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研究ノート Research Note

The Market for Local Organic Produce in Urban and Semi-Urban Areas of Nepal: A Case Study of Kathmandu valley and Chitwan district

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Abstract: The market for organic produce is growing even within developing countries, but it is faced with numerous challenges. It needs to be expanded to provide opportunities for a higher income among famers without them having to rely on the export market, which is often complex for smallholders. This study focused on the market for local organic produce in urban and semi-urban areas of Nepal to assess consumers' attitudes, preferences, and willingness to pay for certified vegetables, the demand for which is increasing, especially in urban areas. By interviewing 60 consumers from each area, it was found that the organic market in urban areas is growing but lacks the authentication found in the local organic markets of other South Asian countries. Thus, formal certification should be considered to verify authenticity and thereby increase consumers' willingness to pay. In peri-urban areas, even though organic farming is practiced as a group, the organic market is non-existent. Therefore, the market should be developed at strategic places through low-cost certification.
Key words: Organic market, Nepal, vegetable, willingness to pay, Fisher's exact, chi-square

Ⅰ. Introduction

Organic agriculture is conceived to be a sustainable approach to food production system, an alternative to ecologically unsound practices of conventional agriculture. It combines tradition, innovation and science to adapt to local conditions and sustain the health of soil, ecosystem and people (IFOAMa, 2014). A global study shows that as of 2012, about 37.5 million hectares (ha) or 0.9% of the total agricultural land (including in-conversion areas) is under organic management. Its market share is also growing immensely which reached 64 billion US dollars in 2012, an increase of 156% compared to a decade earlier (FiBL & IFOAM, 2005; FiBL & IFOAM, 2014). The prospect of higher income persuaded developing countries to take part in global organic market that is concentrated more in developed countries. Though it seems appealing, being a global player poses a different set of challenges than in local market which can be beyond the capacity of smallholder farmers (Halberg et al., 2006; FiBL & IFOAM, 2014). In such case, local organic market works as a cushion against the risks of globalized organic market.

Although local organic market is in a growing phase in developing countries and can provide opportunities for smallholders to earn more income, it is not free from difficulties either. In developing countries it is mainly characterized by absence of or slow steps towards implementing national regulation, lack of knowledge among consumers, lack of accessibility and authenticity, and deterring consumers from buying due to its expensiveness (IFOAM, 2003). This study assesses the status of local organic market in a developing country to provide a glimpse of underlying drawbacks among many and suggest on what could be done to cultivate it. It takes the case study of domestic organic market in Nepal. Organic sector in Nepal is small and the overall development remains quiet slow (Bhatta et al., 2008) but nevertheless it is growing gradually (Adhikari, 2011). Currently it accounts for 0.12% of the total agricultural land (FiBL & IFOAM, 2014).

This study focuses on local market for organic vegetables in urban and semi-urban areas of Nepal. Vegetables are cash generating crops in which haphazard use of agro-chemicals and pesticides is known to be more severe compared to other crops (Jha & Regmi, 2009; Bhatta G. D., 2010). Consumers are increasingly becoming aware of such phenomenon and hence demand for organic vegetables is on rise, in the wake of which

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peri-urban farmers are also gearing up to benefit from it (Bhatta & Doppler, 2011). Studies have shown that certain section of consumers who are aware of the harmful effects of pesticide residues are willing to pay higher for organic products especially vegetables which have huge daily demands in urban areas of Nepal (Bhatta, 2010). However, none of the vegetables are certified as organic and most of the organic vegetable production and marketing is done unsystematically, basically on the basis of community trust in Nepal. Producers, processors, distributors and consumers are mainly interlinked through loose marketing networks (Sharma, 2005). Other studies have concluded that consumers' willing to pay higher goes concurrently with the certification (Aryal et al., 2009; Bhatta et al., 2009). Certification usually means a written guarantee of a product complying with necessary rules and regulations during its production, processing and distribution phase (MoAC, 2008). Certification system within local market remains weak and so is consumers' confidence about its authenticity. Consumers are the main stakeholders in the market as the existence of any marketable product depends on their demand. Thus, this study also analyzes the attitudes and behavior among consumers and preferences for organic vegetables including their willingness-to-pay in order to update with the present context.

