

# ORGANIC COFFEE: ECONOMIC OPPORTUNITIES

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## ABSTRACT

Coffee, the second largest commodity next to petroleum products traded in the world market, is produced in more than 70 countries. Total production in the world was 131 million bags (60 kg each) in 2012 ([www.ico.org](http://www.ico.org)). The demand for organic coffee in the world market is increasing day by day. Mexico, Nicaragua and Peru are the world leaders in organic coffee production. Honduras is the highest exporter of organic coffee in the world market.

Coffee entered Nepal from Burma in 1939 AD. It has been extended to about 39 districts in the mid hills of Nepal. It has significant potential as export commodity. More than 27000 small growers are involved in coffee cultivation in about 1758 ha of land with a production of 418 tons of green bean in 2012. The export of Nepali organic coffee is in increasing trend. Demand outstrips supplies. Nepali coffee has **Specialty Quality** with cup testing score of 82-86 percent.

Coffee production has higher benefit. The benefit from coffee is 4.33 times more than maize production and 1.87 times higher than maize followed by millet cultivation of crop rotation cycle. Intercropping of coffee with banana and coffee with ginger is far better than sole maize cultivation.

Coffee can be a good export commodity if we can address various factors like strengthening support on research, white stem borer management and value addition with maintaining quality consistency. Other factors like policy reframing is also important for coffee sub-sector development.

## Coffee production and Market World Scenario

Brazil is the largest producer of coffee in the world producing about 36 percent of the world production. Overall consumption is the highest in America but per capita consumption is higher in Finland.

Of the four main species of coffee (Arabica, Robusta, Liberica and Excelsa), only Arabica (*Coffea Arabica*) and Robusta (*Coffea canephora*) are in consumption. Arabica has 62 percent share in the world production. The total production of coffee green bean in the world was 131 million bags (60 kg each) in 2012 ([www.ico.org](http://www.ico.org)). The ten leading world producers are given in the table below.

Table: Ten leading producers (volume in, 000 million bags)

SN	Country	Production Year	
		2010/11	2011/12
1	Brazil	48095	43484
2	Vietnam	19467	20000
3	Indonesia	9129	8250
4	Colombia	8523	7800
5	Ethiopia	7500	6500
6	Peru	4069	5443
7	India	5033	5333
8	Honduras	4326	4500
9	Mexico	4850	4300
10	Guatemala	3750	3750

Source: [www.ico.org](http://www.ico.org)

## Trend of Organic Coffee

The demand for organic coffee in the world market is increasing. Similarly, many countries have put effort to promote organic coffee production. Mexico, Nicaragua and Peru are the world leaders in production followed by Ethiopia and Madagascar. Recently, some other countries like India, Kenya, Indonesia, Papua New Guinea and East Timor are also promoting organic coffee production. More than forty countries are exporting organic coffee where Honduras is the highest exporter of organic coffee in the world market.

## Coffee growing Regions in the world



### Coffee Consumption by Continents

Organic coffee consumption in the world has increased by 2.5%. The volume of consumption has increased in all the continents. Asia and Oceania are having the highest annual growth of 4.0%. Latin America is second with 3.2% and Africa stands in the third (2.7%) in coffee consumption. The Europe and North America have the lowest annual growth rate (1.8%) though the volume of consumption is high in both the countries.

Table: Coffee Consumption by Continents ('000 bags)

SN	Continents	2000	Year 2011	Annual growth rate (%)
1	Africa	6007	8055	2.7
2	Asia & Oceania	15147	23206	4.0
3	Europe	42 799	52 236	1.8
4	Latin America	20 420	28 786	3.2
5	North America	21 123	25 617	1.8
	World Total	105496	137900	2.5

Source: [www.ico.org](http://www.ico.org)

The growth rate of coffee consumption in developed countries is lower than that of developing countries. Coffee consumption in developing countries is increasing mainly due to gradual shift in the drinking habit, higher population growth and growth in income.

### Coffee in Nepal

#### Coffee production

Coffee entered into Nepal in around 1939 AD after almost 14 centuries of its discovery in the world in Ethiopia, Africa.

Among the various cash crops cultivated in Nepal, coffee is also a high value cash crop. It has higher potential for commercial production in almost 40 districts in the mid hills of Nepal because of the suitability in climate, topography, soil, temperature, relative humidity and rainfall. Although it has been extended to around 39 districts in the mid hill of Nepal, 22 districts are cultivating coffee on commercial scale. About 27000 farmers are involved in the coffee farming covering more than 1758 ha of land with the total production of 418 mt. Green Bean (GB) in 2012.

