

Questionnaire on the Effect of Maize Cluster Farming on Smallholder Farmers' Technical Efficiency (September 2021), Hawassa, Ethiopia

Name of the Enumerator.....Name of the HH head.....Phone

Zone.....woreda.....kebele.....village.....AEZ.....

Part IA: Households Socioeconomic Characteristics

No	Questions	Resp
1.	Sex of the respondent 1. Male 0. Female	
2.	Age of the respondent in years	
3.	Educational status in grades completed	
4.	Marital status 1. Single 2. Married 3. Widowed 4. Widower 5.Divorced	
5.	Fam ily Size	
	Total family sizeMale.....Female.....	
	<1year.....Male.....Female.....btn(1-2).....male.....female.....	
	btn(2-3).....male.....female..... btn(3-5).....male.....female.....	
	btn(5-7)....male...female..... btn(7-10).....male.....female.....	
	btn(10-12)....male...female... btn(12-14).....male.....female.....	
	btn(14-16).....male.....female... btn(16-18).....male.....female.....	
	btn(18-30).....male.....female... btn(30-60).....male.....female.....	
	Above 64.....Male.....Female.....	
6.	Years of experience in maize production	
7.	Have you produced maize in a cluster last year 1=yes 0=no	
8.	If yes, name of your cluster.....	

B. Land use characteristics: Amount of land allocated during last year

No	Area in ha	Own	Rent-in	Rent-out	Share-in	Share-out	Total
1.	Annual						
	Maize allocated						
	Other annuals						
2.	Perennial						
3.	Trees						
4.	Grazing land						

Part IIA: Inputs Used for the Production of Maize

No	Inputs used	Amount	Price/kg/ltr	Total
1.	Seed			
	Improved (kg)			
	Local (kg)			
2.	UREA (kg)			
	1 st round			
	2 nd round			
3.	NPS-B (kg)			
4.	NPS (kg)			
5.	Lime (kg)			
6.	Pesticide(Ltr)			
	1 st round			
	2 nd round			
	3 rd round			
7.	Insecticide (Ltr)			
	1 st round			
	2 nd round			
	3 rd round			

B: Variable inputs utilization for maize production

No	During	Labor	Oxen	Tractor
		Used/day No of days	Used/day No of days	Used/day No of days

1	Land preparati on	1 st round						
		2 nd round						
		3 rd round						
		4 th round						
		Sowing						
2	Weeding	1 st round						
		2 nd round						
		3 rd round						
		4 th round						
3	Pesticide (Ltr)	1 st round						
		2 nd round						
		3 rd round						
4	Insectici de (Ltr)	1 st round						
		2 nd round						
		3 rd round						

	During	Labor		If used thresher		If used combiner	
		Used/day	No of days	Used/day	No of days	Used/day	No of days
4	Harvesting						
5	Threshing						

No	Price/wage/rental price and related equivalent conversion in last year	Response
1.	What was the wage of labor per day in your locality in Birr	
2.	What was the price of oxen per day in your locality in Birr	
3.	What was the rental price of a tractor per day in your locality in Birr if used	
4.	What was the rental price of a thresher per day in your locality in Birr if used	
5.	What was the rental price of a combiner per day in your locality in Birr if used	
6.	How many days is needed for oxen for one day work of tractor if used	
7.	How many days is needed for labor for one day work of combiner if used	
8.	How many days is needed for labor for one day work of thresher if used	

Part III: Annual Crops Produced and Utilized Last Year

No	Commodity (Qt)	Produ ced	Cons umed	Sold	Price/Qt	Gift- out	Gift- in	Boug ht	Post-harvest loss
1.	Maize								
2.	Finger millet								
3.	Common bean								
4.	Pepper								
5.	Potato								
6.	Taro								
7.	Yam								
8.	Teff								
9.	Wheat								
10.	Other-----								