In doing so, Section II briefly discusses the significance of local organic market in developing countries. Section III assesses the status of local organic market in Nepal comparing with its neighboring countries within South Asia to understand its prominence. The methodology of how survey was conducted is presented in Section IV. It is followed by Section V which assesses consumer's attitude, preferences and willingness-to pay for organic vegetables. Finally, in Section VI, we conclude and provide some recommendations to restore the local organic (vegetable) market.

Ⅱ. Significance of local organic market in developing countries

Although organic sector is growing both in developed and developing countries, whether it is production or consumption oriented varies significantly among the countries or regions depending on the purpose the sector is built on. Currently North America and Europe are the regions with high concentration of market for organic products. Within Asia also market for organic is more confined in affluent countries such as Japan while others have export-oriented sectors (FiBL & IFOAM, 2014). Usually developing countries join in fair trade arrangement through consolidation with importing/developed countries. Even then smallholder farmers in developing countries can face numerous difficulties in the way of lack of adequate financing, management skills, consistency in workforce, logistics, partnership and cooperation, and cultural differences as a result of globalization (Halberg et al., 2006). On the one hand, certification does help farmers to integrate into global premium market for organic. But such globally uniform standards, which are usually imposed by developed or importing countries in the North on the developing or exporting countries in the South, might not actually blend with the conditions in the South. For example, there is restriction to use *neem* only in the roots of mother plants according to EU standard. But in tropical countries where pests can multiply at an alarming rate, it becomes necessary to use them as pesticides in a way that may violate the rule. Obtaining and maintaining internationally recognized standards, high level of record keeping, delay in procuring certification, cost of certification and annual re-inspection are other major obstacles for smallholder farmers. Because of this, often times such standards and control system rather obstruct the potential growth and spread of organic sector (Halberg et al., 2006; Barrett et al., 2002; Harris et al., 2001).

Moreover, global organic food market is facing a greater risk of following the footsteps of conventional model characterized by specialization, capital intensification, export orientation, increased processing, packaging and long-distance transporting that is controlled by few large corporate retails. Specialization and capital intensification reduces diversity, increases risk of a single crop failure and limits natural nutrient cycling processes which could have been achieved through multiple/intercropping system. Market concentration increases vulnerability among farmers in case of price fluctuation or market failure. More so, when it is in the hands of few retailers, there is a price monopoly and farmers would no longer have control

over it. The growing distance of trade, especially from South to North where developing countries like Brazil, Egypt and Uganda are now exporting to Europe and North America, has increased ecological footprints as well (Halberg et al., 2006; Kilcher, Eisenring, & Menon, 2008; Knudsen, 2010). Thus, commercialization of organic agriculture has jeopardized the very fundamental elements of organic movement which is to rely on local resources and food supply, and preserve the environmental integrity.

Therefore, though smallholder farmers from developing countries are able to gain more profit through integration into the global organic market that is more intense in developed countries, it is not free from complications (Halberg et al., 2006). Besides organic is no longer a product only meant for exporting. Apart from the formal organic market with huge discrepancy between (primarily developed versus developing) countries, there is still a large share of unaccounted organic areas which prevails mainly in developing countries. Because it takes place outside the formalized market system, it is difficult to quantify its extent. Though not certified, it can fetch higher price based on consumers' willingness-to-pay in a local market in addition to providing with other benefits of increased productivity, saving on purchase of external inputs and transport cost, and getting up-close with the consumers (FAO, 2014; Halberg et al., 2006).

Ⅲ. Status of local organic market in Nepal within South Asian context

South Asia is one of the least developed regions in the world. With a population of 1.4 billion, it accounts for half of the world's poor. Agriculture is an important economic sector and still a large portion of its population is dependent on it for their livelihood (30% Gross Domestic Product (GDP) and 80% labor force in Afghanistan (Kawasaki et al., 2012), 20% GDP and 52% labor force in Bangladesh (Thomas et al., 2013), 16.8% GDP and 60% labor force in Bhutan (National Statistics Bureau, 2012), 14% GDP and 60% labor force in India (BIOFACHa, 2014), 3.99% GDP and 11.5% labor force in Maldives (Quandl, 2014), 35% GDP and 65% labor force in Nepal (MoE, 2011), 21.4% GDP and 45% labor force in Pakistan (Farooq, 2013) and 13% GDP and 33% labor force in Sri Lanka (Chintana, 2010). South Asia accounts for 1.59% of global organic share (565,264 ha) and 17.67% within the region (with exception of Maldives). Table 1 shows the current status of organic agriculture in South Asia.

