Cocoa Research Institute of Ghana

Socio-Economic appraisal of the Coffee Rehabilitation Programme in Ghana. (CRIG/CC/02/28)

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BACKGROUND OF PROJECT

Coffee has been grown in Ghana since time immemorial; & cultivated mainly by small holder farmers.

Report indicates that Coffee cultivation has lagged behind cocoa for many years due to:

- ✓ **Poor attention by gov't/COCOBOD**
- ✓ **Unfavourable marketing issues**
- ✓ **Poor extension & Research**

BACKGROUND CONT'D

Realising the potential of coffee to:

(i) Farmers: -improving their livelihood
-diversifying their income sources
-to help in reducing poverty,

(ii) Nation: - as export crop & for foreign exchange,

- Gov'ts have committed various efforts to revamp the sector esp. since the 1980s.

BACKGROUND CONT'D

Efforts include:

- **Establishment of 19 coffee plantations in the 1980s (but, divested later,** (Anon, CRP Report 2015)

- **Agric. Diversification Project (1990s)**

  -Improved pricing, liberalized markets

  -Intensification of research &

  -Extension services

- **Then, the implemented of the CRP**

BACKGROUND CONT'D

Prior to field implementation of CRP,

- ✓ Baseline Survey (Anchirinah *et al*., 2010)
- ✓ Launching of CRP by COCOBOD - 2010
- ✓ Then, Field implementation: 2011 - 2015

Objectives of the CRP:

- ✓ Increase coffee production(Export/consumption)
- ✓ Promote interest to revamp abandoned old coffee farms & Establish new farms
- ✓ Enhance farmers' livelihood & Std. of Living

(Ref: Anon (2015). Final Report, CRP, CRIG 19pp.)

CRP Production Target:

- 10,000 MT in a 4-year period (from the ≤2000MT in 2008/09)

By: Rehab. of 1,000 ha of old & est. est. of 1,000ha of new coffee farms

Question? Were these objectives & targets achieved?

Final Report 2015: indicates success

Objectives of the Socio-Econon Survey

To:

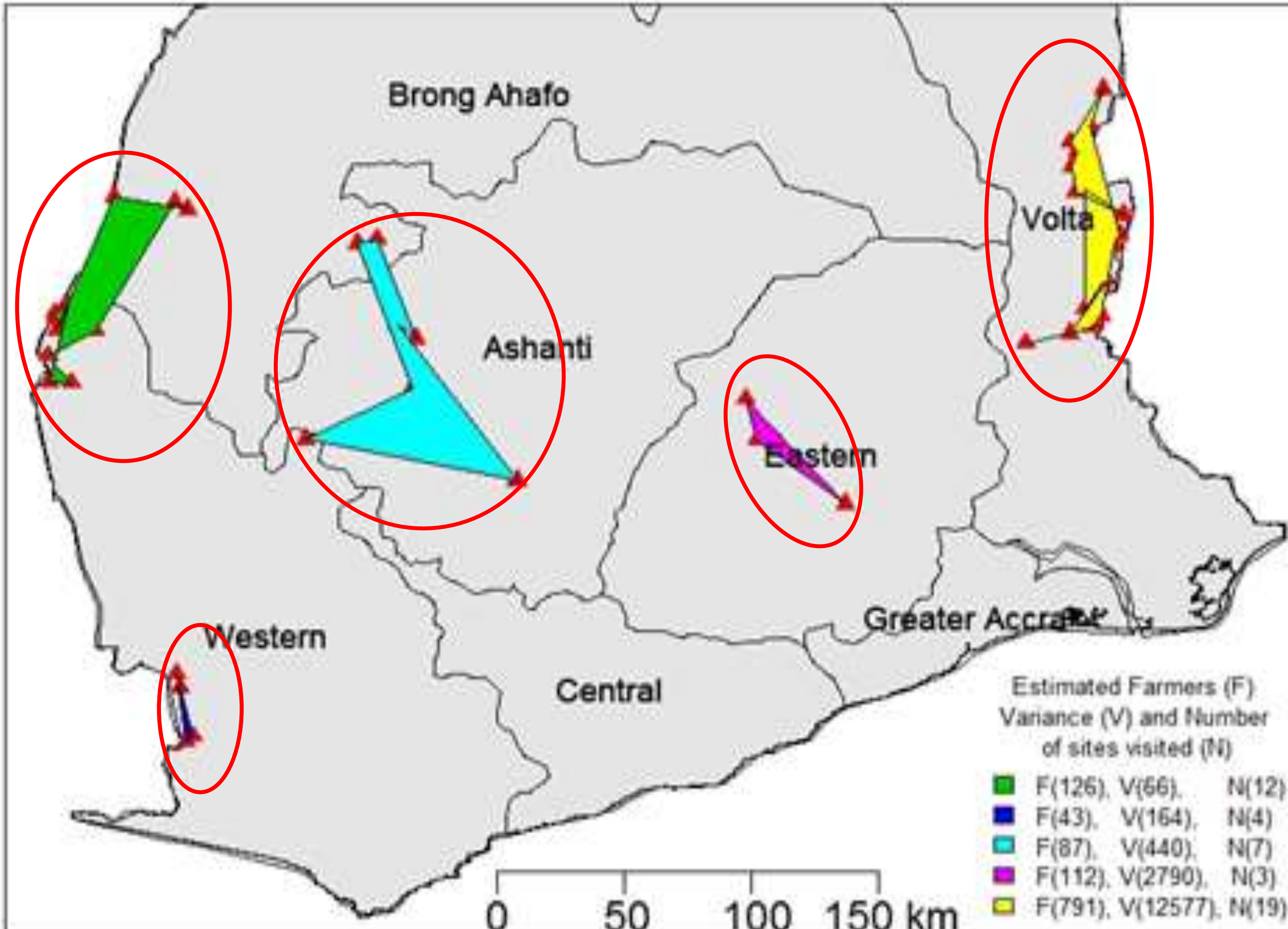
- ✓ **Collect the views of both beneficiaries & non-beneficiaries of CRP**
- ✓ **Assess effect of the CRP on farmers' yield, livelihood & factors affecting yield**
- ✓ **Assess current marketing issues & constraints affecting them..**

