

## ORTHODOX TEA PRODUCTION AND ITS CONTRIBUTION IN NEPAL

Krishna Poudel, PhD,

Reader

Department of Geography Education

Tribhuvan University, Kirtipur

kpoudel\_pokhara@yahoo.co.uk

### Abstract

*Orthodox tea is a major export oriented cash crop farming of eastern hilly districts of Nepal. Both tea estate garden and small farmers are involving in tea farming. This article is the outcome of both desk top and field study conducted between the months of June and August 2009. The study found that small farmers sell their green tea leaves mainly to locally established tea processing industries. Tea processing industries have strong role in fixing the price of green tea leaves so that small farmers gain a regular commercial income and also ensure local employment. Production is therefore increasing both at the small farmer's level as well as at the level of the organized tea estates. Exporting tea to India and overseas countries is potentially a good source of revenue generation; however, there is no developed organized system for marketing beyond India. Most of the output goes directly to India and is sold as an Indian product in the international market.*

**Key words:** Orthodox tea, cash crop, marketing, revenue, national income, international trade

### Introduction

Tea (*Camellia sinensis*) is popular all over the world. Tea has a very long history. It is said to have been originated in China in 2737 BC when the emperor Shen Nung used tea as medicine (NTCDB, 2002). The tea gained popularity as a hot beverage in the 6<sup>th</sup> century. In the 18<sup>th</sup> century, tea entered India from China through the activities of the East India Company. Tea cultivation started in Darjeeling in 1835, but a commercial nursery was established a decade later. Now Darjeeling is the prime tea producing zone in India. In Nepal tea plants were first introduced in Ilam one and half centuries ago. Tea cultivation began in 1863 and the first factory for processing was built in Ilam bazar in 1878. The engagement of the private sector in cultivation started as commercial production in 1960s. The *Nepal Tea Development Corporation (NTDC)* was established in 1966; however, in the 1980s, the Government of Nepal declared five eastern districts (Jhapa, Ilam, Panchthar, Dhankuta and Terhathum) as tea zones. Although tea was known as a commercially viable crop, its export potential was not identified by the Government of Nepal until 1982. Since 1982, the Government of Nepal has been providing assistance to tea growers and processors. The industry began to be more organized and recognized as a potentially significant sector with enactment of Nepal Tea and Coffee Development Board Act in 1993. A

National Tea Policy was introduced in 2000 to support the growth of the sector (Warakulle et al, 2007:16).

Nepal produces two types of tea, CTC (Cut, Tear and Curl) and Orthodox tea. Orthodox tea is grown in high altitudes, whereas the CTC tea is grown in low altitudes or plain areas. Historically, the term 'Orthodox' refers to a method of producing tea in India, by which the leaves are partially dried and then allowed to ferment to produce black tea as opposed to green tea which is not fermented. But in a broader sense, 'Orthodox' also refers to 'traditional' or 'hand-processed' tea. Orthodox tea is produced by a special process in which only the top two leaves and bud from each branch (*'duwe pat ek sueero'*) are picked at the precise moment when they are budding (Rana, 2007:5). Orthodox tea is also known as 'hill tea' or 'leaf tea', and its major production area is East Nepal (the four hill districts of Ilam, Panchthar, Dhankuta and Terathum. When prepared, it has a light colour, unique aroma and subtle, slightly fruity flavor. Due to its fine quality and high price, orthodox tea is in high demand among overseas consumers.

### Spatial Distribution of Tea in Nepal

Tea is one of the most important industrial cash crops in the country. The agro-climatic conditions prevailing in the eastern districts of Nepal are highly conducive for growing this crop – *Tarai* plains for *assamica* and the Hills for

*sinensis*. 'Made tea' is a term used to describe the tea manufactured from a factory and ready to make it drink. In the course of time, the expansion of tea cultivation is now expanding westwards, into Sankhuwasabha, Sindhupalchow and Kaski, all of them in the hilly belt (NTCDB, 2009) (Figure 1).

