

GEARING UP SRI LANKAN TEA INDUSTRY TO MINIMIZE ADVERSE IMPACT FROM COVID-19



In this blog, Dr Lalith Amarathunga discusses how varied stakeholders in Sri Lankan tea industry are revising their strategies to protect the tea sector from the adverse fallout of COVID-19 and suggest what more could be done to address the challenges.

CONTEXT

Tea industry plays a significant role in the economy of Sri Lanka. Total tea production of the country in 2017 was 307.08 million kg of which 288.98 million kg (94% of production) was exported, earning Sri Lanka LKR (Sri Lankan Rupee) 233.3 billion (Central Bank, 2017). The sector provides direct or indirect employment to about two million people both in smallholding and plantation sectors in Sri Lanka, which is 9.8 % of the total population (Box 1)

Box 1. Employment pattern in tea sector

The tea industry is composed of two main subsectors; the corporate subsector or the large plantation companies, and tea smallholdings. Smallholders contribute over 70% of the country's tea production, while the remaining production comes from plantations. Over two million people in plantation and smallholding sector are directly or indirectly dependent on the tea industry. The vast majority of tea pluckers and wage workers, both on plantations and smallholdings, are female. The collection of tea green leaves for factories takes place through factory agents, smallholder societies, licensed collectors or direct supply by smallholders. The producer and the consumers are linked with many intermediaries such as the exporters, brokers, blenders and packers. The Sri Lankan tea supply chain comprises of both state-owned and non-governmental organizations, all of which play valuable part in the Sri Lankan tea supply chain. This supply chain of tea involves a large no of individuals with different social status and different segments that are interconnected with each other. Any change in each category/segment due to natural consequences, drought, flood, pandemic or market fluctuation can seriously affect the overall tea industry and finally, health of the Sri Lankan economy.



COVID-19 IN SRI LANKA

Since the origin of the COVID-19 in December 2019 in Wuhan, China, the Sri Lankan authorities stepped up vigilance to control the virus. The national health system, military forces and the national intelligence service were put on high alert. The government created specialized aviation and border control expert teams to track the movement of all inbound tourists. Since the first case of COVID-19 reported on 27th January in Sri Lanka, the total cases confirmed up to 27 April 2020 was 584 of which 126 recovered in the country. Seven deaths were reported. The government has taken several measures to contain the spread of COVID-19 (Box 2).

Box 2. Sri Lankan Government Intervention to contain the spread of COVID-19

The Sri Lankan Government has taken several steps to control the spreading of corona virus in the country. Accordingly, the government has requested the general public to practice social distancing, hygiene and self-quarantine methods to prevent infection. With increasing incidence of new cases, the government authorities declared few days as national public holidays except for health, banking, food supply and transportation to control the spread of coronavirus in the country. They also imposed island-wide curfew to cease all public gatherings and movement. The large number of cases reported main urban districts such as Colombo, Gampaha, Kalutara, Puttalam, Kandy and Jaffna were totally locked down whilst curfew has been imposed with intermittent relief in other districts including major tea growing districts such Ratnapura, Galle, Matara, Kegalle, Nuwara Eliya, Badulla etc. Although, plantation workers and smallholders are mostly vulnerable to pandemics no significant cases were reported so far in the above tea growing districts with the preventive arrangements taken by government authorities.

GOVERNMENT INITIATIVES TO SUPPORT THE AGRICULTURAL SECTOR DURING COVID-19

Keeping in view the importance of continuing main farming operations such as planting, harvesting, processing etc., government authorities allowed continuation of activities in all regions while keeping social distance and practicing hygiene measures introduced by health authorities. On the directives of the President of Sri Lanka, the Minister of Plantation Industries and the Police have extended assurances to the industry that it will be granted all necessary authorizations to conduct its operations and movements without hindrance. As a critical export orientated industry, the tea sector has been granted special status, which would warrant complete cooperation of relevant State agencies to conduct its legitimate activities uninterrupted. In addition, the President of Sri Lanka ordered the banking sector not to overburden the coronavirus-hit segments of tea sector by extending the payback period of bank loans by another six months. This would ensure that the smallholders, a vital component of the tea industry, contributing towards most of the country's tea production are safeguarded and would be able to harvest their crop.

