

Prospect of Coffee Commodity to Improve Livelihood of Middle Mountain Farmers in Nepal

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Abstract

Coffee cultivation has a great potential to provide farmers a very good on-farm employment and income generation opportunities and is well adapted to the climatic conditions especially in the middle mountains of central and western Nepal with a range of altitude from 800 to 1600 masl. Despite the potentiality of improving livelihood of small-farmers and generating foreign currency by its export in the international niche market, coffee has received a little attention from the Government and other development agencies.

Estimated coffee production in Nepal in terms of green-bean in 2006 was 156 metric tons. There have been consistently increasing trends in area and production of coffee. Introduction of wet processing has improved the quality of Nepalese coffee and, thereby, added to its value at village level resulting in increased income to coffee producers and job opportunities to village processors. Export of Nepalese coffee to the international market increased from nine mt. in 2000AD to 80 mt. in 2006 AD.

Major bottleneck in the coffee sector is the lack of research to develop suitable production and processing technologies under Nepalese condition. Despite some risks and constraints, several opportunities have been observed in the sector. Proper policy interventions and coordinated efforts in addressing producers, processors and traders' needs such as their access to credit would help in the sustainable development of coffee industry to benefit the stakeholders in general and small resource holder producers in particular.

Introduction

Agriculture in Nepal is subsistence in nature. Agriculture remains Nepal's principal economic activity, employing almost 2/3rd of the population and providing 39% of GDP. The population has increased to about 25 million on a land area of 147,181 Km², about 18% of it being arable. As population pressure grows, increasing number of farm households struggle to produce sufficient food from smaller holding and marginal land. Decreased per capita production combined with limited income-generation opportunities has deteriorated rural economy.

Commercialization of potential crops suitable for small-holder farmers in the mountains would help in achieving economic growth, food security, and poverty reduction in Nepal. Coffee, well-adapted to the climatic conditions of middle-mountains in Nepal, is emerging as one of the potential crops to provide rural farmers with on-farm employment and income generation opportunities. Superior high altitudinal coffee can be produced at an altitude higher than 800 m. Ease of production and low input requirements render coffee cultivation possible by small holder farmers even in marginal-lands and existing cropping/farming systems, which has positive impacts on soil and environmental conservation.

Despite these benefits, coffee has so far received little attention from Government and other development agencies. Excepting some public and private efforts motivating the

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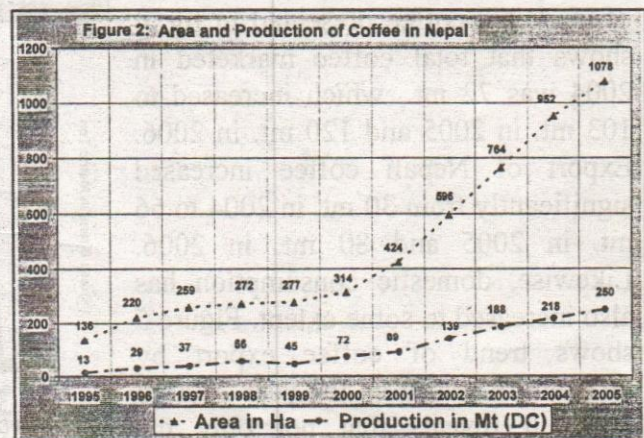
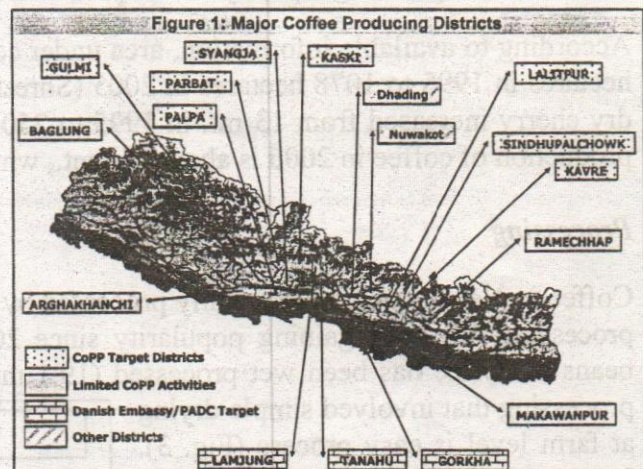
farmers to grow coffee, there has been a lacking of clear policy support on coffee production, processing and marketing. Regardless of which, area under coffee is increasing every year as many new farmers are introducing coffee in their farming, and older grooves are being extended. Nepal Coffee Producers' Association (NCPA) has been providing limited technical and organizational support to the producers' groups. However, the association has been facing a lack of resources and trained manpower to promote the crop as per expectation. Coffee Promotion Project (CoPP) of Helvetas Nepal has been under implementation since 2003 with provision of some supports on production, processing and marketing of coffee as well as development of producers' organizations at village, district and central level. There are few other development agencies (NGOs) presently intending promotion of coffee area for crop diversification and income generation. Provided systematic interventions in a coordinated manner to address the producers, processors and traders' needs such as increased access to credit and sound policy, coffee industry could develop in a sustainable manner to benefit small resource holder producers (CoPP, 2006).

