

# Trend of Coffee Cultivation and Consumers Behavior on Coffee Consumption in Nepal

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**Abstract** – Coffee is widely consumed as beverage products in most of the country in world. Nepal has enormous potential for cultivation of coffee as the climate is suitable throughout the mid hills. This study was done with review of area, production and productivity data available from Ministry of Agricultural Development, Nepal similarly import and export data were taken from Trade and Export Promotion Center, Nepal. Consumers behaviour were accessed through survey among 120 consumers including restaurant owners randomly. The study revealed that the trend of area and production for last fourteen year is increasing at above 13 percent annually. However the productivity of coffee is seen to decreasing. Majority of coffee produced in Nepal is exported. There is decrease in export of coffee from Nepal during the last five years. Foreign peoples were found to prefer foreign coffee in comparison to Nepalese coffee ( $\chi^2= 23.02^{***}$ ) and generally drink three cup per day ( $\chi^2= 13.67^{***}$ ) while Nepalese consumer drink two cup of coffee per day on an average. Majority of consumers were satisfied with Nepalese coffee But they have limited access with Nepalese coffee as majority of the responded did not get Nepalese coffee easily due to export tendency of Nepalese coffee.

**Keywords** – Behaviour, Export, Production, Import, Satisfaction.

## I. INTRODUCTION

Coffee is important crop for the prospects of daily use as beverage and it also has high export value from Nepal (Chaudhary et.al., 2008). Although, It is new crop and the area and production is in increasing trend and now the cultivation reached upto 42 districts in mid hills of Nepal (MoAD, 2015). The cultivation of coffee in Nepal was started from Gulmi districts (Shrestha, 1998) and now many farmers are engaged in cultivation practices. Majority of the coffee pocket area were predefined as organic coffee to fetch high price through marketing of organic coffee. With the existence of favorable climatic condition together with characteristics of coffee plants that grow well on rainfed uplands less suitable to other crops, the smallholder farmers are being positively attracted toward coffee farming in Nepal. Coffee provides 5 times more income than that of maize and millets and 2-3 times more yield than that of any other cash crop (Kattel, 2009). The ecological settings in the Himalayan hills provide Nepalese coffee a unique opportunity to enter international specialty markets (Gautam et al., 2008). Nepali coffee has been exported as high altitude grown coffee produced by resource poor smallholders under organic conditions.



Fig. 1. Major Coffee Producing Districts in Nepal

In case of Nepal, consumers are changing their preferences from tea to coffee. So there is need to access consumer preferences towards coffee and also to identify roles of consumers in value chain of coffee through identifying gaps from producers to consumers. So this study

was done to identify consumer's behaviors and problems associated with coffee consumption, focusing on consumers response and their level of satisfaction on Nepalese coffee and also to find out the situation of cultivation and production of coffee in Nepal.

## II. MATERIALS AND METHODS

This study used time series data related to area, production and productivity of coffee from 1999/00 to 2013/14. Similar import export data were also used to provide status of import and export of coffee in Nepal.

Compound annual growth rate was calculated by the formula

$$CAGR = \left( \frac{\text{End Value}}{\text{Beginning Value}} \right)^{\frac{1}{\text{Year}}} - 1$$

It was assumed that there is continuous growth rate of area, yield and production of coffee. Secondary data were taken from Ministry of Agricultural Development (MoAD) Singhdarbar, Nepal and Trade and Export Promotion Center (TEPC), Lalitpur, Nepal.

In second part of this study, survey with 120 consumers including restaurant owners done randomly from Lalitpur and Kathmandu district of Nepal. Semistructured questionnaire was implemented for the study. The purpose of survey was to know the preferences of consumers towards Nepalese coffee and also to access level of satisfaction of consumers towards Nepalese coffee.

## III. RESULT AND DISCUSSION

### Area and Production of Coffee

There is rising trend in area of cultivation and production of coffee and now coffee is being cultivated in 42 districts in Nepal (MoAD, 2013). Table 1 shows statistics regarding area, production and productivity of coffee from year 1999/00 to 2013/14. Area for cultivation of coffee reached to 1911 hectare and production is 429 ton. The productivity of coffee was found highest during 2005 to 2007. Compounded annual growth rate (CAGR) is nearly same for area and production i.e. 13.77% and 13.60% respectively. However for coffee productivity it is decreasing each year.

