

Access to productive land and youth livelihoods: Factors Influencing Youth Decision to Exit From Farming and Implications for Industrial Development

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Introduction

Majority of sub-Saharan Africa's population live in rural areas and depend directly or indirectly on agriculture for livelihood

Youth in SSA:

- about 62% of population are youth below 25 years of age
- youth aged between 15 and 35 years account for 55% of the region's labor force
- Almost 11 million youth enter job market every year and only 25% likely to get non-farm wage employment over next decade
- Jobs in the non-farm informal sector in rural are limited-most youth will therefore depend on farming for their livelihood

Introduction (cont'd)

- Secure access to productive land is fundamental for youth in SSA to engage in farming as independent farmers
- Limited access to productive land for farming induces youth in rural areas to exit from farming to explore alternative livelihood opportunities elsewhere
- This paper investigates the factors influencing young Tanzanians' decision to exit from farming.
- The paper addresses the gap that is always forgotten of migration being a livelihood strategy induced by inadequate access to fertile and productive land for farming.

Introduction (cont'd)

- **Study hypothesis:** Limited access to fertile and productive land for farming is one of the major factors that induce youth's decision to exit from farming
- The paper uses the 2008/09, 2010/11 and 2012/13 national panel survey data complemented with 2016 cross-sectional data from 1,200 households in eight (8) districts of Tanzania Mainland
- We applied a probit regression model using the national panel data to investigate whether limited access to productive land for farming induce youth's decision to exit from farming
- Descriptive statistics were generated using the 2016 data to understand the current situation in terms youth migration and land access

The probit regression model

- Analysis done at individual household member level - youth aged 15-35 years
- Model Variables:
 - Dependent variable: binary variable =1 if youth aged 15-25 years was farming in 2008 but decided to exit from farming (migrated) in subsequent years

Probit regression: Explanatory variables

Individual Youth Characteristics

- Age
- Sex
- Education

Household Level Factors

Household head characteristics

- Household age
- Household head sex
- Household education
- Number of year of household head in current residence

Other household characteristics

- Number of brothers and sisters to household head
- Number of male youth between 15-30 years
- Number of female youth between 15 to 30 years
- Land holding size
- Number of livestock
- Own tractor
- Own plough
- Own TV
- Own cell phone
- Land productivity
- Labour productivity

Community Level Factors or Locational Context

- Distance from homestead to motorable road
- Distance from homestead to market
- Annual mean temperature
- Annual precipitation
- Slope
- Population density

Youth Decision

Remain in farming

Exit from farming

Results of the descriptive analysis

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Proportion of Youth in Farming and Non-farm employment (%)

Survey year	Location	Activity		N
		Farming	Non-farm	
2008_09	Rural	75	25	2,165
	Urban	14	86	925
	Overall	44	56	3,090
2010_11	Rural	67	33	2452
	Urban	14	86	981
	Overall	41	59	3433
2012_13	Rural	56	34	2499
	Urban	12	88	1277
	Overall	34	66	3776

Source: Panel Survey Data

Households with and without land ownership

	Njombe	Kilombero	Mvomero	Kiteto	Magu	Liwale	Moshi rural	Mkura nga	Total
Hhh_with land	271	63	110	298	75	150	26	111	1104
%	95.8	86.3	81.5	94.6	96.2	98.7	92.9	89.5	92.9
Hhh_without land	12	10	25	17	3	2	2	13	84
%	4.2	13.7	18.5	5.4	3.8	1.3	7.1	10.5	7.1
Total	283	73	135	315	78	152	28	124	1188
Percent (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Land ownership by age groups

Age group	N & %	District								Total
		Njombe	Kilombero	Mvomero	Kiteto	Magu	Liwale	Moshi rural	Mkuranga	
15 - 35	Count	36	5	26	61	13	37	6	33	217
	%	13.3	7.9	23.6	20.5	17.3	24.7	23.1	29.7	19.7
36 & above	Count	235	58	84	237	62	113	20	78	887
	%	86.7	92.1	76.4	79.5	82.7	75.3	76.9	70.3	80.3
Total	Count	271	63	110	298	75	150	26	111	1104
	%	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Methods of Land Acquisition

S/N	Land acquisition	Frequency	Percent
1	Bought	50	25.1
2	Inherited	111	55.8
3	Community allocation	16	8.0
4	Government allocation	22	11.1
	Total	199	100

Land Inheritance by district and sex

Sex		District								Total
		Njombe	Kilombero	Mvomero	Kiteto	Magu	Liwale	Moshi rural	Mkuranga	
None	%	28.6	64.1	40.2	15.6	12.3	7.9	4.8	5.4	28.6
Male	%	16.1	6.3	20.5	23.1	13.7	24.5	23.8	16.3	19.2
Female	%	1.2	0.0	0.0	1.4	1.4	0.0	4.8	0.0	0.8
Both	%	54.0	29.7	39.3	59.9	72.6	67.5	66.7	78.3	58.1
Total	%	100	100	100	100	100	100	100	100	100

Migration in selected districts by age and sex

S/N	Age group	Female	Male	Total
1	0 to 14	4 (80%)	1(20%)	5(100%)
2	15 to 35 (<i>target group</i>)	579(56.9%)	439(43.1%)	1018(100%)
3	36 to 60	187(46.4%)	216(53.6%)	403(100%)
4	61 and above	10(58.8%)	7(41.2%)	17(100%)
	Total	780(54.1%)	663(45.9%)	1443(100%)