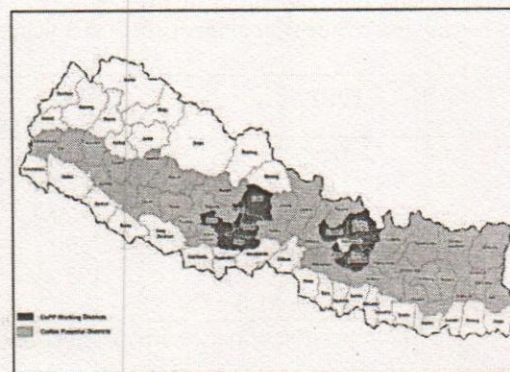


Table: Major Coffee Producing Districts in Nepal

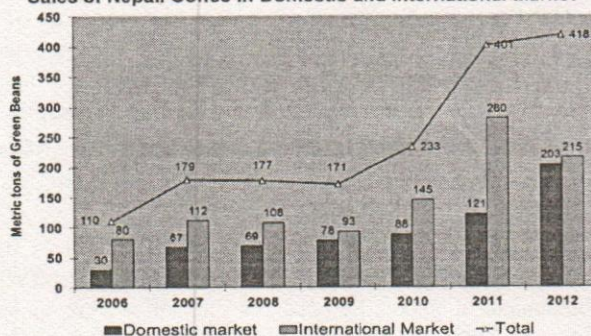
S.N	Development Region	Districts
1	Eastern	Ilam, Udayapur, Sankhuwasabha, Okhaldhunga
2	Central	Lalitpur, Sindhupalchowk, Kavrepalanchowk, Dhading, Makawanpur, Nuwakot, Rasuwa, Ramechhap
3	Western	Argakhanchi, Gulmi, Palpa, Shyangja, Kaski, Baglung, Parbat, Myagdi, Tanahun, Lamjung, Gorkha

#### Sales of Nepali coffee

The demand for coffee both in domestic as well as international market is increasing. Coffee consumption in the domestic market grew from 30 mt in 2006 to 203 mt in 2012. The export of coffee in the international market is around 51 percent of the total production in 2012.

Nepali coffee is exported to more than 14 countries. Export destinations are increasing every year. South Korea, USA, Germany, Japan, the Netherlands, Canada, Belgium are the major countries where coffee is being exported. At this point, Korea is the leading buyer. There are seven companies including cooperatives exporting coffee to different destinations. Coffee growers of Lalitpur, Gulmi, Palpa and Syangja are getting price premium through the sales of organic certified coffee.

Sales of Nepali Coffee in Domestic and International Market



### Coffee Promotion Program (CoPP) interventions in coffee

Coffee Promotion Programme (CoPP), HELVETAS Swiss Inter cooperation, Nepal has been implemented since 2003 aiming to improve the livelihoods of smallholders through strengthening coffee sub-sector with enhanced ability of providing quality coffee in the local and international markets. CoPP is working in nine districts (Gulmi, Palpa, Syangja, Kaski, Parbat, Lalitpur, Kavrepalanchowk, Sindhupalchowk and Nuwakot) with district based farmers associations like District Coffee Producers Association (DCPA) and Coffee Cooperative Union Limited (CCUL). In addition, policy level work is being done through Ministry of Agricultural Development (MoAD), National Tea and Coffee Development Board (NTCDB), Nepal Coffee Producers' Association (NCPA) and Central Coffee Cooperative Union Limited (CCCUL) at central level.

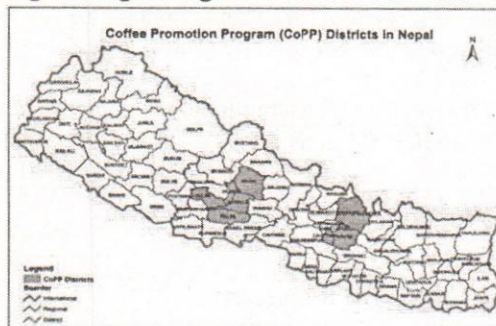


Figure . CoPP districts in

### Income generation from coffee

#### Economics of Coffee

The survey conducted by CoPP in 2009 revealed that the average annual cost of coffee cultivation was Rs. 43833/ha and gross return was Rs. 78023/ha i.e. net income is Rs. 34190/ha/year. As coffee is planted on marginal upland, only maize or maize and millet are grown annually. The study showed that annual net return from maize is Rs. 7890/year and it was Rs 34190/year from coffee. This figure clearly indicates that net return from coffee is 4.33 times higher than maize and 1.87 times higher than maize followed by millet cultivation. The benefit from coffee, coffee with banana and coffee with ginger is far better than maize cultivation. Some comparison is shown in the table below:

SN	Crops	Net Return (Rs/ha/yr)	Net Return compared to		
			Maize	Millet	Maize + Millet
1	Coffee	34190	4.33	3.3	1.87
2	Coffee + Banana	61,774	7.83	5.96	3.38
3	Coffee + Ginger	51,683	6.55	4.98	2.83
4	Maize	7890	1.0	0.76	0.43
5	Millet	10368	1.31	1.0	0.56
6	Maize & Millet	18258	2.31	1.76	1.0

\*\*\* Comparison of net returns from coffee and its alternative crops.

In addition, those who are producing certified organic coffee have to make their land parcels organic. From this, farmers can take additional benefit that they can sell all the products obtained from these parcels as organic and can fetch a premium price for them too.

