



# **COFFEE VALUE ADDITION IN LIMMU-KOSSA AND GOMMA DISTRICTS OF JIMMA ZONE, ETHIOPIA**

***Part of MSc Thesis***

**By**

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*December, 2015*

*Adama, Ethiopia*



# INTRODUCTION

## *Background*

- *Coffee is largest source of **export** (85% of foreign earnings) and employs around 83% of total population of country (CSA 2009).*
- *Contributed **35.8%** of total foreign exchange (524.5 and 744.9 millions USD in 2007/08 and 2012/13 respectively (**ECEA, 2013**))*
- *Provides **jobs/casual for many people** in coffee-related activities of processing, transporting or marketing along the value chain (Samuel and Eva, 2008; Petit, 2007; and USAID, 2010).*
- *Jimma is one of **coffee growing zone** with favourable **climatic conditions**, **variety** of local coffee types & long **history of production**.*



## Statement of the problem

➡ Coffee farmers in the study area have been recommended to **supply red cherry** to processing stations than being encouraged to **farm level value addition /drying** considering coffee defect is relatively high.



➡ **Desse (2008)**, coffee quality defects in Jimma is common relatively due to improper post-harvest processing & handling practices (drying on bare ground, rainy weather, improper storage and transportation).

➡ **Abasanbi (2010)** in Jimma recommended wet processing as relatively a better approach to avoid common earthy & musty defects.



## *Statement of the problem ... Value addition*

### *However*

➔ *Farmers while selling red cherry without further value addition improvements limited their **competitiveness** & **bargaining power** which in turn leads to low earning unlike from dried cherry.*

### *Because of this*

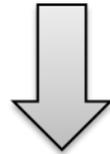
➔ *Farmers forced to involve in value addition (drying red cherry).*

➔ ***Value addition** after production involve **enhancements to a product value** that result in **higher returns** to the commodity seller, who is often the farmer (*Eathington et al. 2000*).*



## *Statement of the problem ... Value addition*

- ▶ From *preliminary survey*, it is not questionable that selling value added/dried coffee results more earnings/profit than red cherry form.
- ▶ *Yet, unlike their motivation for value addition*, farmers are challenged with many problems largely b/c of marketing env't, supportive services, resources, processing technologies, infrastructures, and economic & socio-demographic factors.



- ⓐ ***Thus, to put farm level value addition as an alternative, it was pertinent to first analyse the underlying determinants of intensity of value addition by farmers.***



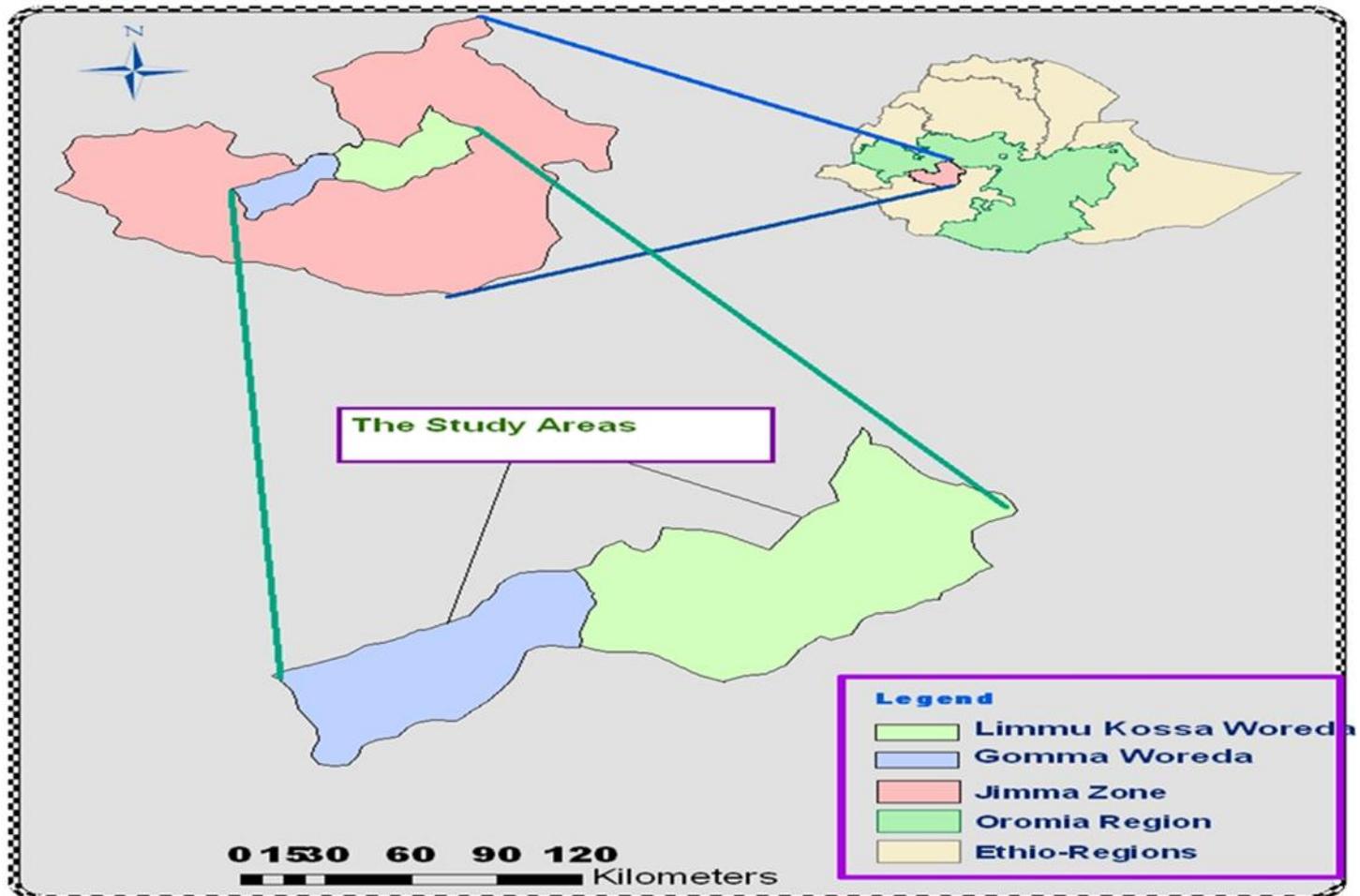
# Objective

**To Empirically analyse factors affecting the intensity of coffee *value addition* by smallholder farmers in the study areas**



