

# Small-investor Horticultural Farmers in Lume district of Ethiopia:

Opportunities and Challenges to  
transform the growth process on and  
beyond their farm.

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# Background

- Over the past decade, production and export of horticultural/floriculture crops as well as commercialisation of agriculture have got high policy priority in Ethiopia.
- Government, however, took two different strategies to develop /support/ the sector (MOFED, 2005):
- Policy for the promotion of large , modern commercial farms is comprehensive and attractive. This refers to
  - easy and cheap access to large, suitable farm lands,
  - long-term credit (from government banks),
  - duty-free import of machineries, farm inputs....
  - tax holidays both on profit and export
  - Federal agency is established to facilitate & coordinate such activities.

# Background.....

- Policy measures and incentives to encourage small horticultural producers, however, is not equally transparent and supportive.
  - No federal agency (i.e. no/weak federal intervention/support);
  - Support is
    - largely a regional issue,
    - mostly limited to agricultural extension services/technical trainings, and
    - focused on integration of small farmers into market economy.

# Background .....

- Implied justifications for exclusive incentive packages/policy for large commercial producers includes:
  - Production is mainly destined for export market,
  - Large commercial production thought to require entrepreneurial and modern management skills and large economic of scale which lack the sector.
- On the other hand, poor policy support to small producers might reflect the pessimistic view on private investments in smallholder agriculture. Moreover,
  - Small farmers are largely considered as homogeneous or near-homogenous groups,
  - Few believe that small farmers have the aspiration, dreams as well as capacity required to progress themselves into modern, (large) commercial farms.

(Even in a cases where progressive farmers were recognized, the notion of policy makers is narrowly focused on using them as model for others; i.e. the issue of developing new policy/intervention strategies to help them reach their next stage of dev't is largely underestimated).

# Background .....

- This policy bias or divergence might reflect two points:
  - Private/long-term investments might not be considered appropriate at this stage of small farmers dev't,
    - The hangover of the Socialist ideology (among policy makers) (i.e. curbing social differentiation in rural areas) might also play a big role.
  - Policy makers might not have sufficient information/data to change their view especially the widely held view that consider small farmers as homogeneous or near-homogenous group.

# Objectives of the study

- Using a group of emerging 'class' of small-investor farmers, this study is intended
  - to document the diversity and dynamics among smallholders in the study area, as well as development opportunities and challenges they faced,
  - to spur debate and further rigorous studies on the need to evaluate and adapt policies and service provision to emerging as well as conventional problems of small horticultural crops producers in general and emerging small-investor farmers in particular (in Lume district).

# About the studies

- Over the past four years, two separate but complementary studies focused on small horticultural crops were conducted (by Future Agricultures-Consortium: [www.future-agricultures.org](http://www.future-agricultures.org)).
- These studies indicate the positive impact of irrigated horticultural crops in raising producers' cash income as well as reorienting agriculture to become dynamic and market oriented .....,
- Farmers, however, were not equally benefited. Moreover, the study identifies few farmers who are performing exceptionally different from the majority.

# Heterogeneity/disparity

- In terms of investment or scale of production
  - The top 25% farmers, for instance, managed to double their irrigated farm size from 2 to 4 *timad*,
  - while the average irrigated plot for farmers in the bottom 25% declined marginally from 0.67 *timad* to 0.5 *timad* (in two years – b/n 2010 and 2012).
- Similarly, there is wide disparity in productivity:
  - **Onion** – Average 4,333 kilogram per *timad* (0.25 *ha*), but it varies between 2,400 kilogram (for bottom 25% onion farmers) and over 6,000 kg among the top 25% of onion growers.
  - **Tomato** - the gap in productivity in tomato varies b/n 2,500 kilogram and 4,500 kilogram (per *timad*-irrigated farmland) among the bottom and top 25% producers.
- This disparity in productivity reflects a corresponding difference in the level of investment and intensity of management. Existing support to smallholder sector, however,
  - doesn't reflect such disparity as it biased towards the average or below the average performers.  
(i.e. farmers who identified in this study as 'emerging small-investor are neglected as intervention strategies are defined narrowly and fail to recognise the diversity of small farmers).