SPECIFIC INITIATIVES FOR THE TEA SECTOR

a) Tea Smallholding Development Authority

The Presidential Task Force on Corona Disaster Relief Promotion has decided to make following arrangement in a special discussion conducted by the Prime Minister on 04.04.2020.

1. Every step will be taken to safeguard and maintain the supply chain of tea from the tea land to auction.
2. Advised factory owners to hand over the green leaf payment of March at the tea smallholder's doorstep.
3. Issuing Police curfew license for small/ medium land owners for transporting labour to land. Tea officials to officially visit tea land or office.
4. The special allowance of LKR 5000 paid to those who lost their work due to COVID-19 was extended to deserving tea smallholders.

5. To make tea smallholders aware about the loan of LKR 50,000.00 to be granted through the Bank of Ceylon with a grace period of 18 months.
6. Instructing tea Extension Officers to look into payment for green leaves in March and facilitate the provision of essential food items in each Tea Inspector's region.
7. It was decided to consider releasing replanting subsidy payments immediately to eligible smallholders for 2020.
8. Releasing allowance for drought casualties that occurred during February-March 2020 and continue granting of water pump, sprayers, field equipment etc. to selected farmers.
9. A special nursery project was proposed to establish 500 input nurseries among selected small holding nursery holders aiming to raise quality nursery plants with recommended standards for fulfilling 2020 replanting program requirement. TSHDA will provide required nursery inputs to nursery holders whilst loan facilities will be granted through BOC bank under rewarding funds loan scheme.

b) Regional Plantation Companies

Following government declaration of the plantations sector as an essential service, RPC (Regional Plantation Company) operations immediately gathered momentum amidst stringent new measures to protect workers and the wider estate community against the COVID-19 pandemic. Although the plantation sector is operating at 60 percent production capacity due to unprecedented drought for the past 3 months, they were able to pay salaries to workers in April since tea is being plucked and prices have also risen at auctions. All possible precautions are taken by managements of RPCs to prevent spread of COVID-19 among workers and the estate community in compliance with guidelines issued by health authorities. Additionally, the employees and workers of RPCs were provided with food parcels and advances for food and other essentials, as well as special measures taken in partnership with government authorities.

For instance, complying with the guidelines set by health officials to combat the pandemic, the Hayleys Plantations sector initiated following measures to ensure that the daily needs of all its employees were met, while rolling out a set of strict health and safety regulations to be followed in the field, factories and estate premises. The company provided its entire plantation workforce community and their families - a population of 140,000 people, with dry rations and food packs through estate worker housing cooperative societies during the ongoing curfew.

c) Colombo Tea Traders Association

Paradigm shift in Ceylon traditional tea auction with digital platform

As a much needed change to the industry's age old traditions, the Colombo Tea Traders Association in Sri Lanka conducted its first e-platform auction in collaboration of all stakeholders' associations in the tea trade and under supervision of Tea Board of Sri Lanka. This was prompted by COVID 19 restrictions on social distancing and other stringent health precautions recommended. The highly successful first three e-auctions held between April 4th and 15th, 16.5 million kg of tea was sold via the online platform. This will have a trickle-down effect spanning the entire tea supply chain. The e-trade has created hope, especially for tea growers who depend on daily wages. This has let exporters to commence shipments with available resources and work flat-out to meet the increasing demand for Ceylon Tea. The tea industry has shown its ability to deal with challenges during periods of global crises.



Ceylon Tea auction conducted on first e-platform

A review of Sri Lankan tea industry's resilience and leadership

A review of Sri Lankan tea industry's resilience and leadership organized by Colombo Tea Trader Association that also initiated Ceylon Tea road map 2030 was held via a webinar on 4th May 2020 with participation of leading tea experts in a panel representing different segment of tea sectors. The session focused on updating knowledge about current market forces with particular reference to Sri Lanka's main importing countries, managing a workforce under the threat of COVID-19, learning from best practices, the role of the industry in taking Ceylon Tea to the world, the challenges and the opportunities.

d) Sri Lanka Tea Board

The strategy was formulated by Sri Lanka Tea Board (SLTB) in order to boost the popularity of Ceylon tea in international markets (Box 3) and bring in foreign exchange which is desperately needed for Sri Lanka's corona virus-hit economy. Chairman, SLTB, stated that they planned to go for a campaign that promoted tea as a wellness range, while looking at Germany, one of Sri Lanka's biggest black tea markets, for the campaign. He went on to state that the SLTB is planning to export black tea to Egypt, Pakistan and the UK at the moment with other products.