# Research Methodology

## Description of Study Areas





# Sampling technique

## *Two-stage stratified and simple random sampling techniques*

**First stage:** *stratified random sampling:*

**Second Stage:** *simple random sampling technique*



## Sample size determination . . .cont'd

➔ *Proportional size of coffee farmers were selected as follows*

District	Kebeles	Agroecological Category	Number of households	Sampled households
Limmu-Kossa	<i>Babiya Kemise</i>	Highland	617	17
	<i>Kela Gebissa</i>	Midland	811	22
	<i>Dengaja Sole</i>	Midland	798	22
	<i>Denbi Gaban</i>	Midland	583	16
	Subtotal		2809	77
Gomma	<i>Choche Lemi</i>	Midland	1210	33
	<i>Genji Ilbu</i>	Midland	1565	42
	Subtotal		2775	75
Total			5584	152



## *Cont'd*

- ▶ **Method of data collection:** *formal survey through structure questionnaire*
- ▶ **Method of data analysis:** *Econometric analysis (Tobit model)*

### *✓ Dependent variables*

- 1. Value addition:** *It is a continuous variable represented by monetary valuation of total value added in thousands of birr by a farmer after drying red cherry coffee in 2013/2014 fiscal year.*

### *✓ Independent variables*



# RESULT AND DISCUSSION

## Maximum likelihood estimates of Tobit model of coffee value addition

Variable	Coefficient	Standard Error	Marginal effect among the whole	Marginal effect among participants	Change probability in
Sex	4.98***	1.55	4.80***	4.21***	0.0952**
Literacy status	2.18**	1.07	2.10**	1.84**	0.0417*
Coffee farming experience	0.17***	0.04	0.16***	0.14***	0.0032***
Active family labour force	1.31***	0.29	1.26***	1.11***	0.0250***
Extension service on value addition	7.90***	1.28	7.62***	6.68***	0.1510***
Distance to urban center	0.01	0.10	0.01	0.01	0.0002
Access to credit	1.78**	0.84	1.72**	1.51**	0.0341*
Ownership of drying facility	2.36***	0.84	2.28***	2.0***	0.0451**
Price of red cherry	0.21	0.94	0.20	0.18	0.0040
Price of dry cherry	2.92***	1.06	2.81***	2.47***	0.0558**
Membership in coffee cooperative	0.83	0.76	0.80	0.70	0.0158
Non- and/or off-farm income (log)	5.93***	0.35	5.72***	5.02***	0.0492***
Consideration of drying as saving and/or bargaining mechanism	1.41	1.13	1.36	1.19	0.0269
Contractual agreement on red cherry coffee	-0.95	0.95	-0.92	-0.81	-0.0182
Urgent need to sell red cherry	-0.07	0.85	-0.07	-0.06	-0.0014
Constant	-31.14***	3.07			
Sigma	4.14	0.25			
Pseudo R <sup>2</sup> = 25.5%		Number of observations = 152			
Log-likelihood = -382.54		Left-censored observations = 20			
LR chi2(15) = 261.27		Uncensored observations = 132			
Prob > chi2= 0.0000		Right-censored observations = 0			



# CONCLUSION AND POLICY IMPLICATIONS

➔ *Literacy status affect intensity of value addition positively; building education capacity of farmers through arranging consecutive trainings and experience sharing sessions or arranging formal way of education should be designed to increase value addition*

➔ *Extension service provided & ownership of drying facilities to farmers have also something to do with value addition; appropriate extension service provisions by assigning professional DAs & providing drying facilities must be available for farmers*



## *Cont'd*

- ▶ *Access to credit enables farmers to increase value addition. Strengthen the financial capability of farmers by providing adequate size of credit is the necessary strategy*
- ▶ *Price of dry cherry affected value addition. As farmers are pro-poor groups who need to be prioritized in any intervention, legal tactics & conditions under which such practices of offering unfair price would not likely to prevail should be implemented.*
- ▶ *Non-and/ off-farm activities affected value addition positively. Encouraging farmers to diversify their business besides coffee is another way to boost coffee value addition at farmer level.*

*Therefore :*



## *Cont'd*

- 1) Provide farmers with harvesting and post-harvest facilities and awareness training to increase value addition at the farm level*
- 2) Coop/unions & credit and saving institutions should provide adequate awareness training and advisory services to improve farmers' business & marketing management skills, working culture & saving habit*
- 3) Provide adequate extension services by assigning professional DAs and upgrading their knowledge and skills*
- 4) Establish modern value chain financial products (more importantly warehouse receipt finance) as an alternative for credit provision*



Dry cherry properly dried on a tarpaulin.

Figure Drying cherries on a tarpaulin is the correct method for a better quality coffee

# THANK YOU



White mould has formed on the dry cherry

Figure Drying coffee directly on the bare soil is bad practice leading to poor coffee quality