RESEARCH METHOD

ACTIVITIES	DATE
Reconnaissance survey	August - Oct 2017
Dev’t of Structured Questionnaire on Tablets	August - Dec 2017
Trained Enumerators, Pre-tested and revised QNN	Sept - Nov 2017
Collected field Data (Field Survey)	July to Sept., ’18
Data analysis	On-going

Sampling Frame, Sample size & Farmers per location

Location /Region	Estimated Farmer population	Sample Size	Number of communities
Area 1	333	100	17
Area 2	43	13	3
Area 3	101	30	4
Area 4	348	105	4
Area 5	835	252	8
Total	1660	500	36


Brong Ahafo
Ashanti
Volta
Eastern
Western
Central
Greater Accra
Estimated Farmers (F) Variance (V) and Number of sites visited (N)
F(126), V(66), N(12)
F(43), V(164), N(4)
F(87), V(440), N(7)
F(112), V(2790), N(3)
F(791), V(12577), N(19)
0 50 100 150 km

Results & Discussions

RESULTS

Profile of Respondents (N= 471)		%
SEX:	Male	87%
	Female	13%
AGE:	Mean	52.9 years
	Min	23.0 “
Marital status	Married	92%
	Not married	8%
Household size:	Mean	8
	Min	1
	Max	53

RESULTS

✓ **EDUCATIONAL LEVEL OF RESPONDENTS**

Level	Frequency	Percentage
Basic (Primary)	294	62.4
Non Formal	98	20.8
Secondary	60	12.7
Tertiary	19	4.1
Total	471	100.0