Coffee in Nepal

After the introduction of coffee in Nepal by Monk Hira Giri in Aanpchaure, Gulmi in 1938, the crop remained unnoticed till 1970. However, it spread in Gulmi and neighbouring districts as a matter of farmers' curiosity on the crop as it controlled soil erosion. During late seventies, expansion of coffee as commercial crop took place to some extent when Ministry of Agriculture and Cooperatives imported coffee seed from India for distribution. Commercial coffee production initiated with establishment of commercial nurseries during 1980s. The major shift to commercial coffee production took place when the farmers were able to sell dry cherry to Nepal Coffee Company in 1983/84. Organic coffee production was not known to majority of the farmers till then, which was initiated in Madanpokhara, Palpa in 1989. In 1997, Coffee Producers' Association decided to produce coffee under organic system. Since then, the producers have been consistently following organic system of production and major guiding principles adopted by the producers' associations regarding technical service delivery. As per the guidelines, the association members are asked to comply with the organic standards of coffee production as far as possible, and any producer using unacceptable chemical inputs in the crop is penalized by relinquishing his/her membership from the association.

Area and production

Initially, coffee used to be planted as a hedge-crop for soil erosion control. Recently, the crop, as an additional source of farm income in the mountain system of farming, is predominantly grown in marginal uplands under rain-fed condition, where other crops do not perform well. Usually no fertilizer or pesticide is applied. Coffee is



therefore regarded as an agronomically less demanding and easy crop to grow. However, in areas with commercial production of vegetables and fruits, farmers might be using some fertilizers and pesticides in the companion/inter crops. Such situation is limited to infrastructurally build up areas, where farmers have easy access to external inputs.

Presently coffee is grown in more than 40 districts in Nepal. However, 15 districts in the Western and Central Development Regions are the major coffee producing districts (NTCDB, 2006). Among which, eight districts namely Gulmi, Palpa, Parbat, Syangja, Kaski, Lalitpur, Kavre and Sindhupalchok are the CoPP target districts (Fig.1). Coffee promotion activities in Gorkha, Lamjung and Tanahu are implemented by People's Awareness Development Centre (PADC) under financial support from Danish Embassy in addition to limited activities by District Coffee Producers' Associations (DCPAs). Arghakhanchi, Baglung, Nuwakot and Dhading are other districts producing substantial amount of coffee. Limited CoPP activities are also conducted in Baglung, Makawanpur and Ramechhap for high quality coffee production potentiality there.