Destination of Migrants

Areas moved to	Frequency	Percent
Rural areas within and outside village	889	61.7
Dar es Salaam	257	17.8
Other urban areas	227	21.0
Other Country	8	0.6
Total	1443	100.0

Results of the probit regression analysis

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Marginal effects of probit regression analysis for individual youth characteristics

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Explanatory Variable	All	Male	Female
Age of the youth (years)	-0.01***	-0.01***	-0.01**
Gender of the youth (1=male)	-0.01		
Member's education attainment (base: no education):			
_primary education	-0.01	-0.17	-0.20
_secondary education	-0.22	0.02	-0.01
_post secondary	0.39***	0.24	0.47**

Note: ***, **, *: significant at 1%, 5%, and 10% levels respectively.

Results of probit regression analysis for household level factor

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Explanatory Variable	All	Male	Female
Characteristics of household head:			
Age of household head (years)	0.23***	0.22***	0.15**
Household head sex (1=male)	-0.75	0.03*	-0.03*
Household head education attainment (Base=no education):			
_primary education	0.01	-0.02	0.01
_secondary education	-0.01	-0.04*	0.01
_post secondary education	-0.16	-0.06	0.04
Years of household head in current residence	-0.04	-0.01	-0.01

Note: ***, **, *: significant at 1%, 5%, and 10% levels respectively.

Results of probit regression analysis for household level factors (Cont'd)

Other household factors:			
Number of brothers and sisters to household head	0.02**	0.03***	0.01
Number of male youth between age of 15-30	0.22	0.01	0.01
Number of female youth between age of 15-30	-0.31	0.52	0.11
Land holding (ha)	-0.01**	-0.01**	-0.01**
Number livestock (TLU)	0.35**	0.37**	0.43**
Own tractor (1=yes)	0.54**	0.81***	0.00***
Own plough (1=yes)	0.47	0.27	-1.39
Own TV (1=yes)	0.01	0.01	0.03
Own cell phone (1=yes)	0.21	0.26	1.09
Land productivity per ha harvested ('million TZS')	-0.04***	-0.06**	-0.03**
Labour productivity per resident adult ('million TZS')	-0.14**	-0.14*	-0.14

Note: ***, **, *: significant at 1%, 5%, and 10% levels respectively.

Marginal effects of probit regression analysis for community level factors

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Explanatory Variable	All	Male	Female
Distance from homestead to motorable road (km)	0.34**	-0.02	0.52**
Distance from homestead to market (km)	-0.02	-0.08	0.04
Annual mean temperature ($^{\circ}\text{C}\cdot 10$)	0.04	0.11	-0.02
Annual precipitation (mm)	-0.04*	-0.01	-0.05
Slope (%)	0.07	0.18	-0.06
Population density dummies (base: 0-50 persons/km ²):			
50-100	-0.01	-0.02	0.03
100-200	0.02	-0.03	0.02
200-300	-0.01	-0.03	0.03
300-500	0.01	0.05*	-0.04*
500-1000	0.02	0.07*	-0.02
>1000	0.07**	0.08**	0.07*

Note: ***, **, *: significant at 1%, 5%, and 10% levels respectively.

Conclusion and policy implications

- As hypothesized the findings of the study show that the probability of youth's decision exit from farming declines as the land holding of the parent increases, implying that the available evidence does not allow rejection of the hypothesis.
- Also the higher the land productivity in terms of net value of crop output per hectare of harvested area and labour productivity in terms of net value of crop output per resident adult, the less the probability of youth's decision to exit from farming
- Gender disaggregated analysis show that young men are more likely than young women to exit from farming if land productivity declines.
- Distance to motarable road as a measure of remoteness and market access increases probability of youth's decision to exit from farming in rural areas

Conclusions and Policy Implications

- The major conclusion that can be drawn from the findings is that while some people associate youth's decision to exit from farming with the behavior of disliking rural life or engaged in farming, the results regression analysis suggest that they are fundamentally against being poor
- Their decision to exit from farming are affected by conditions that affect their ability to earn a decent livelihood from farming
- These results suggest that incentives to motivate youth to engage in profitable farming will reduce the probability of their decision to exit from farming

Conclusion and Policy Implications (Cont'd)

- Agricultural policy and strategies should strive to improve productivity in farming and access to markets
- Productivity can be improved through increasing access and promoting use of improved technologies including improved seeds, fertilizer, irrigation and other inputs (intensification) coupled with improved farm husbandry practices – extension advice is crucial
- Access to markets can be improved through up-scaling the current efforts made by the government to improve feeder roads in rural areas to facilitate transportation of agricultural produce to markets outside the rural areas.

Policy Implications (Cont'd)

- The above should go hand in hand with promotion of value addition to agricultural produce to absorb surplus labor which is likely to occur if productivity in farming improves significantly.
- Value addition in the rural areas is possible with the on-going investments in rural electrification under REA.
- The surplus labor released from farming can also be absorbed in industries other than agro-based industries

Sunflower production and processing in Tarime, Tanzania



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