Among the South Asian countries, India has by far the most developed local organic market. The regulation on organic agriculture has been fully implemented (FiBL & IFOAM, 2013). The organic industry is almost entirely export oriented wherein majority of farmers are opting for it because of the economic benefit rather than for sustainability (Pandey & Singh, 2012). Nonetheless, domestic organic market is also growing rapidly at the rate of 30-40% annually. Including hypermarts, organic produces can also be seen in retail shops which devote separate shelve for organic products, producer-owned stores, informal *haats* (rural market), online stores, etc. The substantial increment in market demand for organic food comes from the mega-cities where people are getting more affluent and simultaneously have become

Table 1　Organic agriculture in South Asia

South Asian countries	Year 2012			
	Organic (including in-conversion) agricultural land (in ha)	Share of organic agricultural land by country	Number of producers	Regulation on organic agriculture
Afghanistan	61	0.0002%	264	-
Bangladesh	6860	0.07%	9337	In process of drafting
Bhutan	6156	1.21%	-	Fully implemented
India	500000	0.28%	600000	Fully implemented
Nepal	10273	0.12%	247	In process of drafting
Pakistan	22397	0.09%	105	In process of drafting
Sri Lanka	19517	0.75%	404	-

Note: Some country data are missing and represents formal sector only as gathering information from informal sector is very challenging and is not easily available
Source: (FiBL & IFOAM, 2014)

more health conscious (BIOFACHb, 2014; BIOFACHa, 2014). In fact, it has the highest number of (5,977) producers in the world to follow Participatory Guarantee System (PGS) which is a locally-driven quality assurance system based on trust, networks, active participation and knowledge exchange (FiBL & IFOAM, 2014; IFOAMb, 2014). Although PGS under organic farming is not recognized by the Indian legislation but in the wake of voluntary organic regulation in the domestic market, it does allow organic claims for uncertified products through this certification only (FiBL & IFOAM, 2012).

In case of Bangladesh, though organic market is still in a nascent stage with only limited outlets selling on limited scale, the number of producers and companies advertising their products as organic are ever increasing. Although authenticity of such claim is debatable as organic labeling is not regulated. Organic products are sold by many conventional stores through special sections in the market, contract farming, direct sales from farmers at local market and urban outlets, but it is still not able to cater fully to the domestic demand (FiBL & IFOAM, 2014). Moreover, most of the organic shops are limited in the capital city, Dhaka. Excluding the special eco-friendly outlets run by a Non-governmental organization (NGO), there are very few shops where organic items are sold in a corner along with other traditional food items. It faces problem of lack of trust among consumers for the uncertified self-claimed organic products (Sarker & Itohara, 2008). Yet local demand for organic is growing with increasing awareness among consumers (Hoque, 2012). The rise in local demand is accredited to food safety and environmental concerns (FiBL & IFOAM, 2014).

Sri Lanka has adopted inspection and certification system under Certification Alliance (CertAll) which is the collaboration of private and government linked certification bodies for low cost inspection and certification (FiBL & IFOAM, 2011). Still claims of organic to get advantage of the growing market have been emerging. Certification for export and development of new markets have emerged in the light of food contamination issue but yet awareness on organic remains low (FiBL & IFOAM, 2013). In Pakistan, on the other hand, local specialized market for organics does not exist at this moment which means that organic farmers are not benefited through better returns (Mehmood et al., 2011). In case of South Asia, countries like India and Sri Lanka have highly export-oriented organic sectors. Though there is dearth of information on local and export market for most of the countries, specifically Afghanistan, Maldives and even Pakistan; the overall trend of organic sector is seen to be on rise in national market as well especially in urban areas due to growing awareness of organic products. It is all attributed to rising disposable income and health consciousness among urban dwellers (FiBL & IFOAM, 2014).

