Concept Paper on Study of Nepalese Tea Industry
-Vision 2020-

Submitted to:
Nepal Tree Crop Global Development Alliance (NTCGDA)
Winrock International
Baneshwor, Kathmandu
Phone: 00977-1-4467087
Email: gdanepal@winrock.org.np

Submitted by:
Ajit N.S. Thapa

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# Table of Contents

Summary of Concept Document 1-7

1. Background
2. Prospects of Tea Industry in Nepal
3. Position of Nepal Tea Industry in 2020
4. Strategy for the promotion of Nepalese Tea
5. Strategies adopted to reach the targets set by Vision 2020

## Appendices

Appendix - 1. Brief Review of Tea Industry 8-17
Appendix - 2. Present Situation & Future Possibilities of Tea Cultivation 17-19
Appendix - 4. The Board of Himalayas Tea Foundation 24-25
Appendix - 5. Code of Conduct 25-26
Appendix - 6. References 27
CONCEPT DOCUMENT ON STUDY OF TEA INDUSTRY - VISION 2020

BACKGROUND

Nepal is a country having 70 percent hills and fragile mountains where soil erosion is a big problem. It lies between 80 to 88 degree latitude and 26 to 30-degree longitude. Its north south span is about 80 km. It covers 0.1 percent of total world land area, has 136 ecosystems. It ranks 25th in the world in terms of bio-diversity and has every climate zone in the world. It has suitable climate and geography for tea cultivation, more in the eastern and middle parts of the country. Warm and humid climate with plenty of rainfall and long duration sunlight is best for the effective growth of tea bushes. The type of soil necessary for the tea plantation is characterized by the pH value ranging from 4.5 to 5.5 having good drainage facility, good water holding capacity and ample organic matter, about 1m soil depth. The temperature ranging 12.5 0-30 0 Celsius is the best for tea cultivation (Gate, 1990). Tea is a deep-rooted plant and its roots penetrate through all strata of soil and hold the soil strongly. Tea growing is the best option to these huge ruggedly built hills (upto1800m from mean sea level) in order to prevent soil erosion. Nepal's middle and eastern Himalayan corridor and the Tarai is endowed with several qualities for organic tea production related to soil, climate, topography, temperature, and humidity. We have developed several institutions working for the tea industry development and its trade promotion. However, there functioning needs to be strengthened. Since tea industry is a labor-intensive industry, there is a great scope for employment of rural surplus labor and reducing migration from hills to the plains and towns. Tea growing also provides opportunity to make the fallow lands productive which have been marginally used presently. Further more, we have tremendous national and international market potentials of our teas. This means this sector could emerge as an important contributor to our economic growth.

PROSPECTS OF TEA INDUSTRY IN NEPAL

Tea industry in Nepal is growing rapidly due to the active participation of the private sector. Now Nepal is self sufficient in CTC tea. There is a huge international market for both Orthodox and CTC tea. It is noteworthy to mention that most of the tea processors are interested to explore foreign markets because of the higher prices fetched by our teas compact to domestic and regional markets. Tea gives the highest return compared to any other crop cultivated by farmers. Tea industry is also a firm step towards empowering women as it generates good employment opportunities for women. More that 60% of the workers employed in the tea industry are women. Small farmers who grow their tea plant using farmyard manure and locally available botanical pesticides contribute to the major share of tea production, which we can call organic tea. There is high demand of organically produced tea in European markets. Unique Himalayan climate for tea production coupled with the considerable amount of fallow land available for cultivation could be used for the expansion of tea industry without disturbing the environment but rather preserving it. These indicate good future prospects of tea industry in Nepal. Nepal's yield per hectare is still lower than the major tea producing and exporting countries in the region, for example, India and Sri Lanka. Empirical evidences indicate that average Indian yield per ha was 1838 kg in 2056/57
BS whereas Nepal's yield during the same period was only 80% of that of Indian average. Similarly, Nepal's yield is only 71% of the other global tea industry leader-Kenya (Subedi, 2000). Currently Nepal's tea yield per ha is 750 -1477 kg/ha made tea. Production potentiality of tea is 5000kg/ha made tea. Thus, there is still a lot of room for the improvement of productivity in yield as well as in quality.

POSITION OF NEPAL TEA INDUSTRY IN 2020

It is envisaged that there could be about 23 districts adopting tea cultivation by 2020 and they could be classified into the following four different groups based upon the present cultivation situation in Nepal:

1. Jhapa and Morang:

Jhapa is already producing CTC teas and the necessary infrastructure is already developed there. The North-east part of Morang district has also initiated tea cultivation at farmers' level adopting cooperative farming method and it can be envisioned that the area, production, and productivity could be increased in terms of quality in these districts.

2. Ilam, Panchthar, Terahthum and Dhankutta:

Tea plantation has been encouraged and promoted in these districts since 1983 and infrastructure for tea cultivation has been developed including nursery establishment, plants distribution and technical extension services.

3. Taplejung, Nuwakot, Sindhupalchowk, Dolakha, Ramechhap, Sankhuwasabha, Bhojapur, Gorkha, Kaski and Solokhumbu:

Some tea cultivation has been started in these districts by private enterprises in a professional manner. But due to the lack of financial adequacy and effective policy implementation for the small producers, tea cultivation has not been very popular at the farmer's level. If there are some tea plants or bushes with the farmers, it is as the result of hobby rather than commercial and professional orientation. Most of the tea in this area is handmade and home consumed except for some exception (Everest Tea Estate, Sindhupalchowk.)

4. Okhaldhunga, Kavrepalanchwok, Sindhuli, Makawanpur, Dhading, Rashuwa and Khotang:

A keen interest is shown by some persons from these districts but nothing substantial has been initiated yet. Some pockets in these districts are seen suitable for professional tea
It is estimated that approximately 10,000 hectares of land is available for tea cultivation in almost all hill districts. Ilam district will be saturated with tea cultivation by 2020 provided the National Tea policy 2000 will be implemented effectively. Most of the districts will still continue plantation beyond 2020. There is also an immediate requirement for three additional factories in Ilam district for processing of green leaves, which are now being exported to India across the border. Currently there is lack of sufficient capacity to process the entire production of approximately 40 thousand kg of green leaves per day in the Ilam area.

Nepal can easily increase its tea production if the markets were available. With the sincere implementation of Tea Policy 2000 and an active private sector, it is possible to reach the following production targets (see annex 2 for details):

Total tea production 2020 could be around 54.7 million kg, of which CTC 22.5 million kg and Orthodox 32.2 million kg. The total area tea cultivation could be 62,800 hectares within the next 15 years.

The figures mentioned above are the production front year possibilities; real figures would have to be harmonized with the markets. If we are not able to market product on a sustained basis with improvement in the terms of trade, it would be futile to push for the accelerated growth of tea plantation.

The global demand for high quality tea is estimated to be 45 million kg. Of which, India supplies 10 million kg, China 6 million kg and Sri-Lanka 4 million kg. Nepal only meets a negligible fraction of this demand. The existing unmet demand for additional 25 million kg in the international market provides a big scope for tea industry in Nepal. Nepal futuristic vision will be to produce and market organic tea in the world market and become a recognized brand name.

**Strategy for the Promotion of Nepalese Tea**

One of the major challenges is establishing firmly, the image/identity of Nepalese tea by pursuing brand promotion in international market. This entails identifying problems both at home and in the international market and resolving them in a timely and effective manner. It should be admitted that Nepal Tea is a little known commodity in the international export market. So far, Nepal has exported to a few countries and relatively in small quantities. However, there is huge market for our type tea.

