Productivity and Growth in Organic Value Chains (ProGrOV)

Policy Brief

Potential Gains for the Organic Sector Under Positive Policy Interventions

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Promoting organic products and their benefits through information flow and support for standards and certification systems will boost organic product demand and have a multiplier effect on production through improved soil health and fertility, credit accessibility and marketing incentives.

1. Current policy weaknesses/shortcomings.

The current Agricultural Policies generalize farming techniques, practices, marketing infrastructure, and consumers' awareness without making provisions for farm organic inputs, verification, inspection or certification of organic products.

2. What are the gains in productivity and profits of organic industry?

Use of organic soil amendments has positive long lasting effects on soil fertility, environment, food safety and nutrition. The effects can only be realized after the industry and its markets are organized to reduce transaction costs and to enhance benefits to the practitioners and to give assurance to consumers through traceability schemes, trust and visibility.

3. Where should emphasis be laid in order to enable organic farmers enhance productivity?

Promoting organic products and their benefits through information flow and support for standards and certification systems will boost organic product demand and have a multiplier effect on production through improved soil health and fertility, credit accessibility and marketing incentives. Consequently, support for further research and farmer education on organic practices will be required.

4. What are the benefits of market organization and use of organic soil amendments on the development of the organic industry?

Governments need to position their institutions correctly to reduce barriers to market access and aid in information flow. In addition, promotion of organic soil amendments

12,647 IN 2013

Farmers were involved in production of organic vegetables, fruits, coffee, tea, nuts, herbs and spices on 104,211 Ha of land.

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and other organic farm inputs will enhance the organic residual effect that reduces the cost of production in the long run. The net effect will be sustained and positive growth in the sector, more employment rate in diverse fields of the organic industry.

5. How can the government arrange to meet our proposals?

Enacting a law that specifically addresses organic industry holistically and that encourages partnerships between key public institutions and private actors in providing research back-up and technical training for the extension workers, and subsidies for some organic inputs. For this to happen, a government must have a vision for healthy, well fed, prosperous people living in healthy environments.