# Why a study on this farmers?

- The motives behind a separate study on these ‘emerging small-investor farmers’ emanates from the following points.
  - The ultimate objective of interventions by the public sector in smallholders is to speed up rural-urban linkage, the transformation of the rural economy as well as the process of agro-enterprises development in rural areas.
    - Such objectives demands a group of farmers that lead the process. Lack of appropriate and timely support to such group farmers will jeopardize such objectives.
  - The study is expected to improve awareness on the changing realities of smallholders in the study area. It is also expected to lead the way for future studies on typology of (or dynamism in) small farmers.
- Being a model as well as agent of change, any support to these farmers is expected to have a pulling-effect on other fellow ‘traditional’ farmers.

# Who are emerging small-investor farmers?

- Emerging small-investor farmers could be considered as group of small farmers who are dynamic enough to lend themselves to emerging opportunities as well as new challenges/tasks.
- **But we don't have prior information on the size** as well as basic characteristics of the population to be studied (which is crucial to conduct a scientific study).
- The study, therefore, adopted a temporary working definition to identify such farmers from 'other' farmers.

# Who are emerging small-investor farmers?

- Based on a thorough evaluation of characteristics of sample farmers surveyed in previous studies, the following temporary definition was adopted:
  - an emerging small-investor farmer is expected to consider himself/herself not part of a “traditional” farming household and investing in farming as a business.
  - Apart from this very important but difficult to assess criterion, such farmers are expected to meet one or more of the following measurable criteria. They were expected
    - to engage in factor markets (land and/or labor markets) significantly – at least more than half of the average he/she considered for his/her village.
    - to harvest and sell significantly higher than the average producer.
    - to have aspiration and dreams to invest on their farm and other activities along the value chain – marketing, processing, - and outside their farm;

# About the study area and farmers



The study area is located at the central part of the country, close to the capital of Addis Ababa, as well as to the regional markets of Bishoftu and Adama, and to the highway that runs to the neighbouring countries (Djibouti & Kenya)

# Methods and data

- Based on this temporary definition and following the snowball principle, about 40 emerging small-investor farmers were selected.
  - After the initial contact with a given emerging small farmer expected to be suitable (which was assessed based on the above temporary/initial definition, the study team asked him/her to name other relevant persons he/she knew to make the second contacts (from who again one or more will be selected randomly) and so on.

# Data

- Among others, data on production, transport and marketing of these enterprises as well as on other non-farm activities were collected. Other information related to household background information, enterprises history and production objectives, problems or difficulties, future aspiration and goals and the type of support essential to achieve future goals and dreams were collected and analyzed primarily using descriptive methods.

# Methods, limitation

- This (the study on SEFs) is an exploratory, descriptive study and is not aiming for a statistically representative sample.
- As samples for the study were not random observations largely drawn from unknown population, any findings should be considered as provisional that need further verification using more formal methods on larger sample drawn from pre-identified population.

# Results

- The study shows major internal differences among smallholders in the study area. The difference extends from variation
  - in basic household characteristics to access to resources and
  - ability to use them efficiently (i.e. productivity) as well as
  - future investment and aspiration.



# About the Farmers

- Farmers cultivate farms 0.5 ha to 6 ha and produces various annual crops including teff, wheat, chickpeas, and vegetables.
- Agriculture is largely rain-fed. But vegetables (onion and tomatoes) are also produced through irrigation using both underground water and surface water (Koka lake and Mojo river).