Table 1. Cultivation area and production status of coffee in Nepal from year 1999/00 to 2013/14

Year	Area (ha)	Production (Mt.)	Productivity (Kg/ha)
1999/00	314	72	229.30
2000/01	424	89	209.91
2001/02	596	139	233.22
2002/03	764	188	246.07
2003/04	925.2	217	234.54
2004/05	1078	307	284.79
2005/06	1285	579	450.58
2006/07	1395.5	616	441.42
2007/08	1450	276	190.34
2008/09	1531	267	174.40
2009/10	1650	308	186.67
2010/11	1752	402	229.45
2011/12	1780	425	238.76
2012/13	1750	366	209.14
2013/14	1911	429.4	224.70
<b>CAGR</b>	<b>13.77%</b>	<b>13.60%</b>	<b>-0.14%</b>

Source: MoAD, Nepal, 2015

### Import Export of Coffee

Present trend to expansion in farmers' level shows that coffee could be one of the high value agricultural produce as a niche product for export. However, the data prevail that the trend of export has been decreasing. It decline in subsequent year, in year 2014/15 only 99.8 ton of coffee was exported. Coffee has huge opportunity to export in international market, which would provide higher economic benefit to the smallholders. Japan, Korea, Germany, Australia, Taiwan, and U.K. are major export countries (TEPC, 2014).

Table 2. Import Export quantity of coffee during last five year

Year	Export (Kg)	Import (Kg)
2010/11	279761	31324
2011/12	109441	28907
2012/13	85671	51826
2013/14	66460	62872
2014/15	99846	111040

Source: TEPC, Nepal, 2015

### Characteristics of Respondents

Majority of the respondents were male (90%). In case of restaurant the numbers of male respondents were 57 out of 60 and in case of individual consumers survey number of male were 51 out of 60 (Table 3). Restaurants respondents were engaged in sole business but in case of individual consumers, 63 percent were businessman and 32 percent were students (Table 4). More than half of the respondents have higher secondary education and above (Table 5) and only 8 percent of the respondents were found to have lower secondary education.

Table 3. Gender status of respondents

Gender	Individual Consumers		Restaurants		Total	
	No	%	No.	%	No.	%
Female	9	15	3	5	12	10
Male	51	85	57	95	108	90
<b>Total</b>	<b>60</b>	<b>100</b>	<b>60</b>	<b>100</b>	<b>120</b>	<b>100</b>

Table 4. Occupation Status of Respondents

Occupation	Individual Consumers		Restaurants		Total	
	No	%	No.	%	No.	%
Business	38	63	60	100	98	81.67
Farmer	3	5	0	0	3	2.50
Student	19	32	0	0	19	15.83
<b>Total</b>	<b>60</b>	<b>100</b>	<b>60</b>	<b>100</b>	<b>120</b>	<b>100</b>

**Table 5. Education level of Respondents**

Education Level	Individual Consumers		Restaurants		Total	
	No	%	No.	%	No.	%
Lower Secondary	7	11.67	3	5.00	10	8.33
Secondary	6	10.00	16	26.67	22	18.33
Higher Secondary	32	53.33	27	45.00	59	49.17
Graduate and above	15	25.00	14	23.33	29	24.17
<b>Total</b>	<b>60</b>	<b>100</b>	<b>60</b>	<b>100</b>	<b>120</b>	<b>100</b>

### Purchase of Coffee

Small shops are major source to purchase coffee to restaurants while some of the restaurants prefer supermarkets and cooperatives to buy coffee to serve among consumers. This situation arises as there are lesser supermarkets in Kathmandu and vicinity and majority of the coffee are sold through small retail shops (Table 6).

