

Import - Export Scenario of High Value Horticultural Crops in Nepal

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Introduction

Horticulture development in the country is perceived as a strong approach to small farmers to fight against hunger, malnutrition and poverty. Horticulture can generate both employment and income within very short period to support the small holder farm families, and can provide them additional income to buy sufficient nutritive food for food security and thereby support healthy and active live. According to Food and Agriculture Organization (FAO), food security is attained when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to be healthy and active. This involves four conditions: availability, stability of food supply, affordability and quality and safety of food. It is true that not all people have equal access to food; a major cause of food insecurity is the failure to develop and increase local food production. Poor communities require appropriate resources so that they can produce food or earn enough to purchase food. To increase the purchasing power, horticulture sector is the one, which yields more return to the investment compared to other agribusinesses. This paper briefly explains how horticulture sector support food security issues with illustrative examples. Horticulture sector here limits to citrus in fruits and vegetables in general.

Citrus and Vegetable Production in Nepal

Table 1 depicts the production of citrus and vegetables in Nepal over the period of 1984/85 to 2008/09. The level of production in both commodities is increasing significantly. However, the rate was faster in later period in citrus crop (15.4 %) compared to vegetables crops (8.25%). In terms of volume, the quantity of vegetables produced is much higher than the production of citrus crop (table 2). This is because of the fact that fresh vegetable falls under daily necessity menu in human consumption.

Table 1. Citrus and Vegetable Production in Nepal (mt.)

Year	Citrus	Vegetables
1984/85	45,100	743,000
1994/95	83,375	1,211,507
2004/05	156,956	2,065,193
2008/09	253,766	2,754,406

Similarly, respective cultivated areas under the crops are shown in the table 3. The annual incremental rate was faster (7.7%) in citrus during 1994/95 to 2004/05. In case of vegetables, it was 2.9 percent during that period and 6.19 percent in between 2004/05 to 2006/09. The faster growth rate in the level of production compared to area expansion

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can be justified from the productivity level. This level is derived simply dividing level of production by the respective area.

Table 2. Average Annual growth rate of Citrus and Vegetable production (%)

Year	Citrus	Vegetables
1984/85 to 1994/95	8.5	6.30
1994/95 to 2004/05	8.8	7.00
2004/05 to 2008/09	15.4	8.25

Table 3 Total Area under Citrus and Vegetable (ha)

Year	Citrus	Vegetables
1994/95	14629	140500
2004/05	25910	180823
2008/09	32322	225154
Average Annual growth rate		
1994/95 to 2004/05	7.7	2.90
2004/05 to 2008/09	6.19	6.25

Comparative Economics

'Which crop pays how much' is simply the economics of production. On that basis, a farmer while allocating limited resources selects the crop(s) that yields higher return to him. The cost of production is a measure of financial viability. This itself reveals which crop is more profitable and in what extent. Table 4 summarizes the cost and return analyses of selected vegetables and major cereals grown in the hills and terai region. The cost and returns both are higher in vegetables compared to cereals. If it is judged on the basis of benefit-cost ratio, this is higher in vegetables. This means a rupee invested yields Rs.7.2 from chilly in both the hills and terai, whereas, it is only Rs.1.2 from maize. Similar interpretation can be made for other vegetables. This information clearly indicates that horticultural crops pay more income compared to the cereal crops. The increased income, thus, can be used to purchase other food items required for the active body.

Table 4. Per hectare cost and return (Rs) of selected crops in the hills and Terai

	Crops	Total Cost	Net profit	B/C Ratios
Region Hills	Maize	26,673	5,593	1.21
	Carrot	41,978	78,374	2.87
	Bitter gourd	31,254	137,281	5.59
	Capsicum	31,718	168,872	6.48
	Chilli	33,916	210,300	7.20
Region Terai	Maize	21,042	5,143	1.25
	Rice	24,967	7,143	1.27
	Carrot	42,212	103,725	3.37
	Bitter gourd	35,355	84,998	3.4
	Cauliflower	47,109	20,242	1.43
	Cabbage	42,205	86,848	3.06
	Chilli	36,415	228,909	7.29

Export and Import Status of Fruits and Vegetables

The supply and demand is generally reflected from the foreign trade statistics. Nepal heavily imports both fruits and vegetables (Table 5). The amount of export is minimal having more trade deficit. This shows there is ample scope for the horticultural crops.