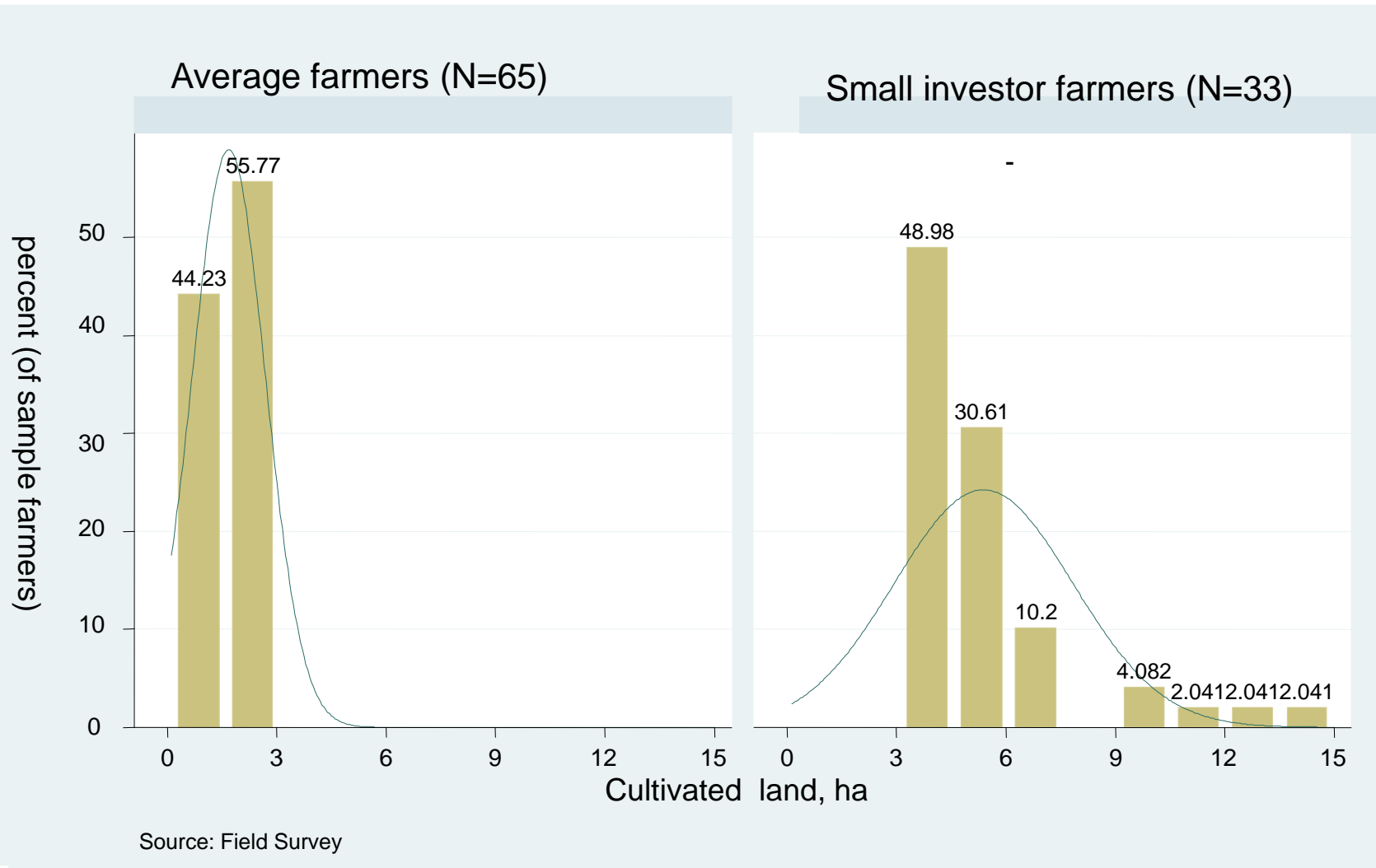
**Table 1. Some characteristics emerging small-investor farmers and other farmers**

	Emerging small farmer	Other 'peer farmers	t-test
<b>Household characteristics and experience</b>			
Household size	7.5	5.3	2.5**
Age (head)	38	43	1.98
Literacy (head) (% read and write)	91%	86%	--
Highest education (years in formal schools)	9.3	5.6	2.97**
Percent migrated/not born in the village	11%	0	--
Farming experience (number of years in farming)	14	12	1.12
<b>Farm size and irrigation</b>			
Total Farm size (ha)	3.9	2.5	2.61**
Area to high value cash crops (ha)	2.85	1.13	2.73**
Irrigation users (% of farmers)	55%	43%	--
Proportion of irrigated land (% of cultivated land)	39%	36%	--
<b>Participation in factor markets and off-farm jobs</b>			
Land rental market (% participated)	65%	45%	--
(rented land-ha/household)	2.69	1.40	4.12***
Farm labor (expense for hired labor – Birr/annum/farm)	15,600	7,345	5.19***
Off-farm jobs participation	4%	18%	--
As job seekers/laborer (%)	26%	2%	--
As employer (%)	55%	23%	--
Percent having bank account	39%	23%	--
Percent borrowing for farming (%)	12,893	8,640	2.49*
Average loan size (Birr)			
N	33	65	

\*, \*\* and \*\*\* indicates statistical significance at 10%, 5% and 1% respectively.

