EUROPEAN ACADEMIC RESEARCH
Vol. IV, Issue 6/ September 2016

Impact Factor: 3.4546 (UIF)
DRJI Value: 5.9 (B+)

ISSN 2286-4822
www.euacademic.org

Tea cultivation in Pakistan: problems and future prospects

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Abstract:

Tea is one of the most important and consumable beverage of Pakistan after water. Tea as a beverage is highly consumed in Pakistan but tea produced at country is not sufficient to meet demand of population which makes Pakistan second major tea importer in the world. This paper covers constraints of tea cultivation in Pakistan at farm level. Tea production in Pakistan is limited by various factors which are mainly associated with economic constrains, adverse climatic conditions, poor soil fertility, adapic problems regarding soil pH, shortage of irrigation water, less rainfall, high temperature and poor literacy levels of farmers. Another most important factor is lack of tea processing units in potential tea growing areas and lack of tea selling market. One of the most important factors which strongly discourage tea cultivation is the existing cropping system of the potential tea growing areas. It is too difficult to introduce a new crop in existing cropping system because most of the farmers grow vegetable and are reluctant to cultivate tea on their field. The reasons is, that tea is a perennial crop which starts production after five years. The

farmers have small land holding thus they prefer to grow annuls crops. In order to realize the dream of tea self-sufficiency in tea production, government should facilitate farmers regarding installation of tea processing units, cash incentive for initial five years, provision of high yielding tea varieties, improved nursery, fertilizer at subsidized rate, and focusing on marginal lands in potential tea growing areas. In this regard government needs to play a strong role through extension services and farmer facilitation.

Key words: tea cultivation, Pakistan, problems, future prospects

INTRODUCTION

Pakistan is the second largest tea importer of the world with nearly 175 million kg of annual consumption, costing an estimated $500 million, and increasing at about 4% a year. It imports tea from 21 countries, which mainly includes Kenya, Bangladesh and Sri Lanka. The country's green tea requirements are met by imports from five countries led by Indonesia and Vietnam. Only a small fraction of Pakistan's tea imports come from India (NTRI 1999).

Tea (Camellia Sinensis) production is limited by various climatic factors which mainly includes rainfall, temperature, soil quality and pH. These factors have limited tea production in Pakistan. The climatic conditions in Northern areas of Pakistan is suitable for tea cultivation, and the Hazara regains is have provided the required soil and drainage conditions. The Hazara Division having total area of 18,013 km² exposed to moist winds from the Arabian Sea, which makes it the wettest part of Pakistan. Annual rainfall in Hazara Division averages around 1,200 to 1800 millimetres annually. Temperatures in Hazara Division in winter is around 0 °C (32 °F) and in summer its maximum average temperature is 32^0C (Amin, 1998).

The climatic conditions in Hazara Division are suitable for tea cultivation but due small land holding, poverty and no government incentives tea cultivation is limited. For this bankers and processors should arrange credit for at least 5 to 7 years so that the growers can finance the tea cultivation operations easily at least in the initial stages. Government should encourage growers to expand tea cultivation on an area of 150,000 acres in the districts of Mansehra and Swat already identified by the experts.

The essential Policy packages for promoting the tea cultivation to its potential level includes distribution of quality nursery, fertilizers, tea processing units etc should be backed by proper policy package and regulations. Nothing can be more important than availability of irrigation water in adequate volume, reliably and at proper time. It requires improvement in water storage capacities, efficient, equitable, and reliable allocation system on the part of Government. On the other hand, to harvest more tea per drops of water, farming community lacks know how and use of modern water management techniques for efficient utilization and proper conservation of water. Policies targeting the crop specific education and training to farmers would be able to change the present scenario (FAO 2003).

Keeping in view all above, it can be concluded that though it may be difficult to increase more area under wheat cultivation, it is possible to improve the input use behavior of the farming community in order to get the potential harvest. By equipping the farming community with modern tools and know how, it is possible to tap the unachieved potential of wheat crop from the same croplands.

FACTORS EFFECTING TEA PRODUCTION IN PAKISTAN

1. Climatic Factors

Climatic is one of the most important factors which has limited tea production in Pakistan. Climate is a natural factor and nothing can be done about the climate. Low rainfall and heat affect productivity of tea. All the key informants also indicated that adverse weather reduces yield significantly. Climatically, tea belongs to the monsoon lands where high temperatures, long growing season and heavy rainfall help the growth of tea plants. A temperature of 21°C during the growing season of not less than eight months is ideal (Rauf, 1991).

