

Report on present status of organic farming in Kathmandu District

Abstract

Increasing use of agro-chemicals, higher production cost and deteriorating ecosystem health have advocated the need to change traditional and external input use agriculture towards safe and sustainable organic production. Since the consumers' level of awareness towards the harmful effects of agro-chemicals has been increasing, the demand for organic food has increased thus emphasizing the need of organic farming. This report presents the current status, scope and obstacles of organic farming in Kathmandu valley on the basis of sample data taken from Tarkeshshwor, Budhanilkantha, Tokha and Chandragiri municipalities of the valley where we could observe much of the agricultural productions being done. The organic farms in Kathmandu valley were found to come in practice past 4-5 years. Most of the organic farmers have started their business after receiving trainings organized by Ministry of Agriculture (MOA) but still information gap or extension gap about agricultural techniques can be seen widely. Large involvement of ladies and women can be seen in the commercial farming where they possess wide knowledge about farming practices. Mostly the organic farmers are interested in vegetable farming. The organic products from farms are sold to five star hotels, supermarkets, etc. while the small holder farmers take their product to market via middle man. Some of the farms sell their products to the local consumers directly as well. The awareness among consumers regarding their health issues have shown willingness to pay good for organic products thus having a good market price. On the other hand, consumers think that plastic farming is more fresh and organic although they use chemicals and pay more. Thus there exists the misconception about organic farming and organic products. Utilizing this benefit, many of the farms use intermediate method where they use manuring for fertilizers and chemical pesticides for insect and pest control while only few of them very use totally organic method. On the next scenario, many of the farmers are forced to depend on organic methods due to lack of money for affording chemical pesticides. Farmers are complaining about the seed producing more male plants and a large incidence of insect and pest. Organic industry is too small and a long way to go in Nepal. The lack of organic agriculture extension among farmers has been the hindrance for agricultural development. More than this the carelessness of experts in producing quality seed has discouraged the farming community. Thus initiatives need to be done for extension of organic farming providing subsidy to farmers and awaring and ensuring them about organic practices and its importance. Women involvement, increasing organic practices though in slow trend are some of the positive changes seen in the research. Considering the positivity and negativities, and solving the problems, organic agriculture can have a good possibility in city area like Kathmandu. Key words: awareness, consumers, marketing, organic production, willingness to pay, Ministry of Agriculture (MOA), extension

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Introduction

Organic farming is an integrated farming system which involved technical aspects (soil, agronomy, and weed and pest management) and economic aspects (input, output and marketing) as well as human health.¹ Organic farming claims to have the potential to provide benefits in terms of environmental protection, conservation of non-renewable resources, improved food quality, reduction in output of surplus products and the reorientation of agriculture towards areas of market demand. Since consumption of organic food products is the best remedy to prevent the numerous health hazards caused by conventionally produced foods, the global market has experienced exceptionally high growth in organic foods in the United States, Europe, and in other countries. However, in developing countries, the growth of organic sector is quite slow and faces tremendous

challenges. Nepal's organic agricultural production has a relatively short history. Adoption of organic farming is quite slow, market for organic products is not well developed and no market statistics are available in Nepal. Nevertheless, there is a growing trend among urban consumers to consume organic products from places where they could get an assurance about the quality of the products. Market features of organic products in Nepal show that it is still in the "formative stage". Growth of organic agriculture requires producers' and consumers' awareness, availability of sound infrastructures and consumers, willingness to pay for the organic products. Nepal, being a developing country, definitely majority of the consumers is not well off.² However, a large chunk of consumers are clustered in and around urban areas of the country and they could pay for the organic products provided quality is assured. Market potentials are mainly determined by consumer expectations of the product attributes, which are attached

to the product such as quality. There is the need to investigate wider perspective of organic farming through producers' and consumers' view point.

Review

Organic agriculture was first appeared as one of the priority sectors in Nepalese agriculture since the 10th Five Years Plan (2059/060-2063/064). At present, some organic products such as coffee, tea, honey, large cardamom, ginger etc are exported to international market. Various institute and individuals think that organic movement in Nepal is quite slow in motion due to lack of clear vision of the government and distorted information flow from the different developmental projects. Reviewing the government past policy and programs, agriculture production particularly organic productions are never seen in the perspective of the food. The national agriculture policy 2061 clearly stated that the promotion of organic agriculture is only for export. Therefore the organic farming is limited in the only export oriented commodities such as apiculture, coffee, tea, large cardamom, ginger etc and in a certain group of farmers. Thus considering the negative health hazards of climate change there is a need of organic production in the perspective of food. Among the individuals and institutions workings in organic agriculture and even in the farmers who are involving in the organic practices (few returning back to organic from the chemical agriculture) do not have its clear definitions.³ Organizations, individuals and farmers themselves seem to be not clear entirely on what they are doing on this sector. Thus there seems a weak point of extension officers in extending the knowledge of organic agriculture among farming communities and the local consumers.

Objective

The broad objective of this study is to find out the present status of organic farming in Kathmandu district with following specific objectives:

- To study the level of awareness among the farmers and consumers about organic farming and organic products respectively;
- To find out the preference of the consumers and their willingness to pay more for organic vegetables
- To explore the constraints and potentials of organic farming through the examination of obstacles and opportunities.

