



IMPACT REPORT

How the
**INDIAN TEA
SUSTAINABILITY CODE**
created an impact





A vertical photograph of a tea plantation. The foreground is filled with vibrant green tea leaves and stems, some showing small buds. The background shows a blurred view of more trees and a clear sky, suggesting a rural, hilly landscape.

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1.0

ACKNOWLEDGEMENTS

trustea is an Indian sustainability code and verification system for the tea sector. The *trustea* Code is a locally-developed and owned code validating tea is being produced in a sustainable manner under the three pillars of *trustea* – Environment, Safety and Livelihoods based on Indian regulations and globally-accepted sustainability principles.

The *trustea* programme was launched in 2013. This report aims to understand the impact of this programme from its inception until 2019.

There have been many individuals and organisations behind the favourable acceptance the Code has received in the industry. For this, we would like to thank the funders of the programme – IDH, the Sustainable Trade Initiative, Hindustan Unilever Limited, Tata Consumer Products Limited and Wagh Bakri, whose support over time have allowed us to create the Code and back producers across the country to adopt better production and manufacturing practices. We would also like to thank all *trustea*-verified entities and growers for their effort and investment in building sustainability into their operations for the betterment of the environment and all the workers engaged in the tea supply chain. This is an independent impact report by Consultivo Business Solutions Pvt Ltd (“Consultivo”). We thank and appreciate their sincere efforts and contributions.

In particular, we acknowledge the contributions of *trustea* Foundation Council members, *trustea*-verified entities and all stakeholders who have actively participated in various surveys and interviews and provided important factual data, perceptions and insights. This publication is the outcome of their valuable and timely inputs. We acknowledge the valuable insights on and suggestions for the programme shared by Mr Arun Kumar Ray, Deputy Chairman, Tea Board India.

We hope you find this report helpful to understand how our *trustea* programme has created impact across the tea value chain. The *trustea* Secretariat is confident that by evaluating our work, this report will enable us to identify which interventions are indeed successful and where further improvements are needed.

There is indeed a long journey ahead. Together we can make it happen.

Sincerely,
Rajesh Bhuyan
Director
trustea Sustainable Tea Foundation

trustea's VISION

The Indian tea industry provides high quality and safe tea for consumers, good livelihoods for producers, workers and their families, whilst at all times caring for the natural environment

trustea's MISSION

To sustainably transform the Indian tea industry for the benefit of consumers, workers, farmers and the environment by:

- *verifying tea producers against a world-class sustainability code of conduct;*
- *working with the tea industry to address key sustainability challenges such as food safety, stagnating yields, pest and disease control, living wages, worker welfare and equality, preservation of biodiversity and improvement of smallholders' livelihood.*

1.1

From the desk of the Tea Board



trustea has brought awareness on sustainability across the tea-producing community. Apart from the certification itself, it has created an impact through the hand-holding and implementation support to the different segments of the tea supply chain.

We acknowledge *trustea* has played a great role in the implementation of sustainable practices contributing to the Sustainable Development Goals. Most importantly, *trustea* recognised the inclusion and support of small tea growers was essential to the Indian tea industry at an early stage. There has been significant development of the STGs since then and they now account for approximately 50% of the tea production in India.

We find a higher level of awareness and knowledge on the usage of fertiliser and pesticide usage among the small tea growers. However, I hope *trustea*-verified tea will see an increased market demand in the form of

purchased volumes and the differentiation between sustainably grown teas and conventional teas will be reflected in the purchase prices and other commercial terms as well. Going forward, I also wish *trustea* can help reduce absenteeism and improve productivity in the certified estates. In this regard, *trustea* can even think of implementing a digital attendance system for large estates.

We are looking forward to *trustea*'s active presence over social and other forms of media. There is much to be done in the sector to build consumer awareness of the sustainability aspects of tea production and *trustea* can play a great role here. This will help in increasing brand awareness and eventually *trustea* will emerge as a brand in the industry with higher recognition in the international market."

Mr Arun Kumar Ray
Deputy Chairman
Tea Board India
February 2020

2.0

INTRODUCTION

In countries like India where the majority of its land is utilised for farming, sustainability should definitely take the centre stage. If we look at tea plantations, as per Tea Board India (TBI), the country is home to 1,569 tea estates (area 420,671 ha) and 210,225 tea smallholder farmers (SHFs) (area 215,886 ha)*. Tea, chai or cha, as it is popularly known, is the most commonly consumed beverage in the country. In fact, sustainability has never been more important than it is today. The dynamics of the tea industry is changing rapidly. The industry-wide focus on sustainable infrastructures is increasing with media spotlights and a discernible shift in focus towards sustainability in agricultural supply chains visibly articulated by regulators, investors, buyers and consumers.

As one of the largest producers and consumers of tea, India is at the centre of the global tea industry. Evolving steadily to meet the needs of a nation where 64% of people consume the beverage, India's tea sector has changed considerably over the years. The changing structure of the industry has led to several sustainability challenges in the sector, including working conditions, health and well-being of farm workers and tea quality. The operational dynamics of the tea sector in the country also changed considerably with the emergence of the Small Tea Growers (STGs) and Bought Leaf Factories (BLFs), which contribute around 50% of India's tea production. This segment possesses its unique challenges in the form of traceability of supply chains, agrochemical management and creation of a profitable business environment

for the STGs. *trustea*, with its unique proposition as an Indian sustainability code and verification system for the tea sector, seeks to address these challenges. The Code enables producers, buyers and others involved in Indian tea businesses to obtain produced tea according to agreed, credible, transparent and measurable criteria. The programme is working with STGs, BLFs, estates and packers to address issues such as working conditions, health and safety of tea workers, water pollution, food safety, soil erosion and contamination, gender issues and adverse effects of climate change. The focus of *trustea* is encapsulated in the three broad pillars of *safety, environment and livelihoods*.