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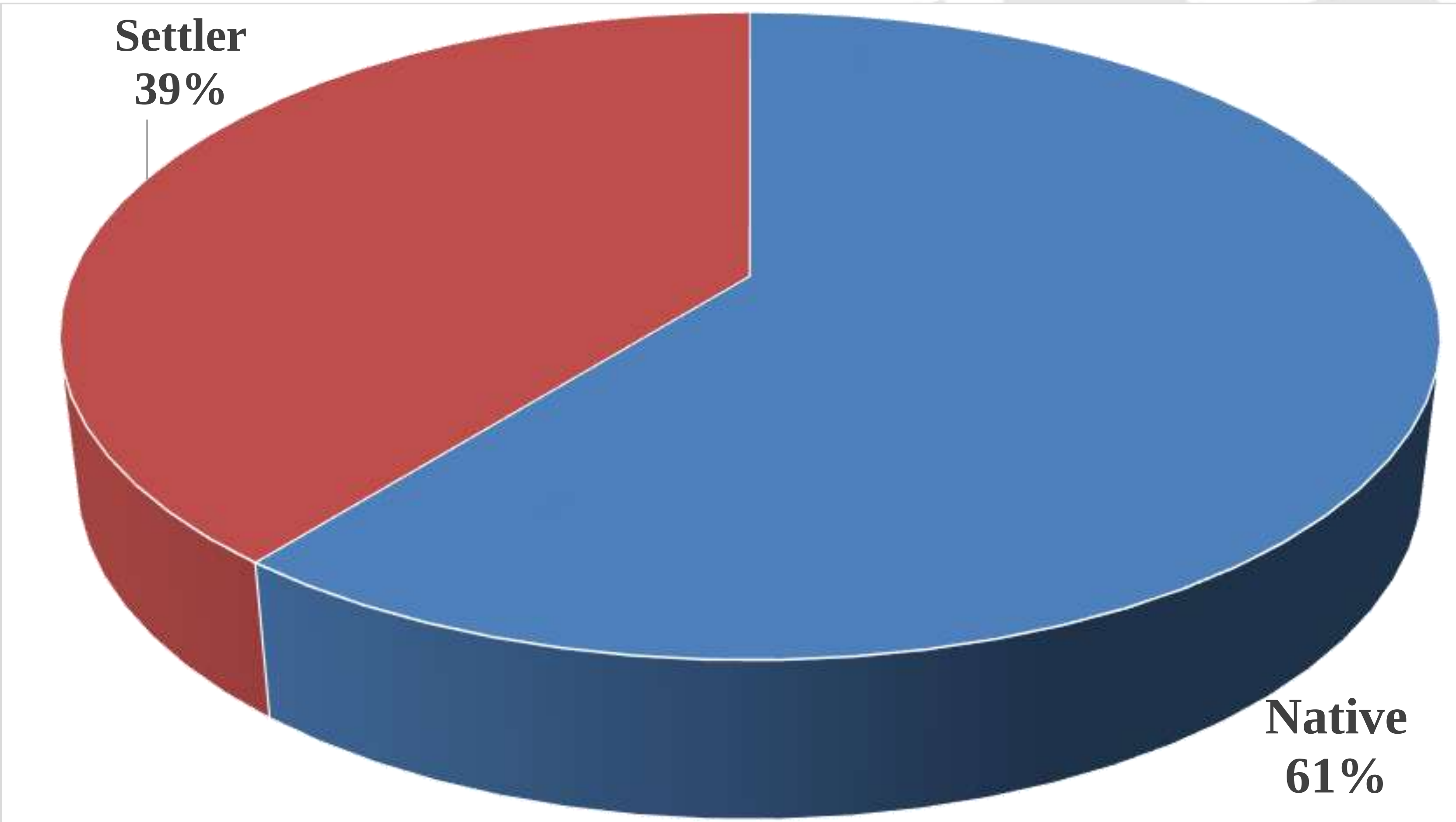
Migration status



RESULTS CONT'D

Proportion of coffee to Respondents income/Livelihood

Proportion of coffee to income	Frequency of Respondents	Percent of Respondents
Zero	119	25.3
1 - 2	123	26.1
3 - 4	159	33.8
5 - 6	51	10.8
7 - 10	19	4.0
Total	471	100.0

RESULTS CONT'D

FARM X'TICS @ THE FARMER LEVEL

Table 3: Number of Coffee farms owned/managed

	N	Min	Max	Mean	Std. Dev.
Coffee farms manage/own	471	1	5	1.4	0.7
Total coffee farm size (acres)	469	0.3	25.0	3.2	3.3
No. of coffee farms Bearing	376	1	4	1.2	0.5
No. of days coffee is dried	358	6	48	18.3	7.0

RESULTS CONT'D

X'tics @ FARM LEVEL	CRP Beneficiaries			CONTROL Non-Beneficiaires		
	1st Q	Median	3rd Q	1st Q	Median	3rd Q
Farm Age	3	5	14.5	2	5	15
Farm Size (Acres)	1	2	3	1	1	2

RESULTS CONT'D

Coffee Sea-sons	Yields (kg ha^{-1}) of CRP Beneficiaries			Yields (kg ha^{-1}) of CONTROL group Non-beneficiaries		
	1st Q	Median	3rd Q	1st Q	Median	3rd Q
2015/ 2016	118.6	237.1	474.2	118.6	237.1	433.1
2016/ 17	118.6	237.1	414.9	103.7	197.6	333.7
2017/ 18	118.6	237.1	415.0	118.6	237.1	416.7

Fixed effects estimates of some farmer and farm X’tics on dry berry yield of coffee