Like most of the South Asian countries, Nepal is also experiencing its share of growth in organic sector. Some of the organic products like tea, coffee, honey, large cardamom, ginger and medicinal herbs are already exported as well (DoAE, 2006; Pokhrel, 2009; Tamang et al., 2011). The prospect to sell organic in an international market has further increased after Nepal became a member of World Trade Organization (WTO) which identifies it as a potential export crop (Bhandari, 2006; Pant, 2006). Most importantly it has also passed the bill for 'National Standards of Organic Agriculture Production and Processing, 2064' which follows the definition given by IFOAM 2002 Basic Standards as "organic agriculture is a whole system approach based upon a set of processes resulting in a sustainable ecosystem, safe food, good nutrition, animal welfare and social justice. Organic production therefore is more than a system of production that includes or excludes certain inputs" (FAO, 2002). It too has collaborated under the label of CertAll for organic labeling regulations (FiBL & IFOAM, 2011). The domestic market is also on rise with some existing even on mountain tops and that the price can range from 10% to 200% more than conventional products depending on the market location, quality and product itself (FiBL & IFOAM, 2009). Diversity of local organic market channels such as ad hoc organic bazaars, small retail outlets, supermarket corners, multi-level direct selling and internet marketing are thriving even from rural Nepalese markets (FiBL & IFOAM, 2010).

Ⅳ. Methodology

The study was done in 2011 in three districts of Nepal: Kathmandu and Lalitpur districts which lies in hill region and Chitwan district which lies in Tarai region, to evaluate the local organic vegetable market.

