

STORMA FOCUS 2 A5

“Cocoa Intensive Documentation Study”

ID HH :

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Waypoint :

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Part I: Base data of the plot (to be filled in by the enumerator only once in the beginning of the study)

0.1 Village: _____ 0.2.1 Code of plot: _____ 0.2.2 Local Name for Plot: _____

0.3.1 Farmer: _____ 0.3.2 Owner of Plot (if not the same): _____

0.4.1 Land rental rate (if farmer is not owner) _____ Rp/y

0.4.2 Part of harvest as payment (share cropping) _____ %

0.5 Occupation of the respondent (Code 1):

0.5.1 Main occupation:

0.5.2 Second occupation:

0.5.3 Third occupation:

Code 1**Occupation**

1. farmer
2. breeder
3. trader
4. self-employed
5. public servant
6. labourer
7. fishermen
8. housekeeper
9. pensioner
10. rattan collector
11. other (specify)

0.6.1 Lay out of Plot:

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0.6.2 Size of Plot: _____ (m²)

0.6.3 Planting distance between the trees: _____ x _____ m

0.6.4 Distance from rainforest: _____ km

0.6.5 Distance from respondent's house: _____ km

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0.7.1 Usually type of transportation to go to the plot (Code 2): ☐ _____

0.7.2 Time to get to the plot: _____ hours (*by usual type of transportation*)

0.8 Type of planting material (Code 3): ☐ _____

Code 2 Type of transportation

1. by foot
2. bicycle
3. motorbike
4. ox-cart
5. other (specify)

Code 3 Type of planting material

1. hybrid (specify)
2. local breed
3. mixed (specify)

0.9 GPS Coordinate of the plot:

0.9.1 X-coordinate

0.9.2 Y-coordinate

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x

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0.9.3 Number of satellites tracked: _____

0.9.4 Time span of GPS measurement: _____ min.

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Shading:

0.10 Age Distribution of cocoa trees: 0.10.1.1 The youngest trees: _____years, 0.10.1.2 _____%

0.10.2.1 The oldest trees: _____years, 0.10.2.2 _____%

0.10.3.1 Most trees: _____years, 0.10.3.2 _____%

0.11 Type of shading tress (Code 4): ☐

0.12 Amount of shading trees, measured by **DENSIOMETER**:

Code 4

Type of shading trees

1. natural forest trees
2. natural forest + planted
3. majority planted from 1 or more species

for usual condition

if the plot is very heterogenous or bigger

	site1		site 2		site 3		site 4													
0.12.1 From West side:	<table border="1"><tr><td></td><td></td><td></td></tr></table>				Squares	<table border="1"><tr><td></td><td></td><td></td></tr></table>				Squares	<table border="1"><tr><td></td><td></td><td></td></tr></table>				Squares	<table border="1"><tr><td></td><td></td><td></td></tr></table>				Squares
0.12.2 From East side:	<table border="1"><tr><td></td><td></td><td></td></tr></table>				Squares	<table border="1"><tr><td></td><td></td><td></td></tr></table>				Squares	<table border="1"><tr><td></td><td></td><td></td></tr></table>				Squares	<table border="1"><tr><td></td><td></td><td></td></tr></table>				Squares
0.12.3 From North side:	<table border="1"><tr><td></td><td></td><td></td></tr></table>				Squares	<table border="1"><tr><td></td><td></td><td></td></tr></table>				Squares	<table border="1"><tr><td></td><td></td><td></td></tr></table>				Squares	<table border="1"><tr><td></td><td></td><td></td></tr></table>				Squares
0.12.4 From South side:	<table border="1"><tr><td></td><td></td><td></td></tr></table>				Squares	<table border="1"><tr><td></td><td></td><td></td></tr></table>				Squares	<table border="1"><tr><td></td><td></td><td></td></tr></table>				Squares	<table border="1"><tr><td></td><td></td><td></td></tr></table>				Squares

0.12.5 Avarage :

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0.12.6 Squares =

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 ,

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 %

Code 5

Amount of shading

1. very low ($\leq 5\%$)
2. low ($\leq 35\%$)
3. medium ($\leq 65\%$)
4. high ($\leq 85\%$)
5. very high ($> 85\%$)

0.13 Category regarding of the Amount of shading (Code 5): ☐

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Waypoint :

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0.14 Plot History:

0.14.1 How was the plot established? (Code 6): ☐ _____

0.14.2 Did you buy the plot (go to question 0.14.3) or did you build it on your own (go to question 0.14.4)

0.14.3 How much did you pay for the plot? _____Rp.

0.14.4 When did you buy the plot? _____

0.14.5 What did you invest for establishing the cocoa plot?

0.14.5.1 Material: _____Rp

0.14.5.2 Paid work: _____Rp

0.14.5.3 Own work: _____hours

Code 6

How was the plot established?