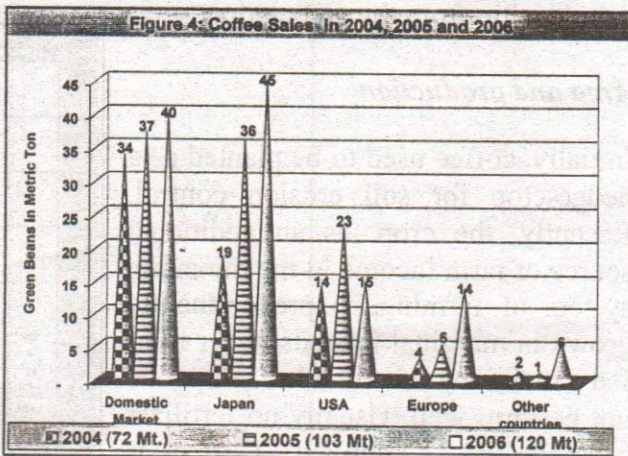
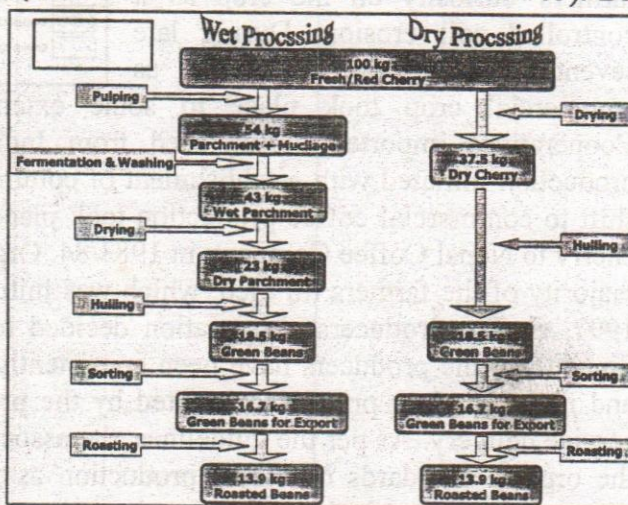
According to available information, area under coffee has increased consistently from 136 hectares in 1995 to 1078 hectares in 2005 (Shrestha et al., 2006). Similarly, production of dry cherry increased from 13 mt. in 1995 to 250 mt. in 2005 (Fig. 2). It is estimated that production of coffee in 2006 is about 156 mt., which is equivalent to 312 mt. dry cherry.

Processing

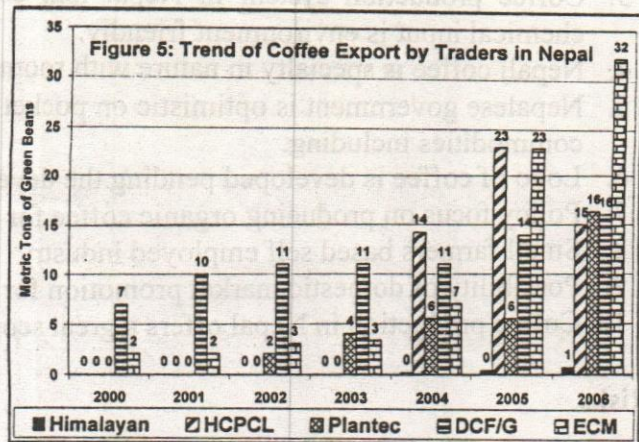
Coffee in Nepal was predominantly processed by dry processing method till 2002/03. Wet processing has been gaining popularity since 2003/04, and a sizable quantity of green beans of coffee has been wet processed (19.1 mt. in 2003/04 to 60 mt in 2004/05). Dry processing that involved simple drying at farm level is easy process (Fig. 3). In case of wet processing, fresh cherry is processed at pulping center to produce dry parchment. Introduction of wet processing has successfully contributed to value addition at village level resulting in increased income and job opportunities to coffee producers.