The Overview of the Kenyan Organic Industry

The figure below illustrates the width and the depth of the organic value chains

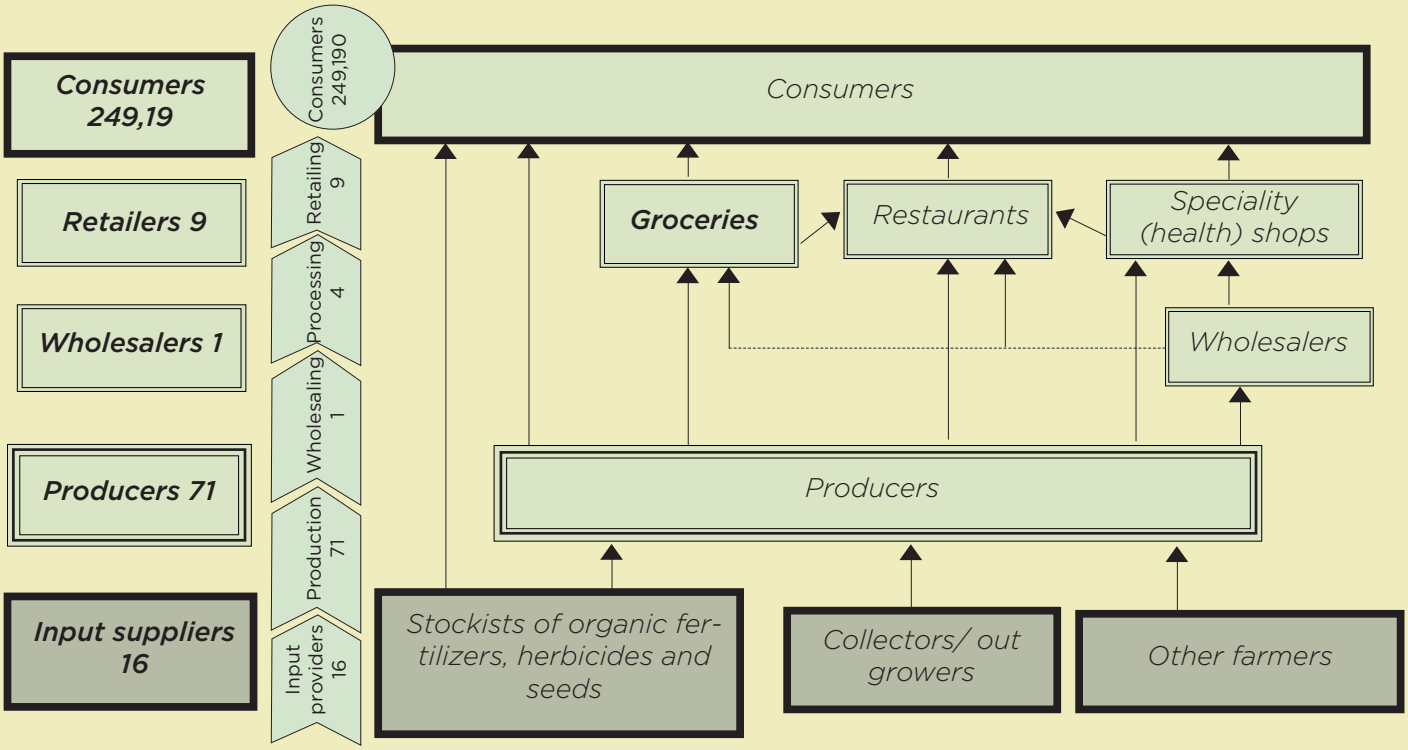

Figure 1: The organic value chain in Kenya - 2014.

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Introduction

Organic production systems utilize local resources and indigenous knowledge. The system provides nutrient dense products, improve soil health, nurture and revitalize the ecosystems, while increasing productivity.

Statistics on organic agriculture show that both the number of producers and the size of the market are growing globally, with Kenya leading in East Africa. About 1 725 MT of a variety of organic fruits, vegetables, cereals, meat, bread and pasta are consumed in Nairobi city alone (KOAN, 2014). In Nairobi, 12% of total residents consume organic products with another 14% potential organic consumers (KOAN and Organic Denmark, 2014). In 2013, about 12,647 farmers were involved in production of organic vegetables, fruits, coffee, tea, nuts, herbs and spices on 104,211 Ha of land (Willer and Lukas, 2010). Although the current contribution of organic industry to Kenya's GDP is low (0.01%), demand is growing and potential exists especially in fruits and vegetable categories. However, a systemic and information gap exists between producers, traders and consumers.

The need emphasis for organic production is made more urgent by the fact that convential productivity of maize, tomatoes and kale has been on the decline amongst the small-scale farmers. The decline has been attributed to soil degradation and low soil fertility associated with inappropriate use of synthetic fertilizers and cropping systems. Use of organic inputs (farmyard manure and Minjingu rock phosphate) integrated with legumes (chickpea and lupin) are viable alternatives and are expected to sustainably maintain soil fertility and increase produce yields and quality. Such produce has preferred taste, colour, shape and longer shelf-life.

There are two generalized organic value chains in Kenya:

Organic "processed products" supply chain in Kenya and

There are over twenty medium to large scale enterprises that specialize in organic processed products. Their main products include: essential oils (22%), bee products, mainly honey and wax ((19%), teas (15%) (green tea, herbal tea, coffee)herbs & spices (7%); coconut oil, borage, macadamia nuts, jams, avocado oil, cashew nuts (37%). Approximately 56% of the producers have more than 50 Ha, majority of who have between 100 ha and 1,000 Ha. Essential oils and honey are usually collected in certified wild collection zones, which are approximately 1,000 Ha to 50,000 Ha (e.g. in Baringo and Tharaka Nithi Counties). These private sector enterprises are internationally connected and all have third party certification. Most of them are growing fast in the number of collectors or producers they contract. They normally operate in the dry

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lands of Eastern, Rift valley and Coast regions. The certifying organizations include: Institute for Market Ecology (IMO) (43%), Ecocert (29%), Encert and Soil Association (SA) (14% each). They concentrate on the export market as shown in the chart below.