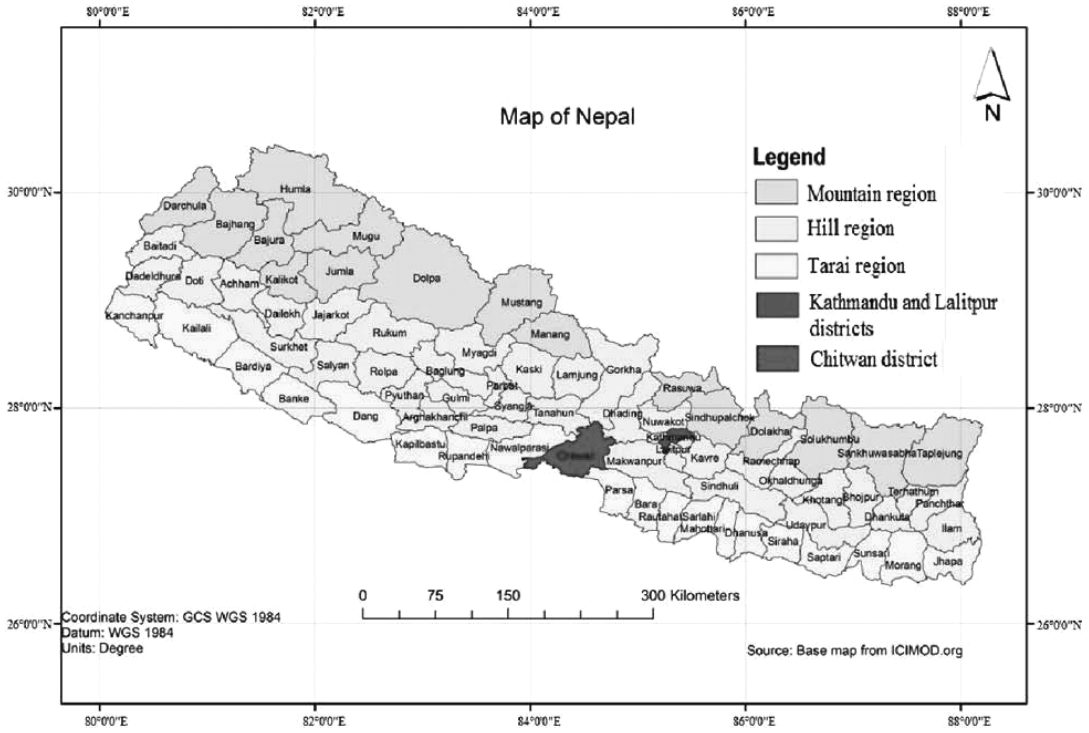

Figure 1　Map of Nepal showing study districts

Source: Created by referencing a figure published on ICIMOD.org

Kathmandu is the capital city of Nepal and is adjoining to Lalitpur district (Figure 1). According to MoHP (2011), 66% of the population in Kathmandu, 48% in Lalitpur and 27% in Chitwan district reside in urban areas. Kathmandu and Lalitpur districts, being highly urbanized and being an economic hub of the country, it is reasonable to assume that they have higher population density and economic well-being compared to Chitwan district. Seemingly the flow of foreigners is also high in these areas. Foreigners are the primary section of local organic market in urban areas of Nepal as they have higher awareness, knowledge and apparently purchasing capacity to consume organic products. Those foreigners could be diplomats, freelancers, entrepreneurs or their family members, or tourists. The respondents interviewed in this study mainly belonged to developed countries from North America and Europe. Due to similarity between these two areas, it will be recognized as 'urban' hereafter.

Chitwan district is selected for it lies in Tarai region which is known as the grain basket of Nepal. Indiscriminate use of agro-chemicals in Chitwan district is very much existent but in some areas the concept of organic farming has also been emerging with the initiation of some local health conscious farmers or those experiencing declining yield irrespective of increase in use of agro-chemicals. It was further promoted by local NGOs to a larger scale. A cooperative with more than 100 members has been formed in one VDC (Village Development Committee, lowest administrative unit) and four informal groups are established in other two VDCs consisting a minimum of 30 members in each group. One VDC has even been certified twice and all groups are receiving some kind of financial and technical aid from NGO/s, government and private organizations. Farmers are provided training related to organic farming from general to more specific ones such as preparation of bio-fertilizers and pesticides, market promotion and network development; pamphlets distribution on Plant Health and Clinic Initiative; setting up hoarding boards for raising awareness; developing resource center; operating Farmer's Field School (FFS); technology development and transfer; and other extension services (SECARD-Nepal, 2011). In the absence of organic market in Chitwan district, these VDCs are selected to understand from the farmers' point of view the structure of organic market especially vegetables. It will be addressed as 'semi-urban' hereafter.

About 60 consumers were selected from each areas and interviewed using semi-structured questionnaire. In

Table 2　Organic outlets visited during the study

S.No.	Organic outlets	Functions
1	The Organic Village	Only sells organic products including vegetables
2	Green Organic Café & Farmers' Bar	Restaurant where only organic food is offered and organic vegetables are also available for selling
3	Healthy Agro Food Products Pvt. Ltd.	Only sells organic products including vegetables
4	Saleways	Sells organic vegetables
5	Bhabhateni Department Store	Sells organic vegetables along with cereal crops
6	Kasthamandap Store	Limited to selling only organic cereal crops
7	Organic World and Fair Trade	Wholesale sellers of organic vegetables and other cereal crops
8	New Orleans	Restaurant where farmers market is held every Sundays
9	1905	Restaurant where farmers market is held every Wednesdays
10	Summit Hotel	Hotel cum restaurant where farmers market is held every Sundays and Wednesdays

Source: Field survey in 2011

semi-urban area, due to absence of organic outlets, snow-ball sampling method was used. Consumers who purchased at least once any kind of organic vegetables from local farmers became our respondents. In urban area, since presence of organic outlets was visible in many areas, consumers were selected randomly from all types of market that were selling organic vegetables. The number of respondents taken from each source greatly depended on the consumer flow. Therefore, about half of the respondents were selected from farmers` market where considerable number of both locals and foreigners show up in a weekly market for buying various organic products, one among which is vegetables. The rest of the respondents were interviewed on the spot while they came to buy/consume organic vegetables in various outlets including specialized markets, restaurants or other retail shops asserting themselves to selling organic, exclusively or partly. Other information were collected through key informant interviews, participant observation, group discussions and secondary sources. The data is analyzed descriptively using Fisher's exact and chi-square test to evaluate the difference between two areas.

As shown in Table 2, farmers' market is held in three of the restaurants, once or twice per week and are known for having foreign customers as much as the locals. The rest of the respondents were interviewed on the spot while they came to buy/consume organic vegetables in various outlets including specialized markets, restaurants or other retail shops asserting themselves to selling organic, exclusively or partly. As far as organic vegetables are concerned, none of them are certified except in one case where it is self-claimed as organic by the producer. In other cases, it is sold without packaging and some that are packaged has a proper address of the producer or an organization mentioned in the label. Especially in farmers' market, sellers used business card and/or hoarding boards with pictures of smallholder organic farmers as a way to ensure authenticity. Including these kind of markets, other outlets also are positioned in strategic places where there is heavy flow of potential consumers including the foreigners. For example, one can find these outlets in and around the residential areas where many foreign workers are known to reside or where they usually spend time for socializing.