	Value	Std.Error	p-value
(Intercept)	2.33	78.69	0.98
Farm status: part of CRP	14.41	17.12	0.40
Farm age	-0.03	0.05	0.51
Farm size*	-2.99	1.06	0.01
Region: Brong_Ahafo*	14.72	66.97	0.83
Eastern	127.95	62.93	0.04
Volta	55.21	62.75	0.38
western	114.15	65.70	0.08
Farmer age	0.98	0.71	0.17
Education: Non_formal	-18.29	26.06	0.48
secondary_educ	-0.54	27.36	0.98
tertiary	-21.59	48.24	0.65

Fixed effects estimates of some farmer and farm X’tics on dry berry yield of coffee

	Value	Std.Error	p-value
(Intercept)	2.33	78.69	0.98
Household size*	4.71	2.34	0.05
Marital status: unmarried	38.09	34.70	0.27
Migration status: settler	26.12	19.84	0.19
Gender: male*	73.71	30.68	0.02

Results/Observations

Difficulty in capturing national coffee production :

- Most coffee farms along the borders were not easily identifiable as owned by Ghanaians since some farms lied in Ghana while their owners lived in neighbouring country

We observed that only attractive markets in Ghana can make this easy.

Results/observations:

- Misunderstanding & miscommunication of project focus & objectives by Field staff & coffee farmers:

  - Most of the beneficiaries joined the CRP to benefit from free supply of inputs;

  - General feeling of frustration & hopes dashed due to stoppage of free supply of inputs after the project ended.

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Results: Cont'd

- Marketing was problematic to majority
- Farmers along borders indicated sending their coffee to neighbouring countries
- Some farmers in the E/R sent their coffee to Bepong & Kumasi for sale for at unappreciated or low Price per unit sold
- Some local marketers roasted & grinded coffee for retailing at local markets

Other Issues/observations

- **Complaint of unavailability of extension agents to give technical advice**
- **Complaint of nuisance insects during harvesting coupled with lack of access to approved insecticide for control…**
- **We observed a feeling of decreasing interest in coffee farming, some thinking of abandonment, cutting or replacing coffee with other cash crops due to low price and difficulty in getting market**

CONCLUSION & RECOMMENDATION

- Analysis based on Mixed modelling suggest that Farm size, region, house-hold size, & Gender were significantly important to yield;

- But, Membership of CRP, Farmer age, Educational level, Marital Status & Migration status were not important..

- Yield values were much higher in the E/R, followed by W/R compared to other regions

RECOMMENDATION

- More detailed analysis will continue, esp. on the effect of marketing & price on farmers' decision to maintain coffee farms or not;

- But, more effort is needed to sustain farmers' interest in maintaining their farms well

THANK YOU!

2nd Presentation

DOES COFFEE CULTIVATION HAVE A FUTURE IN GHANA IN THE FACE OF CURRENT FARMERS' OUTLOOK, ATTITUDES & MARKETING CONSTRAINTS?

Team: ASAMOAH, MERCY, F. OWUSU-ANSAH, F. AMON-ARMAH & M. OWUSU-MANU

RESULTS

DOES COFFEE CULTIVATION HAVE A FUTURE IN GHANA? YES OR NO?

Answers could be discussed @ the ff levels:

- ✓ Farmers' Motivation, views/Attitudes
- ✓ Policy/Gov't/Institutional commitment
- ✓ Consumption/Health & Mkt. potential
- ✓ Research & Extension support

BACKGROUND

Basing our discussions on:

- Responses from 471 coffee farmers interviewed in a survey in Ghana
- Official Reports on coffee &
- Other Publications