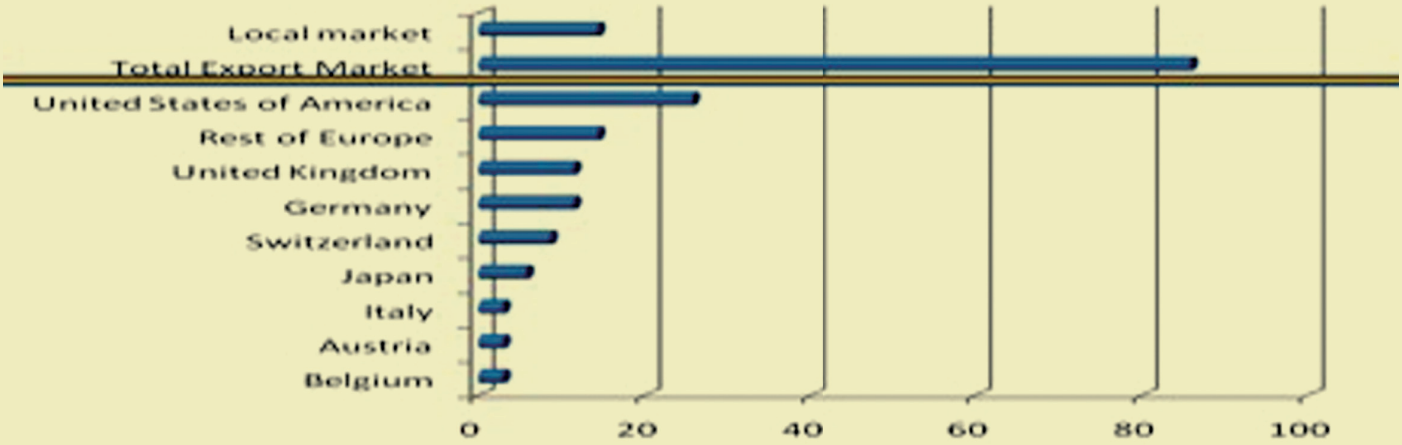

Figure 2. Proportion (%) of large scale produce destinations.

61% of the fresh producers

Majority of the fresh producers have less than 5 Ha of production land.

Organic fresh produce

Fresh Organic Produce is the main type of organic production in Kajiado, Kiambu, Murang'a and Nairobi Counties, where the ProGrOV project focussed its studies. There are many actors in the fresh organic produce value chains recorded in the Kenya Organic Agriculture Network (KOAN) register. Ninety one percent are certified as individuals through the third party certification while nine % have participatory guarantee system (PGS). Encert is the main certifier (82%). The others are IMO and SA (6% each) and Ecocert (3%). The main fresh produce forms the bulk of fruits and vegetables. Majority (61%) of the fresh producers have less than 5 Ha of production land. Only 10% have more than 100Ha.

The market for fresh produce is mostly local, through many outlets in close proximity to Nairobi. The export market takes 35% of the produce (Switzerland, 32% and UK, 3%). Various organic farmers' markets have demonstrated the potential for expansion of organic industry, based on local consumption. They concentrate on the export market as shown in the chart below.

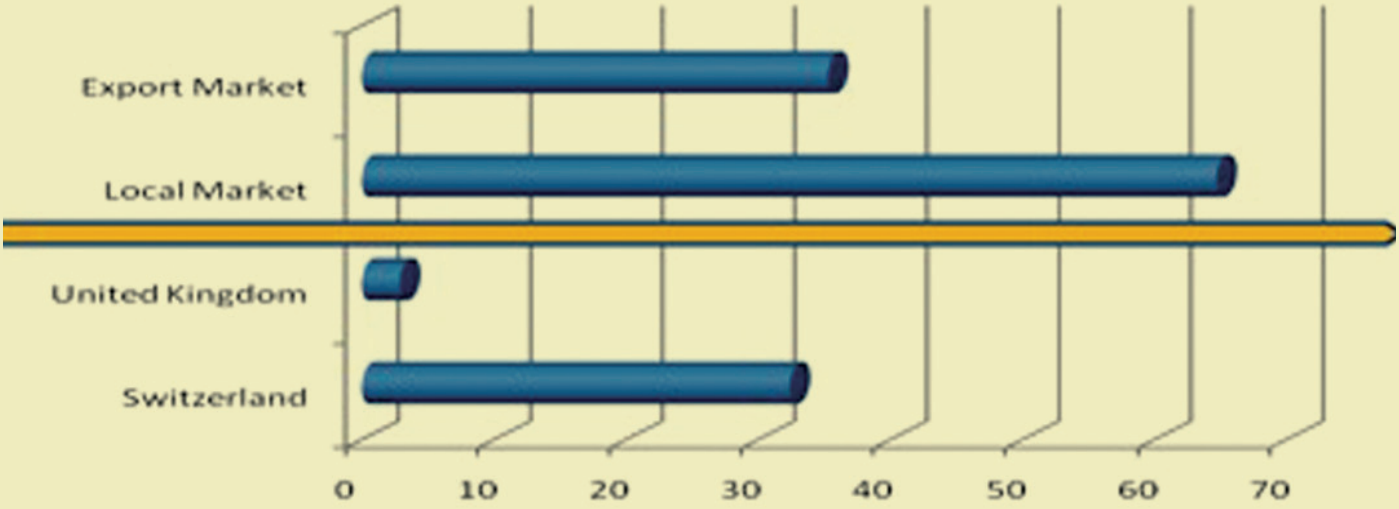

Figure 3. The proportionate (%) destination of fresh organic produce.