(*<http://www.teaboard.gov.in/>)

The *trustea* programme positively impacts

many key Sustainable Development Goals of the United Nations.

GOAL 1: NO POVERTY

Economic growth must be inclusive to provide sustainable jobs and promote equality

GOAL 2: ZERO HUNGER

The food and agriculture sectors offer key solutions for development and is vital for hunger and poverty eradication

GOAL 5: GENDER EQUALITY

Gender equality is not only a fundamental human right but a necessary foundation for a peaceful, prosperous and sustainable world

GOAL 15: LIFE ON LAND

Sustainably manage forests, combat desertification, halt and reverse land degradation and halt biodiversity loss

Goal 17: PARTNERSHIPS FOR THE GOALS

Strengthen the means of implementation and revitalize the global partnership for sustainable development

The *trustea* programme supports smallholders, tea estates and BLFs in improving their competitiveness by positively influencing the scale of production, farm organisation, processing, new technologies, supply chain development, market access and regulatory compliance. *trustea* works to improve livelihoods of smallholders and tea estate workers with consumer safety and productivity.

trustea's interventions have helped address a wide range of topics including long-term sustainability of tea farms, better lives and livelihoods, making tea farming a viable source of income, improved social and environmental standards, a free digital-retention database via a digital traceability system viz. 'tracetea' and new marketing opportunities for smallholder farmers and women.

Today, the *trustea* programme covers greater than 55,000 tea SHFs (about 26% of India's tea SHFs) including 4,500 women farmers. *trustea*'s focused outreach opened vistas for tea SHFs in India to imbibe good agricultural practices (GAPs) on their farms and more access to formal training opportunities on sustainable farm practices. *trustea* facilitated improving working conditions, fair treatment, health, hygiene (such as proper toilet facilities), safety, remunerations (provident fund (PF), gratuity, etc.) for permanent as well as temporary workers at their respective workplaces.

trustea changed the lives of 619,462 tea workers of which 56% (i.e. over 350,000) are women through training, skill-gap assessment, advocacy and partnership, resulting in a better working environment for women (maternity benefits, quality of crèche facility for working women, etc.).

***trustea*'s Transformation Across Dimensions:**

There are many developments across the multiple dimensions at *trustea*, spanning from core services (e.g. Operations, Assurance) to enabling functions (e.g. IT systems and communication) to enhancing efficiency, effectiveness and transparency. There are major interventions across the various dimensions.

Operations:

Standardising operations and simplifying interfaces with partner organisations through mapping and standardising the verification process; engaging and evaluating Implementation Partners (IPs) etc.; developing a service-delivery framework to ensure a time-bound response to external stakeholders.

Assurance System:

Transparency and credibility in System Audit Assurance by strengthening the process compliance and auditing quality; 100% review of audit reports focusing on ensuring audit outcomes are based on credible evidence certifying transparency in the audit process; ensuring a fair and credible mechanism for grievance remediation on certification decisions through a transparent appeals process; enhancing Code credibility by actively working to initiate the formal accreditation process of the Code with the globally recognised platforms – ISEAL and ISO 9001.

Information Technology (IT) Systems:

There is a major thrust on incorporating technology across the entire span of internal operations as well as interfacing with partner organisations. Migration to the customised database management system (DBMS) ensures ease of operations, transparent interfacing of processes with partner organisations and enables across-the-board standardisation and data retention. *trustea* e-learning, a comprehensive video-based online-training programme, now makes available *trustea* system knowledge at everyone's fingertips, removing the bottlenecks of knowledge delivery through the hitherto prevalent classroom-training model. Since launch, more than 500 learners enrolled with over 250 certificates issued post assessment. *trustea* has piloted 'tracetea' – the "farm to table" traceability solution for the tea industry to bring ease of

operations and transparency in the tea supply chain. To enable secure and accessible data management, all *trustea* data is stored in a state-of-the-art storage infrastructure. All IT initiatives can easily be accessed through *trustea*'s website.

Communications:

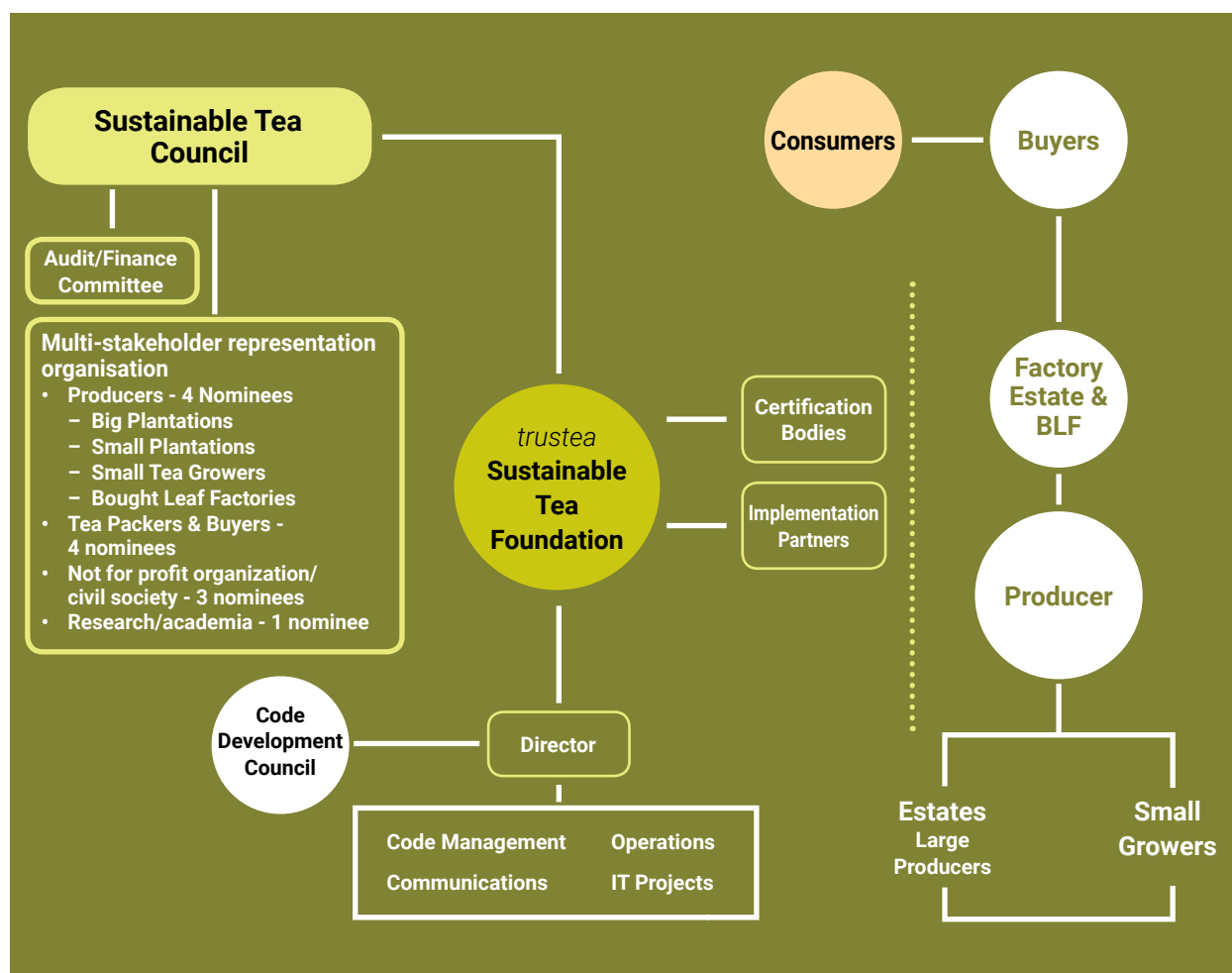
The focus is on increasing engagement with the stakeholders and external audiences through social media channels with a linkage to *trustea*'s website, website upgrades, quarterly newsletters, large events, direct mailers on events/milestones, etc. and communication and branding guidelines for key stakeholders of *trustea*. *trustea* seeks to continually protect the brand by undertaking trademark registration and protection measures for the *trustea* logo usage and developing logo-usage guidelines for all programme partners and entities.

Governance:

In keeping with global best practices, the governance of the *trustea* programme is transitioning to a legally incorporated entity – the *trustea* Sustainable Tea Foundation. The *trustea* Sustainable Tea Council is the apex body spearheading the Foundation's functioning. The Council is composed of representatives from all segments impacting the industry producers, STGs, buyers, non-governmental organisations (NGOs), research and academia as well as reputed global agencies.

The *trustea* programme has made a noteworthy impact in its sphere of influence. The winds of change the programme ushered in are reflected in this wide-ranging Impact Study depicting the *trustea* journey thus far. This is just the beginning and there remains a long way to traverse. However, as the ancient Chinese proverb says, “A journey of a thousand miles begins with a single step.” With the partnership of all stakeholders, *trustea* is geared to deliver the cherished goals of environment, safety and livelihoods to all stakeholders and communities in the Indian tea industry going beyond certifying and delivering a value proposition to the entire spectrum of the tea supply chain.

This report offers the intervention logic and the methodology applied to gather data and perspective on the impact of the *trustea* programme so far. It draws upon primary data and information collected from the tea-producing entities along with the insights from key stakeholder interviews and secondary research data. A representative sample of producing units from the verified entities have been selected for collection and analysis of data to be used for this impact assessment. More details on the methodology are available under Appendix 1.