1. converted from natural forest – cacao directly planted between trees
2. converted from natural forest – completely slashed/burned, successive cropping
3. converted from fallow – cacao directly planted between trees
4. converted from fallow - completely slashed/burned, successive cropping
5. converted from plot for annual crops (e.g. rice, maize,...)
6. converted from plot for other perennial crops (e.g. coffee agroforestry)
7. don't know
8. other (specify)

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0.15 Land Use of the plot before being used for cocoa (Code 7): ☐ _____

Code 7

Before cocoa

1. candlenut
2. maize
3. rice
4. banana
5. coconut
6. coffee
7. jambu monyet
8. natural forest
9. fallow
10. don't know
11. other (specify)

0.16 Reason for change (Code 8): ☐ _____

Code 8

Reason for change

1. better price
2. better harvest
3. permanent income
4. good marketing opportunities
5. production of previous crop not satisfying
6. better future assurance
7. easier to cultivate
8. less water needed
9. soil not proper for annuals (like maize)
10. other (specify)

0.17 Other current use of plot (Code 9): ☐ ☐ ☐ _____

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0.18 Long-term perspective:

0.18.1 Until what tree age do you think is the plot profitable without taking action (like replanting)?

0.18.2 What will you do when production decreases as trees get older? (Code 10):

0.18.3 What do you expect the cocoa price to be in 5 years? (Code 11)

Code 9**Other current use**

2. coffee
3. fruit trees
4. vanilla
5. arenga
6. vegetables
7. chili
8. banana
9. maize
10. candle nut
11. other (specify)

Code 10**When production decreases...**

1. cut all and replant cocoa
2. cut and replant cocoa gradually
3. cut down and replant other crop (specify)
4. cut some trees to increase production of remaining trees
5. use grafting
6. nothing
7. don't know
8. other (specify)

Code 11**Future price**

1. higher
2. lower
3. same
4. don't know

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0.19 Perception of pests and diseases during the last year

(*Tick up to three!*)

0.19.1 What are the main problems of cocoa production on your plot?

(Code 12)

0.19.1.1 ☐

0.19.1.2 ☐

0.19.1.3 ☐

0.19.2 What are the main pests on your plot? (Code 13) **Show pictures!**

0.19.2.1 ☐

0.19.2.2 ☐

0.19.2.3 ☐

0.19.3 What are the main diseases on your plot? (Code 14) **Show pictures!**

0.19.3.1 ☐

0.19.3.2 ☐

0.19.3.3 ☐

Code 12 Problems with cocoa

1. pests
2. diseases
3. low soil fertility
4. dry soil
5. other (specify)

Code 13 Main pests

2. Helopeltis
3. CPB
4. stemborers
5. defoliators
6. ants
7. other (specify)

Code 14 Main diseases

1. black pod
2. stem canker
(fungus)
3. Colletotrichum
4. other (specify)

20. Name of Supervisor : _____

21. Date finish for measure the plot: _____

Signature of enumerator: _____

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Introduction Page

STORMA is a research-project of German Universities, IPB Bogor and Univeritas Tadulako from Palu. STORMA is not an NGO or development project.

We would like to investigate the cocoa-cultivation in 12 villages around the LLNP. The study will be conducted for 1 year. We select plots with different amounts of shading in each village. Our work consists of two parts:

1) Your Local STORMA Enumerator will hand out a questionnaire to you, which should be filled in by you every week. The Local Enumerator will help you with filling in the tables of the questionnaires and you can also come to him at any time for asking questions. Please also use the book to take daily notes about your activities on the cacao plot in order not to forget something until the end of the week when you transfer the notes into the questionnaire. The daily notes should contain information about who did what, when and for how long on or for the cacao plot (including management, harvest, processing, transport and selling). Please be aware that the whole documentation only refers to the cacao plot we chose for the study. At the end of the month or at the beginning of the new month, your Local Enumerator will collect the questionnaires and distribute new ones for the next month. At the same time, two STORMA supervisors from Palu will come to get the questionnaires from your Local Enumerator. They can also help if problems occur. For each questionnaire filled in you receive 20.000 Rp from the STORMA Supervisor. If you filled in the questionnaire very carefully you will receive a bonus of 10.000 Rp extra.