### Area and Production of Tea

In Nepal, tea is produced mainly in the eastern part of the country. The total area of tea production is 16,594 ha and production was 16,127.5 MT (NTCDB, 2009). Estates (tea gardens) accounted for 54.5 percent and small

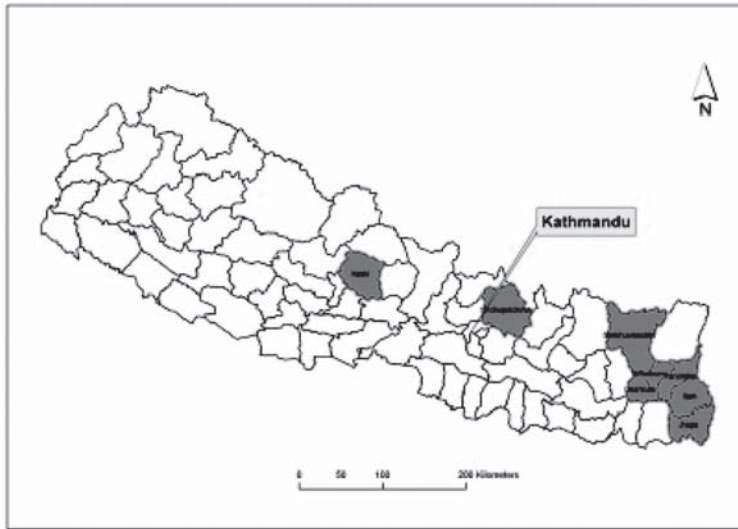


Figure 1: Tea Producing Districts of Nepal

For its promotion, the National Tea Policy 2000, National Tea Act 2000 and Implementation Directives 2001 were introduced. Tea is now listed as a cash crop among the farming communities of eastern Nepal.

farmers for 45.5 percent of the total area under cultivation. The former contribute 61.6 percent and the small farmers (SF) 38.4 percent to total national production. Cut, tear and curl (CTC) has 8,996 ha (54.3 percent) and Orthodox has

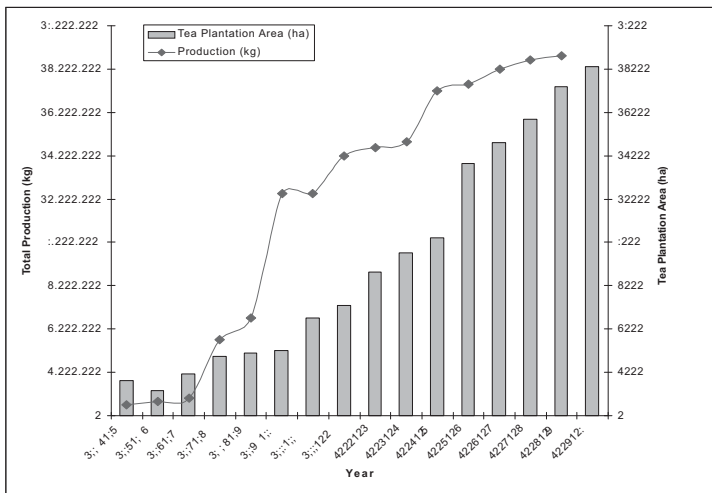
Table 1: Tea Plantation Area and Production in Nepal

Description	Unit	Orthodox	CTC	Total
Total area	ha	7580	8996	16,594
Total production	MT	2079.1	14048.4	16127.5
Tea Estates	Area	2923	6107	9030
	Production	691.7	9248.6	9940.3
Small farmers	No.	18750	8744	27494
	Area	4657	2889	7546
	Production	1387.4	4799.8	6187.2
Workers	No.	-	50,000	50,000
Factories	No.	19	25	44
Tea estates	No.	63	94	157
Small farmers' share in area	%	61.0	32.0	46.0
Small farmers' share in production	%	67.0	34.0	37.0
Share of export in total production	%	96.0	40.0	-

Source: NTCDB, 2009

7,560 ha (45.7 percent) total coverage under tea where the CTC contributes 87.1 percent and Orthodox contributes only 12.9 percent of the total tea production (Table 1). Largely, the small farmers produce Orthodox in the hills and the organized garden estates in the southern plains produce the CTC. In a rough calculation of yield rate per hectare of CTC tea was 1541 kg per hectare in 2008. The yield rate in Bangladesh was reported over 1100 kg, in different states of India it was ranges from 1749 to 2621 kg, and in Sri Lanka 3020 kg according to 1997 data (Thamarajakshi 2002:6).

incremental trend over the last one and a half decade. The Government of Nepal transferred NTDC ownership to the private sector in 2000, and the NTDC occupied plantation area and production shifted to the private sector afterwards. However, the importance of tea as a high value industrial crop is recognised by small farmers and gradually they have become involved in tea cultivation. Because of this, the total number of small farmers involved in the tea sector is increasing considerably. In the meantime both the plantation area and



**Figure 2. Trend of Tea Plantation Area and Production between 1992/93 to 2007/08**

(Source: NTCDB, 2009)

The data on tea plantation area and production for the period 1992/93 to 2007/08 plotted in Figure 2, shows year- to- year fluctuation in both area and production. Compared to the situation of 15 years ago (1992/93), there is a significant increase in both plantation area and output. Both area and production have shown an

production of small farmers is increasing tremendously.