Market

Coffee produced in Nepal is mainly targeted for export market. Estimation of marketed coffee presented in fig. 4 shows that total coffee marketed in 2004 was 72 mt., which increased to 103 mt. in 2005 and 120 mt. in 2006. Export of Nepali coffee increased significantly from 30 mt. in 2004 to 66 mt. in 2005 and 80 mt. in 2006. Likewise, domestic consumption has also increased to some extent. Figure 5 shows trend of coffee export by different traders from the year 2000 to 2006. It reveals that not only the



export quantity has increased but also an increasing number of traders is getting interested in coffee commodity. Majority of coffee consumers in the domestic market includes tourists and expatriate residents. So both the markets are quality and environment conscious. Nepalese coffee is potential for securing a place in the international market provided quality of the coffee is increased with necessary interventions in production, processing and marketing.



Problems

Although the coffee commodity in Nepal has potentials for improving small-farmers' livelihood, the product is still untested in broader international market. The coffee sector, now in fledgling condition, is vulnerable to haphazard production techniques, little or no coordination among stakeholders, poor processing facilities and very little quality control (Shrestha, 2005). There has been a lack of systematic and solid support in production, processing and marketing promotion resulting in the sector's poor performance in quality coffee production for domestic as well as international market.

Major coffee sector problems in Nepal are listed below:

1. The production is organic by default. But the sector is subject to policy neglects as observed by
 - absence of research and development.
 - lack of national standard and guidelines for organic production.
 - lack of information flow on technologies, quality requirements and market potentialities among stakeholders.
 - No direct support program (subsidy) on organic promotion, inspection and certification
2. Majority of coffee producers are poor farmers with small number of coffee plants.
3. Lack of pocket production program that would help in cost effective production and marketing of coffee and effective monitoring and implementation of quality control mechanism.

Opportunities

Coffee has been accepted as an income generating crop by the small farmers of the middle mountain region in Nepal. Systematic interventions in the areas of production, processing and marketing could improve the productivity and quality of coffee to be recognized as a specialty Nepali coffee in the international market.

Major opportunities associated with coffee promotion in Nepal are listed below:

1. Availability of sufficient labor for intensive operations such as harvesting and post-harvest processing.
2. Coffee is mainly cultivated under shade of diversified tree species.

3. Coffee production system in Nepal that uses locally available resources and no chemical input is environment friendly.
4. Nepali coffee is specialty in nature with room for quality improvement
5. Nepalese government is optimistic on pocket based organic production of high value commodities including.
6. Logo of coffee is developed pending the development of coffee CoC.
7. Policy focus on producing organic coffee for export market
8. Small farmers based self employed industry
9. Possibility of domestic market promotion for import substitution.
10. Coffee production in Nepal offers a great scope for production of organic coffee.

Risks

There are several risks in the coffee commodity that should be considered for coffee promotion in Nepal. They are-

1. Chemical contamination due to commercial fruit and vegetable cultivation in coffee production area.
2. A shift of fertile maize land to coffee area could affect food security.
3. Much scattered area of coffee production.
4. Possible epidemics of diseases like leaf rust upon expansion of coffee in humid eastern districts.
5. The price, farmers are getting for the fresh cherry, is already high. While that pulper operators are getting for dry parchment is low.
6. Nepali coffee on its export has fetched attractive price due to its uniqueness. Similar product in India (Uttaranchal declared as organic zone) could increase competition for export coffee market
7. Coffee is taken only as a part-time business by majority of the processors and traders.

Need of the Sector

Based on the CoPP experience, followings are the major needs for systematic development of coffee sector.

1. Knowledge dissemination on organic production system through intensive training, not only to the producers but also to the people involved in processing, marketing and quality management.
2. Quality management as per ICS requirements should be initiated to guarantee organic quality of the product.
3. Capacity building of existing institutions and private service providers.
4. Introduction and verification of technology recommended elsewhere.
5. Producers' easy access to credit.
6. Collaboration with international agencies involved in organic agriculture including IFOAM
7. Independent monitoring body to assure product quality as per the CoC
8. National coffee standards for organic production, processing, handling and marketing.
9. Marketing promotion taking into account of international niche market.
10. Less costly mechanism of participatory guarantee in domestic market
11. National network for organic agriculture production promotion.