Nepal tea has a promising future if promoted in a systematic and sustained manner. Awareness campaigns of Nepal tea across tea importing countries and Brand Promotion activities needs to be made to project and highlight our orthodox and CTC teas. This should be the prime focus of our marketing strategy. Market access initiative can be achieved through a sustained brand building of Nepal tea. For this we should engage in the following activities:-

- Promotional campaign/advertising to create a symbiotic relationship between producers, buyers and consumers.
- Creation & posting of attractive websites.
- Visit of Nepal tea delegation for presentations in select countries such as UK, Germany, USA, Japan, Australia, Middle East etc.
- Promotional kit pack with tea samples for free distribution to tourists visiting Nepal.
o Participation in trade fair/food exhibitions.
  o Organize Seminars/Conventions in Kathmandu to generate publicity.
  o Interaction with Tea Association and Tea bodies across major importing countries.

**Concept for Creating a Distinct Identity for Nepal Tea**

- There is a need to create Legend reflecting character of Nepal Tea such as:
  - Delicate Flavor for Orthodox & Natural Liquoring for CTC.
  - Nepal Tea grown in the Himalayan Kingdom of Nepal.
  - The Shangri-La of all Teas.
- There is a need to make quality assessment of our exports
  - Taste every single invoice of Orthodox tea.
  - Report on Quality: Leaf, Liquor and Grade percentage.
  - Pinpoint manufacturing defect and assist in correction.
  - Provide to importers benchmark samples for CTC from Terai and Orthodox Tea from hill from every concerned tea estates.
  - Advice on packaging, sampling and dispatch policy.
  - Appoint agents on commission basis. This will help create inroads into new markets.
- Strategic alliance with major tea blenders and packers on long-term contracts.
- We need to make special efforts to promote sales:
  - Establish Auction Center at Kathmandu or appropriate location:
    - This will ensure that a larger cross section of international buyers get to see Nepal Teas.
    - It will create more competition amongst buyers.
    - Provide weekly benchmark/barometer price on a garden-to-garden basis.
  - Develop Niche market:
    - Develop value added niche products for home as well as overseas market.
    - Creation of an exotic brand, which should capture the spirit of Nepal.
    - Keep abreast with changing world markets and frame pricing policy in tune with quality/market trend.
  - Develop organic tea:
    The Nepali farm with virgin land and young tea plant can be turned into 'organic farms,' which can produce tea that can fetch a very good price and face tough competition - Nepal Tea could be identified as organic teas.
- Build distinct Nepali character:
  In view of claim likely to emerge from geographical indication under WTO regime, the Nepalese character of the tea is to be high lighted and reinforced. Towards this end, the sapling/clone from the old bush in Ilam should be propagated widely throughout the hill plantations in Nepal.
- Adherence of Code of Conduct (COC)
  The COC endorsed in the TEA EVENT 2004, in the presence of international buyers should be strictly observed in letter and spirit. This would automatically help to resolve the problem of MRL arising from
excessive use of pesticides and in some cases, chemical fertilizer. Such measures would create confidence building measures between our exporters and foreign buyers. Furthermore, Nepal should also make efforts to reap benefits from the system of Fair Trade Practice.

- **Certification:**
  A well-equipped scientific lab for testing of tea should be installed at various suitable places in order to confirm to the set norms and entrance quality of tea. This would help to generate reputation and trust worthiness. Efforts should also be made to get recognition/accreditation from internationally recognized certification agencies like NASA to undertake certification jobs in Nepal itself.

- **Role of Government:**
  HMG/N should adopt a policy to encourage and strengthen tea sector and particularly tea export by providing all the necessary facilities related to export such as postal service, custom, banking and infrastructures.

- **Establishment of Blending Plant**
  After separating leaf grade tea in the process of manufacture, the remnants that are smaller in size called 'broken' and 'fanning' are taken as by-product that fetch little price in local market. However, such by-products could fetch good prices in the US market, for usage as specialty tea. These could be made homogenous and upgraded in quality through blending. All producers of tea could benefit from such a blending plant.

To attain the above position of tea industry in Nepal in 2020, the following strategies need to be adopted:

1. Comprehensive training of farmers and enterprises in the areas of weed and pest control, environmental conservation, fertilizer application, pruning, tipping, plucking, plucking table management for the purpose of increasing unit productivity.
2. Training for management and other skills for managers and other personnel of tea estates and factories.
3. Research on clone development as per soil and climatic conditions and distribution of appropriate planting material to small farmers.
4. The provision of lab services for quality testing for all material inputs and finished products related to tea.
5. The development and maintenance of physical infrastructures- roads, bridges, and green leaf collection centers in the tea growing areas: tea blending centers and tea auction centre.
6. Provide support to small tea farmers for preparation of loan scheme and application and assist in the availing of credit from ADB/N and Commercial Banks.
7. Make coordinated efforts of FNCCI, Chamber of Commerce, Ministry of Commerce and Supply, HOTPA and NTPA to assist individual exporters and HIMCOOP for the marketing of Nepalese tea in the domestic and international markets.
8. In order to effectively carry out the above activities, it is proposed to create a new institution, which will be named Himalayan Tea Foundation (HTF) in the public-private partnership model. The proposed organizational structure is presented in ANEX 4.
This Concept Document on Tea Industry Vision 2020 is prepared based on the experience, available information, and secondary data only within a limited time and budget constraints. Therefore, it has been strongly realized that detailed information and data related to tea development has to be collected, analyzed, and summarized through actual field research and desk reviews in order to make a sound and realistic document, i.e. Tea Industry Vision 2020. Although quite a number of individual researchers, GOs, NGOs, INGOs and Donor Agencies have carried out tea development related studies in the past, however, a comprehensive analysis of the industry is still lacking. Therefore, it is recommended to formulate a comprehensive long term development plan for the sustainable tea industry in Nepal based on a rigorous, scientific and detailed research. The proposed study will cover the following objectives and methodology:

**Objectives**

A Comprehensive study will be carried out in the following areas to prepare a report on Nepal Tea Industry - Vision 2020:

1. To identify the suitable geographical areas for expanded tea cultivation and set production targets,
2. To study on cultivation practices (planting, pruning, irrigation, use of pesticides, fertilizer, plucking, processing etc) for the production of quality organic tea,
3. To develop human resource for the industry (managerial/technical/manual) and explore employment opportunities for rural women and unemployed poor,
4. To make a comprehensive study about financial requirements to meet the production targets for 2020 and about financing methods and credit facilities,
5. To study about the institutional and physical infrastructure development including R&D, certification facilities, and extension services required for the industry,
6. To study and develop policies and effective measures for the marketing and export of tea in national and international markets and set marketing targets and
7. To study existing tea enterprises (both plantation and processing) with a view to increase their productivity, improve quality and profitability.

**Methodology**

The methodology for the detailed study will basically include desk review and field study in order to collect primary and secondary data and information from different but related stakeholders. The desk review will be based on the secondary sources of data and publications gathered from the related government and non-governmental organizations. The field visits will be done covering all the tea growing districts of Nepal. However, a representative sample size will be determined by using appropriate sampling techniques. The tea growers (farmers and tea estates), processing units, tea packaging agencies, whole sellers and retailers, exporters and importers, credit supplying banks, NGOs and INGOs working in the promotion and strengthening of tea industry will be the main source of data and information. A set of semi-structured questionnaire will be developed and administered to the related stakeholders in order to collect primary data and information. In addition, the focus group discussion (one of the common tools of participatory research appraisal-
PRA) method will be employed in several places. Moreover, key informant survey and observation methods will also be employed to supplement the primary and secondary information.