2) We are going to measure the size, the geographic coordinates, and the amount of shading on your plots. Additionally, we take some photos.

Your answers and data will be used for scientific purposes, and will be kept confidential.

Please tell the assistant if the land use of the plot changed during our investigation or problems occurred (e.g. weeds, pests, and tenure).

The assistant will help you to fill in the example row in the questionnaire. Even if in the beginning it seems to be a little difficult to fill in the tables of the questionnaire, you will see after some time, it is getting very easy, you won't need much time for it, as the procedure will be the same for the whole year.

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Part II: Input and Output Data of the Cocoa Plot *(to be filled in weekly by the farmer)*

Table II-A. Only for Cocoa

	1. How many family members did work for the cocoa trees last week? How much time did they need?						2. How many paid labourers did work for the cocoa trees last week? How much time did they need? How much were they paid (money or goods)?					3. How many other persons did work for the cocoa trees last week without payment?	
	1.1 male (persons)	1.2 time (total hours male)	1.3 female (persons)	1.4 time (total hours female)	1.5 children (persons)	1.6 time (total hours children)	2.1 labourers (persons)	2.2 time (total hours)	2.3 money (Rp)	2.4 type and quantity of goods	2.5 price of the goods	3.1 labourers (persons)	3.2 time (total hours)
Example Table													
Week 1													
Week 2													
Week 3													
Week 4													
Week 5													

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Continuation of II – A (only for COCOA on the plot) – labour time counted for all labourers together!

	4. How much time did you, your family and all other labourers together spend on the following cocoa maintenance activities last week? (leave out time for fertilizing and spraying pesticides here)							
	4.1 to clean up the plot/ burn refuse (hours)	4.2 to reject diseased pods (hours)	4.3 to prune shading trees (hours)	4.4 to eliminate shading trees (hours)	4.5 to prune cocoa trees (hours)	4.6 to weed (hours)	4.7 other:_____ (hours)	4.8 other:_____ (hours)
Example Table								
Week 1								
Week 2								
Week 3								
Week 4								
Week 5								

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Waypoint :

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Continuation of II – A (only for Cocoa on the plot) - labour time counted for all labourers together!

	5. How much fertilizer did you put on the cocoa last week? Which type of fertilizer was it? How much time did it take?			6. What kind of pests did occur last week (Code 13)?			7. What kind of diseases did occur last week (Code 14)?			8. How much pesticide/ herbicide/fungicide did you put on the cocoa last week? Which type was it? How much time did it take?		
	5.1 quantity	5.2 type/name	5.3 time (hours)	6.1 pest 1	6.2 pest 2	6.3 pest 3	7.1 disease 1	7.2 disease 2	7.3 disease 3	8.1 quantity	8.2 type/name	8.3 time (hours)
Example Table												
Week 1												
Week 2												
Week 3												
Week 4												
Week 5												

Code 13 pests

1. Helopeltis
2. CPB
3. stemborers
4. defoliators
5. ants
6. other (specify)

Code 14 diseases

1. black pod
2. stem canker
3. Colleotrichum
4. other (specify)

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Continuation of II – A (only for Cocoa on the plot) - labour time counted for all labourers together!

	9. How much COCOA did you harvest last week and how long did that take?		10. How much time did you, your family and all other labourers together spend on the following COCOA processing activities last week?					
	9.1 quantity (kg, pods, bags)	9.2 time (hours)	10.1 to crack husks/extract cacao seeds (hours)	10.2 prepare for fermentation (hours)	10.3 prepare for drying (hours)	10.4 to filter seeds (hours)	10.5 other _____ (hours)	10.6 preparing seedlings
Example Table								
Week 1								
Week 2								
Week 3								
Week 4								
Week 5								

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Table II-B. Other crops on the same cocoa plot