Ilam, Panchthar, Terhathum and Dhankuta are the major Orthodox tea producing districts of the country. The data for 2007/08 shows that

**Table 2 : Area and Output of Orthodox Tea in 2008**

*Area in ha; production in MT*

Districts	Garden		Small farmers			Total	
	Area	Output	No.	Area	Output	Area	Output
Ilam	1,347	491.5	4,935	3,783	1,097.4	5,130	1,589
Panchthar	382	89.5	847	433	140.3	815	230
Dhankuta	219	50.1	387	205	73.0	424	123
Terathum	23	5.6	402	161	40.7	184	46
Total	1,971	636.7	6,571	4,582	1,351.4	6,553	1,988

Source: NTCDB, 2009, p.8

these districts have 6,553 ha of land under tea cultivation and produced 1,988.1 MT of green tea leaves (Table 2). The production of Orthodox tea in these four districts accounted for 95.6 per cent of total production of Orthodox tea in the country in 2007/08. By type of farming, small farmers accounted for 69.9 percent of total area under cultivation and 68.0 percent of total tea production of these districts. The rest is accounted for by the gardens or estates.

There is a wide variation in the number of farmers involved and the area of tea production, across these four districts. Ilam is the leading district with 4,935 farmers, 5,130 ha of land under tea, and 189 MT of production. Next to Ilam is Panchthar which has 847 farmers, 815 ha of land under tea and 230 MT of production. Dhankuta is in the third position and Terhathum grows the least.

### Employment Opportunity

The history of tea cultivation in Nepal starts with what was basically a Rana family/clan hobby. The Ilam tea gardens were started by the Ranas, influenced no doubt by its cultivation in Darjeeling in the hills of West Bengal, where British estate owners had established the precedent. Several decades after its start in Nepal, other farmers started it with a commercial intent. The government paid adequate attention only when the Nepal Tea Development Corporation was established. Initiated as 'a family business' in a single location for several years, the labour and technical personnel was at first limited in numbers. Even after its development for commercial reasons, around 40 percent of the output came from small farmers

and expansion of the labour input at this level was provided mostly by the family members. Only the garden sector hires wage labour. Specifically, in the Orthodox tea production districts the share of small farmers is over 70 percent. Therefore, the hiring of wage labour or 'pluckers' in tea sector has different characteristics compared to other CTC tea-producing large garden dominated farming systems. In the hill districts, 38,955 members of 7,791 households were dependent on tea cultivation (NTCDB 2009:8), whereas Warakaulle and other (2007) mentioned that 30,000 people are directly involved in the industry with a large percentage being rural women. Therefore, this industry has the potential to empower rural women through poverty alleviation and has become the focus of attention of many international organizations and many NGOs (Warakaulle et al, 2007:16).

For a long time wage rates in the tea sector remained low compared to other sectors. The government eventually reformed the wage rates for the tea sector in 2008, after a month-long tea sector labour strike was settled following the fixing of the daily rate at NRs 95 (US \$ 1.27 approximately) for all types of garden labours. Both males and females working in same garden now received the same wage rate. However, in the small-holder farming sector the wage rate is not fixed but is usually higher than in the gardens. The field survey revealed that this was the result of irregular employment. It was also reported that the farm owner usually works together with wage labourer. Compared with other tea-producing South Asian countries even the rate negotiated by the government in 2008

**Table 3: Wage Rate of SAARC Member Countries (Mid 2001)**

Country	Per day wage rate for worker (Local currency)	US \$
Bangladesh	26.75	0.46
India		
Assam	62.99	1.34
West Bengal	60.03	1.28
Tamilnadu	76.12	1.62
Kerala	76.02	1.62
Sri Lanka	121.0	1.36

Source: Sivaram 2002

seems significantly lower than the South Asian average figure for 2001 (Table 3).

The average tea plucker's daily wage in India is US \$1-2, (<http://www.mercycorps.org/countries/india>), the rate being US \$ 1.19 in Tripura and US \$ 1.90 in Kerala in 2007. In Sri Lanka, workers on both small-holders and large plantations were paid US \$ 2.80 a day (Wal 2008:28).