The collected primary and secondary data and information will be coded and analyzed by using Statistical Package for Social Sciences (SPSS) and Excel.

An interdisciplinary research team will be formed to undertake this study. Furthermore, it is also envisaged that the team will make a study tour of India, Pakistan, Bangladesh, Sri Lanka, China, Germany, UK, and Kenya in order to assess the status of tea industry and also to explore marketing potential for Nepalese tea.
APPENDICES

APPENDIX - I

Brief Review of Tea Industry

A salient feature of the tea industry is summarized and reviewed under the following headings Historical, Economical, Environment and Tourism Development.

1.1 Historical perspective.

Beginning of tea cultivation in Nepal dates back to more than one and half century ago when Mr. Gajaraj Thapa (1862 A.D.), the Chief District Administrator of Ilam District and close relative of Jung Bahadur Rana, established the first tea garden. He used tea seedlings that were sent as gift from China (AEC, 2005). Thus, Ilam was the first place to have tea plantation carried out by the Government. However, tea industry did not grow continuously and remained stagnant for more than a century. It started growing only after the establishment of Nepal Tea Development Corporation (NTDC) in 1966, NTDC with the co-operation of Overseas Development Administration (ODA) started the out growers (small farmers) tea plantation scheme employing a large of small farmers in 1978. The, Private sector started tea cultivation in early sixties. The pioneer was the Budhkanar Tea Estate in Jhapa (1960). Tea plantation by private sector in the hills was started in the mid eighties only. Tea industry in Nepal was largely under the government domain until early nineties. After the liberalization of the economy the private sector began to invest in the tea industry sector. Within 1985 - 1999, major development in this sector has been the establishment of three new plantations and seven factories coming into operation. In 1985 His Majesty's the Government of Nepal (HMG/N) declared five districts viz. Jhapa, Ilam, Panchthar, Dhankuta and Terathum as tea zone. Further, in 1997 HMG/N decided to privatize the public sector NTDC of its tea plantations and factories. Now tea is grown around 15000 hectares of land to produce both Orthodox and CTC types of tea in the Terai (Jhapa) and nine hill districts of Eastern and Central Nepal namely, Ilam, Panchthar, Dhankuta, Sankhuwasabha, Terathum, Dolkha, Ramechap, Nuwakot and Sindhupalchok. Nepal has more than 85 tea estates, about 7000 small tea farmers. There are 13 orthodox and 23 CTC tea processing factories producing more than 11.6 million kg of tea (NTCDB, 2005). Land area used for tea cultivation is increasing by approximately 11% per year. At present, the 7000 small farmers supporting their 35,000 family members for their livelihoods produce 85% of tea. We have tremendous potentiality for the expansion of tea industry in Eastern Tarai and in the Hills. At the same time, there is an enormous scope of organic tea farming in Nepal. Thousands of hectares of virgin soils unspoiled by any chemical fertilizers are available and they are suitable for tea cultivation. Tea is a popular drink globally and Darjeeling Tea has earned a special name. The agro-climatic conditions of the Nepalese Eastern Himalayas are similar to the Indian tea producing areas such as Darjeeling and we could produce equally good quality tea with a distinctive flavor.

1.2 Economic Perspective.

Basically, we produce two types of tea - the CTC and the Orthodox. CTC and Orthodox are tea-manufacturing processes. The generic name of the plant is Camellia, whether it is CTC or Orthodox. Tea grown in lower altitudes is manufactured to produce CTC type and has strong colour. The strong colour of CTC tea is the main quality attribute for most of the domestic consumers and as a result, this tea accounts for more than 95% of total domestic consumption. Cultivation for producing CTC tea is confined to Jhapa District of the Terai region. As per the Government statistics, currently, Nepal is producing 10.06 million kg of CTC tea out of which
small farmers produce 28.6%. Land used for producing CTC type of tea is about 8323 hectares. Currently, 50 tea states, 668 small farmers and 23 tea-processing factories are engaged in CTC tea production in Nepal (NTCDB, 2005).

Tea grown in high altitudes is processed to produce Orthodox type. It has lighter colour better flavor and good aroma. In Nepal, Orthodox tea is exclusively made from processing leaves of hill grown tea bushes and therefore, it is known as hill tea. Nepalese Orthodox tea, which is produced at altitudes between 3000 - 7000 ft are famous for its aroma, bright liquor and subtle, slight fruity flavor, which are mostly sought attributes by the consumers of overseas countries. The total land area under orthodox tea plantation is around 6689 hectares, this industry consists of more than 35 tea states, around 7000 small farmers and about 13 tea-processing factories. Currently Nepal is producing more than 1.55 million kg of Orthodox tea of which small farmers' contribution amounts to 67.8% (NTCDB, 2005). More than 90% of orthodox tea is exported to India and overseas countries and the rest is partially used for consumption and partially for blending purpose in black tea to impart good flavor. The major hill districts for orthodox tea production are Ilam, Panchthar, Dhankuta, and Terathum. Tea is a high value, flavor intensive perennial crop with a potential for generating foreign exchange, reducing rural poverty, promoting economic growth and improving ecology and environment. It is also labor-intensive industry and provides moderately higher farm wage rate for the workers. The tea industry in Nepal provides employment to over 25000 workers with high participation of women. The industry involves 35% capital-intensive and 65% labor-intensive technology with a big scope to provide employment to rural masses (Dahal, 2005). In recent years, prices of tea has considerably scaled up, which is attributed to higher demand for tea in the world market. HMG/N has accorded top priority to commercialization of agriculture and development of high value crops as envisaged in the Agricultural Perspective Plan (APP). Tea has been considered one of the premier high value crops. The budget of fiscal year 2004/05 states that subsidy on the interest will be given to tea farming, which will be expanded to twelve districts. Tea industry has tremendous impact in rural economic development by empowering women and providing employment to huge mass of unemployed people.

Nepal's total annual demand is 7.8 million kg of made tea, which implies that average consumption per head per annum, comes to 350 gram. But the increasing per capita consumption shows big demand of CTC tea. India, at present, our main market. Approximately 1.5 million kg of CTC and 1.1 million kg of orthodox tea was exported to India in 2003-4. Though India herself produces large quantities of tea (about 850 million kg tea out of which 8 million kg is high grown orthodox tea), our neighboring country Pakistan is also a very big market for our tea. Last year, about 1 million kg (both orthodox and CTC) tea was exported to this country. Pakistan's 150 million populations consume approximately 140 million kg tea per year. Similarly, Bangladesh, which is now exporting tea will be an importing country very soon due to increased population and increased per capita consumption. In the year 2003 Nepal has exported 44 tons of orthodox tea to Germany, which is only 0.1% of its total import. India, China, Sri Lanka and Kenya are the major suppliers for Germany (Raush, 2004). There is a big market for orthodox tea in Germany, Japan and other EU countries. Pakistan and Gulf countries are potential market for CTC tea. Present statistics show that the world's annual production of high grown orthodox tea is about 10 million kg; while, the demand is approximately 50 million kg and growing considerably. This shows the ever-increasing demand of organic orthodox tea in world markets.