Research methodology

Study area

The study was conducted in different municipalities of Kathmandu valley which was taken as sample to analyze the situation of organic farming in Kathmandu district. Information was collected from Budhanilkantha, Tarkeshwor, Tokha, Chandragiri municipalities of the district. Information was collected through primary source taking people's perception where people indicated the farmers, producers or entrepreneurs of organic farming and the consumers. Structured questionnaire was designed to collect primary information administered through interview and was pre-tested before executing interview. The idea about the law and actions passed by Nepal government was extracted through internet (secondary source). Collected data were subjected to descriptive analysis.



Results and findings

While in the study we observed that land use for agricultural practice was in the semi urban areas like dharmasthali, jeetpur fedi, nikheleshwor like places which are far from market areas and less urbanized with less housing. The farmers from these areas were found to engage in conventional and organic agricultural practices. But the ratio of purely organic farming is very less. We can see 1 organic farm out of 10 agricultural farms. Farmers have been practicing farming in areas ranging from 7 Anna to 8-9 propane. These sorts of plastic tunnel farming and organic farming practice have been seen in the district since 4-5 years. Though the initial investment of the business is high farmers compensate it as they have a good earning of Rs(40000-50000) on monthly basis and even more during seasonal time. Farmers are mostly interested in growing vegetables specially tomato due to its all year market and increasing demand and need. Besides tomato, cucurbits like pumpkin, cucumber, pea, etc. are also grown. Some farmers are found to grow potato intercropped with maize. In bhawal of budhanilkantha municipality we could see the practice of raising seedlings of buddhachita tree under controlled temperature. Nursery farming of flowers and ornamental plants can also be seen but they are totally based on conventional agriculture. In course of the study we could find 75% involvement of women in organic farming where they are supported by "krishi mahila sangathan". On the other hand the farmers are trained through different trainings organized by "jeela krishi." Of the many farm visited only 1 or 2 of them were legally certified due to the expensive venture of certification. And many farms used chemical pesticides and insecticides in the name of organic farming and use local resources like cow dung and chicken droppings as fertilizer in the field. Farmers also rear animals like cow, buffalo, goat, poultry together with farming for manuring and milk, meat, egg purpose and extra income. The totally organic farm use organic procedure of trapping insects by using local means such as detergent mixed water. They put chemicals in a bottle and hang them in certain place for attracting the female/male insect and trapping them.⁴ For weed control they use plastic mulching system. Farmers were found to fetch the seeds from Kalimati while they grow seedlings at their own. Since tomato farming is seen much in this season, the farmers from Tarkeshwor municipality have the complain about tomato seed as much of the plants emerged out to be male plant which could directly have negative impact on yield of the crop. For irrigation most of them fetch water from irrigation channel constructed by them while many of them were also found to use drip irrigation.

Discussion

From the study and information taken from the farmers and its

analysis, we could find the increase interest of people in organic farming due to its need for better health. But we can analyze that the production of organic product is not increasing with the rate of its increasing demand. Besides this it was known that most of the commercial farmers have moved to Kathmandu valley for farming due to the lack of market in their area, which indicates a good scope of organic agriculture in Kathmandu district. Knowing the understanding of trained farmers about organic and conventional agriculture we could find the variation in information which indicates the different level of trainings provided by the responsible sector of agriculture. Besides this lack of extension of organic agriculture seems to be the cause of slow increase of organic farming. People are focused on organic vegetable farming only but this could be extended to floriculture as well. Since the Nepal government is focusing organic production for export only it should change its plan and use it in food perspective for better health of its country people.^{5,6}

Conclusion

The interest in organic agriculture in cities like Kathmandu is growing as there is the positive impact of organic agriculture in the mind of people. Adoption of organic agriculture leads to an increased engagement in farming which can trigger greater opportunities for rural employment and economic upliftment. Nepalese organic sector has been growing but in a sluggish manner. Private initiation and motivation by some of the NGOs are the key impetus in bringing organic sector in the mainstream agriculture development in Nepal. Thus through the good coordination among organizations, farming communities, government and agricultural offices positive changes can be achieved in the sector of organic farming (Appendix).

Limitations

- a) Lack of understanding among farmers about organic practices
- b) Land fragmentation

- c) Political instability
- d) Low seed quality
- e) Poor irrigation facilities

Recommendation

- a. Proper flow of information about new techniques and practices among farmers
- b. Extension education among framers about organic agriculture
- c. Proper training about agriculture in farmers level
- d. Making certification procedure cost effective for farmers
- e. Producing quality seed
- f. Managing irrigation facilities from government level.

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None.

Conflicts of interest

The authors declared there is no conflict of interest.

References

1. <https://www.scribd.com/document/234065917/Organic-Farming>
2. <http://centropintorzuloaga.org/wp-content/uploads/2017/01/agriculture-topics-for-essays-essay-on-organic-farming-www-gxart-org.jpg>
3. <http://www.nepjol.info/index.php/AEJ/article/viewFile/2124/1956/>
4. <http://www.encyclopedia.com/plants-and-animals/agriculture-and-horticulture/agriculture-general/organic-farming>
5. <https://www.nap.edu/read/12832/chapter/7>
6. <https://www.nap.edu/read/12832/chapter/8#229>