Part IV: Agronomic Practices, Soil Characteristics, and Institutional Variables

No	Questions	Resp
1.	Spacing between rows in cm	
2.	Spacing between seed in cm	

3.	Do have had access to credit for maize production 1-yes, 0-no	
4.	If yes, the amount credited in Birr	
5.	Have you used compost for the production of maize? 1.yes, 0. no	
6.	What was the fertility status of maize plot 1- poor 2- moderate 3-high	
7.	What was the depth of your maize plot 1-shallow 2-medium 3-deep	
8.	Was your maize plot susceptible to erosion? 1-yes, 0-no	
9.	If yes, have you applied SWC practices to it? 1-yes, 0-no	
10.	What was the slope of your maize plot 1-flat 1-gentle 2-moderate 3-steep 4-very steep	
11.	What is the soil type of your maize plot: 1-black 2-brown 3-red 4-grey	
12.	Was pest prevailed in your maize plot 0.no 1.yes	
13.	Was drought prevailed in your maize plot 0.no 1.yes	
14.	Was water logging prevailed of in your maize plot 0.no 1.yes	
15.	Was grasshopper prevailed of in your maize plot 0.no 1.yes	
16.	Have you used irrigation for maize production 1-yes, 0-no	
17.	Which crop you planted in maize plot before its sowing	
18.	Did you left crop residues in maize plot before its sowing? 1-yes, 0-no	
19.	Did the maize plot fallow before its sowing? 1-yes, 0-no	
20.	Have you used alley cropping for maize production? 1-yes, 0-no	
21.	What is the frequency of extension contacts during last year in days per month	
22.	Did you have access to diseases resistance variety of maize easily?	
23.	Did you have access to chemicals for either disease or pests during stress easily?	
24.	For what purpose you produced maize? 1- home consumption 2-for market 3-both 4 other -----	
25.	What criteria are mostly employed to produce maize? Explain 1. 2. 3.	
26.	What is the distance of FTC from your home in Km	
27.	What is the distance of the school from your home in Km	
28.	What is the distance of the health center from your home in Km	
29.	What is the distance of the near market from your home in Km	

Part V: Questions Regarding Cluster Farming (only for clusters)

No	Identifiers	Resp
1.	What is your cluster status 1-Pre-basic 2-basic 3-intermediate 4-Advance 5-company	
2.	Who introduced cluster-based farming in your locality 1-MoA 2-ATA 3-1&2 4-NGO (specify.....)	
3.	What interests you to engage in cluster farming? 1- Having adequate support 2-To get more output from coordinated production 3-To improve neighborhood 4-other-----	
4.	Were your cluster participants prepared maize land equally? 1-yes, 0-no	
5.	If no, what was the maximum day of variation?	
6.	Were your cluster participants sowed seed equally? 1-yes, 0-no	
7.	If no, what was the maximum day of variation	
8.	Have you taken training about the aim of cluster-based farming 1-yes, 0-no	
9.	Have you taken training about full maize production packages 1-yes, 0-no	
10.	Do you think producing in cluster facilitated market access 1-yes, 0-no	
11.	Do you think producing in cluster facilitated mechanization services 1-yes, 0-no	
12.	Have you visited a large-scale demonstration of maize 1-yes, 0-no	

13.	Do you think cluster made good changes in attitudes toward social networks 1-yes 0-no	
14.	Do you have a network involved in cluster farming? 1-yes 0-no	
15.	If yes, with whom	
16.	Has your cluster had a written agreement 1-yes 0-no	
17.	Was DA provided special support for clusters 1-yes, 0-no	
18.	In your cluster, is there sharing of skilled labor 1-yes 0-no	
19.	In your cluster, is there sharing of farm implements including oxen 1-yes 0-no	
20.	Were women a member of your cluster? 1-yes 0-no	
21.	If yes, does she have a leadership role? 1-yes 0-no	
22.	Is there a socio-cultural norm that limits cluster development 1-yes 0-no	
23.	If yes specify.....	
24.	Were farm management practices related to environmental concerns considered in your cluster 1-yes 0-no	
25.	What marketing practices your clusters were used....1. selling at farm gate 2. Selling in a collective manner 3. Selling individually as our wish 4-contractual market arrangement 4- combination of -----&-----	
26.	Who bought your produce last year 1-Any traders in the market 2-Trade unions 3-NGO for relief purpose	
27.	What advantages are you geared to achieve when engaged in maize cluster farming 1. 2. 3.	
28.	What criteria are mostly employed to produce maize in cluster? Explain 1. 2. 3.	

Part VI: Barriers of Cluster Farming and its Sustainability or Reasons for Non-participation

No	Answer 1-yes, 0-no	Resp	Answer 1-yes, 0-no	Resp
1.	Having inadequate land		Vulnerable to crop risk	
2.	Lack of perfect market and its development		Lack of crop insurance	
3.	Inadequate evidence about its sustainability		Existence of disagreements	
4.	Not good for attaining the aim of food security		Fear of surplus production	
5.	Inability to purchase inputs at the right time		Insufficient support	
6.	Inadequate input access (improved seed and fertilizer)		Other (-----)	

Part VIIA: Livestock Ownership in the Last Year

No	LV Type	Number owned	Number Sold	Average price	No	LV Type	Number owned	Number sold	Average price
1.	Cow				7	Goat			
2.	Calves				8	Donkey			
3.	Heifer				9	Poultry			
4.	Bull				10	Sheep			
5.	Oxen				11	Mule			
6.	Horse				12	Other			

B: Different Sources of Income Generated in Last Year

No	Sources	Income (Birr)	No	Sources	Income (Birr)
1.	Off-farm		4	Sale of animal products	
2.	Non-farm		5	Sale of trees and other plantations	
3.	Remittances		6	Aids	

What are the other potential constraints for the sustainability of cluster farming