1.3 From the Perspective of Environment and Tourism Development.

The tea industry of Nepal is committed to the conservation of the environment. Every effort is made towards the preservation of the hills and the well being of its people. Tea is environment
friendly. It absorbs considerable amount of carbon dioxide from the environment and helps in reducing global warming. Tea roots penetrate deeply into the soils and conserve them. Eventually, it helps to stop soil erosion and landslides from the steep hills characteristic to most of Nepal. Tea plantation increases the scenic beauty of steep hills, which attracts many people for visiting this area. If we look across the border of our country, in Darjeeling, just because of tea, and environment, tourism has grown rapidly within the last 40 years. This indicates that tea plantation could help tourism development.

2. Enunciation of Problems of Tea Industry.
The problems of the industry are enunciated categorically in the context of marketing, finance, physical infrastructure, land, technical manpower, quality, research and development

2.1 Marketing Problem
Private Factory owners have now controlled the purchase of green leaves produced by small farmers. Till 1990, the NTDC used to be the monopolist buyer of green leaf. Moreover, green leaf is also exported to Darjeeling from Srijantu areas in Ilam District as it is not convenient to transport leaves to the factories located in Nepal. Generally, the tea processors in Jhapa district cartel the buying price of the green leaf. As the harvested green leaf can not be stored more than 10-12 hours, the tea planters without processing plants are forced to sell green leaf at the price set by the tea processing plants. Some inherent constraints, such as lack of transportation links, also limit planter's ability to reap out benefits of higher prices. It is very interesting to mention that some tea processing factories are having hard time to get raw materials as farmers adjoining these factories refuse to sell them because of the bad past records of the processors, who delay payment on the purchase of green leaves.

Globally, tea is sold through auctions. This process was adopted by NTDC when it was in the public sector. Now almost all the processors sell their products to the packers through negotiation. Some of the tea processors sell their made tea directly to the packers for blending and packing under their names. There are more than 250 registered tea packers in Kathmandu valley alone. It is a common practice that most of these packers import low quality tea from India and blend it with superior quality Nepalese tea. Generally the quality of tea being marketed in Nepal remains questionable, except a few popular brands marketed by well-established companies. It is found that tea packets are subjected to double tax system. Pricing of tea in Nepal is the function of the auction price of tea in Siliguri, India plus transportation up to the border plus the import duties in Nepal that varies from year to year.

We export our tea to USA, UK, Japan, Germany other EU countries, Pakistan and India. Indian exporters blend Nepalese tea and re-export to third countries. The imposition of quarantine checks has adversely affected export to India as the trucks carrying Nepalese tea are, at times, held for as long as 15 to 30 days at border points, which not only damage tea quality but seriously affects price. The time frame for selling tea has vital importance. First flush tea finds high rate in market if sold instantly after manufacture. If time lapse increases, its value goes down considerable. Same rule holds goods to second flush, rainy and autumnal flush teas. It is important that we devise a mechanism that will avert this situation.

2.2 Financial Problem.
For development of tea gardens:
Establishment of tea garden requires huge investment with long gestation period. Equity capital forms only a small portion of the total investment. The rest has to be raised through loans from the financial institutions. It has been found that the loans provided to tea gardens for the planting of
tea and its maintenance per unit of land is inadequate. A major strength of the Nepalese tea industry is the large number of small farmers associated with it. With the present financing available from the Agriculture Development Bank (the prime source for the financing of the tea plantation industry in Nepal), it is not encouraging for small tea farmers to take up tea cultivation. Most of the Tea planters have complained about the bureaucratic delays while availing credit facilities from the ADB/N. Interest rates are high, grace period provided are not enough. Despite its long history in tea financing, the ADB/N has not been able to establish well-designed procedures for loan sanctions & disbursement.

For processing of green leaves to produce black tea:

Only a few tea factories are financially sound. There is need to supply additional working capital and also provides credit to exporters. Banks, other than government owned have also started disbursing loan to the tea processing sector however, banks have not adopted a comprehensive financing policies requires for this industry.

2.3 Physical Infrastructure.

A major problem of the industry is lack of appropriate physical infrastructures. The more important ones are as follows:

Roads:

There are no all weather roads in the plantation area whether it is in the Tarai or Hill. This situation has created problems in transporting inputs in the processing units as well as carrying finished products to the market. Very often vehicles fall out side the roads or get stuck up in the muddy places, particularly in rainy seasons. Hills become very fragile in this season. Therefore all whether roads are required to be constructed in and around the plantation areas and processing units. In Ilam, there are two factories in Shri Antu VDC. All the input materials and finished Goods have to travel through Indian roads. This situation has created a serious problem to the industry.

Electricity:

In hills some of the factories are working without electricity. Therefore HMG/N has to take immediate action in this matter and provide electric power at subsidized rate.

Telecommunication:

Lack of telecommunication is a great problem in some factories in Ilam and other places. Business organizations can not run efficiently without communication.

Vehicles:

There is no rebate in customs duty in the purchase of mini Tata or other transporting vehicles and tractors, which are essential for carrying inputs and outputs to and from the processing units.

Land:

Although there are government lands suitable for tea cultivation in different VDCs of different districts, they are not easily obtained on lease as per Tea Policy by the small growers or big investors. Prospective investors have to go to different government organizations to get the permission to acquire the land on lease or otherwise and this entails delays and failures. HMG has to simplify the process and develop an easy way to handover such land to interested parties.

Irrigation:

Every tea plant needs water for its healthy growth. Irrigation is essential during early time of plantation and drought seasons. Therefore sufficient ways and means for irrigation needs to be adopted.

2.4 Human Resource & Technology Problem
There is not a single organization in the country which studies about the technical aspects of tea cultivation such as technical human resource development, clone development, disease, pesticide, fertilizer, and weed control management. NARC is the sole authority of all agricultural research in the country. However, tea is not included in its Research Programme. NTCDB has very limited number of technically trained manpower. Thus, the technical aspect of the tea industry has never received due consideration. Most of the manpower involved in tea planting and processing lacks proper technical training.

2.5 Quality problem.

In recent years, we are facing problem in exporting our tea to India due to pesticides and quarantine checks. More importantly, last year third country importers have detected pesticide residues in our tea. European Tea Committee and German Tea Council have been strictly observing the norms of MRL (Minimum Residue Level). Our teas were found to be grown with the use of pesticides like Ethion, Monocrotophos, Phorate and Quinalphos, which are banned insecticides. Since our tea growers regularly use these chemicals, the orthodox tea industry has started losing good markets. The injudicious and improper application of chemical pesticides have resulted in several problems such as resistance to pesticides, resurgence of pests, toxic residues in soil, water, air, and food stuff, elimination of natural pest enemies, disruption of tea quality and agro bio-systems. Such practices have resulted in nutritional deficiencies of crops in the tea production areas as well. We have to move forward to organic tea production, which has tremendous demand and higher price in the present world market. The main objective of organic tea farming is to maintain eco-friendly environment for better human health, to produce high quality tea and to use locally available bio-pesticidal plant materials like Neem, Trichoderma sps, Bacillus thuringiensis etc. Similarly use of organic fertilizers like compost and green manures has to be adopted. Nowadays, the ever increasing prices of chemical fertilizer and pesticides have increased the cost of production of tea. Therefore, we have to go for sustainable organic farming by using locally available resources.

