliser 2				
Fuel				
Other contracted services				
Other (specify)				

Pest and disease management

Show respondent pictures of pest and diseases.

Problem code	Visual recognition: Which pests and diseases problem have you ever seen in your or other's cassava field? (pictures) <i>0 - not seen</i> <i>1 - seen</i>	What year did you first notice this problem	Before the last cassava production season, did you apply any measure to prevent this problem?	Has your cassava suffered from this pest and disease problem in the last production season? 1-Yes, 0=No	can you estimate loss in cassava yield in the last production season due to this problem? (%)
Cassava Mealybug					
Cassava Witches Broom Disease					
Cassava Bacterial Blight					
Cassava Mites					
Cassava Mosaic Disease					

<p>How often does someone from your household visit your cassava field to inspect for pest and disease?</p>	<p>Is this specifically for monitor pest and diseases or part of other activities?</p>	<p>Who in the family in the main person responsible for this? <i>[1] male adult [2] female adult [3] male child [4] female child [4] male elderly [5] female elderly [6] other family member (specify)</i></p>
<p>Are you aware of any beneficial insects that improve your cassava production? <i>1=Yes 0= No</i></p>	<p>Which insects?</p>	<p>Do you do anything to encourage beneficial insects? <i>1=Yes 0= No</i></p>

Clean planting material

<p>What is the current price of planting material in your area? _____ Per _____</p>	<p>Would you be interested in purchasing planting material that is certified to be pest and disease free? <i>1=Yes 0= No</i></p>	<p>How much would you pay for certified planting material? _____ Per _____</p>	<p>Which of the following organisations would you trust to certify the planting material? <i>[1] Village authority [2] district authority [3] province authority [4] national authority [5] starch factory [6] producer of planting material [7] Non-government organisation [8] None</i></p>
<p>What percentage of your total planting material would you be willing to purchase as certified each year?</p>	<p>Would you be willing to pay for your own planting material to be treated to clean it from pest and disease? <i>1=Yes 0= No</i></p>	<p>How much would you be willing to pay? _____ Per _____</p>	<p>How far would you be willing to transport your planting material for treatment? _____ Km</p>

Soil fertility management

Organic fertiliser

Do you apply organic fertiliser to your cassava? <i>1=Yes 0= No</i>	What type of organic fertiliser do you apply to your cassava?	Where do you get organic fertiliser from? <i>[1] Own [2] Collect from others [3] Trader comes to sell in village [4] purchase outside village</i>
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Inorganic fertiliser

Do you apply inorganic fertiliser to your cassava? <i>1=Yes 0= No</i>	How many years after planting cassava on your land did you start to apply fertiliser?	Do you understand what the NPK values mean on the fertiliser you apply? <i>1=Yes 0= No</i>
What do you think is the most appropriate fertiliser rate for cassava production on your farm (by type of fertiliser) ?	Do you apply this rate? <i>1=Yes 0= No</i>	If no, why not?
Have you ever seen a fertiliser trial on cassava? <i>1=Yes 0= No</i>	Do you think spending more on fertiliser would increase the profitability of your cassava production? <i>1=Yes 0= No</i>	Are you interested in visiting a fertiliser demonstration trial to see the result on production and returns? <i>1=Yes 0= No</i>
Are you interested in conducting a trial on your own land? <i>1=Yes 0= No</i>		

For your last cassava crop that was harvested, what fertiliser was used, and when was it applied?

Fertilizer application	Fertilizer amount applied (kg)						If NPK, please write down the formula
	<i>NPK</i>	<i>Urea</i>	<i>Potassium</i>	<i>Phosphors</i>	<i>Manure</i>	<i>Other</i>	
Application before planting							
Application during planting time							
1 st application after planting							
2 nd application after planting							
Third application after planting							

Soil conservation

Do you consider soil erosion to be a problem in your cassava fields? <i>1=Yes 0= No</i>	If yes, how significant is the problem <i>[1] small problem [2] medium problem [3] serious problem [4] very serious problem</i>	Are you aware of any measures to reduce soil erosion? <i>1=Yes 0= No</i>	Have you had any training on any soil conservation measures <i>1=Yes 0= No</i>
Which soil conservation measures have you trialled?	Which soil conservation measure do you still use?	What are the positive impacts of soil conservation you have noticed	What are the constraints to adopting soil conservation practices?
Are you interested in further trialling of conservation practices on your land? <i>1=Yes 0= No</i>	If not, why not?		

Cassava Marketing

How do you use your cassava?	Use for this purpose? 1=Yes 0= No
Eat	
Use for own livestock	
Harvest Cassava leaf	
Sell Fresh cassava	
Sell Dried cassava	

Cassava for consumption

Answer these questions if you eat cassava.	How many meals per week do you eat cassava?	Estimated kilograms per week consumed by household?	Has the consumption of cassava per person changed in last 5 years? <i>[1] Increase [2] Same [3] Decreased</i>
Are you interested in trialling new eating varieties of cassava? 1=Yes 0= No	Do you harvest cassava leaves for eating by household members? 1=Yes 0= No		

Where do you typically sell your fresh roots?

In the past 5 years what is the lowest price you have received for fresh roots?

Per _____

In the past 5 years, what is the highest price you have received for fresh roots?

Per _____

All things considered, what price do you think is most likely that you will receive for the next crop you harvest for fresh roots?

Per _____

At current yields, at what price would you stop planting cassava for sale ?

Per _____

Where do you typically sell your dry chips?

In the past 5 years what is the lowest price you have received for dry chips?

In the past 5 years, what is the highest price you have received dry chips?

All things considered, what price do you think it is most likely that you will receive for the next crop you harvest?

Per _____

Do you think overall it is more beneficial to sell fresh roots or dry chips or use cassava as feed for your own livestock?

Explain.

	How many cassava traders did you sell to last year?	Do you get any support from this trader?	What support do you get from this trader		How would you rank your relationship with traders? [1] very strong [2] strong [3] moderate [4] weak [5] very weak
Fresh root		1=Yes 0= No			
Dry chips		1=Yes 0= No			