Source: computed based on survey data (2012)

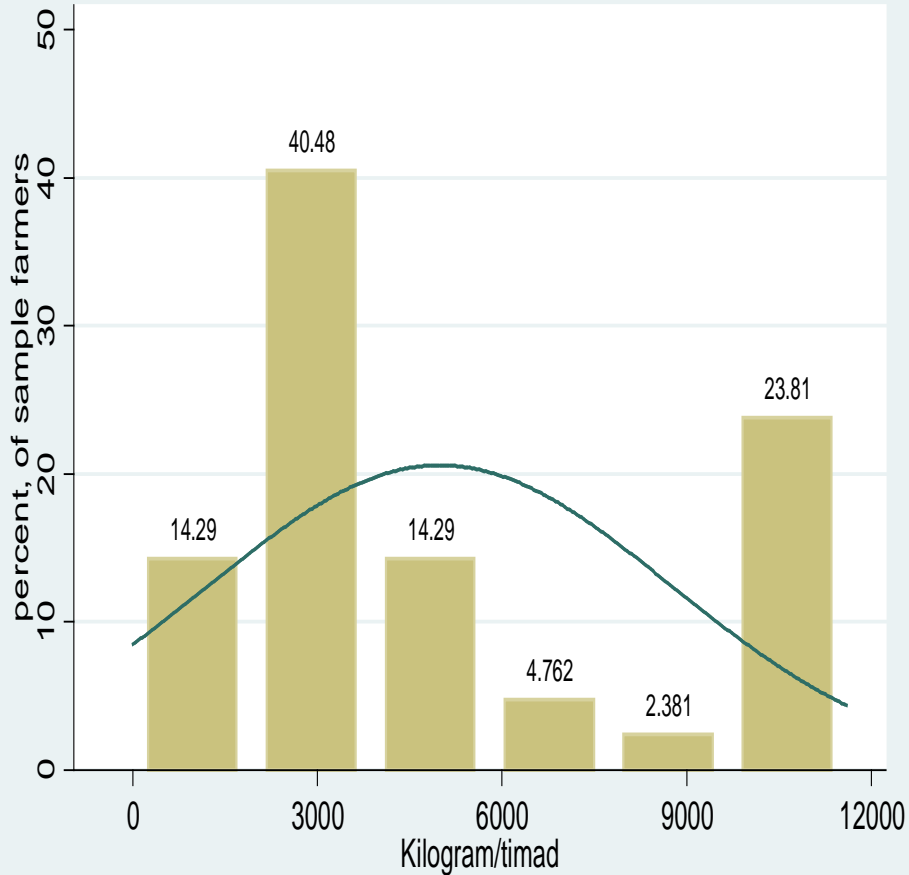
# Disparity in access to farmlands



Source: computed based on survey data (2012)

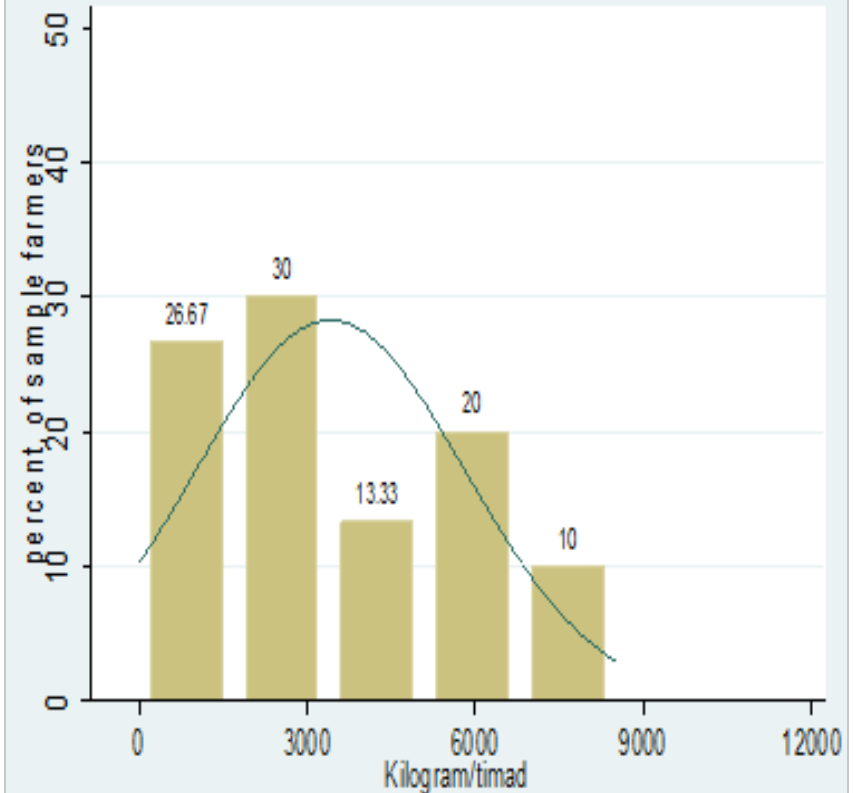
# Disparity in productivity

Productivity in onion production(K.g./timad)  
Among emerging small-investor farmers N=33