The domestic organic sector faces challenges of limited supply of inputs, high certification costs, market organization.

Evolution of agricultural policy in Kenya

Organic agriculture is governed by international and nationals laws that oversee agriculture in general, and international treaties and conventions. The Constitution of Kenya (2010) Article 43 Section 1(c) on Economic and Social Rights stipulates that "every person has the right to be free from hunger and to have adequate food of acceptable quality". The National Environmental Management Authority Act (1999) similarly advocates for sustainable use of natural resources.

The international treaties and conventions touching on organic agriculture include; Kyoto Protocol: Article 3 (a) iii promotion of sustainable forms of agriculture in light of climate change considerations; Sustainable Development Goals (MDGs) No.1 on food security and No.8 on environmental sustainability and regionally, the Comprehensive Africa Agriculture Development Program(CAADP).

What is the state of the policy under development currently?

There is no policy that addresses organic agriculture directly. The Agriculture Policy 2015 has a policy statement that directs County Governments to support Organic Farming. A draft Organic Agriculture Policy (2015) is expected to stimulate organic

agriculture development in key strategic areas. According to the Constitution of Kenya (2010), adoption of a national policy requires consultations in at least 75% of the Counties. The massive resources needed for the consultations have limited progress of draft organic agriculture Policy. However, the organic industry and Ministry of Agriculture have agreed on a less tedious process, that is, to develop an Organic Agriculture Strategy.

The Study rationale of the ProGrOV Project

The ProGrOV Project was launched in 2011 to identify bottle-necks to the East African organic industry and generate knowledge that would advance its development. This policy brief is a e result of four years of study of the organic industry perspective of the small holder Kenyan organic sector. Using the value approach, studies generated information on consumers, market organization and production of identified high value crops. There was also a study to explain requirements for integrated livestock within the certified organic crop production systems.

Objectives

1. Describe and analyze the factors associated with adoption and profitability of investment of high value organic vegetable production value chains in Kiambu and Kajiado counties of Kenya.
2. Assess the factors that influence choice of marketing channels price transmission mechanism along the organic tomato value chain.
3. To evaluate the effects of organic inputs and legume integration on soil nutrients status, balances, crop quality and yield.

Research design;

The research involved surveys, field and on station experiments in Kiambu, Murang'a, Kajiado and Nairobi. Farmers and traders were interviewed using semi structured questionnaires. The Value chain and network analysis were used to bring out the actors, activities and actor relationships. The soil and agronomic field experiments were conducted in the beginning of long (March to July) and short (September-January) rains seasons between 2012 and 2015 followed by laboratory analyses.

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Key findings

a. Kale, spinach, maize and tomato were the highest value products demanded by consumers and also under production

b. Organic farmers were likely to sell either in the organic outlets or conventional markets depending on such factors as demand, certification, land size and county.

c. Majority of consumers bought organic products because they perceived them to be healthier and nutritious. Though on a lower scale, safety and environmentally friendly factors were also identified as drivers for buying organic.

d. Elderly and young educated people with high incomes were more likely to buy organic products and were willing to pay price premium for them. However, other categories needed information on the benefits of organic produce in order to boost demand.

e. The organic Farmers were involved in multiple chain functions including input production, aggregation, transport and retailing in the farmers markets. They could also access the retail outlets but they required expensive third party certification to do that and the returns were relatively lower than in the farmers' market.

f. The value chain actors preferred improved market and information access to certification subsidies as interventions to reduce transaction costs.