Table 5. Export and import status of fruits and vegetables at national level

Year	Export (Rs 000)	Import (Rs 000)	Balance
Fruits			
2066/07	100	714,700	-714600
2007/08	100	648,900	-648800
Vegetable			
2006/07	11,000	1,035,800	-1024800
2007/08	17,500	1,210,900	-1193400

Based on market arrivals in the Kalimati Fruits and Fresh Vegetables Market, the largest agriculture market in Nepal having network with production and/or supplying markets, fruits in Nepal are mostly imported. In case of vegetables, 25 percent of the arrivals are found imported. Some crops such as onion and lime are totally imported. Based on such

information policy and programs are to be formulated. Some glimpse of imported items is presented in table 6.

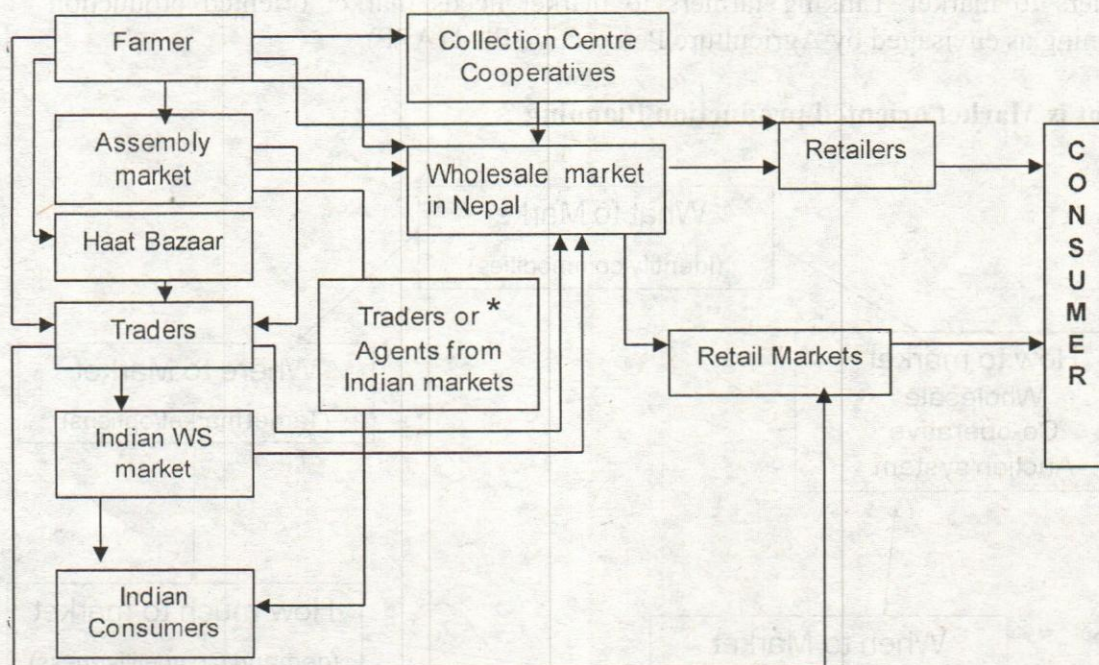
Table 6. Percentage share of some Imported Fruits and Vegetables in Kalimati Market (2065 B.S.) Vegetables

S.N.	Commodity	Source	Quantity Imported	Total Arrivals	% of import
1	Onion	India	10,669	11,374	94
2	Potato(Total)	India	4,666	33,586	14
3	Garlic	China	1,711	2,892	59
4	Green Chilli	India	934	3,506	27

Table 7 Percentage share of some imported fruits and vegetables in Kalimati Market (2065 B.S.)