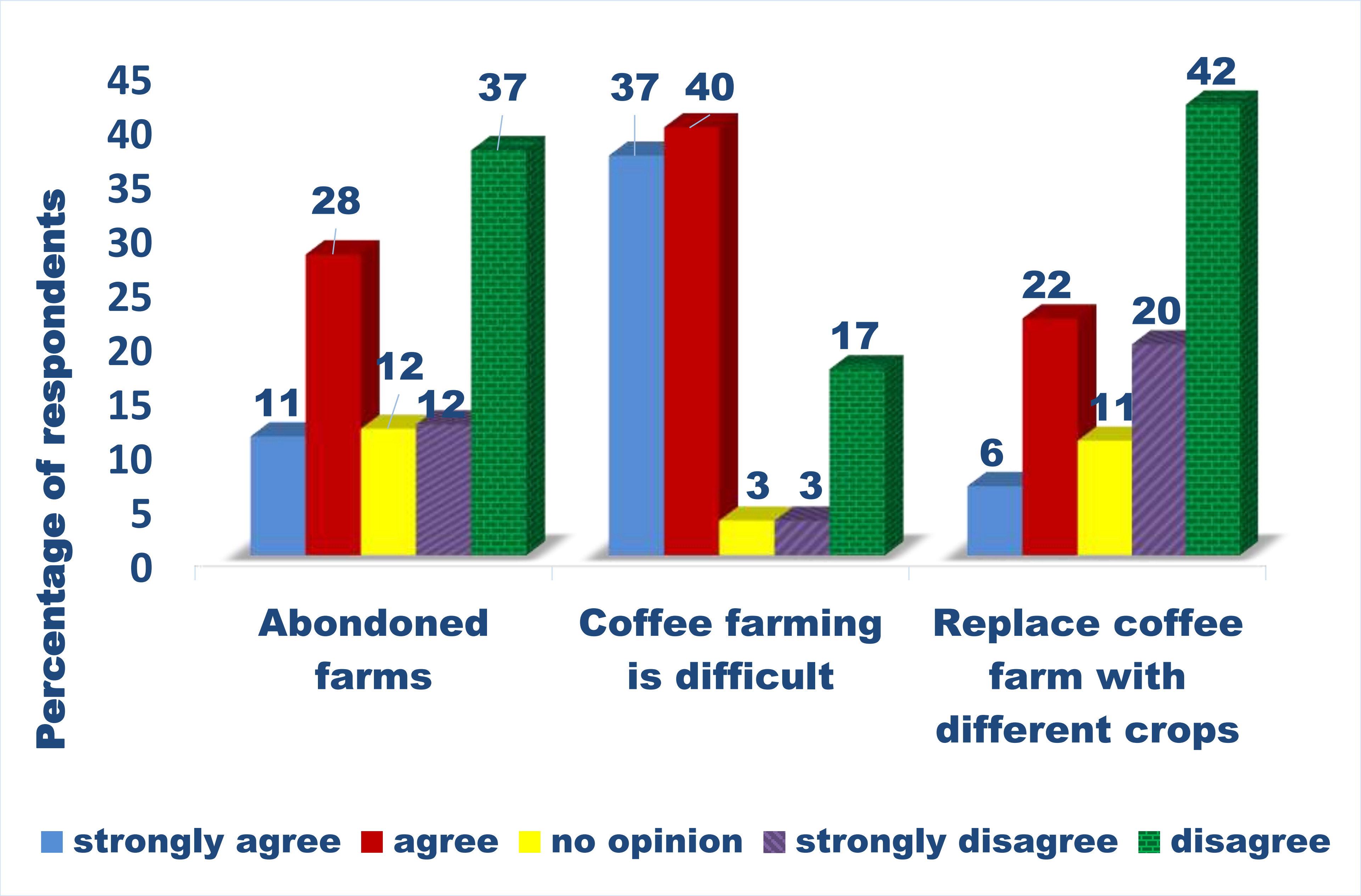
✓@

The level of Farmers' Motivation, views, Attitudes

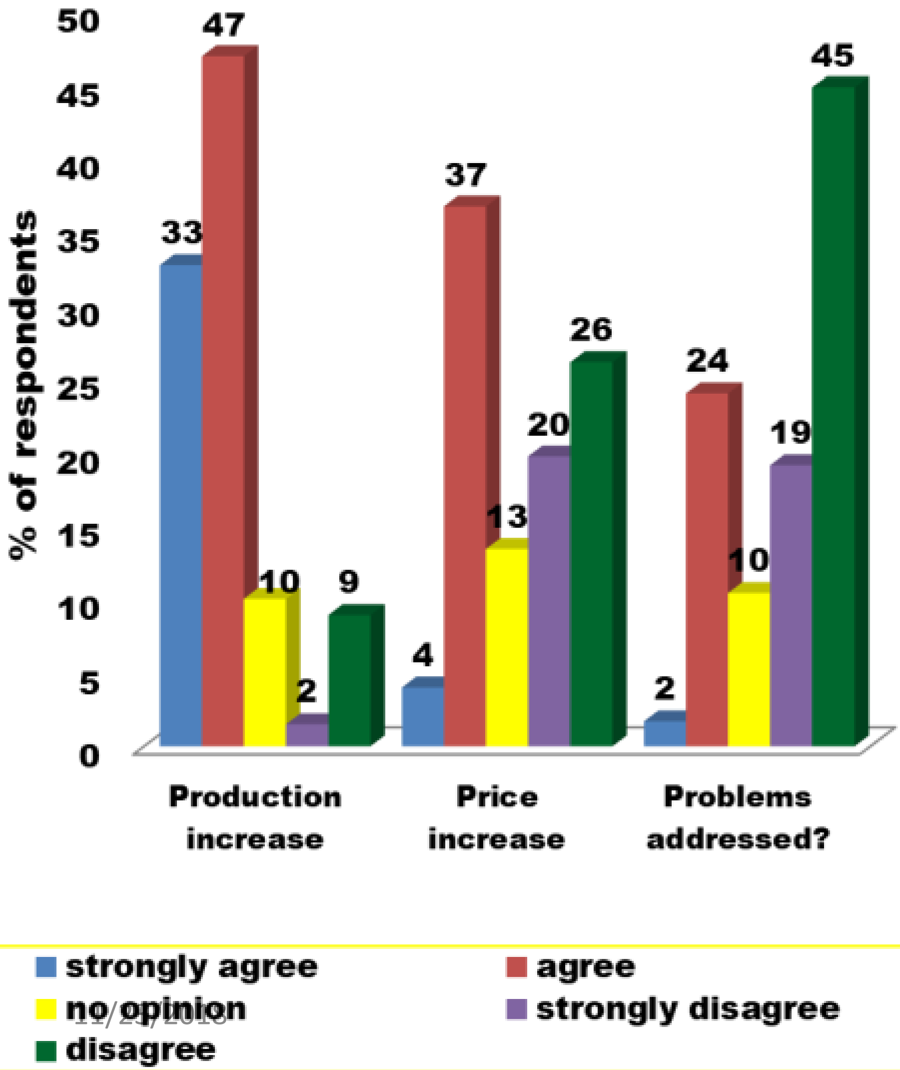
Farmer Motivation for Coff. cultivating

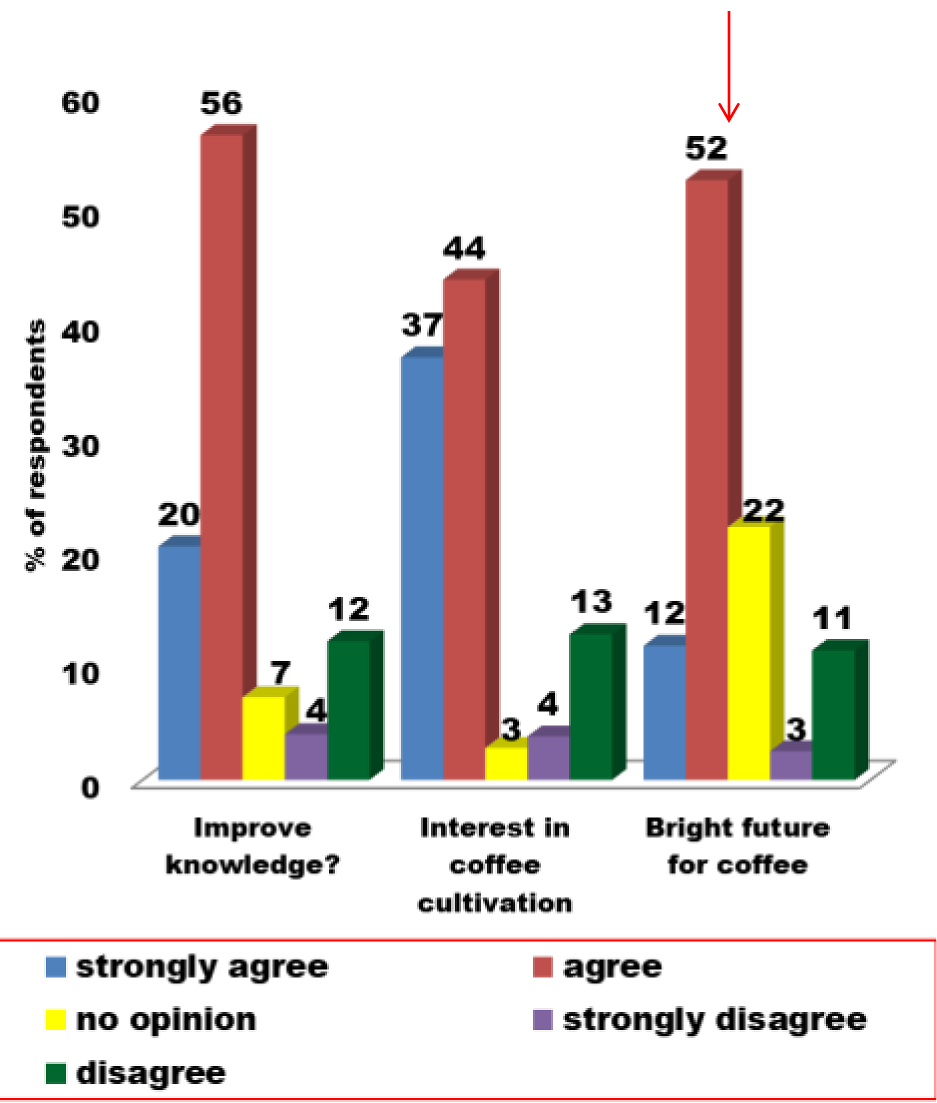
Reason	Freq.	Percent	
Market availability	249	52.9	
Good price	118	25.0	79.4
Market & Good Price	7	1.5	
Personal interest, additional income & for Property	58	12.3	
Other reasons: soil, free input, easy to maintain	39	8.3	
Total	471	100.0	