**Table 6. Source of Purchase of Coffee by Restaurants**

Source	Restaurants	
	Number	Percent
Small/Retail shop	53	88.33
Cooperatives	3	5.00
Supermarket	4	6.67
<b>Total</b>	<b>60</b>	<b>100</b>

### Taste Preferences of Consumers Towards Coffee

The study revealed that there is significantly greater consumption of foreign coffee by foreign people compare to Nepalese coffee. Furthermore, 72 consumers were foreign and out of that 54 mostly prefer foreign coffee (Table 7).

**Table 7. Taste Preferences by Nepalese and Foreign Consumers**

Type of Consumer	Nepalese Coffee	Foreign Coffee	Total
Nepalese People	18	4	22
Foreign People	18	54	72
<b>Total</b>	<b>36</b>	<b>58</b>	<b>94</b>

Chi-square value 23.0212\*\*\* (p-value is <0.000)

The study also found that, there are several issues regarding less consumption of Nepalese coffee. Among them high price of the Nepalese coffee is major issue. Similarly, less awareness on Nepalese coffee since production of coffee in Nepal is new and number of consumers are unaware about Nepalese coffee followed by lack of marketing of Nepalese coffee, unavailability of Nepalese coffee in market and tendency of export oriented market of Nepalese coffee.

### Coffee Consumption Per Day by Individuals

Majority (48 %) of the individuals found to consume two cup of coffee at home daily. Similarly, in restaurant 43 percent of consumers were found to prefer one cup of coffee and only few consumers were found to prefer three or more cup of coffee per day (Table 8).

**Table 8. Consumption pattern of Coffee by Consumers at different places**

Places		Number of glass per day					Total
		1	2	3	4	5	
Home	No.	24	29	3	3	1	60
	%	40	48	5	5	2	100
Restaurant	No.	26	21	13	0	0	60
	%	43	35	22	0	0	100
Others	No.	25	13	5	3	0	46
	%	54	28	11	7	0	100

### Preferences of Coffee by Different Respondents

Majority consumers (58.67%) were found to prefer foreign coffee. They generally prefer three cup of coffee per day which is significantly different with other. Likewise 41.33 percent of consumers were found to prefer Nepalese coffee (Table 9).

**Table 9. Type of Coffee consumed per day by consumers**

Type of coffee consumed per day	Number of glass per day					Total	Percent
	1	2	3	4	5		
Nepalese	6	13	9	3	0	31	41.33
Foreign	6	6	16	6	10	44	58.67
<b>Total</b>	<b>12</b>	<b>19</b>	<b>25</b>	<b>9</b>	<b>10</b>	<b>75</b>	<b>100</b>

Chi-square statistics is 13.6971\*\*\* (p-value=0.008)

### Consumers Satisfaction on Nepalese Coffee

Mix type of result was found on satisfaction level of consumers on consumption of Nepalese coffee. Forty percent of the consumers were found satisfied with Nepalese coffee and 16.67 percent were highly satisfied. Whereas 26.67 percent consumers were found unsatisfied with Nepalese coffee consumption.

**Table 10. Satisfaction level of Consumer towards Nepalese coffee consumption**

Satisfaction level	Frequency	Percent
Highly satisfied	10	16.67
Satisfied	24	40.00
Indifferent	10	16.67
Dissatisfied	13	21.67
Highly dissatisfied	3	5.00
<b>Total</b>	<b>60</b>	<b>100.00</b>

## IV. CONCLUSION

Coffee is highly valued crop being potential to export and has important role in livelihood of smallholders farmers in Nepal. Consumers are changing their taste towards coffee and the study revealed that forty percent of consumers found satisfied with Nepalese coffee consumption. However, markets of Nepalese coffee are found dominated by foreign coffee due to low price. Retail shops are major source to buy consumable coffee by majority of consumers. Nepalese coffee are found expensive and less awareness among consumers followed by export oriented therefore it is not easily available to local market and consumers were forced to buy foreign coffee. Consumers were found habitual to drink two cup

of coffee at home and one cup of coffee at restaurants regularly in Nepal. The trend of area and production of coffee in Nepal shows increasing at above 13 percent annually but the productivity is decreasing.

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