Warm summers and frequent rains promote rapid leaf reproduction and increase the number of annual pickings. During the cool season, e.g., in China and Japan, the tea bushes lie dormant and there is no picking but where growth is not restricted by a distinct season, as in Sri Lanka, picking can be carried out all the year round. In India and Bangladesh, the highest yields are obtained from June to September when the weather is hot and rainy, but the best quality tea is derived from the earlier and later pickings when the climate is cooler and drier.

2. Soil factors

Tea plant cannot be grown on every soil. Slightly acidic soils without calcium having friable loam with porous sub-soil which permits a free percolation of water in general are most suitable for tea cultivation. The presence of iron in sub-soil is desirable. On the sloping land which is most suitable for tea, soil erosion is often a problem. This is combated by planting tea bushes in lines along the contours. The optimum pH range for tea is 5-6.5. Majority of soils in the Pakistan are coarse to moderately fine textured and suitable for irrigated agriculture. Salinity and

sodicity is another major problem of our soils. With rise in salinity level, significant yield reduction was reported. It was found that in slightly saline soils, yield reduction was almost 36 percent than in normal soils. In moderately saline and highly saline soils, the extent of yield reduction was about 68 percent and 84 percent as compared to yield in normal soils, respectively (Aslam 1998).

3. Small Land Holdings:

Most of the Farmers have small land holdings which reduce their choice of crops. They are limited to food and crops only. There is a need to develop new area for tea cultivation specially waste and marginal land in potential tea growing areas. The other option will be the intercropping of cereal crops and cash crops with tea to maximize tea cultivation.

4. Lack of appropriate government Policy:

Promotion of tea cultivation for domestic consumption is a vital issue which will have to be dealt with in an appropriate agriculture policy of Pakistan. These are serious issues the solution for which hard and consistent efforts along with a national consensus will be essential to go forward. Formulation of an appropriate agriculture policy taking care of these complexities is essential to promote tea cultivation.

5. Lack of Financial Support:

The developing countries like Pakistan have to design a strategy of national and regional standards in tune with those of the developed countries. The adoption and maintenance of such a regulatory framework and its implementation will be costly (*http://www.wikipedia.com*).

The cost of certification, a major component of which is the periodical inspections carried out by the certifying agencies, which have freedom to fix the timing, type and number of such

inspections appears to be burdensome for the small and marginal farmers. Despite contributing 23 per cent to Pakistan's Gross Domestic Product, agriculture, which, before the discovery of oil, was the country's highest revenue earner, is still plagued by funding problem. Supports for the marketing of the organic products are also not forthcoming from the governments. Similarly, several initiatives meant to boost activities in this sector have not yielded the desired results.

6. Technological problems

One of the major problems is lack of processing units for farmers in potential tea growing areas which has reduced the choice of tea cultivation. The tea leaves plucked should be immediately supplied to the factory for processing as delay in processing reduces the quality of tea. This can only be possible if farmers have access to processing units.

7. Labour

Labor is a major problem in most tea growing areas, labor is manual and only multinationals use tea plucking machines. To promote tea cultivation in Pakistan government needs to workout rates that can facilitate the smallholders to remove all crop on the bush. If the farmers are unable to remove all ready shoots, there is overgrowth which translates into losses.

8. Other related problems

Other challenges enumerated by the farmers include: i) wastage of time at the collecting centre waiting for the clerk or trucks, ii) delay in payments, iii) dusts and smoke from the factories that affect the nearby tea plantations iv) lack of proper clothing during cold and rainy seasons, and iv) non-tallying of tea weight. Challenges indicated by key informants included i) the fact that 50% of the labour has no formal training, ii) other players apart from Pakistan want to construct factories, iii)

lack of farm management services to manage labour, iv) competition from other beverages, v) political interferences, vi) poor infrastructure and vii) high processing costs due to high prices of firewood. Other studies have similarly enumerated infrastructure, poor extension coverage and governance issues as problems facing tea in Pakistan (Ulhaq and Ali 1996).

CONCLUSIONS

The government of Pakistan needs to encourage farmers for tea growing by facilitating them through government incentives to overcome challenges faced by small-scale farmers. These challenges include poor gender relations, low adoption of some aspects of tea husbandry, low prices, adverse weather, and high labor costs. Opportunities in the tea industry include diversification to other enterprises to reduce the risks of low tea prices, value addition, purple tea production, research on effective tea husbandry and clones and farmers field schools.

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