3.0

THE GROWTH STORY

trustea timeline



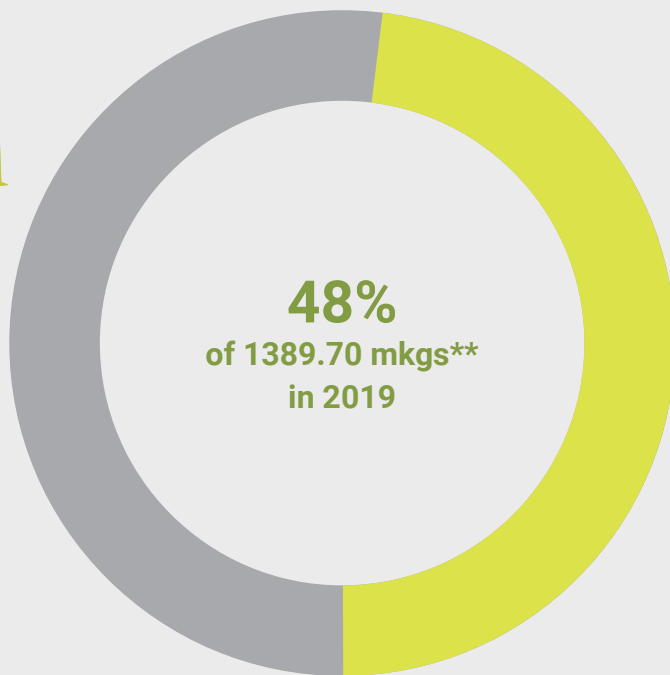
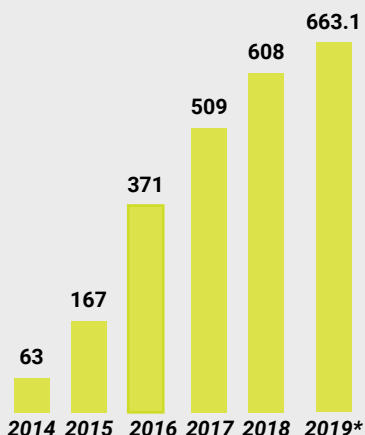
Since its inception, *trustea* has been continuously striving to gain acceptability by demonstrating the benefits of sustainable practices to the stakeholders. The programme gained momentum with the active participation of the producers, buyers and other interested parties. The inclusion of STGs and BLFs created a whole new dimension to acceptability and credibility of the Code; this segment often lay outside the purview of many initiatives as they were not represented in prominent industry-

facing associations or did not fall within the supply chains of the European tea packers.

In the last few years, *trustea* reached more than 55,000 STGs and more than 600,000 tea workers through over 650 verified entities.

The *trustea* Sustainable Tea Foundation was incorporated in May 2019. The *trustea* programme is now being managed by the Foundation independently.

663 million kg (mkgs) tea is *trustea* verified



*as of 31 December 2019

**as per data on the Tea Board of India website

4.0

FROM THE FIELD

This report section consolidates data collected through interviews with management, field supervisors and workers of the verified entities who participate in the *trusteia* programme backed by data from interviews conducted in the field.

4.1 Governance & management systems

4.2 Good Agricultural Practices (GAP)

4.3 Food safety

4.4 Health & safety

4.5 Working conditions and workers rights

4.6 Environmental Management and Protection

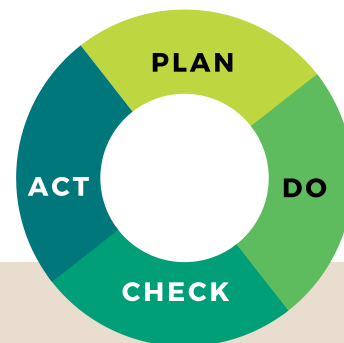


4.1 Governance & management systems

Since the 1990s, the management principles, models and techniques within the tea industry have been changing rapidly. From the beginning of the 21st century, we have seen a shift from closely-held and informal management applications and learnings in management to the inclusion and adoption of non-financial performance indicators like ethical business, environmental protection, human rights protection, food safety and occupational health and safety.

As other sectors opened up to a global market, the tea industry also had to comply with these standards and demonstrate the social license to operate due to the requirements of Western buyers. However, apart from some of the progressive tea companies with an established structure to implement and integrate at scale, the rest of the industry was not able to reap the benefits of these standards.

In 2013, *trustea* was launched with a governance and management system, benchmarked with international codes, standards and good practices and yet – designed specifically for the Indian tea industry.



The interventions

Within six years, the *trustea* programme has played a key role in building and supporting strong governance and management systems within the verified entities across the board – large corporate estates, family owned estates, BLFs and STGs.

While on a journey towards building a robust organisation, the verified entities are now empowered with a better management of sustainability risks and improved tools for compliance towards Indian laws and regulations for the industry.

Transparency, traceability and brand image are enabled not only for the tea-producing community but for the entire tea supply chain. The continuous improvement model of the *trustea* Code and programme has brought a remarkable change in the business landscape of the verified entities.

The impact

- Structured governance system systems harmonised with global requirements are in place
- Better management of sustainability risks
- Journey towards a robust organisation
- Protection from litigation issue
- All verified entities are legally complied
- Improvement in documentation processes, transparency, traceability and brand image of the tea-producing community and supply chain
- Continuous improvement of sustainability parameters
- Alignment of practices, planning and policies with business and sustainability objectives

100%
of the entities completed risk assessment as per code requirements

1

GOOD TO KNOW

STGs Supplying to Lekhapani Tea Estate

Challenge

Traditionally, STGs have always been a part of the unorganised segment within the tea sector. Most have not received any management trainings and have been following ad hoc practices in the absence of a known package of practices or structured management system. The need of the day was behaviour change to understand the implications of practices applied in cultivation and to accept a structured governance system whilst providing the appropriate resources to suit their capacity-building needs.

Intervention

trustea programme introduced the 'Farm Diary' to record farm-related details including green leaf production, green leaf quantity and chemicals used. Simple to use and maintain, this was specially designed with the STGs in mind. Continuous capacity-building programmes, field visits and support from *trustea* played a role in changing the mindset of the STGs who are supplying to the Lekhapani Tea Estate and minimised their resistance to change.