Ceylon Tea Road Map 2030, an initiative of the Colombo Tea Traders' Association presents

Global Tea Industry in a COVID-19 world

A review of Sri Lankan Tea Industry's resilience and leadership

The session will focus on updating knowledge on current market forces with particular reference to Sri Lanka's main importing countries, managing a workforce under the threat of COVID-19, learning from best practices, the role of the industry in taking Ceylon Tea to the world, challenges and opportunities.

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Anil Cooke
Task Force Leader, CTTA/ CBA Digital trading platform

'Estates Managers are National Champions'
Dr. Dan Seewarathnam
Strategic Agri Business Management Advisor
5 Regional Plantation Companies - Talawakelle/Kalim Valley/Horana/Egipoya/Kaluwatalle

Moderation: Niraj De Mel
CEO,
Ceylon Tea Road Map 2030 Project

Box 3. Sri Lanka Tea export profile

Tea is one of Sri Lanka's main exports, with 99% of the country's production being geared towards black tea and the remainder towards green tea (2018). Mr. Hasitha De Alwis, Sri Lanka Tea Board (SLTB) Global Campaign Consultant stated that Sri Lanka produces about 300-310 million kilograms of black tea each year, out of which the country exports 280-290 million kilograms. He explained that major portion the country's tea export markets involve black tea; these markets include countries in Western Asia, parts of North Africa, parts of the Middle East, and more recently China. He went on to state that even the US is a good market for black tea where 85% of the market deals with black tea while 15% deals with green tea.

e) Tea Research Institute (TRI) of Sri Lanka

The TRI has highlighted that several studies undertaken in different countries have demonstrated the potential benefits of Black & Green Tea consumption in boosting immune system to fight influenza and common cold generally caused by viral infections (Box 4)

Box 4. Benefits of Tea consumption on enhancing immunity

The Tea Research Institute of Sri Lanka (TRI) together with the Sri Lanka Tea Board recently released a scientific paper *Antiviral properties of tea - black tea may become the unique brew of choice with no side effects, to fight against COVID-19?* Tea Catechins can bind onto the surface of the influenza virus and inhibit the spread. An alkaloid found in tea is Theaflavins, a chemical shown to alleviate respiratory diseases such as asthma, chronic bronchitis and other lung diseases. It relaxes and opens air passages in the lungs making it easier to breathe. Inhaling boiling water mixed with Black Tea can facilitate the clearing of the passages towards the lungs. It could be assumed in respect of the circumstantial evidence available that daily consumption of Black Tea (3 to 4 cups without sugar or milk) is very useful and linked to boosting of the immune system of normal human beings and helps fight respiratory diseases.

Power of Ceylon Black Tea as a potential booster

Several studies are ongoing globally in search of therapeutic options to recognize 'anti-viral' agents which could treat patients affected by COVID 19. However, "prevention is better than cure". TRI has made a genuine effort to investigate the "Power of Ceylon Black Tea" as a potential booster to aid one's immune system to fight against the virus when confronted.

Several studies undertaken in different countries have demonstrated the potential benefits of Black & Green Tea consumption in controlling influenza and common cold generally caused by viral infections. Tea Catechins have the ability to bind onto the surface of the influenza virus and inhibit the spread. TRI has quoted a recently conducted research study from Taiwan where the chemical structure of 64 compounds had been bioinformatically modelled against SARS-CoV- 2.



Low Incidence of Infected Patients

Sri Lankans habitually consume 03 to 04 cups of Ceylon Black Tea. Therefore, in addition to epidemic control measures and social distancing and hot local temperatures (between 26°C-32°C), the practice of drinking tea may also contribute to the low incidence of infected patients with coronavirus. The infected case and the cases per million people in Sri Lanka are comparatively low. It could be due to a combination of multiple reasons, which certainly requires in-depth investigation.