Major Constrains of Organic Coffee Production in Nepal

- Lack of proper understanding of organic standards and regulations.
- Lack of research and extension support services.
- Poor production and lack of on-farm post-harvest quality management practices.
- Lack of high yielding varieties and high quality planting materials.
- Existing high price of fresh/dry cherry compared to international market; and big range of prices of dry parchment.
- Absence of minimum quality standards and quality control measures.
- Unfair competition among processor and traders.
- Rather than a competitive basis, presently the coffee is reached in international market through personal approaches by the traders.
- Inconsistency in the taste of the coffee.
- Lack of knowledge and experience on group certification and internal quality control mechanism.
- Lack of a national organic coffee production program.

Conclusions and Recommendations

1. Coffee can increase small farmers' income supplementing them for food and nutrition. Therefore, strong coordination and collaboration among different stakeholders is essential to support coffee production, processing and marketing in a sustainable and environment friendly way.
2. Lack of research on organic coffee production and processing is one of the major bottlenecks for the development of coffee sector.
3. Since coffee policy emphasizes organic production, it should be promoted through strict regulations.
4. Organic certification could be expensive. Sustenance of organic certification without donor's support should be studied, and attempts should be made to certify Nepali coffee as Fair Trade Coffee.
5. International coffee experts have recommended discriminating coffee into two groups, depending on production altitude namely 800-1100masl and above 1100 masl to improve quality and consistency in the taste of coffee. Such effort would increase reputation of Nepalese coffee.
6. Wet processed Nepalese coffee has been recognized as high quality coffee with potential for further improvement. Studies and other attempts should be made for further quality promotion through improvements not only in production system at producers' level but also in wet processing at village and central level.
7. Since minimum quality standards for coffee are not yet defined for Nepalese coffee, such attempts should be made with institutionalization of quality monitoring system.
8. Lack of coordination among traders results in collection of low quality coffee. For which, traders should be supported for their better organization and coordination.
9. Coffee expansion, specifically in the eastern region of the country, should be discouraged to avoid possible disease epidemics. For which, coffee promotion activities should be concentrated in the central and western Regions

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[Queries from the participants of the seminar:

Mr. R.B. Shreshtha queried on the importers' preference for wet-processed coffee against dry-processed ones. He asked if the wet-processed coffee had some physiochemical factor that the importers preferred. Secondly, he also queried how public-private partnership could be established for sharing coffee promotion in the country. The presenter clarified that dry-processed coffee in Nepal is not preferred by the importer. The wet-processed one is considered comparable to Mexican mild coffee. Besides, production location also helped to fetch international market for Nepalese coffee. Mr. Ganapati Pandey added that small coffee farmers in Nepal are suffering due to a year's delay in payment for their produce. They can hardly participate in coffee promotion unless cash on delivery is established in coffee marketing. On the other hand, he observed most of the NGOs involved in coffee promotion to deploy non-agricultural technicians. Regarding the first query, the presenter expected district level market facilitation committee to manage the problem.

Mr. D.P. Khanal argued against the statement "coffee is hardly known to Nepal". Rather he added the grooves in Palpa were being removed due to marketing problems. Coffee producers are not fetching genuine price, while the traders are mentioned to reap attractive share. The planting materials distributed by DCPA/NCPA would have been problematic regarding which there had been no coordination with DADOs.

To summarize the presentation, the chairperson also raised some queries. Such as - Nepalese coffee is mentioned good in quality, but what type of coffee it is compared with - how is the coffee husk utilized in the system - whether vegetative techniques of coffee propagation were developed - if the information regarding optimum price distribution along marketing channel was available. He added, coffee in Nepal was initially introduced by British-Gorkha-soldiers in Gulmi, and also proposed for good collaboration among MOA, tea and Coffee Development Section and Helvetas for coffee promotion in the country.]