Impact

With continuous hand-holding and support given by the *trustea* IPs, the STGs could successfully implement the sustainability practices on which they were trained. The introduction of the farm diaries helped to better manage the effective implementation of sustainability practices, monitoring, measurement and improvement..

This has helped in an improved and effective implementation of sustainable practices from the bottom of the pyramid to the tea supply chain

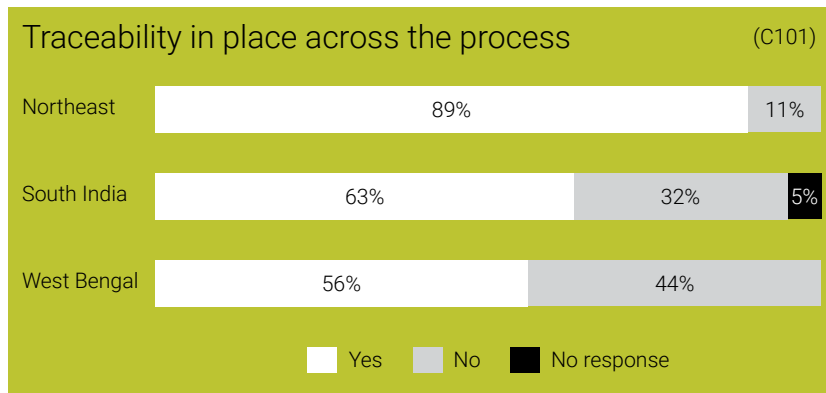
ENSURES

▲
MONITORING

▲
MEASUREMENT

▲
IMPROVEMENT

trustea has significantly improved the documentation and recording process in the tea-producing entities, which helps in transparency and disclosure, thus improving the credibility of the entities.



“
trustea has helped in structured document control and management which has contributed largely in implementation of sustainability governance system.

Jagjeet Kandal
MD, Amalgamated Plantations Pvt Ltd

Product traceability has led to clear and visual identification and segregation of verified and non-verified tea in its facilities. This includes establishing traceability at different steps – harvesting, handling, processing, packaging and transporting.

2 GOOD TO KNOW

Harrison Malayalam

Challenge

Tea is produced with green leaves from different sources. In absence of a sound and systematic identification and segregation system, it was very difficult for the producers and buyers to ensure and establish the product traceability to the agricultural produce level.

Intervention

Based on the *trustea* requirements, all verified entities have established a system of product traceability from the source level. Different process owners were made aware of the requirements of identification, segregation and traceability. Each verified entity has started recording details of ‘verified’ and ‘non-verified’ tea during receipt, production, storage and delivery activities within their custody.

Impact

A robust and documented system of product traceability and Chain of Custody (CoC) have been established which increases credibility of the certified product across the tea supply chain. The awareness of purpose, criticality and significance of product traceability has notably increased among the field people. Well-established physical segregation, identification and inspection processes are in place during harvesting, handling, processing and packaging.

Product traceability includes CoC (i.e. quantity received, processed and delivered is monitored separately for certified and non-certified tea); processing and dispatching are completed separately

IMPROVEMENT IN

IDENTIFICATION

SEGREGATION

TRACEABILITY

4.2

Good agricultural practices (GAP)

Globally, good agricultural practices (GAPs) are a prerequisite for sustainable agriculture. As defined by FAO, they are a “collection of principles to apply for on-farm production and post-production processes, resulting in safe and healthy food and non-food agriculture products, while taking into account economic, social and environmental sustainability.”

In the tea sector, the market potential can be realised with competitive and consistent production. Here, GAPs enable producers to be globally competitive by adopting sustainable farming practices. Many importing countries and organised retailers in the domestic market are now making GAPs a prerequisite for procurement. This ensures a competitive product in terms of safety, quality, risk profiling and cost efficiency within the framework of commercial agricultural production.

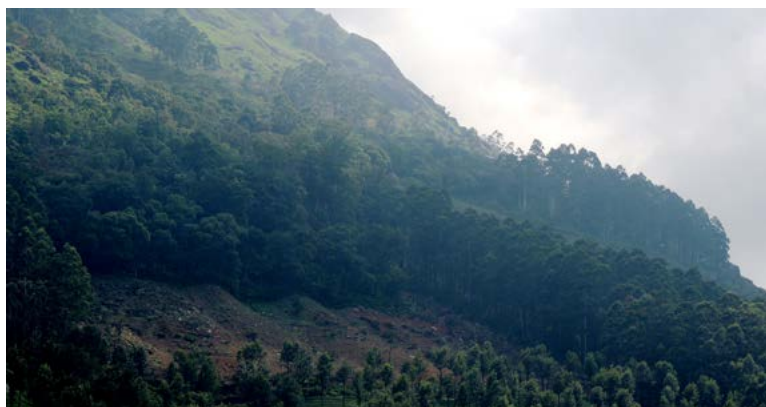


The *trustea* Code focuses not only on quality and quantity of production, but also on integrating GAPs at the field level. This includes pre-harvesting activities such as soil and water management, nutrient and pest management and harvesting and post-harvesting related issues. The *trustea* standard includes control points and compliance criteria for the entire tea value chain – from production to processing.