Other reasons relating to quality deterioration in our tea is related to over plucking. Most of the small growers and tea estate owners pluck more than four to five leaves and a bud to obtain more quantity. In fact, plucking two leaves and a bud is most appropriate for making good quality tea. Factories are also not serious about good manufacturing practices. Good sanitary condition is required in the tea processing units for producing quality tea. Factory workers who are supposed to use clean apron, mask, cap etc. do not use them.

2.6 Code of Conduct

The adoption of Code of Conduct is a commitment to quality and a big step forward in marketing of our tea in the international market. Our tea must compete in quality in the global market. With this in view, members of Himalayan Orthodox Tea Producers Association (HOTPA) have made a commitment to quality by signing a Code of Conduct in November 19, 2004. The Code of Conduct covers all the points mentioned above about quality. Members are required to stick to good agriculture practices such as, maintaining the ecology of the area, following good manufacturing practices, following guidelines on food sanitation (photo-sanitary or Plant hygiene rules) developed by FAO, respecting employment standards by providing equal opportunity irrespective of gender, color, religion, culture, social status, or disability etc. Hence, this is also a strategic plan of action for quality assurance and market development. There is an immediate requirement of research and development activities for increased production, productivity and quality improvement.

2.7 Technology and Extension Services
HOTPA carried out Training of Trainers (TOT) Programme in the year 2001/2002 and 2003/04 supported by National Tea Crop Development Global Alliance (NTCDGA) and large numbers of farmers received technical knowledge on tea cultivation and agronomy from this program. It has also been carrying out Himalayan Tea Technology Outreach and Extension Project (HIMTEX) with the support of JICA to help farmers for increasing production and improving the quality of their green tea. Future strategic plan of action incorporating such trainings will be valuable to the farmers to increase production, productivity and quality.

2.8 Research and Development

In order to improve production, productivity and quality of tea field based research and laboratory based research is essential. Research in the following disciplines is essential for the overall development of tea industry:

(a) Agronomy,
(b) Entomology,
(c) Plant,
(d) Physiology and Propagation,
(e) Plant pathology,
(f) Plant Breeding,
(g) Soil and Plant Nutrition,
(h) Biochemistry and
(i) Technology of tea processing.

Although establishment of tea research laboratory is capital intensive, but it pays in the long run. Quality checking for quarantine, pesticides and other related tests necessary for export can be carried out in the same laboratory.

3. Review of Institutional and Physical Infrastructures for Growth and Development of Tea

3.1 Institutions-

There are a number of institutions working for the development of tea industry in Nepal. The National Tea and Coffee Development Board (NTCDB) was established as per the NTCDB Act, 1992 with the objective of overall development of tea and coffee industry. Towards this and, NTCDB's objectives would be as follow:

- To develop policies and implement them for the development of tea and coffee industry in such areas as production, processing, marketing, management and import and export.
- To identify problems related to the development of the tea and coffee industry and find out ways to solve them.
- To assist in the supply of materials necessary for tea and coffee plantation and processing.
- To establish and operate training and research centers for people engaged and to provide technical assistance to farmers and processing units.
- To undertake necessary studies related to the development of tea and coffee industry.
- To coordinate with different agencies working in the field of tea and coffee.
- To assist enterprises involved in the tea and coffee industry.

In spite of the rather ambitious objectives set for the Board, its delivery has been severely hampered by the lack of resources (both financial and human). It has however played a useful role by developing nursery and supplying nursery plants and cuttings for farmers at reasonable rates in Ilam, Panchthar, Tehrathum and Dhankuta Districts.

His Majesty's Government has approved and implemented National Tea Policy 2057 (2000) based on NTCDB Act 2049 (1992) for the development of tea as a reliable source of employment,
income and of foreign exchange earnings through the active participation and promotion of private sector. There are some other non-governmental organizations involved to support production and trade. Nepal Tea Association (NTA) is an association of tea packagers and exporters; Nepal Tea Producers Association (NTPA) is an association of CTC tea producers; Himalayan Orthodox Tea Producers Association-Nepal (HOTPA) is an association of orthodox tea producers. Local farmers associations have also been formed to support them in their enterprises. The objective of all these associations is to enhance super quality tea production and promote domestic and international markets. There is also a group of tea alliance partners to develop and promote orthodox tea called as Nepal Tree Crop Global Development Alliance (TCGDA) which consist of members from NTCDB, AEC/FNCCI, Winrock International, JICA, GTZ, and HOTPA.

3.2 Physical Infrastructures and Land
The Nepalese tea industry also suffers from poor physical infrastructures. Lack of proper infrastructure is also one of the problems faced by tea plantations. Many rivers, rivulets, brooks are without bridges and this poses problem for transporting green leaves to the processing factories during the monsoon season, which coincidently, happens to be the major green leaf-harvesting season. In the hills, almost all the tea growers are small farms, which are devoid of roads and telephone. This hinders not only to smooth delivery of green leaves to factory but also create a problem for input supply. Electricity is another problem and there are factories without electricity. Vehicles, in particular, tractors are needed for transporting green leaves, wood, coal and other inputs but roads are difficult and fragile. Sometimes in the rainy seasons, vehicles can not be used due to landslide, muddy roads etc; therefore even side roads need to be black top in the tea growing areas. Tea processors and small growers have since a long time been requesting for customs duties rebate in vehicle purchases but without any success. However, such a system of giving rebates exists in other countries. Land ceiling for tea cultivation deters big investment in this sector. Large scale investment has become necessary to modernize and bring professional management in this sector. Similarly, the open border between India and Nepal, labor disturbances during peak plucking season, rising price of land, lack of consistent policy, and the poor implementation of existing policies are the other problems of tea industry.

4. Review of Existing Policies Related to Tea Sub Sector
National Tea Policy B.S. 2057 (2000 A.D.) spells out some major incentive packages and commitments for the existing and potential stakeholders in commercial tea development. Emphasis has been given to restructure the composition and functioning of the Tea Board with more participation of the private sector stakeholders. Some of the major incentives include:

- Priority lending, principle repayment and interest payment schedule facilitation.
- Rebate on the land registration tax.
- Up to 50 year's lease prospect of government land for tea cultivation.
- Creation of tea development fund.
- Introduction of cess (service fee) to manufactures and traders (importers/exporters)
- Establishment of research and training institute in collaboration with private sector.
- Incentives to ancillary industries.
- Some export promotion activity supports.

National Tea Policy 2000 has defined a clear cut vision for the development, expansion and strengthening of Nepal Tea Industry. This industry comes under the aegis of Ministry of Agriculture and Cooperatives and is equally related with the Ministry of Finance, Ministry of Forest, Ministry of Land Reform and Ministry of Commerce, Industry and Supply. Article 4.7 (reform in legal structure) of the tea policy should come in practice immediately. This will ensure
equal participation of the private sector in policy formulation and decision making. The policy was enunciated, adopted and implemented by the then Government. However, owing to the frequent changes in government and consequently in the leadership of bureaucracy, the National Tea Policy 2000 seems to have been lost along the way. Thus it is necessary to review and update this policy periodically by the concerned authorities both in the private and public sectors and implement it effectively for the healthy development of the industry. In summary, it can be stated that the government and concerned agencies should give top priority to the implementation of this policy.