#### Employment Opportunities

Coffee involves series of steps from cherry production to final cup stage (i.e. from seed to cup). Thus, it creates employment opportunities along with its long value chain. Coffee is much more labor-intensive crop than other crops such as maize, millet and wheat. Similarly, nursery management, pit digging and filling, planting, shade management, training and pruning are some other activities that create employment opportunities for rural people. Even after harvesting, coffee needs series of processing activities that generate lots of off farm jobs for skilled people. So, it provides additional job opportunities not only to the concerned farmers in rural areas but also to those who are not involved in coffee cultivation.

#### Scope of coffee sub sector

There is ample opportunity for the development of coffee sub sector in Nepal. It can play a crucial role in generating opportunities and can ultimately lead to economic benefits to all concerned as well as to the nation. There is growing demand of Nepali coffee in both the domestic and International market. Most importantly there is a favourable condition for organic coffee production in the country.

Furthermore, there are strong organized groups of producers at village, districts and national level with more than 27000 coffee growers. The coffee enterprise has also been initiated at different levels with strong network between producers and traders.

In addition, there are many stakeholders (I/NGOs, NTCDB, CTDS....) supporting in the promotion of coffee production, processing and marketing. Certification Body at local level is providing their services on organic certification of coffee for international market. National Tea and Coffee Development Board (NTCDB) has developed 3 years Coffee Development Strategic Plan in collaboration with all stakeholders. NTCDB has also developed and distributed Nepal Coffee LOGO for quality assurance of coffee. The government policy is also positive towards organic production of coffee for which the

National Guideline for organic agriculture production and processing 2064 (Amendment 2065) has been approved. The government has also allocated budget for organic certification and organic fertilizers.

All these opportunities have led to the growth of organic coffee production and marketing in Nepal. It has also opened the door for economic upliftment at local level by providing income to the smallholder coffee farmers. This helps in the improvement of livelihood in rural areas of Nepal. Besides, organic coffee farming encourages agro ecotourism through which the economic activities at local level can be increased. Increased coffee production also substitutes the import of coffee from foreign countries and earning from coffee export helps for the GDP contribution at national level.

#### **Specialty coffee**

The Specialty coffee is categorized by some characteristics like Organic, grown in high altitude, one variety, one estate coffee, de-caffeinated, etc. Some of the specialty coffees known in the world are:

- Jamaican Blue mountain
- Tanzanian Pea Berry
- Hawaii Kona Coffee
- Ethiopian Yarga Chaphe

Nepali coffee consists of all the characters (Organic practice, grown in high altitude, only Arabica, Bird friendly), so there is a great possibility for specialty coffee cultivation in the mid hills of Nepal. The ecological settings in the Himalayan region provide an exceptional opportunity for Nepalese coffee to enter international specialty markets.

Nepali coffee is considered specialty coffee grown in higher altitude away from the main coffee growing zone in the Capricorn and cancer belts (above 23 degree latitude) of the world. One of the team of international buyers disclosed that he is paying almost 50 percent premium price just for origin for Nepali coffee. Nepali coffee stands at 40-50 percent of specialty coffee standard which can be upgraded to 80 percent standard. The team also tested the Nepali coffee and was found Specialty Quality potential (NTCGDA, 2005). This has been proved with many test results that showed 82-86 percent specialty quality in cup testing.

### **WAY FORWARD**

#### **Strengthen support services**

Although the Government of Nepal has recognized coffee as an important high value crop and has also taken some positive steps for its development, the role of Government in the coffee sub-sector is still weak. District Agriculture Development Office (DADO), main institution with direct link with farmers, has to put coffee in their priority programme. This needs to be considered by all other involved in the process.

The majorities of the coffee farmers are small holders and are growing coffee which is organic by default. They need a support to establish Internal Control System (ICS), a base for organic certification. Present support from the Government is on cost compensation basis for organic certification for exported crops only. But the expense in maintaining ICS is also high as the certification cost. So, the support to maintain ICS would help to increase organic production of coffee and the income of farmers through the organic premium.

#### **Strengthen research:**

Coffee White Stem Borer (WSB) has been a serious threat in coffee production. Many coffee plantation areas have been wiped out due to its infestation. There are very limited research initiatives on WSB management. Research is also lacking on investigating coffee variety, fertility management, labor productivity in harvesting techniques for which NARC and other related organization's role has to be increased.

#### **Social sustainability:**

Youth migration is a serious problem today. It has created shortage of agricultural labor in the farming communities which has led to decrease in agriculture production. So empowerment of women towards coffee farming helps to increase the social and economic benefits. In addition employment opportunities generated throughout the coffee value chain could attract youth which helps to check migration and can make a sustainable production as well as sustainable improvement in the livelihood of rural communities.

#### **Value addition:**

Although Nepali coffee is considered as a specialty quality coffee, there are several problems in quality issues. The major problem is associated with lack of consistency in quality of coffee because of poor processing facilities. Increasing support to improve pulping, fermentation and drying facilities at farmers' field level would greatly help to maintain the quality.