Soil management

Soil management is a fundamental principle in implementing GAPs. Well-nurtured soil improves productivity and quality of tea. The *trustea* standard recommends soil fertility and conservation practices suggested by tea authorities including Tea Board India (TBI), Tea Research Agency (TRA) and United Planters' Association of Southern India (UPASI).

In Northeast India, the first step was identifying the 100% soil erosion-prone areas, followed by training the STGs on the preventive measures to minimise soil erosion in their gardens.



The interventions

GAPs are the backbone of a robust agribusiness. *trustea* farm-support centres conducted a series of training programmes and also provided hand-holding support for estates and STGs on soil conservation and fertility practices. The entities and growers were guided on identifying new

tea-production areas based on soil profile, topography and other geographical parameters and the entities have also been trained to identify soil erosion-prone areas and the remedial measures to be adopted in such areas.

The impact

- Improvement in soil management practices
- Water management

Improvement in soil management practices

Traditional farming practices in the region have resulted in declining soil fertility, increased soil erosion and lower yields, particularly for smaller estates and STGs. Most of the small farmers were unaware of the scientific requirements for adopting GAPs.

trustea defines GAPs specifically for the Indian tea industry and encourages farmers to adopt soil and water-management practices in line with the *trustea* Code, guidelines by TBI, TRI and UPASI, among other research institutes. This helped in improving soil fertility, reducing soil erosion and achieving better yield.

Regular soil tests are performed by the *trustea*-verified entities and recommended practices based on the results of these tests are adopted. Further, fertiliser application is also done as per the recommendations under the Standard. The entities and the growers, including the STGs, were proactively identifying soil erosion-prone areas and implementing prevention plans.

Now STGs have improved their knowledge of sustainable farming practices and are more conscious about maintaining soil fertility, largely

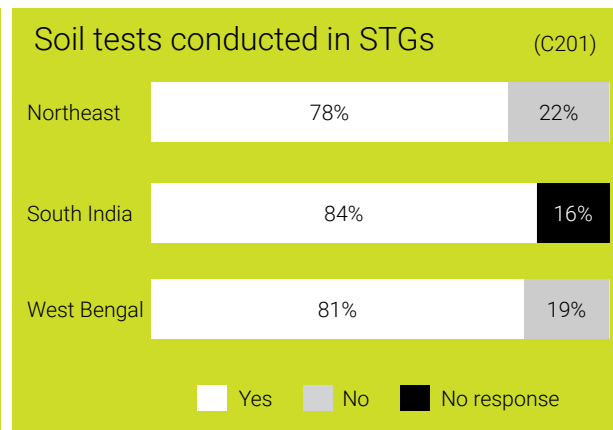
attributable to the capacity-building programmes conducted by *trustea*.

100% of *trustea*-verified estates in Northeast and South India are conducting soil tests for adopting scientific farming practices, which has even become a regular practice for most of the STGs under the programme (refer to chapter 7).

From interacting with senior management of verified entities in the Northeast region, the entities have adopted soil-management practices and are using fertilisers as per recommendations by TRA and/or TBI. They have enhanced the soil fertility in their plantations by recycling organic matter into vermicompost. The STGs in Northeast India have adopted the agricultural practices recommended by the *trustea* standard such as soil testing, shade-tree planting, green-leaf plucking and trapping.

In South India, STGs have adopted soil-conservation methods to protect topsoil and improve soil retention. Trenches are made between alternate rows to hold rainwater and avoid erosion and soil tests are regularly conducted before applying fertilisers.

In West Bengal, the use of vermicompost has helped improve soil fertility and soil health and has been beneficial for maintaining the overall soil ecosystem.



Water management

Tea is a water-intensive crop. It is important for the tea industry to become water efficient with optimal use and minimal loss of water. Effluent management is also important to prevent pollution of water sources. Optimum water use and better yields result in a beneficial impact with increased sustainability

Application of appropriate irrigation method

resulted in better yield and productivity (water)

The interventions

The *trustea* Code requires entities to adopt efficient irrigation processes and water delivery systems to minimise water losses. Tea growers and workers are made aware of water wastage, its importance and the most efficient water-delivery irrigation system used to minimise wastage.

The *trustea* Code ensures compliance to legal regulations related to water use and management. The programme provides access to resources,

knowledge, technology and training on water-management practices to the entities. Tea producers and entities have been trained on different types of irrigation methods and are now adopting practices to help improve productivity as well as water use efficiency. Sewage management systems to avoid water pollution from chemical run-offs and waste-water treatment plans have also been implemented.

The impact

- Introduction of quantified water-measurement system
- Use of appropriate irrigation method as per land topography and climatic condition
- Effective wastewater treatment and sewage-management system

Introduction of quantified water-measurement system

The tea producers have started recording details of water use in factories, gardens and accommodations. Entities have started planning rational water use to help set a target for reduction in water usage leading to less freshwater consumption per unit produced.