5. Review of financing mechanism.
The source of financing in the tea sector is made up of equity from the promoter in the form of land and cash and loans from Banks. While working capital loans for factory operation and export are also available from commercials banks, the major source of loan for development of tea plantation and for the establishment of processing units for both large estates and small farmers is the Agriculture Development Bank (ADB/N). The total exposure of the ADB/N in the tea sub-sector is as follow:

- Principal Outstanding Rs 62 cores.
- Interest Outstanding Rs 26 cores

Although the sector has a promising future, its financial performance has been weak and most borrowers have not been able to pay interest and principals on their borrowed money. Out of the total outstanding loans (Principal), Rs.34 cores are invested in large tea estates and factories and Rs.28 cores are invested in small farms. During the initial stage, when HMG/N adopted a policy of promoting tea plantation in the declared tea areas Jhapa, Ilam, Panchthar, Terhathum and Dhankutta (in 1983), HMG/N even provided interest subsidy on loans of up to 50%. Loans were available to farmers and planters for as low as 3% interest per annum. However, the subsidy was removed after the restoration of democracy and the adoption of literal economic policy in 1990. However, tea was placed as priority sector lending item with reduced interest rate. The current financing policy of ADB/N in the tea sub-sector is as follows:-

- Loan for cultivation is between Rs 7500- Rs 8500 per ropani or Rs.150000 to Rs.170000 per hectare (1 hectare is 20 ropanis).
- Interest rate is 10% per annum, however if the borrower would pay interest on a monthly basis, he/she would get a rebate of 1.5% and thus interest rate would be only 8.5% Grace period is 6 years (no principle repayment in the first 6 years)
- The accumulated simple interest of 6 years would be amortized over the next 3 years.
- Loan period for tea plantation is 15 years

Most of the processing units have borrowed money for establishment of their factories and working capital requirement from ADB/N. The Bank provides loans up to 80% of the fixed asset cost of the factory. The loan period is generally for 7 years and a grace period of one year is provided for the repayment of principal. The current interest rate for loans in this category is also 10% per annum. Working capital loans and export credit based on letter of credit (L/C) are made available by Commercial Banks also. Since most buyers do not open L/C, it would be good if exporters could obtain cash against shipping documents (CAD) as this is also a practice followed in India and Sri Lanka for tea exporters.

6. Problems of financing policy and mechanism.
Although the ADB/N financing guidelines from the head office to their field offices state that the loan per ropani would be between Rs 7500 to Rs. 8500 per ropani (1 hectare is 20 ropanies), in reality, the farmers are receiving loans from Rs. 3000 to Rs. 5 thousand per ropani from their field offices. This loan amount is inadequate and thus many small farmers are discouraged to cultivate tea in place of their traditional crops such as maize, paddy and wheat etc. As the actual required money for tea plantation would be above Rs. 12000 per ropani, the Bank should provide 80% of this requirement and so should provide a minimum of Rs. 9600 loan per ropani of cultivation. Since tea plantation has a long gestation period (it takes seven years for a tea plant to give full production) it should be given a confessional credit facility and the loans available per ropani/hectare of land should be augmented to the tune of Rs. 9600 per ropani or Rs. 19,200 per hectare as mentioned above. The ADB/N is the only agency for providing financial support to this sector. In view of the fact that ADB/N has not been able to recover its past loans, it has adopted a very cautious approach to providing more loans in this sector.

Thus, if ADB/N is not given additional funds to invest in this sector through a special funding arrangement, it would not be able to provide additional investment in this sector. In view of the above, there is need to establish a special mechanism for the financing of the tea industry in the form of a Tea Development Fund or the establishment of a Tea Development Bank. The establishment of such a Fund or Bank would infuse additional funding for the sector and would automatically provide a mechanism that would enable a continuous monitoring of the development and growth of the industry including the revival of financially weak units.

7. Possible strategies to ride over existing problems in marketing.

The tea market is characterized by complexity and uncertainty; more so, because of globalization and the use of information technology resulting in intense competition. While talking about export of Nepal tea, mention has to be made about the unique location of Nepal, sandwiched between not only two great neighbors: China and India, but between two giant producers/exporters of tea. Till a few decades ago, Nepal entirely depended on India for its domestic requirement of CTC tea but now, the situation has changed. At present, Nepal produces 10.06 million kg CTC tea and exports 2.5 million kg to India and Pakistan. Nepal also produces orthodox tea to the tune of 1.6 million kg, 95% of which is exported to overseas country including India. Nepal tea has great potential as it has demand in international market at par with Darjeeling tea.

Orthodox tea seems to have good prospects in the international market. According to one estimate, the world demand for it is estimated to be about 52 million kg where as the production, so far, remains at about 10 million kg. Bulk of the production of orthodox tea is from India and to some extent from Nepal. It is to be noted that despite many similarities with Darjeeling in terms of soil, altitudes and climate, Nepali tea has assumed its own character and uniqueness. On top of that, the virgin soil and young plants in Nepal add to the quality of its tea.

Many Nepalese exporters have been exporting their teas on the basis of individual contact and understanding. This has led to lack of pertinent information sharing among exporters, low price, duplication of work etc. Besides, this kind of marketing effort has not contributed significantly to establish and make a distinct identity for Nepalese Tea. Another lacuna in marketing is lack of auction facility in Nepal. In the absence of this facility, grading on the basis of quality and price can not be done.

Two years ago, the tea exporters and other members of HOTPA have established Himalayan Tea Producers Co-operative Limited (HIMCOOP) a marketing co-operative, with the objectives of promoting export of orthodox tea in international market. It is already engaged in developing a network of importers, sending tea samples, fixation of price and providing other necessary
assistance by charging nominal fees to the exporters. Last year, it was instrumental in exporting 34,896 kg orthodox tea amounting Rs. 17,306,764 to overseas markets. Lot of improvement is required in tea plantation and processing in order to fully realize the specific character of Nepalese tea. Above all, indiscriminate use of chemical fertilizer and pesticide has to be effectively controlled. In the long run, Nepal should produce organic tea. 'Organic' and 'Nepal Tea' could be and should be synonymous.

APPENDIX - 2
PRESENT SITUATION AND FUTURE POSSIBILITIES OF TEA CULTIVATION

Table 1
Group A
Jhapa & Morang
Plantation Estimation in Hectares

<table>
<thead>
<tr>
<th>District</th>
<th>Present Scenario</th>
<th>Additional Cultivation</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1st 5 yrs.</td>
<td>2nd 5 yrs.</td>
</tr>
<tr>
<td>Jhapa</td>
<td>8000</td>
<td>1000</td>
<td>2000</td>
</tr>
<tr>
<td>Morang</td>
<td>50</td>
<td>400</td>
<td>1000</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Annual Production estimated in Million Kg.