Extension strategies:

Helpdesk: The staff of Tea Research Institute's Head Office and its Regional Centers have been made available in the special Helpdesk to assist stakeholders engaged in tea cultivation and processing, including partners in the industry, supply and value chain. They provide necessary information and technology during the period of COVID-19 pandemic. The clientele have been advised to contact relevant officers through telephone, email, WhatsApp or Viber communication technologies.

New research: According to the corporate research plan (2019-23) of TRI, scientists have initiated new research on screening and developing new varieties containing beneficial broad stratum antiviral activity of compounds. Modifications in process technology, research for developing beneficial compounds, developing quality index for improving overall quality aspect of made tea and also replacement of the labour incentive field practices with the introduction of appropriate mechanization techniques are other parts of the plan. Although, the above forward research plan was developed prior to COVID-19 pandemic, necessary modification/development in the relevant research disciplines will be taking place to address socio-economic issues, health and hygienic precautionary measures introduced by health authorities for post-pandemic situation.

f) Other Extension and Advisory Services (EAS)

Bought leaf factory based extension team initiatives in smallholding sector: Bought leaf factory based extension team (Amarathunga, 2019) are committed to measures for avoiding the spread of infection in their factory premises and all steps of smallholder tea supply chain by motivating their staff and workforce to follow proper health and hygiene practices as per guidelines given by health authorities.

- Tea factory extension staff are involved in spraying chemicals to prevent contamination on their working premises, worker resting rooms/ dormitories, equipment and other common public places including smallholders leaf collecting centers, roads etc.
- Motivate their factory workers to maintain safe distance of 3-4 feet during rest, taking of meals, transfer of produce at collection points, loading/unloading and other factory operations.
- Bought leaf factory management has provided PPEs (mask, gloves etc.) for staff members and workers. Workers are also made aware of regular use of PPEs during work and disposing off the used materials (mask, gloves etc.) to prevent contamination.
- Adequate soap or hand sanitizer, foot cleaning bath, digital thermometers (to test body temperature) and displays related to guidelines are made available at the tea factory entrance point.
- In addition, most of the tea factory management has made arrangements for collecting information from staff and workers about their family and social life, keeping in view the pandemic and risk of infection, prior to reporting to work and also prevent entering of unknown persons to fields/factory.
- Extension team has persuaded smallholders and their workers to practice one meter social distancing while doing tea field operations and leaf transportation.
- Make smallholders aware to stagger the field and operations on roster basis wherever possible and avoid crowding.
- Tea factory Extension teams deliver messages via leaflets, posters on good health and hygiene practices to be adopted to avoid spreading of pandemic to smallholder/factory workers.



Extension team of Tea Smallholder Factory Plc. conducting awareness program on hygienic practices for factory workers

Para-Extension team initiatives in plantation sector

Plantation management personnel with the assistance of para-extension team (Field Officers/Asst Field Officers/Welfare Officers/EMAs of estates) are taking all possible precautions to prevent spread of COVID-19 among workers and the estate community, in compliance with guidelines issued by health authorities.

- Steps are being taken to clean and disinfect estate premises and staff quarters with the support of regional Public Health Inspectors (PHIs), police officers and regional government officers with motorized spraying machines.
- All employees have been equipped with hand sanitiser and face masks, with some estates going so far as to manufacture their own protective gear.
- Daily awareness programmes are also being held to highlight the importance of social distancing to contain the spread of the virus with support of health officials.
- Furthermore, posters and advisory notices with safety instructions have been distributed among the staff and displayed at all prominent locations across estates in all three languages. Working together with the Plantation Human Development Trust (PHDT) and Save the Children, Hayleys Plantations has taken special care to safeguard the crèches and child development centers to ensure the safety of all children in the community from pandemic.



Testing body temperature prior entrance at a tea factory



Tea plucker well-equipped with PPEs



Maintain one meter social distance between workers



Maintaining distance during working time at field and leaf collecting centers

Agro-input supply Private Extension teams

Some of the private companies i.e. A Baur & Co. (Pvt.) Ltd, CIC Agri-businesses involved in agro-input supply chain in tea plantation sector are proactively providing effective advisory services to both smallholding and plantation sectors, delivering effective extension messages to tea growers who are struggling from consequences of pandemic.