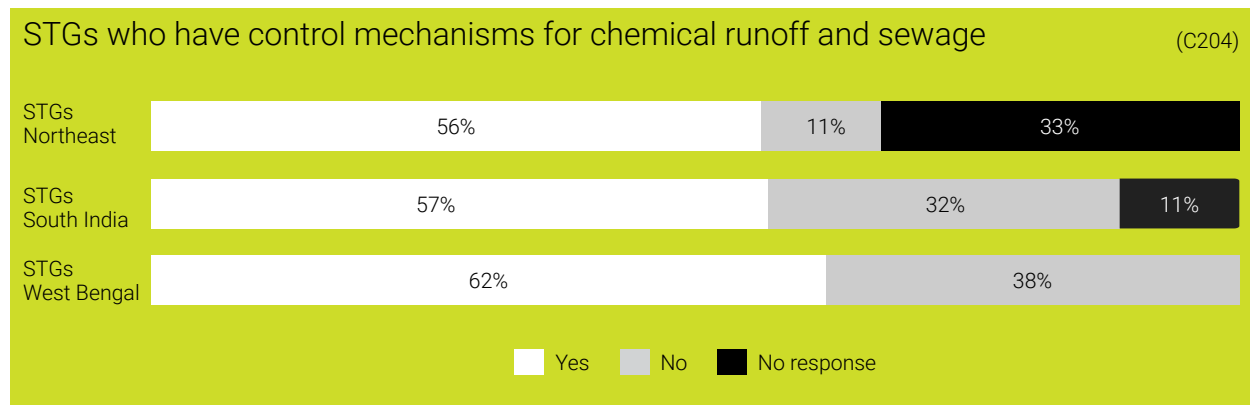
Use of appropriate irrigation method as per land topography of the land and climatic condition

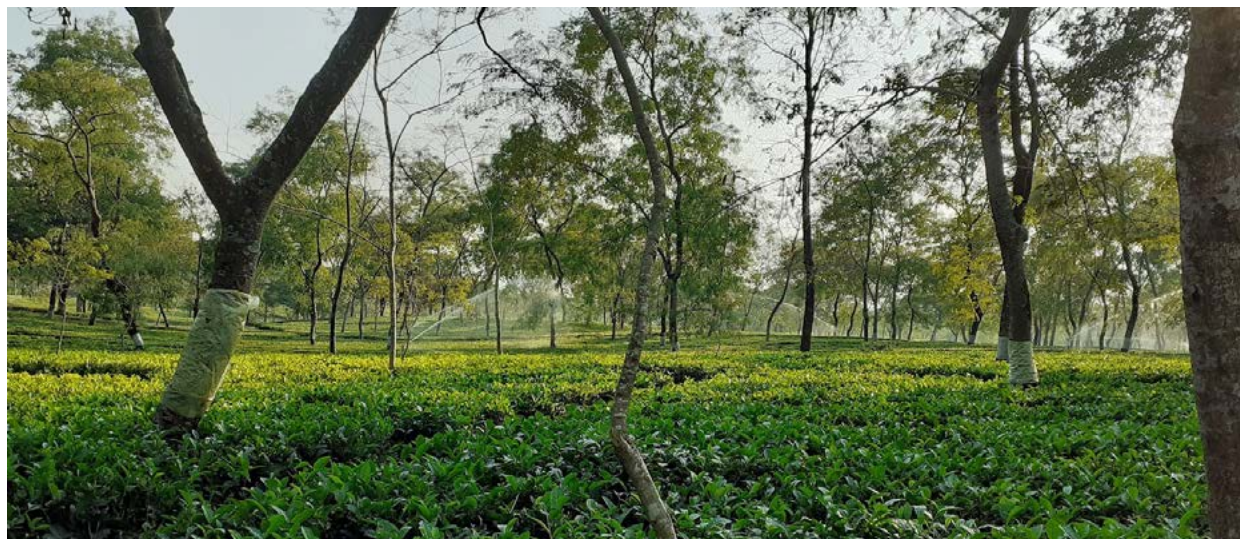
Selection of appropriate irrigation methods helps reduce water wastage and improve irrigation efficiency. Research institutes recommend suitable irrigation methods and its frequency to the tea growers which have resulted in better yields.

For example, a drip irrigation method is used for young tea sections whereas the subsoil irrigation method is used in difficult terrain like steep slopes. In some places, even the sprinkler irrigation system is used depending on the climatic conditions

Effective wastewater treatment and sewage-management system

Introduction of wastewater treatment for the effluents and sewage run-offs has resulted in the reduction of water pollutants in natural water bodies, which in turn reduces water pollution and protects the water-based ecosystem. The water treatment helped to reduce Biological Oxygen Demand (BOD) and Chemical Oxygen Demand (COD) in water discharged in the nearby ecosystem. Sewage run-offs are directed towards sewage treatment plants through concrete drains and where appropriate, discharged water is being treated to reduce microbiological content.





3

GOOD TO KNOW

BUDLABETA TEA ESTATE FACTORY & STGs

Challenge

The estate did not have any water use measurement system in place and they were not sure whether the irrigation systems used were appropriate. Management and worker communities on the estate were unaware of the total water usage and were not sure how to select the appropriate irrigation method.

Intervention

After joining *trustea*, the estate started to make changes to comply with the *trustea* Code and standard. They adopted GAPs and selected an appropriate irrigation method as per TRI guidance and started to monitor water usage through water-management practices.

Impact

This helped in reduced and sustainable water use and better yield and productivity.