Ⅴ. Consumers' attitude, preferences and willingness-to pay for organic vegetables

Figure 2 gives the background of the respondents. Since foreigners also form a larger part of organic market, in this study significant number (almost half) of the respondents include non-Nepalese in urban area. On the other hand, all of the respondents in semi-urban area are locals as the formal organic market has not been initiated yet. Gender distribution among respondents is equal for urban and semi-urban area, though male respondents are higher there is significant inclusion of female respondents as well. The distribution of academic qualification significantly varies in two study areas. More than 80% of the respondents from urban area have higher education whereas it is less than 60% for semi-

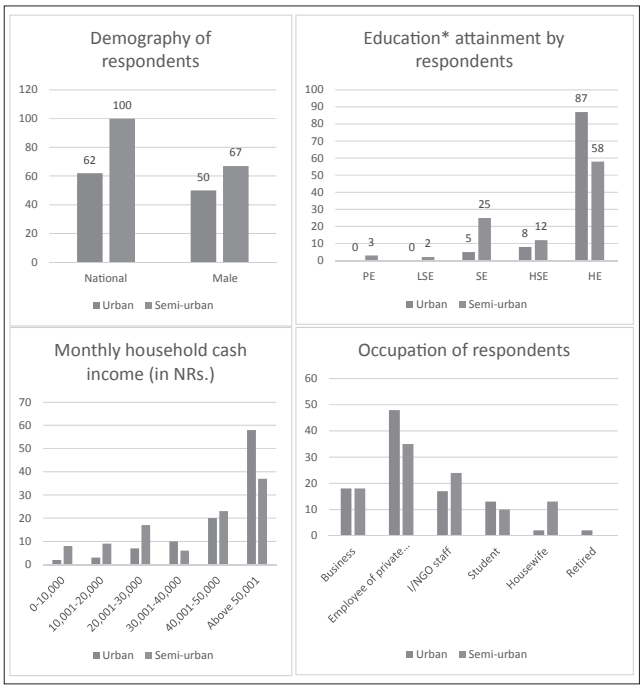

Figure 2　Background of respondents

Note: *Education PE=Primary Education (attained informal or formal education up to 5th grade), LSE=Lower Secondary Education (attained formal education from 6th to 8th grade), SE=Secondary Education (attained formal education of 9th and 10th grade), HSE=Higher Secondary Education (attained formal education of 11th and 12th grade) and HE=Higher Education (attained formal education of Bachelors and above)

Source: Field survey in 2011

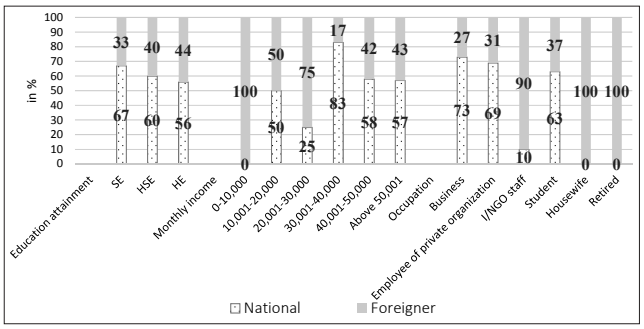

Figure 3　Difference among national and foreign consumers/respondents in urban area

Source: Field survey in 2011

urban area. As for the monthly income, it is again very much contradictory between these two sites, with higher number of respondents having more income being from urban area. The professional background respondents belonged to varied greatly between and within two study sites except for those claiming to be doing business which has an equal share in both the areas.

