CONCEPT PAPER FOR THE DEVELOPMENT OF TEA SECTER IN SRILANKA

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The development of the tea sector must be designed limiting to a short and a medium-term strategic plan.

Introduction

Tea is a commodity exported more than 90% from Sri Lanka, earning about USD 1.3 Bn. The export volume is dominated by CIS and the Middle Eastern countries in the foreign market and is controlled by the small tea holder sector as the majority supply chain partner. Tea has been announced as a food commodity since 1995 and therefore tea production must be adhered to all food quality standards other than the regulations imposed by SLTB.

Tea is generally sold through tea auction procedure in local currencies at present. Smaller percentage of organic and non-traditional teas are directly exported. The major buying countries of Sri Lankan teas have been politically unstable for many decades. However, alternative markets mainly in the developing countries such as EU, North American and Japan have not been reached productively, effectively, and sufficiently over last few decades, instead contently continuing the present market reaches. The one of the limiting factors to enter to the market in the developed countries will be the presence of higher chemical residues in Sri Lankan teas against MRL set for food items by those countries such as EU 839. Since the productivity of conventional teas is comparatively low against other tea producing countries resulting high COP, the sellable prices are much higher against all other tea producing countries. This factor has negatively resulted in opening new market accesses in emerging countries as well as the other politically stable developed countries. In addition, tea is a commodity that is produced in different tea factories without knowing the requirements of end consumer. Quality can be defined as the degree of excellence as well as consumer preference. The consistency of the quality and different or specific consumer requirements are presently controlled by Local Tea Buyers or Brokers to a certain extent by blending different teas. Direct access to the foreign byers has become therefore impossible task along with specific stories, garden marks, single origin approach, and specific characters. Direct sales from the factory to the buyer creates better relationship and traceability. Traceability has become compulsory now in Europe and USA and Japanese buyers always give priority for perfect traceability.

SOLUTIONS SHORT AND MEDIUM TERM

Cultivation

1. Increase tea cultivation by introducing new techniques with a shorter nursery period along with high yielding clones.
2. Soil restoration and rejuvenation using biochar and other effective biofertilizers for rapid recovery of the productivity of tea lands.
3. Introducing mechanization of the application of all plant and soil & plant inputs, weeding, pruning, and harvesting into the medium and large-scale plantation.
4. Introducing special tea verities such as Chinese small tea leaf and seedlings for high quality specialty tea production for selective market with appropriate processing techniques.
5. The productivity target of tea lands should be able to reach 30 kg pluckable tender leaf by a worker per day without difficulty.

PROCESSING

Since tea has been announced as a food item, employing a quality controller, qualified in food technology discipline must be the way forward.

Quality parameters and specification must be maintained according to the buyer’s requirements.

Consistency and food safety must be guaranteed by factory manager being a food technologist.

Automation is beneficial for some operational steps while traditional batch rolling can be continued.

Importance of fermentation/enzymic oxidation by nosing of every batch must be emphasised and other critical controlling points (CCPs) in the complete process flow must be daily monitored by a quality controller.

COST OF PRODUCTION

Tea is an export-oriented commodity. Therefore, the selling prices must be aligned with the other competing producing countries for similar style or quality teas. Sri Lankan teas have been very famous for orthodox wiry well-made black teas mainly produced from low grown tea areas and the production of low grown teas is highly influenced the total tea revenue. However similar style and quality teas are being produced by other origins such as Africans and Latin Americans at very low costs. International tea buyers and brokers are now more interested to search other origins with similer teas at lower prices. This has resulted or will result sooner in considerable threat and a severe challenge for Sri Lankan tea exporters unless otherwise prices of similar teas would be taken down to competitive levels. However, tea prices cannot be taken down further due to increasing related cost factors and therefore the only sustainable solution remains at present to increase the productivity along with new marketing approaches.

SOCIO-ECONOMIC DEVELOPMENT AND INCOME ASSURENEC FOR PRODUCERS

Younger generation in the tea plantation is no more interested to remain in the tea industry but are moving to urbans seeking more comfortable employments. Therefore, socio-economic development of producers (workers/farmers) has become an import factor of the survival of the tea industry. Generic minimum price for green leaf is proposed as LKR 130/kg and for conventional leaf and LKR 160 for organic leaf for the sustainability of producers and workers and everyone must adhere to minimum green leaf price. The minimum wage of LKR 2000 per day for 20 days must be paid for workers to retain them in the industry. LKR 40,000 can be the minimum wage of a worker and if 2 workers representing a family, both can together earn minimum income of LKR 80,000 per month. This would suffice for a 5-member family to manage their basic requirements from the main income source. Additional income generating facilities must be created by the management of the estate for its long-term sustainability.