In Nepal, the share of female labour in tea sector seems higher than that of male labour. There is a lack of organized recorded data of labour involved in the tea sector, but the field survey revealed that over 90 percent of the labour working at the field level were female - basically handling plucking, weeding, working in nursery and even pruning jobs. Males were to be found mainly in a supervisory role, weighing green tea leaves, and in managerial jobs. In the processing unit, females were seen in sorting out the finished product and packing jobs inside the factory. All managers and factory supervisors were males. Child labour is not found in the tea gardens and even not reported. However, in the case of the small farmers, children may sometimes support their seniors in the school holidays and their leisure time. Nepal possesses different conditions than in neighbouring countries. In 1997, the total labour in the Indian tea sector was 1,032,267, of which 490,187 were males, 492,899 females and 49,181 were non-adults (Tea Board 2000, cited in Tharmarajakshi 2002, p. 16, table 2.10). In west Bengal, the neighbouring tea producer state of Nepal, out of 243,769 in total, 46.7 were males, 50.1 females and 3.1 were non-adult (Tharmarajakshi 2002:16).

All the labourer working in tea garden and even in small tea farms were not getting any formal training, all were reported as of learning by doing. Therefore, performance was not encouraging. It was reported that productivity per plucker of green tea leaves in the Orthodox tea sector was normally around 11 kg (in a garden environment in Ilam district where most of the pluckers had been working for the last decade). In other districts, where tea cultivation is quite new, and because of that plucking job also started recently, productivity per plucker

green leaves productivity is even lower than 5 kg a day (8 am to 5 pm with an hour lunch break). This all shows a productivity scenario of Orthodox tea and it's per unit production cost. Because of low wage rate and good performances in productivity local human resources were not interested working in tea sectors. Therefore, labour shortage is facing in the tea growing areas even though a large sector of population is living in poor and ultra poor condition. Because of the seasonal variation in local weather and climatic conditions, tea plucking is possible only for 9 months in the year, from March to November. The winter 3 months are basically used for pruning, aiding fertilizer and weeding. High demand of labour requirement usually follows the rainy summer months, when other sectors of cultivation like paddy plantation, vegetable farming, maize harvesting etc run in parallel. Wage earners get several alternate opportunities. This situation also makes a difference to wage labourers in the tea sector.

### **Green Tea Leaves Production and Marketing Network**

The market plays a strategic role in enhancing production. One of the essential functions of an effective agricultural marketing system is to ensure the flow of information between producers (sellers) and buyers (traders and end-users or consumers). In the context of an emphasis on a shift from subsistence to commercial farming of various agricultural crops, the lack of an efficient marketing system can cause major problems. This is the case with the tea industry in the study area, as traders have a monopoly on information and market channels. Tea growers have access to information through information network or via traders who have a vested interest in withholding market prices. Growers, however, have little bargaining ability to negotiate a fair price for their tea especially without knowing what constitutes a 'fair' marketing price. Tea farmers organized in the form of cooperative are able to secure relatively higher prices as compared to individual farmers. In this case, proximity to tea factories is not the main factor in determining prices.

In Dhankuta, Hile is an attractive market centre where three factories are located. Hile further offers a number of services and facilities to the

hinterland population. A large number of people from hinterland of Hile could produce and sell green tea. Fikkal, Nepal Tar, Ilam, Kanyam and Magalbare all offer opportunities to the people of the Hile hinterland to sell green leaf, as well as many other facilities that they need to satisfy

information, training and services and knowledge of marketing prices. This illustrates the very real geographical disadvantage of the more remote growers.



Figure 3: Market Centers of Tea Sector

their livelihood needs. Phidim is the central point of Panchthar district, where a number of facilities and services are concentrated.

Generally, the closer farmers and growers are to these market centres, the better their access to

**Export and Import of Tea**

Orthodox tea is mainly destined for overseas markets. About 96 percent is exported to America, Germany, Japan and the EU and the remaining 4 percent is consumed in the country by foreign tourists and wealthy families inside Nepal.

Table 4: Total Export and Import of Tea in Nepal

Year	Export (MT)	Export (Rs'.000)	Import (Rs.'000)
1994/95	72.2	13,574	65,208
1995/96	72.7	15,516	52,171
1996/97	81.4	22,617	86,971
1997/98	35	11,745	60,218
1998/99	83.8	30,081	27,831
1999/00	81.6	25,722	73,277
2000/01	69.5	23,084	98,000
2001/02	79.6	27,987	8,838
2002/03	193.1	53,908	468
2003/04	884	104,822	992
2004/05	4316	438,771	419
2005/06	4623	415,632	5,005
2006/07	7000	122,500!	19,000!
2007/08	8600	55,800!	18,900!