Respondents' views on the negative statements asked on the effect of CRP



Respondents’ views on the positive statements asked on the effect of CRP





✓@

Policy/Gov't/Institutional commitment level

Ref: Final CRP Report

-Coffee was identified as crop that can help farmers **diversify** income sources;

Thus, efforts were put into revamping…

-National Coffee Steering Committee: (comprising **key stakeholders:** Rep. of Farmers, LBCs, Coffee Exporters, Customs Div. of GRA, Ghana Export Prom. Council & COCOBOD was formed), to develop strategies to revamp the sector ..

Strategies: cont'd

-Identify training needs & build capacity of actors in the coffee production & marketing chain through Seminars, workshops, ..

-Provide extension services to farmers

-Streamline the activities of LBCs & Exporters

-CRP Policy intervention by Gov't/COCOBOD (2011-15) to boast coffee production

Incentives included:

- Free inputs & Cash for labour
- Motor bikes to EA on credit
- Dev't of 13 model farms
- 22 community nurseries
- Supply of 93,370 cuttings
- 1,821,100 hybrid seedlings ..

Steady improvement in Price !

PRICE PER 65 KG OF UNHULLED COFFEE BETWEEN 2011 & 2015		
YEAR	PRICE (GH₵)	Source: CRP Report
2011	40.00	During the CRP, the National Steering Comm. determined the Farm gate Price per 65 kg of unhulled coffee beans annually. Agreed price was submitted to COCOBOD CE for endorsement & for the information of the Minister of MOFA
2012	50.00	
2013	55.00	
2014	100.00	
2015	130.00	
		But, market forces determined actual price paid to farmers; …in most cases, prices paid were higher than the minimum set

CRP Final Report indicates:

Targets were achieved. Hope for future?

CROPPING YEAR	NO. OF IMPROVED PLANTING MAT. SS'		NEW COFFEE FARMS ESTABLISHED		OLD COFFEE FARMS REHABILITATED	
	HYBRID	CLONES	AREA (HA)	NO. OF FARMERS	AREA (HA)	NO. OF FARMERS
2011/12	91,200	32,000	80.0	171	409.1	342
2012/13	510,000	35,000	423.5	989	339.4	382
2013/14	326,115	17,000	186.8	362	159.4	156
2014/15	493,785	9.370	422.4	707	136.6	151
TOTAL	1421100	93,370	1,112.7*	2,229	1,044.4*	1,031
SOURCE: CRP REPORT :	***Targets***		***1,000***		***1,000***	

✓@ Research support Level:

- CRIG Research/Scientists: working seriouly on-
- Hybrid P/materials, Diseases, Pests & Soils

Coffee has comparative advantage in certain areas than cocoa in terms of soil suitability