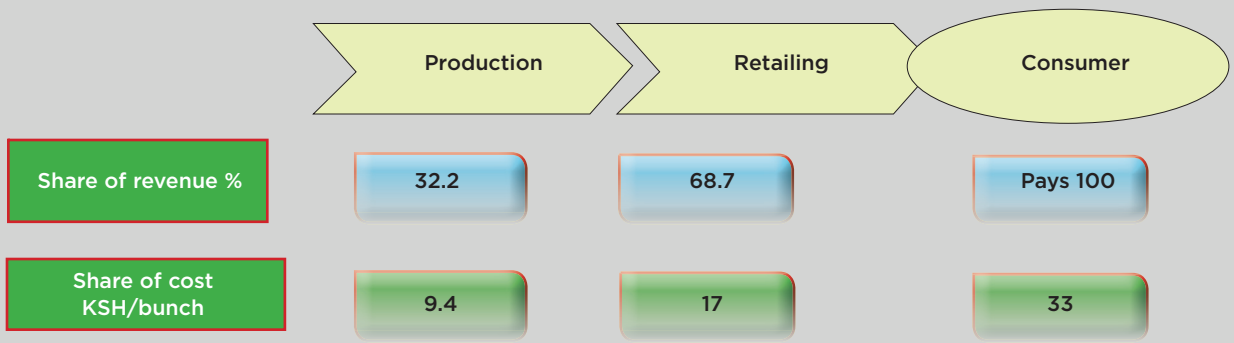

Figure 4. Share of cost in the kale organic value chain

g. Price shocks at the retail level were transmitted to the producers faster than producer prices to retailers with the retail price playing a leadership role in determining producer prices.

h. Short chains exist in the sector. Improving the network and traceability organization will increase trust, reduce transaction costs making the sector more productive.

i. There were twice as many female as male farmers.

j. Incorporation of legumes as intercrops or as rotational crops assisted in biological nitrogen fixation (BNF) and thus improving soil nutrient status. A combination of farm yard manure (FYM) and Minjingu rock phosphate (MRP) in soils that are slightly acidic with incorporation of legumes as intercrops or green manure helped in improving and sustaining yield and quality of the produce and hence economic sustainability.

Where a government is convinced that conversion to organic agriculture is required they should provide support during conversion to encourage farmers.

Possible Policy Interventions

1. A policy for zoning off selected areas as organic production zones is needed to provide for sustained ownership in order to recover conversion costs or just and fair compensation in case such land is transferred to another use. With zoning, an organic bulking site could be set aside, chain actors registered and identified, and labelling of the produce enforced. Where a government is convinced that conversion to organic agriculture is required they should provide support during conversion to encourage farmers.
2. The ongoing national and county government subsidies on seed and fertilizers should be extended to organic industry. Only that in this case the subsidy should cover organic farm inputs.
3. Government should support research on organic inputs including organic seeds.
4. There is need to train extension workers and the policy makers on theory and practices of organic agriculture in order to provide back-up for the industry. This can be through incorporation into the syllabi.
5. The county government should consider allocating space designated and marked clearly as organic markets.
6. There is a need for policy intervention in the areas of organic product certification and verification standards. Government should support certification and installation of a traceability