	11. How many family members did work for other crops on the plot last week? How much time did they need?						12. How many paid labourers did work for other crops on the plot last week? How much time did they need? How much were they paid (money or goods)?					13. How many other persons did work for other crops on the plot last week without payment?	
	11.1 male (persons)	11.2 time (total hours male)	11.3 female (persons)	11.4 time (total hours female)	11.5 children (persons) <15 y	11.6 time (total hours children)	12.1 labourers (persons)	12.2 time (total hours)	12.3 money (Rp)	12.4 type and quantity of goods	12.5 price of the goods	13.1 labourers (persons)	13.2 time (total hours)
Example Table													
Week 1													
Week 2													
Week 3													
Week 4													
Week 5													

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Continuation of table II – B (for other crops in cocoa plot) - Crop 1

	<p>14. How much time did you, your family and all other labourers together spend on the following activities for other crops last week?</p> <p>Crop 1: _____</p>						
	<p>14.1 to prune crop (hours)</p>	<p>14.2 to prune shading trees (hours)</p>	<p>14.3 preparing seedlings (hours)</p>	<p>14.4 to harvest (hours)</p>	<p>14.5 to process (hours)</p>	<p>14.6 other: _____ (hours)</p>	<p>14.7 other: _____ (hours)</p>
Example Table							
Week 1							
Week 2							
Week 3							
Week 4							
Week 5							

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Continuation of table II – B (for other crops in cocoa plot) - Crop 2

	15. How much time did you, your family and all other labourers together spend on the following activities for other crops last week?						
	Crop 2: _____						
	15.1 to prune crop (hours)	15.2 to prune shading trees (hours)	15.3 preparing seedlings (hours)	15.4 to harvest (hours)	15.5 to process (hours)	15.6 other: _____ (hours)	15.7 other: _____ (hours)
Example Table							
Week 1							
Week 2							
Week 3							
Week 4							
Week 5							

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Continuation of table II – B (for other crops in cocoa plot) - Crop 3

	16. How much time did you, your family and all other labourers together spend on the following activities for other crops last week?						
	Crop 3: _____						
	16.1 to prune crop (hours)	16.2 to prune shading trees (hours)	16.3 preparing seedlings (hours)	16.4 to harvest (hours)	16.5 to process (hours)	16.6 other: _____ (hours)	16.7 other: _____ (hours)
Example Table							
Week 1							
Week 2							
Week 3							
Week 4							
Week 5							

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Continuation of table II – B (for other crops in cocoa plot) - Crop 4

	17. How much time did you, your family and all other labourers together spend on the following activities for other crops last week? Crop 4: _____						
	17.1 to prune crop (hours)	17.2 to prune shading trees (hours)	17.3 preparing seedlings (hours)	17.4 to harvest (hours)	17.5 to process (hours)	17.6 other: _____ (hours)	17.7 other: _____ (hours)
Example Table							
Week 1							
Week 2							
Week 3							
Week 4							
Week 5							

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Continuation of table II – B (for other crops in cocoa plot) - Crop 5

	18. How much time did you, your family and all other labourers together spend on the following activities for other crops last week? Crop 5: _____						
	18.1 to prune crop (hours)	18.2 to prune shading trees (hours)	18.3 preparing seedlings (hours)	18.4 to harvest (hours)	18.5 to process (hours)	18.6 other: _____ (hours)	18.7 other: _____ (hours)
Example Table							
Week 1							
Week 2							
Week 3							
Week 4							
Week 5							

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Continuation of table II – B (for other crops in cocoa plot)

	19. How much fertilizer did you put on the other crops last week? Which type of fertilizer was it? How much time did it take? For which crop?				20. What kind of pests did occur last week on other crops (Code 13)? On which crops?				21. What kind of diseases did occur last week on other crops (Code 14)? On which crops?			
	19.1 quantity	19.2 type/na me	19.3 time (hours)	19.4 Which crop did you fertilize?	20.1 pest 1	20.2 on which crop?	20.3 pest 2	20.4 on which crop?	21.1 disease 1	21.2 on which crop?	21.3 disease 2	21.4 on which crop?
Example Table												
Week 1												
Week 2												
Week 3												
Week 4												
Week 5												

Code 13 pests

1. Helopeltis
2. CPB
3. stemborers
4. defoliators
5. ants
6. other (specify)

Code 14 diseases

1. black pod
2. stem canker
3. Colleotrichum
4. other (specify)

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Continuation of table II – B (for other crops in cocoa plot)