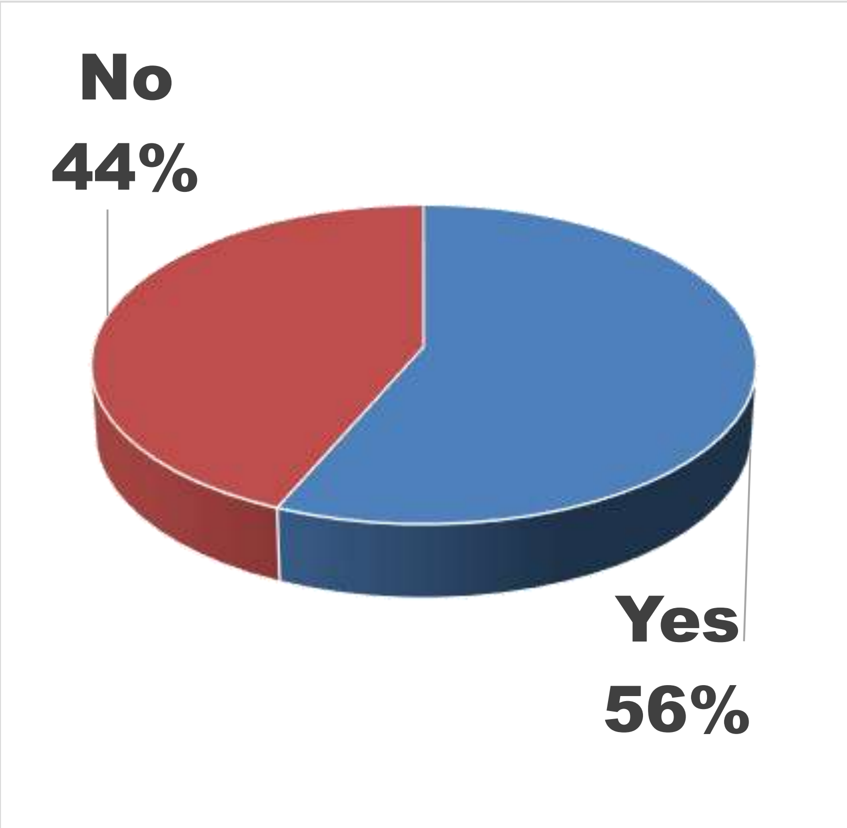
- CRIG (2016): Dev’t of Coffee Production Manual

Thus, Technical backstopping assured.

- ✓ @ Consumption & Market potential level:

COFFEE CONSUMPTION

Do you drink coffee?



Freq. of consumption

No. of times	%
Once	24.1
Twice	19.9
Thrice	20.3
Four times	4.1
5 -6 times	11.3
7 or more times	20.3
Total (N=266)	100.0

Health potential of coffee

Ref: C&CL Publications (2006)

- "People at high risk for liver injury may be able to reduce the risk of developing chronic liver disease significantly by drinking more than 2 cups of coffee or tea daily (American Journal of Gastroenterology cited in Cocoa & Coffee International ,(C&CL): Jan.,2006, p.4)"
- This gives hope for increasing coffee consumption to create market

Health potential of coffee

"Scientist in the US have indicated that drinking coffee is part of a healthy diet" (C&CL Publications (2015)

"A study found that for each cup/day increment in coffee intake, a non-linear association was found between caffeine consumption & depression; that the risk of depression decreased faster and the association became sig. when the caffeine consumption was above 68mg/day and below 509mg/day"

Health potential of coffee

They Concluded: “coffee & caffeine consumption were sig.ly associated with decreased risk of depression. (Published by Australian & New Zealand Journal of Psychiatry. http://caffeeandhealth.org/2015/09/1... cited in C&CL, Nov.2015 vlo 42 No.5 p.6)

- This research finding also gives hope for increasing coffee consumption to create more market for producers

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But, Farm level constraints remain

CONSTRAINT	FREQ.	%
Lack of Market	345	22.3
Low Producer price	320	20.7
Unavailability/lack of inputs & planting materials	296	19.1
Lack of credit facilities	169	10.9
Pests & Diseases	130	8.4
Lack of Information & extension	143	9.2
Others: bush fire, drought,	146	9.4
NOTE: Multiple responses	1,549	100.0

From National Publications

- GSS (2014): 8,164 households harvested coffee the previous year
- Tree Crop Policy Document: coffee is one of the national crops identified under their focus;
- ISSER Reports: Coffee as a non-tradition -nal crop quoting GHc3,835 value per tonne in 2010 (Source: Ghana Export promotion Council, 2011)

Conclusions

- **Since Coffee has comparative advantage in certain areas due to soil suitability, then farmers could be encouraged & supported to sustain production there.**

- **Attitude responses show that farmers are still interested in growing Coffee provided there is market availability, good price & inputs.**

- **Health benefits of drinking coffee in publications support why efforts should increase to encourage its cultivation thru' the promotion of consumption.**

- **Future is bright if only more effort similar to the CRP era, and a well regulated market/policy are put in place.**

RECOMMENDATION

- STRONG NEED FOR REGULATORY POLICY DOCUMENT & CLEAR DIRECTION ON COFFEE PRODUCTION, MARKETING, PRICING & CONSUMPTION

- NEED TO PROMOTE PROCESSING & CONSUMPTION BASED ON EVIDENCE ON HEALTH BENEFITS WHICH WILL INVARIABLY CREATE LOCAL MARKET FOR PRODUCERS

ACKNOWLEDGEMENT

IACO
COCOCOD
TEAM & FARMERS

THANK YOU!

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