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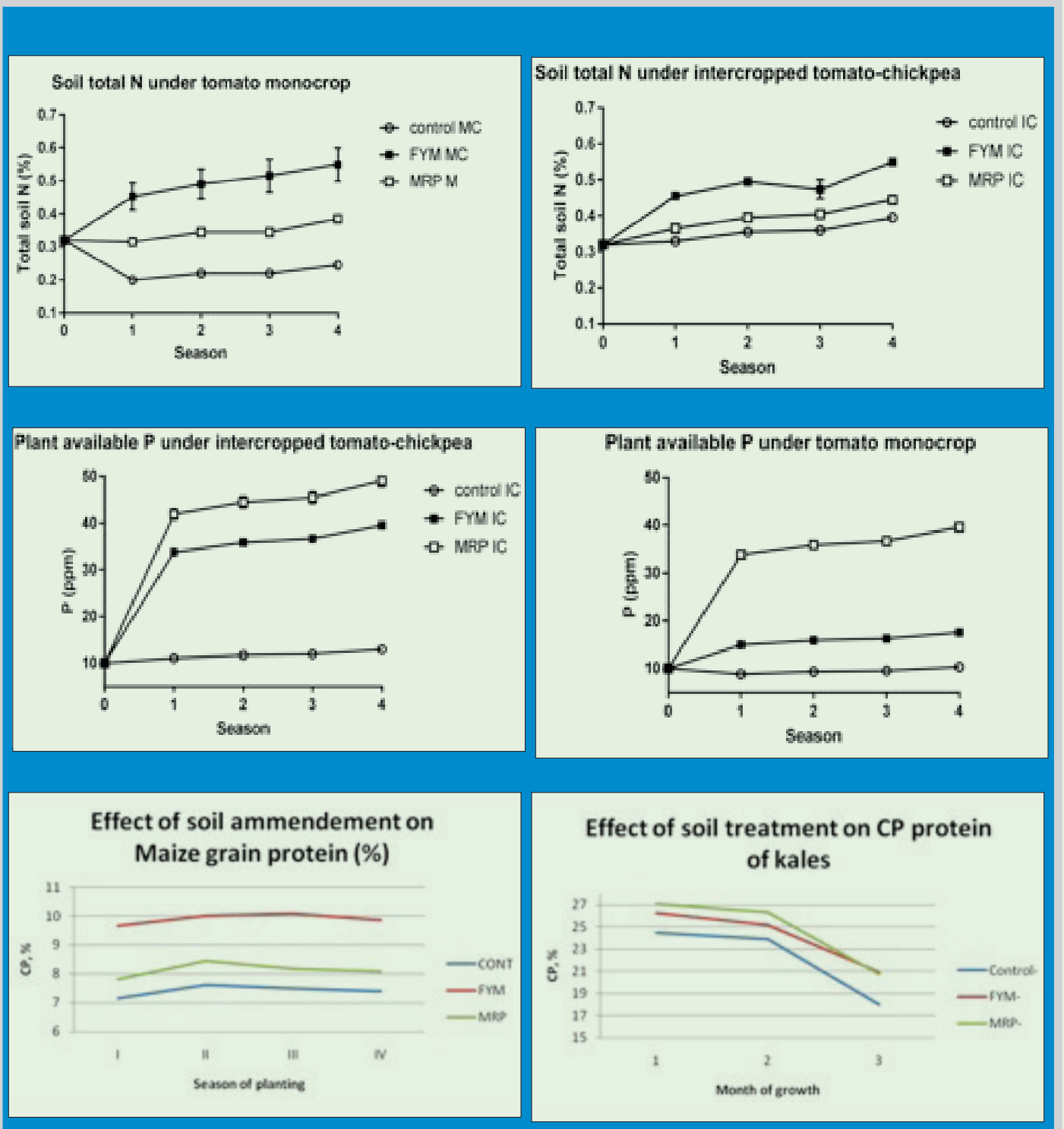

Figure 5. Legume integration and application of organic fertilizers on soil nutrient status and crop crude protein (%)

system and ensure their enforcement. Where necessary the government should coordinate a Participatory Guarantee System.

7. To encourage production of diverse organic foods, the government should, declare that a certain portion of food consumed in hospitals, school feeding programs and the armed forces is organic.

To take care of all the above, the government should create an authority to oversee training, certification and traceability so as to guarantee organic quality.

Our results show that investing in the organic industry will pay

1. Our results on soil fertility management have demonstrated that productivity and nutrient density increased over time during the four seasons of experimentation as evidenced in figure 5. It is such progressive gain in yield and nutrient density that our country is seeking to ensure food security.
2. Organic production also advocates for fairness. This policy paper requests that incentives, extension and research back up offered to conventional agricultural production be extended to the organic industry. Fair distribution of agricultural production inputs and other incentives to all types of agricultural production will lead to greater satisfaction by the concerned citizens.

3. Setting up an authority will involve human and financial resources. However, it can be set up as a service provider, where running costs will be paid by the industry in terms of fees and levies. As a result of the sector growth, farmers and traders will benefit from higher returns on their investment and consumers benefiting from improved supply of organic food.
4. As a result of the organization of the markets proposed in this policy paper, chain actors will benefit from higher returns on their investment and consumers will enjoy improved supply of organic food.
5. Organic food produce is safe foods. There is a safer cleaner production environment as well. Consumers receive higher nutrition and have promise of less exposure to harmful substances. These gains will translate to savings on expenditure on health.
6. Organic food information is linked to healthier eating and innovative business. With better linkages, and better flow of information, farmers with capabilities to produce inputs will be encouraged to specialize in this function. Increased input availability will result in increased productivity, lower transaction costs and higher profits.

Conclusions

The information in this policy paper is an appetizer and we hope that the national and county governments, development partners, NGOs and other institutions and individuals wishing to advance the course of the organic industry will find it useful. The authors will be gratified if contacted for more information or if they were involved in discussion for the same purpose. The industry requires support, if it is to grow. Since organic production appears to be the future of agricultural production let all join hands to support it.

For more information

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http://progrov.uonbi.ac.ke
http://icrofs.dk/en/research/international-research/progrov

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Acknowledgements

The authors acknowledge the support and contribution of the larger ProGrOV international team.
The study was supported by DANIDA.