<table>
<thead>
<tr>
<th>District</th>
<th>Present Scenario</th>
<th>1st 5 years</th>
<th>2nd 5 years</th>
<th>3rd 5 years</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jhapa</td>
<td>10.1</td>
<td>1.5</td>
<td>3.0</td>
<td>2.40</td>
<td>18.9</td>
</tr>
<tr>
<td>Morang</td>
<td>Negligible</td>
<td>0.675</td>
<td>1.50</td>
<td>1.425</td>
<td>3.6</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>22.5</td>
</tr>
</tbody>
</table>

Group B

Plantation and production estimated as on 2020
Ilam, Panchthar, Teh Rathum & Dhankuta
Area - Hectares: Production-Million kg

<table>
<thead>
<tr>
<th>District</th>
<th>Existing</th>
<th>1st 5 yrs.</th>
<th>2nd 5 yrs.</th>
<th>3rd 5 yrs.</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Area</td>
<td>Factory</td>
<td>production</td>
<td></td>
<td>Area</td>
</tr>
<tr>
<td>Ilam</td>
<td>4000</td>
<td>11</td>
<td>1000</td>
<td>3000</td>
<td>2000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

20
<table>
<thead>
<tr>
<th>District</th>
<th>Activities 1st five years</th>
<th>Plantation 2nd five years</th>
<th>Plantation 3rd five years</th>
<th>Factories</th>
<th>Total Area Cultivation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Panchthar</td>
<td></td>
<td>1000</td>
<td>1000</td>
<td>2000</td>
<td>6000</td>
</tr>
<tr>
<td>Tehratum</td>
<td></td>
<td>100</td>
<td>500</td>
<td>1000</td>
<td>3600</td>
</tr>
<tr>
<td>Dhankutta</td>
<td></td>
<td>300</td>
<td>500</td>
<td>1000</td>
<td>3800</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2340</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>23.4</td>
</tr>
</tbody>
</table>

Group C

<table>
<thead>
<tr>
<th>District</th>
<th>Activities</th>
<th>Plantation 2nd five years</th>
<th>Plantation 3rd five years</th>
<th>Factories</th>
<th>Total Area Cultivation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taplejung</td>
<td>Feasibility study</td>
<td>500</td>
<td>1000</td>
<td>3</td>
<td>1500</td>
</tr>
<tr>
<td>Nuwakot</td>
<td>Motivation</td>
<td>1000</td>
<td>2000</td>
<td>6</td>
<td>3000</td>
</tr>
<tr>
<td>Sindhulchowan</td>
<td>Demonstration visits</td>
<td>500</td>
<td>1000</td>
<td>3</td>
<td>1500</td>
</tr>
<tr>
<td>Dolakha</td>
<td></td>
<td>1000</td>
<td>2000</td>
<td>3</td>
<td>3000</td>
</tr>
<tr>
<td>Ramechap</td>
<td></td>
<td>500</td>
<td>1000</td>
<td>3</td>
<td>1500</td>
</tr>
<tr>
<td>Sankhuwasabha</td>
<td></td>
<td>1000</td>
<td>2000</td>
<td>3</td>
<td>3000</td>
</tr>
<tr>
<td>Bhojpur</td>
<td></td>
<td>500</td>
<td>1000</td>
<td>3</td>
<td>1500</td>
</tr>
<tr>
<td>Gorkha</td>
<td></td>
<td>500</td>
<td>1000</td>
<td>3</td>
<td>1500</td>
</tr>
<tr>
<td>Kaski</td>
<td></td>
<td>500</td>
<td>1000</td>
<td>3</td>
<td>1500</td>
</tr>
<tr>
<td>Solukhumbu</td>
<td></td>
<td>500</td>
<td>1000</td>
<td>3</td>
<td>1500</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td>36</td>
<td>19500</td>
</tr>
</tbody>
</table>

Group D'

| Districts               | Activities 1st 5 Yrs.       | Plantation 2nd 5 Yrs. | Plantation 3rd 5 Yrs. | Factories | Total Hectares of plantation |
|-------------------------|----------------------------|-----------------------|-----------------------|-----------|-----------------------------
| Okkaldunga              | Detailed feasibility      | 200                   | 500                   | 2         | 700                       |
| Kavrepalanchowk         | Motivation                 | 200                   | 500                   | 2         | 700                       |
| Sindhuli                | Training                   | 200                   | 500                   | 2         | 700                       |
| Makwanpur               | Establishment of           | 200                   | 500                   | 2         | 700                       |
| Dhading                 | Demonstration plot         | 200                   | 500                   | 2         | 700                       |
| Rashwa                  |                            | 200                   | 500                   | 2         | 700                       |
| Khotang                 |                            | 200                   | 500                   | 2         | 700                       |
| **Total**               |                            |                       |                       | **14**    | **4900**                 |

From a total of 4900 hectares of plantation, about 2000 hectares will be matured by 2020 and 2 Million kg made tea will be produced. From the above analysis, the statistics of production from the 4 groups will be as follow:

Group A production: 22.5 million
Group B production: 23.2 million
Group C production: 7.00 million
Group D production: 2.00 million

Total Tea production in 2020: 54.7 Million kg
CTC: 22.5 Million kg
Orthodox: 32.2 Million kg

Total area under tea will be 62800 hectares within the next 15 years. Infrastructures will be developed for an expansion of about 150 thousand hectares of plantation Total Orthodox tea plantation cost would be Rs15,678 million.
CTC plantation cost would be Rs. 1360 million.

240 factories will be required by 2020. Additional cost for factories will be 5050 Million @ Rs. 25 million per factory for 202 new factories. Total plantation and factory installation cost will be Rs 27,138 million for the next 15 years.
The new plantation gets into maturity by 2027 and the production of made tea will be 6908 million kg. per annum. This production is estimated on the basis of: 1000 kg made orthodox tea and 1500 kg CTC tea per hectares of tea cultivation.

Estimated sales revenue and other indicators by 2020
CTC average sales price: Rs 125 per kg.
Total sales of CTC tea will be Rs. 2812 Million per annum.
Orthodox tea average price: Rs. 350 per kg
Total sales will be Rs. 11270 million per annum.

Direct employment in plantation will be 157000 people indirect employment in and outside the farm area also is equally important for inputs supply and distribution. The employment in these areas will be more than those in the directly employed fields.
The following draft polices and strategies are proposed as an indicator of the Vision 2020 of Tea Industry in Nepal. A detailed study will be needed to identify the time frame and respective indicators.

### Policies and Strategies needed for tea industry-vision 2020

<table>
<thead>
<tr>
<th>Policy</th>
<th>Strategy</th>
<th>Responsible Agencies</th>
<th>Risk and Uncertainty</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Development of tea industry as an important income-generating sector in the designated tea-producing districts.</td>
<td>1.1 Studying the credit requirement of small tea growing farmer and tea estates. 1.2 provision of loan to buy land and to establish the tea gardens in a nominal interest rate with long grace period. 1.3 Encourage the banks other than ADB/N to invest in tea cultivation. 1.4 Establishment of cooperative tea processing factory with public and private involvement. 1.5 Develop an institution to fix</td>
<td>NTCDB, ADB/N, MOA, AEC, NTA, NTPA, HOTPA</td>
<td>Climatic state of adversity, of country</td>
</tr>
<tr>
<td>Objective</td>
<td>Actions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------</td>
<td>---------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Establish separate Bank/setting up of a Tea Development Fund for tea cultivation and its trade promotion.</td>
<td>NTCDB, MOA, AEC, NTA, NTPA, HOTPA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. To reduce the existing poverty to less than 10% in tea growing region.</td>
<td>2.1. More numbers of small farmers should be encouraged for tea cultivation. 2.2 Increased involvement of women in tea plucking.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. To produce more than 32 million kg of organic orthodox tea and 22 million kg of CTC tea annually by 2020.</td>
<td>3.1 Expanding of tea plantation area especially in hill region for organic orthodox tea. 3.2 Use of organic manures, botanical pesticides and IPM techniques for disease and pest</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Pest, disease and climatic misfortune.
| 3.3 Proper use of fallow land in hill area. 3.4 Study of proper marketing mechanism of made tea. |
|---|---|
| **4. Development of the whole tea-growing region as a tourism area.** |
| 4.1 Avoiding hazardous pesticide & herbicide use. 4.2 Increase shade plantation. 4.3 Developing roads, transportation, electricity & communication facilities through out the tea areas. | NTCDB, MOA, AEC, NTA, NTPA, HOTPA, Nepal tourism board. |
| **5. Import substitution(export promotion)** |
| 5.1 Reducing import of tea from India by producing quality tea domestically. 5.2 Protecting the Nepalese tea industries through appropriate tariff barrier in harmony with WTO code. 5.3 Provide adequate services for the promotion of tea in the international | HMG/N, NTCDB |
| 5.4 | Development of proper government policy in exporting tea. |
| 5.5 | Participation in national and international trade fair for the promotion of tea export |
| 5.6 | Establishment of auction center for Nepalese tea in Nepal. |