Source: NTCDB, 2009, ! FNCCI, 2008

Table 4 shows that Nepal imports more tea than it exports. However, Nepal imports mainly low grade cheap tea. It is interesting that Nepal did not produce enough tea to fulfill its domestic demand until 2006, and despite this still imports tea for domestic consumption. Despite the relatively positive growth figures, Nepal's tea export volume and value are very small vis-à-vis other countries and its exports make up only 0.2 percent of world's total. According to HIMCOOP, the international demand is high for 'spring flush', which fetches a higher market price (HIMCOOP 2009). It is not possible to figure out the volume of Orthodox tea exported because data disaggregated by type of tea exported is not recorded at the custom point and not published by the Trade Export Promotion Center (TEPC). Even HIMCOOP was not in a position to give estimates of export volumes of specific types of tea

The main export markets for Nepalese tea are India and Overseas Countries. Nepal's National Economic Survey prepared annually by the Ministry of Finance has no export figures for tea. 'Overseas' export of tea is recorded in Overseas Trade Statistics published annually by TPC, but there is no official data relating to Nepal's export of tea to India. According to an ITC report (2007), 92.2 percent of total exports of tea from Nepal goes to India. According to a FNCCI publication (FNCCI, 2008), the export volume of tea to India is 1000 MT per year, while the *Kantipur Daily* estimates a much higher export figure of 9097.8 MT - worth NRs 1180.3 million - leaving Nepal via Kakarvitta in Eastern Nepal in 2008/09. In 2007/08 the figure was 9345.3

MT worth NRs.897.1 million and in 2006/07, it was 5631.5 MT worth NRs 580.3 million (*Kantipur*, 12 August 2009).

Given the 1200 km open porous border, formal and informal trade also takes place unofficially with north-east India markets, when there are marked differences in prices and trade margins. During the field survey for this study, it was reported that farmers and traders export substantial amount of tea to Darjeeling through formal and informal channels. The borders of India's state of Darjeeling and Nepal's Jhapa District are adjacent and easy to cross, and neither nationality requires a visa. A significant quantity of Nepalese tea that enters India is then sold by India as 'Darjeeling Tea' in the international market. The Overseas Trade Statistics shows that Nepal exports two types of tea in the overseas market: green tea and black tea, both of which are orthodox tea. In 2007, 226 MT of green and black tea worth NRs. 58.0 million were exported to overseas countries (TEPC 2007). In 2006/07 Nepal exported tea to 38 countries, which indicates a highly diversified export market. But there is a concentration on seven destinations, namely USA, France, Germany, Czech Republic, Netherlands, Pakistan and UAE. These accounted for 98.7 percent of total export in 2005/06 and 80.1 percent in 2007/08 (Table 5).

Data presented in Table 4 show that the principal destination of Nepalese orthodox tea is

second major destinations with a share of 8.2 percent each. Compared to Darjeeling Tea, there is less demand for Nepali tea internationally due to the lack of brand identity (Rana, 2007).

**Table 5: Export of Nepalese Tea by Major Countries (Rs. in Millions)**

Countries	2005/06	2007/08
USA	1.5	6.1
France	3.3	5.5
Germany	31.1	46.3
Czech Republic	4.8	8.2
The Netherlands	-	5.8
Pakistan	29.3	-
U.A.E	25.3	8.2
Total Export (NRs in million)	98.7	58.1
Share of 7countries in total (%)	95.3	80.1

Source: TPC, 2007

**Conclusion**

The evidences of area, production and marketing shows that tea is an potential agro products and give a good opportunity of employment to local people at farm and processing and marketing industries. In the mean time it has a high potentiality to generate foreign currency by exporting made tea to India and overseas. Tea cultivation gives round-the-year greenery for the landscape, controls surface soil loss, helps to reduce carbon emission, and supports the maintenance of the mountain

environment. Tea gardens on the top of the hills provide ample scenic beauty and attract local and foreign visitors help to generate indirect income from the tourism industry too.

Germany, which accounted for 31.1 percent of total exports in 2005/06 and 46.3 percent in 2007/08. Pakistan was the next important destination in 2005/06 (29.3 percent), but in 2007/08 the Czech Republic and UAE were the



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