For instance, extension team of A Baur & Co. (Pvt.) Ltd. is playing a key role in delivering a unique message emphasizing importance of adopting good agricultural practices, ensuring safety and hygiene of work personnel, good handling and sanitation of the packing house, pest control and sanitation of containers etc. (Tharaka, 2020).



WHAT MORE NEEDS TO BE DONE BY EAS?

Initiation of new research on effect of pandemic on plantation and smallholding sector

National Institute of Plantation Management has developed a research proposal to undertake social research on *Potential adoption of health promotion interventions into practice among plantation workers in the pandemic situations*. The study aims to analyze prevailing behavioral patterns of plantation workers with respect to health practices and controlling measures introduced to minimize spreading of COVID-19, besides determining trends and potentiality of adopting new health interventions.

EAS providers in public and private extension networks should organize a research study *Tea smallholder's perception towards health and hygienic promotion introduced by health authorities against pandemic, and their limitations and potentials in adopting such practices in their work place and social life*. The findings of this study will elaborate effectiveness, limitations and weakness in

applying such practices under smallholding conditions and also propose new measures that could be effectively implemented.

Development of new guidelines: Extensionists and economists should develop guidelines on how best to practice recommendations aimed at keeping social distance and following health and hygienic practices while minimizing cost and addressing socio-economic issues.

Delivering a unique message on correct harvesting to improve product quality: As research findings have proven that most beneficial chemical components are concentrated in the apical part of immature flush leaf, it is worthwhile to initiate special Extension campaign to make aware tea growers, workers, leaf collectors, transport agents and factory staff to follow correct harvest techniques emphasizing leaf standard, closer harvesting interval and also to minimize post-harvest damages from field to factory, ensuring supplement of quality green leaf for manufacturing of quality tea. This will enhance demand for Ceylon tea and also open up new market opportunities as world market demand remains for natural beverages having health benefits. Hence, maintaining quality of made tea will ensure a stable market and sustain the brand name of Ceylon Tea. Therefore, EAS in both public and private sectors have to deliver above message effectively using all possible extension channels to maintain quality of made tea.

Use Social Media Platforms

- Various stakeholders in the tea plantation and smallholding sectors need to stay linked through social media, follow health and hygienic protocol and collaborate their efforts in EAS by playing their roles.
- Enhancing EAS delivery through online and social media by exploring all potentials of public and private public extension channels to keep social distance under pandemic and post pandemic situation.
- Webpages of official websites of EAS offering institutes, containing tea advisory information for on-field and manufacturing practices, agri-inputs such as fertilizer, availability of nursery plants, weather and natural disasters forecast, value addition, updated marketing information and management practices should be made directly accessible free of charge

Potential Areas in Tea sector – PPP concept can be applied and way forward	
Technology dissemination - Changing conventional methods to IT smart methods through PPP	Availability of tea information - through PPP tea related channels
	Market price information Service inquiries Tea Board/ • Tea brokers/factories • Via SMS • 'sltb-rp-mfno' send 1919 • Tea Infor- Website www.pureceylontea.com www.tri.lk www.tshda.lk

- **Use traditional mass media**
 Tea smallholder focused radio and TV programs are good means to connect with smallholders and EAS offering institutes to address field issues and solutions with community participation. Options for online feedback to be provided through mobile phone and social media

END NOTE

The effects of COVID-19 have been very apparent as people, politics and economics of the world have been brought down to a grinding halt. Sri Lanka has been identified as one of the most vulnerable middle-income countries as its economy could shrink this year due to impacts of COVID-19. Increasing the export earnings from tea is definitely one way Sri Lanka could overcome the crisis. Therefore, all stakeholders in the tea sector should take this challenge as an opportunity to strengthen the country's economy and have to collectively play a proactive role for strengthening the tea industry. Already, the stakeholders in the tea sector have come together to address this challenge. But, there is a lot to learn from every sector and I hope this blog will encourage others to share their experiences.

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