| 6. | Institutional and policy development |
| 6.1 | Establishment of training and research institute with the involvement of private sector for the development of skilled manpower. |
| 6.2 | Development of suitable clone in adequate amount. |
| 6.3 | Amendment of NTCDB Act with a view to make it an effective body for |

NTCDB, IAAS, NARC, MOA, HOTPA
APPENDIX - 4
THE BOARD OF HTF

The Board of HTF will have the followings Members:

1. Government appointee from amongst eminent business persons with tea background.......................................................... Chairperson
2. Secretary, Ministry of Agriculture.............................................Vice-Chairperson
3. General Manager of ADB/N..................................................Member
4. Dean of IAAS (Institute of Agriculture & Animal science)..........Member
5. Executive Director, NARC.....................................................Member
6. Chairman, HOTPA.............................................................Member
7. Representative of Donor involved in Tea Industry (DFID, JICA, GTZ, USAID) Member
8. Chairman NTPA.................................................................Member
9. Executive Director, NTCDB..................................................Member
10. Representative of World Bank / ADB.................................Member
11. Executive Director, HTF ....................................................Member

The Executive Director of HTF will be appointed by the Board of HTF through open competition from amongst people with tea background.

Funding for the activities of HTF will be made up of:
A. Annual contribution from HMG/N
B. The funds collected by the Tea Development Fund as per Nepal tea policy
C. Annual contribution from HOTPA, NTPA and ADB/N
D. Donor agencies - governments, multilateral agencies & INGOs
E. Donations and grant from Charitable Institutions
F. Others

The HTF will establish three Autonomous Bodies to conduct field activities from 3 different locations:

1. Jhapa Tea Development & Research Center will conduct all the activities related to tea development mentioned above including research needed for the development of CTC tea in Jhapa, Morang and other CTC regions. It is proposed to locate this centre in the Burnie tea estate area utilizing the vacant land not utilized for tea cultivation so far by NTDC (now in the private sector).

2. The Dhankutta Center would concentrate on serving the needs of orthodox tea development in Koshi and Mechi Zones. It will also utilize the training capacity and facilities of Uttarpani Technical Institute to train Tea Junior Technical Assistants (JTA) and also tea farmers
3. The Jiri Center will also be established at Jiri in Dolakha district to serve the needs of orthodox tea in the regions west of Koshi Zone. It will also use the capacity of Jiri Technical Institute to train JTAs and farmers. The HTF will provide the financing to establish and operate these Centres. The centers will have their own Boards and they will operate Autonomously.

APPENDIX - 5

Code of Conduct
For
Orthodox Tea Producers and Exporters of Nepal

1. Introduction
The production and export of Orthodox Tea is an important part of Nepal's economy. It generates sustainable income for farmers, creates employment for rural women, promotes a balanced ecosystem and earns Nepal foreign currency. Because of Nepal's unique bio-diversity and the fact that much of the country's orthodox tea is cultivated organically, the future of this industry in Nepal is bright. It is the sincere desire of those involved in the commercial development of these industries to establish a common and transparent set of standards for all business participating in the production and export of orthodox tea from Nepal. This set of standards which pertain to business ethics, core values and good business practice, is embodied in the Code of Conduct.

The purpose of this Code of Conduct is two fold: to constantly adopt a high set of standards in business practice for its members and secondly, to protect and develop the reputation of the Nepalese Orthodox Tea industry in the national and International market place.

2. Standards
Ethical principles: All members agree to conduct their business according to a set of ethical standards, which include but are not limited to honesty, integrity, trustworthiness and the respect for the unique and intrinsic value of each human being.

Honoring Contractual and Legal Obligations: Members will abide by the spirit and the letter of all legally binding agreements including contracts, invoices, insurances and shipping documents.

Respect for the Ecology: The long term preservation of the biodiversity of Nepal and its producing areas is important to all members.

- Recognizing this, no pesticides will be used on any of the tea gardens owned or operated by members, which do not confirm to the standards set by the importing countries.
- Similarly no exporter will knowingly export tea which does not meet the minimum standards of the importing countries.
- Members will promote, with their grower the use of recommended fertilizers and inputs in keeping with the maintenance of the ecology of the area.
1. Employment standards:
   - All members shall be equal opportunity employers and shall not discriminate in hiring or treating their employees according to their gender, color, religion, culture, social status, or disability.
   - Similarly all members agree that no member shall employ child labor.

Quality Standards: Recognizing that Quality is the hallmark of a truly successful enterprise.
   - All members that have tea gardens will maintain good agricultural practices that are keeping with the maintenance of the ecology of the area.
   - All tea producers that are purchasing green leaf from small growers will publish guidelines on the use of permitted inputs and will regularly inspect these growers for compliance with these guidelines. Members will not knowingly purchase from any grower found to be in breach of these guidelines.
   - All members having processing factories will maintain standard operating procedure or good manufacturing practices.
   - All members will strictly follow the guidelines on food sanitation (phyto-sanitary rules) developed by F.A.O.
   - All members will ensure that all product samples sent to prospective buyers are truly representative of the correspondingly dispatched consignments.
   - All members who are exporters will not knowingly purchase tea from any source that is in breach of the above mentioned guidelines for tea growers.

3. Compliances:
   - This code of conduct shall be displayed in a prominent location of the members head office so that both employees and business dealing with the member are aware of the code's content.
   - This code will also be attached to all significant business documents of the member, the procedure for doing so is clear and explicit.
   - Should anyone wish to challenge the conduct of a member, they may do so in writing, by addressing to the secretariat Himalayan Orthodox Tea Producers Association (HOTPA).
   - Challenges will be immediately acknowledged and investigated within 30 working days of the receiving notification.
   - All serious challenges will be adjudged by a three person ad-hoc compliance committee, appointed by the Code's steering committee. To ensure objectivity, all pertinent investigations will be outsourced by the compliance committee to a reputable consulting firm, which will compile a dossier with relevant statements of the parties concerned and with supporting evidence. The recommendation of this firm shall under normal circumstances be binding for the compliance committee.
   - All challenges will be kept in the strictest of confidentiality to protect both the claimant and the member, until such time as the compliance committee has made its decision.
   - If the challenge is found to be substantiated disciplinary action will be taken by the steering committee to protect the integrity and reputation of the tea industry of Nepal. Such sanctions may include the cancellation of membership and the publishing of the compliance committee's decision.
APPENDIX - 6
REFERENCES