22. How much pesticide/ herbicide/ fungicide did you put on other crops last week?								
Which type was it? How much time did it take?								
Which crop did you spray?								
	22.1 quantity 1	22.2 type/name 1	22.3 time (hours) 1	22.4 which crop? 1	22.5 quantity 2	22.6 type/name 2	22.7 time (hours) 2	22.8 which crop? 2
Example Table								
Week 1								
Week 2								
Week 3								
Week 4								
Week 5								

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Table III: Input and Output - *questions concern the whole household!*

(to be filled in weekly by the farmer)

III-A Input

	23. How much time and/or money did you effort last week for the transport of cocoa and other harvested products?								
	23.1 for which crop? 1	23.2 own work (hours) 1	23.3 paid labor (Rp) 1	23.4 for which crop? 2	23.5 own work (hours) 2	23.6 paid labor (Rp) 2	23.7 for which crop? 3	23.8 own work (hours) 3	23.9 paid labor (Rp) 3
Example Table									
Week 1									
Week 2									
Week 3									
Week 4									
Week 5									

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Continuation of table III-A Input

	24. How much money did you spend on fertilizers last week? Which type and how much did you buy?					
	24.1 Type 1	24.2 Quantity 1	24.3 money (Rp) 1	24.4 Type 2	24.5 Quantity 2	24.6 money (Rp) 2
Example Table						
Week 1						
Week 2						
Week 3						
Week 4						
Week 5						

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Continuation of table III-A Input

	25. How much money did you spend on pesticides/ herbicides/ fungicides last week? Which type and how much did you buy?						26. How much money did you spend last week on seeds, plants and other materials?		
	25.1 Type 1	25.2 Quantity 1	25.3 money (Rp) 1	25.4 Type 2	25.5 Quantity 2	25.6 money (Rp) 2	26.1 Type	26.2 Quantity	26.3 money (Rp)
Example Table									
Week 1									
Week 2									
Week 3									
Week 4									
Week 5									

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Table III-B Ouput - Cocoa

	27. Did you sell cocoa last week? How much? What did you receive? Where did you sell it? Who bought it?				
	27.1 quantity (Kg)	27.2 amount received (Rp)	27.3 Where did you sell it? (Code 15) (market place)	27.4 Who bought it? (Code 16)	27.5 Did you sell by forward contract? (yes/no)
Example Table					
Week 1					
Week 2					
Week 3					
Week 4					
Week 5					

Code 15 (market place)

1. in the village
2. in the neighbour village
3. directly to Palu

Code 16 (Who bought it?)

1. big merchant
2. middelman
3. small trader

Code 17

1. yes
2. no

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Continuation of table III-B Output – Other products 1

	28. Did you sell other products last week? How much? What did you receive? Where did you sell it? Who bought it? Other product 1: _____				
	28.1 quantity (Kg, piece, bags)	28.2 amount received (Rp)	28.3 Where did you sell it? (market place)	28.4 Who bought it? (big merchant, small trader, ...)	28.5 Did you sell by forward contract? (yes/no)
Example Table					
Week 1					
Week 2					
Week 3					
Week 4					
Week 5					

Code 15 (market place)

1. in the village
2. in the neighbour village
3. directly to Palu

Code 16 (Who bought it?)

4. big merchant
5. middleman
6. small trader

Code 17

1. yes
2. no

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Continuation of table III-B Ouput - Other products 2

	29. Did you sell other products last week? How much? What did you receive? Where did you sell it? Who bought it? Other product 2: _____				
	29.1 quantity (Kg, piece, bags)	29.2 amount received (Rp)	29.3 Where did you sell it? (market place)	29.4 Who bought it? (big merchant, small trader, ...)	29.5 Did you sell by forward contract? (yes/no)
Example Table					
Week 1					
Week 2					
Week 3					
Week 4					
Week 5					

Code 15 (market place)

1. in the village
2. in the neighbour village
3. directly to Palu

Code 16 (Who bought it?)

7. big merchant
8. middleman
9. small trader

Code 17

1. yes
2. no

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30. Name of Farmer: _____

Date and signature of the Farmer: _____

31. Name of Enumerator: _____

Signature of Enumerator: _____

32. Date of evaluation / taking questionnaire: _____

Farmer's signature after receiving 20,000 Rp from Supervisor: _____

Farmer's signature after receiving 10,000 Rp Bonus from Supervisor: _____