Source:Field Survey

Productivity in onion production(K.g./timad)  
Among average farmers (N=65)



Source:Field Survey

**Table 2: Productivity, farm income and expense (per household)**

		Emerging small farmer	Other 'peer farmers	t-value
Farm land occupied by high value cash crops (ha)		2.85	1.13	2.31**
<b>Expense (Cash expenditure)</b>				
•	Average cost (cash outlays for inputs)/farm	86,355	20,958	2.97**
•	Payment for rented land (Br./rented land)	20,175	8,400	3.65***
•	Average expense for hired labour (Br./hired labour)	15,600	7,345	2.86**
Total cash outlays for	Birr/farm	122,130	36,703	4.58***
inputs, land and labour	Birr/ha	42,853	32,481	1.32
<b>Income (from marketing of onions and/or tomato sold)</b>				
Gross income from high	Birr/farm	219,196	58,238	2.69**
value cash crops produced	Birr/ha	76,911	51,538	2.06*
<b>Productivity</b>				
•	Net return to family labour (Br./household)	97,066	21,535	2.37**
•	Net return to family labour (Br./ha)	34,058	19,057	2.04*
N		35	60	

\*, \*\* and \*\*\* indicates statistical significance at 10%, 5% and 1% respectively.

Source: computed based on survey data (2012)



Fig. 3. Farm labourers employed at an onion farm of a sample emerging investor farmer



Source: photos taken during survey period (2012)

Such farmers deserve a corresponding institutional and policy support that currently exclusively provided (by the government) to private investors.



## Investment in complementary ventures –agro-enterprises



- Income generated from vegetable production invested on livestock fattening
- Similarly, Quite a good proportion of surveyed emerging small-investor farmers reported positive investments in productive asset such as ploughing equipment, irrigation materials like water pumps, drip irrigation and sprinklers, and livestock mainly for fattening and in some cases for dairy purpose etc.

# Disparity in future investment and aspiration

(Percent responded ‘yes’)

	Average farmers	Emerging small-investor farmers
<b>Agro-business</b>		
• Transport – buy lorry to supply to larger buyers	6%	54%
• Input supply (water pumps, seeds etc)	4%	23%
• Wholesalers agent	12%	33%
• Exporting vegetables	0	4%
• Processing and other value addition activities	9%	38%
• Livestock fattening/dairy	10%	42%
<b>Diversification/investment in non-farm activities</b>		
• Grain mill	9%	16%
• Construction-renting house in nearby town	2%	23%
• Retail business/cooked food, tea, coffee, beverages etc	17%	6%
• Transport	0	31%
• Quarrying and production of building materials	3%	9%
N	60	24 35



# Problems and constraints

- Land related problems.
  - Over recent years tenure security has improved but land rental markets operates under different restrictions. Beyond their use right, farmers can not use their land as collateral
- Lack of access to capital/long-term loan
  - Emerging farmers need relatively large, long-term loan; but this is not possible both because of policy and other factors.
- Weak support in business skill, marketing and post-production activities along the entire value chain
  - In general, excluding domestic or foreign private commercial large farmers, the broader agricultural policy of the country overlooked this emerging group of small-investor farmers.

# Conclusion

- Though the heterogeneity of the smallholder sector in the study area cannot be interpreted as reflecting two single groups, the study depicts a range of internal dissimilarity between emerging small-investor farmers and other/average farmers.
- In general, emerging small-investor farmers are
  - at the forefront in terms of job creation or other positive multiplier effects (from the expanding horticultural crops),
  - better suited for any interventions that aim for
    - further investment (on their farm and beyond – along the value chain and off-farm), as well as
    - for spreading entrepreneurship spirit in the study area.

# Conclusion/recommendation

- Though any exclusive treatment of such farmers might fuel up the process of social differentiation that might narrow the space for equal or free participation in subsequent development process, it is important to note the high probability for non-linear growth process among farmers in the study area, i.e. and design a system that is flexible and dynamic enough to reflect the heterogeneity as well as dynamism in the smallholder sector.

# Conclusion/recommendation

- Finally, as samples for the study were not random observations largely drawn from unknown population, any findings should be considered as temporary and needs further verification using more formal methods on larger sample drawn from pre-identified population.
- Similarly, the study indicates the need for more studies on internal differences (on typology) and dynamism among small farmers, especially in high potential/cash crop producing areas.