Figure 3 shows how Nepalese respondents differ in certain characteristics compared to foreign respondents or consumers of organic products including vegetables in urban area. In our sample it was found that Nepalese respondents have higher education attainment compared to foreigners. They also have higher income compared to foreigners which could be because household income includes combined income of all economically active household members. In Nepalese society the custom of living in an extended family still largely prevails whereas foreigners usually tend to live in a nuclear family. Another reason could be that Nepalese who have relatively higher education attainment and income level tend to purchase organic products from the market. This very characteristics of Nepalese organic consumers could have led education level and income to be higher than their foreign counterparts. Likewise, most of the respondents who are working in an International/Non-Governmental Organization (I/NGO), housewives and retirees are foreigners.

Throughout the study period, the researcher did not come across any consumer who mentioned buying certified organic vegetables in both the study areas, thus supporting researcher's own observation and information received from the sellers. This is despite of the fact that all respondents from urban area are paying premium of at least 5% more than what they usually would have paid for other vegetables (Table 3).

Unsurprisingly in semi-urban area, more than half of the respondents claim that they pay similar price for both organic and inorganic vegetables. It is so because individual farmers sell vegetables in small quantities which are again very irregular in supply. This can be explained by the fact that farmers usually cultivate organic vegetables on a subsistence basis and thus vegetables left for commercial purpose are the surpluses after self-consumption. There is no such market specifically meant for selling organic products and thus farmers end up selling them in a regular market together with other vegetables. From key informant interview it was learnt that because vegetables are perishable goods, transporting them to urban areas where premium market exists is not desirable in the absence of some kind of cooling system that maintains its quality. Consumers too, because of lack of awareness or absence of such trend, do not specifically look for organic vegetables. Thus, it has contributed in slow growth of this market. Although production wise organic farming is quiet renowned in this area.

From the researcher's observation, this semi-urban

Table 3　Experience of buying organic vegetables

Buying experience	Urban (n=60)	Semi-urban (n=60)	Total (n=120)	P-value
Already paying premium				
Same	0	31 (51.67)	31 (25.83)	0.000***
Less than 5%	0	0	0	
5-10%	10 (16.67)	10 (16.67)	20 (16.67)	
10-15%	8 (13.33)	7 (11.67)	15 (12.5)	
15-20%	12 (20)	4 (6.67)	16 (13.33)	
20-25%	11 (18.33)	3 (5)	14 (11.67)	
More than 25%	19 (31.67)	5 (8.33)	24 (20)	
Experience of buying				
Less than 3 years	24 (40)	23 (38.33)	47 (39.17)	0.852
More than 3 years	36 (60)	37 (61.67)	73 (60.83)	
Frequency in purchasing				
Regular	22 (36.67)	9 (15)	31 (25.83)	0.007***
Seldom	38 (63.33)	51 (85)	89 (74.17)	
Assuredness				
Yes	11 (18.33)	20 (33.33)	31 (25.83)	0.134
Some what	27 (45)	25 (41.67)	52 (43.33)	
No	22 (36.67)	15 (25)	37 (30.83)	
Willingness to pay				
Less than 5%	11 (18.33)	23 (38.33)	34 (28.33)	0.093*
5-10%	16 (26.67)	9 (15)	25 (20.83)	
10-15%	21 (35)	13 (21.67)	34 (28.33)	
15-20%	5 (8.33)	9 (15)	14 (11.67)	
20-25%	4 (6.67)	4 (6.67)	8 (6.67)	
More than 25%	3 (5)	2 (3.33)	5 (4.17)	
Distinguishing factor				
Taste	11 (57.89)	13 (41.94)	24 (48)	0.273
Appearance	8 (42.11)	18 (58.06)	26 (52)	

Note: Figures in parenthesis indicate column percentage
***Significant at 1% and * at 10% level of significance
Source: Field survey in 2011

area is perceived to hold a lot of potential for organic market. For example, one of the country's tourist hot spot lies in this district. The most well-known agriculture university is also in this district which has collaborated with farmers on number of occasions for conducting research on organic farming. In addition to this, there is a growing number of commercial establishments such as hotels, restaurants and residential housing as well. If market can be formed within these establishments, organic farmers can sell their produce on the basis of mutual trust that helps them to save cost on formal certification. Many NGOs, INGOs, government, local and foreign students, farmers and other interested stakeholders visit this area to learn about organic farming. In addition to that, frequent training and other learning activities are also held in these areas on a periodic basis. As farmers in this district are already popular for practicing organic, it might assist them in gaining mutual trust as well. Besides, selling locally can extensively reduce transportation cost too. Farmers should be given expertise on marketing so that they can benefit from this untapped market. PGS and internal control system (ICS) are another tools that can be an alternative to costly certification and help farmers earn premium. ICS is yet another low-cost quality assurance system that allows an external certification body to do periodic inspection of individual group members, which means that the third party certification bodies only needs to check if this system has been performing well and do few other re-inspections.

