

# Productivity and Growth in Organic Value Chains (ProGrOV)

## ORGANIC VEGETABLE PRODUCTION SYSTEM INCREASES SMALLHOLDER FARMER'S INCOMES

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### Introduction

Nairobi has an estimated annual demand of 1.7 million tons of organic vegetables. Because of their proximity to Nairobi, Kiambu and Kajiado Counties of Kenya have a high comparative advantage to meet this growing demand. However, less than 100 out of the total farming population of more than 300,000 in the two Counties currently supply the Nairobi market with organic fruits and vegetables.



The inability to meet demand can be attributed to lack of adequate skills and knowledge in organic farming technologies, high cost of certification, low market development, poor post harvest handling and processing and lack of supportive agricultural policy.

Studies from elsewhere demonstrate that organic production system is profitable enterprise. However, there is limited information on its profitability among farmers in the study counties thus discouraging them from venturing into the business. This study assessed the impact of converting to an organic production system on profits and factors influencing adoption and profitability.

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## Study Approach

A semi-structured questionnaire was used to collect data on costs, returns, demographic information, farm characteristics and market outlet characteristics from; 71 organic and 144 conventional small holder vegetable farmers in Kiambu and Kajiado Counties of Kenya.

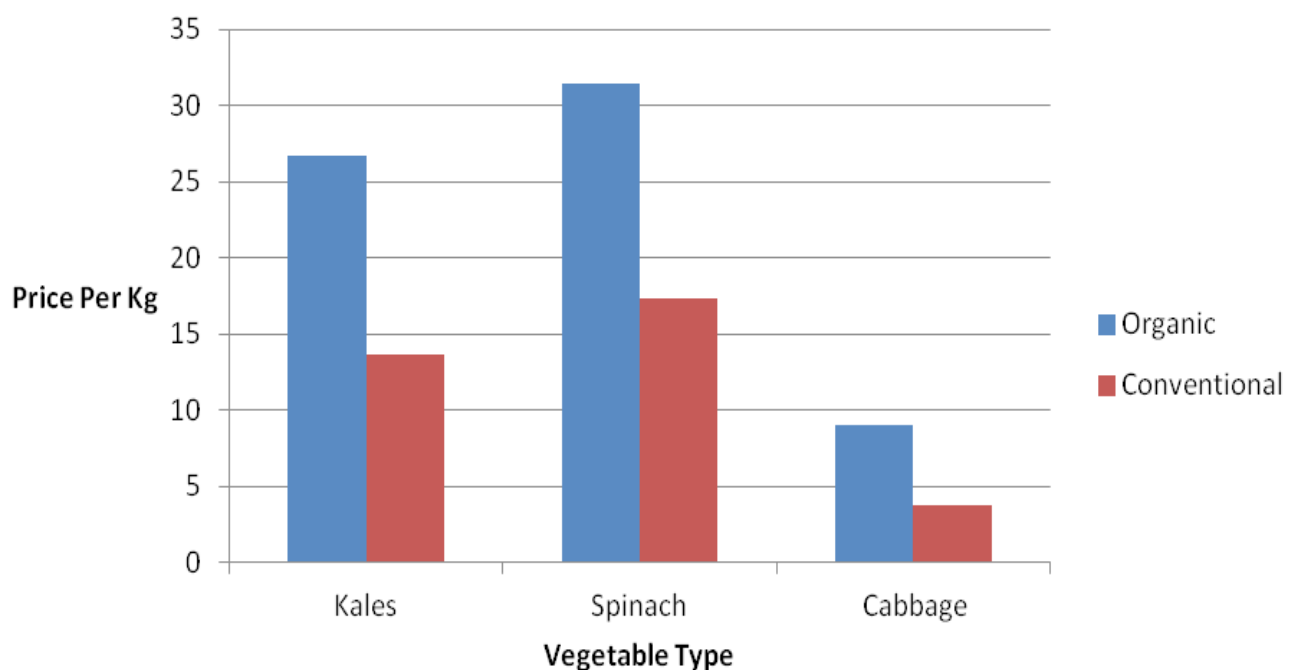


Figure 1: Average farm gate prices for organic and conventional vegetables during the survey period

## Results

- Farmers producing vegetables organically achieved higher gross margin by 45.16% which was attributed to conversion to organic. Higher grossmargin for organic production system was explained by higher prices for organic vegetable farmers as shown above:

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- Organic production costs were found to be higher than the conventional production system specifically because of higher labour cost for mechanical tillage and compost making. The difference was however not significant as shown below:

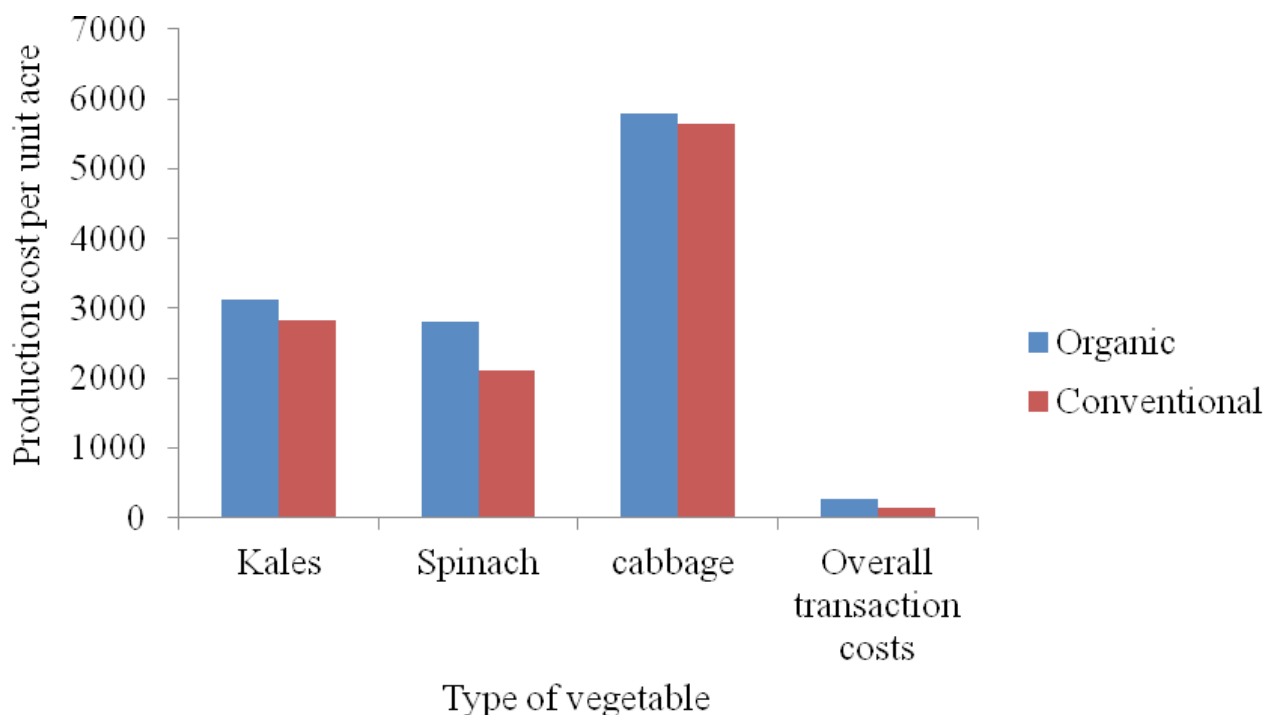
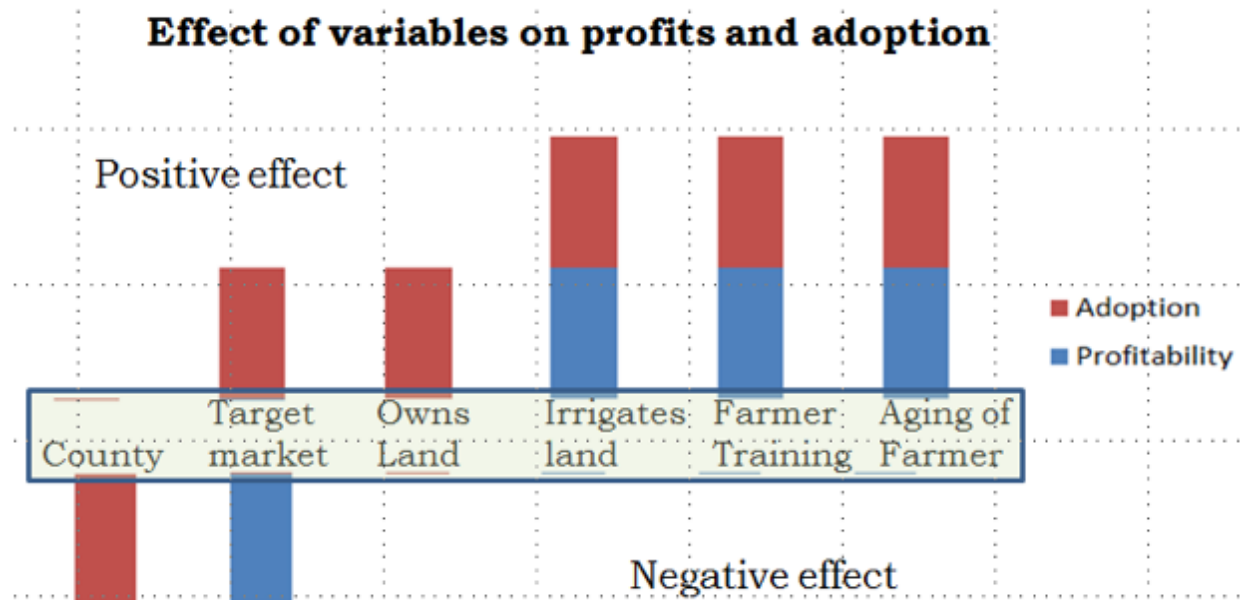


Figure 2: Cost analysis for organic and conventional production system per unit acre

- From the study; age, farming experience, irrigation, land ownership and County of residence were found to be among the factors associated with adoption and/or profitability of organic vegetable production systems.
- Target market had a negative effect on profits and positive effect on adoption while County of residence had a negative effect on adoption (Figure 3).

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## Recommendation

From this study we recommend that conventional vegetable farmers convert to organic farming to realize higher gross margins. Farmer education and irrigated production need to be encouraged since they also contribute to increased profits. Targeting retail markets such as supermarkets, basket schemes and farmers markets would result in higher profits for the farmers compared to wholesale markets and therefore should be encouraged.

### Partners

Makerere University, Uganda  
University of Nairobi, Kenya  
Sokoine University of Agriculture, Tanzania  
Aarhus University, Denmark  
University of Copenhagen, Denmark  
International Centre for Research in Organic Food Systems (ICROFS), Denmark

### Associated partners

National Organic Movement of Uganda (NOGAMU)  
Kenya Organic Agriculture Network (KOAN)  
Tanzania Organic Agriculture Movement (TOAM)Project

### Duration

January 2011-December 2016

### Further reading:

The project 'Productivity and Growth in Organic Value Chains (ProGrOV)' is funded by the Danish Ministry of Foreign Affairs.

### For more information visit:

<http://icrofs.dk/en/research/international-research/progrov/>

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