ECONOMIC FEASIABILITY

Grade distribution and target achievement of grade categories such as Leafy(L), Broken(B), Fannings(F), Off-grades(O) and stalky teas(S) or refused teas would be maintained 30%,20%,30%,12% and 8% respectively as a guideline. Improving L and reducing O AND S together results in increasing NSA along with GP margins. When the productivity of tea land improves, later grade percentages (O and S together) can be further reduced to at least 10%.

However, when the production facility has direct reach to international market/buyers the grade percentages can be changed by changing processing parameters to match the demand and requirements. Many buyers in developed countries are not interested in handling too many grades but limited to maximum of 10 grades. Many immerging tea producing countries follows limited grade production methods while we Sri Lankans are still satisfied to follow old and outdating methods. Marketing strategy must be changed to satisfy the new consumer requirements very soon.

QALITY CONTROL

Tea has been announced as a food item by FOA in 1995 and therefore tea production must follow food regulations. It is of paramount importance that tea processing facilities be certified by required ISO, GMP standards. Every food production facility must have a qualified quality controllers possessing basic degree or diploma in the food stream. Quality control of intake green leaf and necessary deduction or rejection must be done at the factory gate accordingly.

PRODUCTIVITY AND HEALTHY SOILS

If the generic guidelines are followed as the basic requirement, the sustainability of Sri Lanka tea industry can be safeguarded or re-established. When the productivity targets are achieved all connecting aspects fall in line automatically. The soil health of the tea lands is to be rejuvenated with beneficial soil microbes forming and protecting the soil web, retaining soil moisture, availing macro- micronutrients for plants to be able to absorb effectively but naturally. If the productivity cannot be improved as indicated, the competitiveness in the international market cannot be maintained. All immerging tea producer countries supply volumes at lower prices almost similar quality of typical Ceylon teas.

ESENTAIL INPUTS

Agricultural mechanization, factory modernizations, R&D activities to develop value added tea products mainly food supplements are key requirements to stay in the market longer. Extractions of active ingredients from tea products for further development of cosmetics, pharmaceuticals and food supplements will lead to proper valuing addition rather depending on just production of tea bags. Tea caffeine, EGCG, ECG, L- Theanine are some of the valuable extractable compounds from tea widely used as expensive ingredients in the developed country for high value food supplements. Stalky teas referred as refused tea unwisely, must be used to develop many by-products successfully to generate considerable amount of foreign exchange instead of throwing out to the field as a waste or leaving for possible illegal adulterations. Unnecessary and outdated regulations must be removed for the benefit and convenience of the tea industry. If the minimum factory gate price for quality green leaf is established, the out turns and price formular become unnecessary controls by the government. These are parameters that are influenced by different factors and therefore the liberty of decision making of the quality of the green leaf accepted for the set minimum prices must be given the tea processer similar to the other food industry sectors.

PROPOSED TEA VALUE CHAIN GUIDELINE

These targets can be used as guidelines for efficiency, effectiveness, and international compositeness in the tea industry. Conventional teas represent in color Red, and Blue represents organic teas

1. Average selling price (NSA) ; USD 3.6/KG, USD 4.7
2. Cost of Production 70% of NSA (GPM 30%), USD@320 LKR; LKR 800, LKR 1000

(Raw material cost must be maintained 65% of the COP) and drying factor is 0.23

1. Targeted minimum generic price for green leaf ; LKR 120, LKR 150

(When the plucking cost is maintained at 55% of green leaf price)

1. Cost of plucking target ; LKR 65, LKR 80
2. Target for pluckers with high productivity of tea lands ; 30 kg, 25 kg
3. Average daily Income for pluckers (65X30, 80X25) ; LKR 2000

(Pluckers must be given minimum of 20days work per month)

1. Minimum income for tea plucker (2000X20) ; LKR 40000

Note: The most important challenge for tea researchers is to improve soil health using organic matters and beneficial microbes to achieve higher yield like other tea producing countries to be in the competition and the survival of tea industry. Without reaching the productivity, all other connecting assumptions and targets cannot be met and opportunity for Sri Lankan tea industry perform strongly in the healthy international tea market will be disappeared. (Drying/conversion factor slightly varies from 0.23 but with high productivity and quality improvement of green leaf, this target can be reachable).

Conclusion

High productivity targets with soil restorations, new marketing approaches, introducing innovative high value-added tea products and regulatory changes to achieve the target in an efficient manner will lead for the expected sustainability of tea industry in short and medium term.