S.N.	Commodity	Source	Quantity (ton)	Total Volume (ton)	Import share (%)
1	Pomegranate	India	280	280	100
2	Lime (<i>Kagati</i>)	India	1,624	1,650	98
3	Apple	India	216	740	29
		China	518	740	70
4	Mango	India	1,411	1,562	90
5	Water melon	India	3,468	3,635	95
6	Sweet Orange	India	177	273	65
7	Fish	India	2,818	2,839	99

**Existing marketing channels
(How farm produces reach consumers' basket ?)**

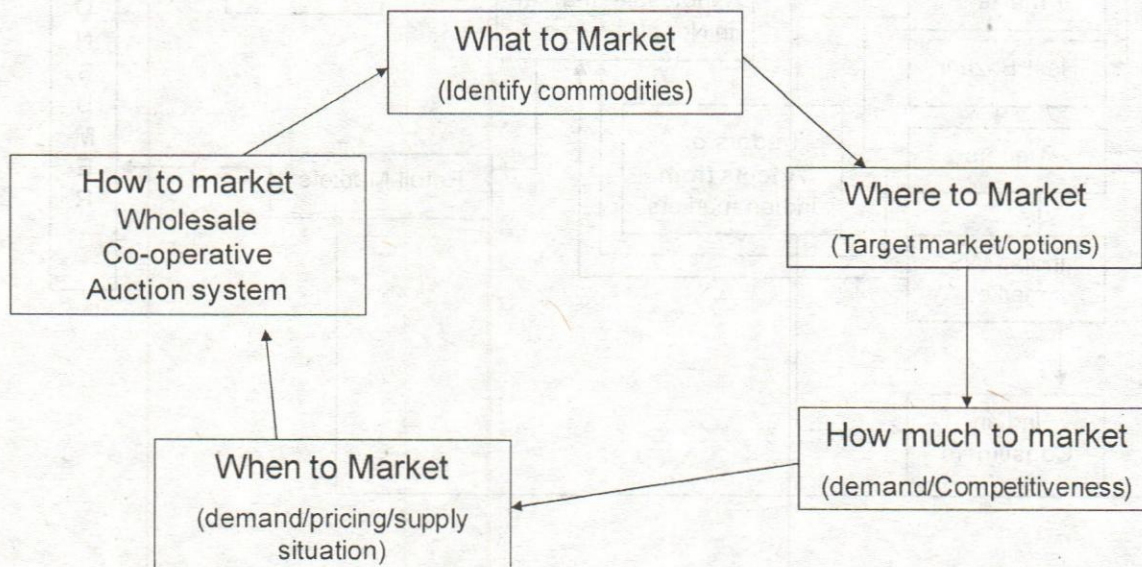


Problems Encountered

- Farmers mainly grow fresh vegetables without considering market demand. Oversupply causes lower prices, e.g. cabbage price at the farm door is less than Rs 2 during phagun (Feb-Mar)
- Farmers have very weak linkage with the traders. They have lower bargaining power. However some farmers have linkages with traders of Kalimati Market. There is informal contract between them.
- There is high marketing cost and margin while a large number of intermediaries is involved in the market channel.
- Farmers lack choices of market/market options constrained by high transportation cost and weak linkages with traders.
- At farm level, scale of production is small. So they have to surrender with intermediaries
- Marketing information system is very weak. The information is perishable and non-reliable.

All the above mentioned problems can be summarized into one key problem: linking farmers to market. Linking farmers to market needs market oriented production planning as envisaged by Agriculture Perspective Plan (APP).

What is Market oriented production Planning ?



Conclusion and Recommendations

Horticulture sector can contribute to achieving food security by providing more income to small farmers falling below poverty line. However, they need technology, marketing and some credit supports in the initial stage. Also they need to be grouped for collective bargaining with other market players. They should be educated to produce safe and hygienic food and such products are to be linked with super markets and/or terminal markets. Linking farmers to market is the right strategy to ensure the market and to minimize the risk. For this, some recommendations to reform horticulture sectors in Nepal follow.

- Need Marketing Extension Services at the production area for market oriented production planning
- Input marketing and technology at the production area.
- Support services – irrigation and capacity development programs