As for the urban area, consumers though pay higher price for the vegetables, they still doubt its authenticity. Nevertheless, at the moment since there is no better option, they are compelled to buy it with the expectation

that it must be safer than regular vegetables if not as organic as it claims to be. Difference in understanding the concept of organic among foreign and local buyers is also realized. Since most of the foreigners are from Europe, it is obvious that they would have better knowledge as Europe is one of the most developed region in the world in the context of organic agriculture. Labelling was the main concern for them which authenticates the organicness along with information on ingredients and place of origin. Other inferences such as separation of organic from regular ones while transporting and selling and validation of smallholders being able to claim profit from premium price as proclaimed by some sellers are their major concerns. As for the local consumers, they simply understand organic as 'free of chemicals' and are concerned if the claim of these vegetables being organic is accurate. Both the consumers highlighted the need to have more varieties, quantities and regularity in supply of organic products in the market, including vegetables. More than 60% of the respondents from both areas said that they have been purchasing organic vegetables for more than 3 years. In terms of consistency however not many respondents confirmed themselves to be regular consumers and the difference between these two areas is highly significant. This explains the easy availability of organic vegetables in a more organized market of urban area. It has been able to grasp certain section of consumers as regular buyers whereas in semi-urban area, regular buyers are mainly those acquainted with the farmers.

Besides word-of-mouth, consumers are usually not assured of the organicness of these vegetables. So far the market has been running based on community trust but for consumers they cannot know for sure if the vegetables they have been consuming always comply with the standard rule of organic. It was higher in urban area, probably because of longer distance of marketing and less interaction between producers and consumers. Comparatively, it was observed that in semi-urban area, farmers usually sell through their personal contacts in addition to selling them to their neighbors and in a nearby local market. Thus, currently market is run based on trusting the sellers and so consumers desire to have legal guarantee of these vegetables so that it cannot be manipulated knowingly or unknowingly by the sellers. It was found that most of the consumers in urban area who are already paying premium for organic vegetables on the basis of `trust` are further willing to pay 10-15% more than what they have been paying at present if certified whereas it was less than 5% for consumers in semi-urban area. It is understandable that consumption power is higher and market is better developed in urban which has higher willingness to pay for this added feature than in semi-urban area. Out of 120 respondents, 20% could differentiate organic vegetables from the ordinary ones through taste which they felt to be richer and 22% of them found appearance of organic to be inferior compared to the conventional ones.

Ⅵ. Conclusion and Recommendations

Organic agriculture has been growing in both developed and developing countries. Although farmers have been gaining higher income from the integration into global organic market, it is not free from chaos of globalization and other complications which can be beyond the capacity of smallholder farmers. Nevertheless, growing demand locally from affluent and well-informed consumers is also a huge opportunity for farmers. Therefore, certified products meant mainly for export and non-certified products primarily for local market should be prioritized separately as both can provide benefit in different section of the market.

Prioritizing local consumption of organic products lessens the environmental burden through reduced transportation, thus keeping up with the core feature of organic agriculture. It also acts as a cushion against risks associated with globalized organic market. Especially vegetables have specific advantage over other products in case of local market as they are cash generating crops, are known for higher chemical intake and are perishable good as well. Although in Kathmandu and Lalitpur districts of Nepal, it has been successful to some extent in positioning itself as a distinct product, Chitwan district has not got such opportunity yet despite the fact that there are farmers practicing organic farming in a group. Based on this study, it is recommended to have context-specific solution. In Kathmandu and Lalitpur districts, it is recommendable for producers and certifying agency to weigh the certification costs against consumers' willingness-to-pay for this added feature. In case of Chitwan district, other options such as participatory guarantee or internal control system should be developed

with assistance in identifying strategic locations to establish markets. Awareness and information dissemination programs should focus on distinctive features of organic vegetables as identified by the respondents, such as taste and appearance.

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