Identifying requirements, creating awareness and a systematic plan helping to manage water resource efficiently

ENSURES

**▲
REDUCE WATER CONSUMPTION**

**▲
BETTER YIELD AND PRODUCTIVITY**

**▲
IMPROVED WATER FOOTPRINT**

Fertiliser application and management

Fertilisers are essential inputs in the farming system. It is important that the nutrients are used efficiently for economic and environmental sustainability. Further, only regulated and recommended fertilisers should be used to maintain soil fertility and achieve optimum productivity. To ensure GAPs are followed, it is important to select recommended and permitted fertilisers for tea applications by the authorities, maintain the appropriate dosage and application practices and importantly, proper storage and disposal mechanisms

The interventions

All *trustea*-verified units are mandated to use PPC and FSSAI-approved chemicals within the allowed Maximum Residue Limits (MRLs). They are now more aware of fertiliser application techniques. *trustea*-verified entities identified and deployed

appropriate buffer zones. The growers adopted the Integrated Pest Management (IPM) Plan, which provides a framework of adoption of organic fertilisers and pesticides.

The impact

- Selection and application of regulated and permitted fertilisers
- Safe storage and disposal of fertiliser containers
- Judicious use of approved Plant Protection Formulations

Selection and application of regulated and permitted fertilisers

Only recommended fertilisers from governmental research institutions are being used by *trustea*-verified entities. Where a specific recommendation is not available, fertilisers are selected based on the soil characteristics discovered through field-test reports.

Workers engaged in application of fertilisers are trained on the proper and safe method of application. While handling fertilisers, appropriate personal protective equipment (PPE) is used. Application of chemical fertiliser is done with a buffer zone to reduce contamination to human habitats and water bodies.

Safe storage and disposal of fertiliser containers

Along with the verified entities, STGs are also using recommended fertilisers with proper segregation and storage. Fertilisers are stored in dry and ventilated places with a spillage retention system.

The success story of the STG across the regions

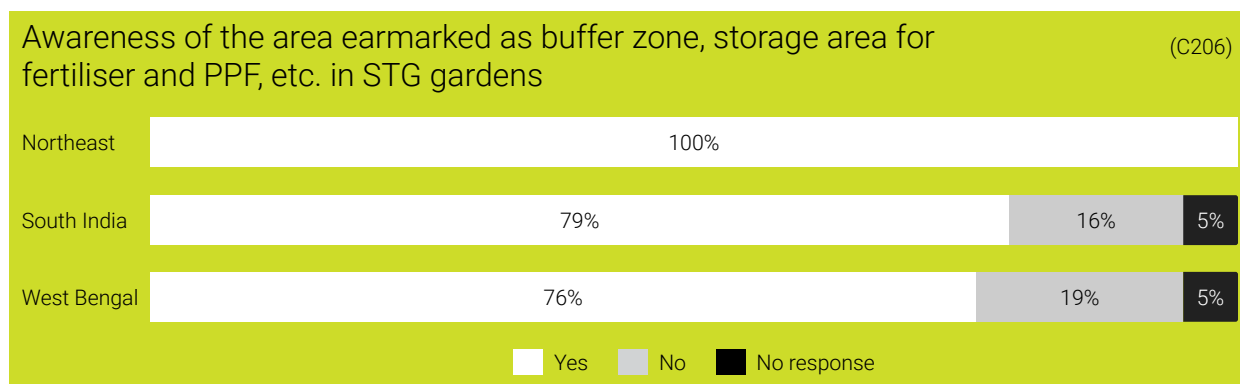
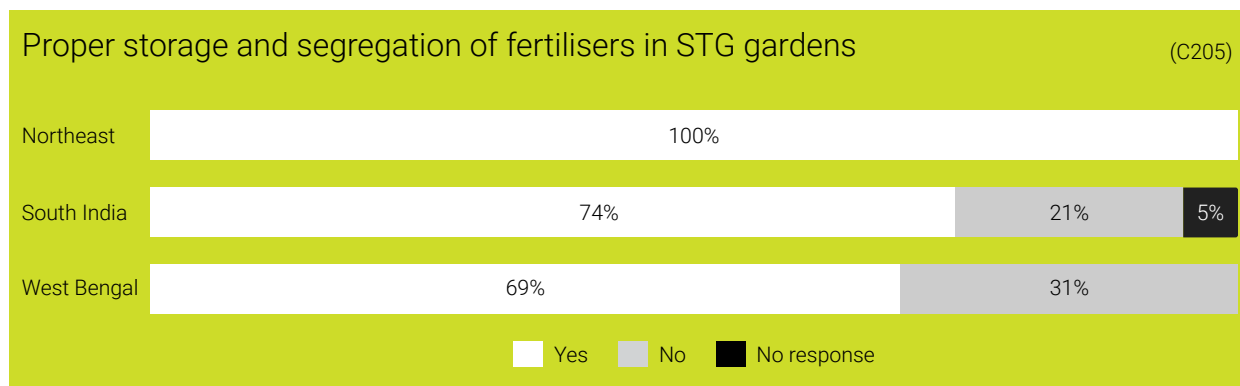
Today, verified STGs across all regions are following recommended practice for storage and segregation of fertilisers, using regulated fertilisers and identifying areas to serve as buffer zones. Nepuchapur Tea estate officials say *trustea* has helped in buffer-zone identification and they have strictly maintained it. Stringent measures are taken for proper protection during chemical spraying and are being followed by the workers, which has helped reduce the excessive use of chemicals in tea gardens.

Management of Havukal Tea and Produce Company Pvt Ltd expressed their satisfaction that these interventions have resulted in reduction of pesticides/fungicides usage and they have even initiated vermicompost production in the estate for improving soil fertility and health. Biocontrol agents are produced by the estate for

consumption within the estate gardens, which helps in maintaining and balancing the plant species along with their natural enemies. A new method known as “predator rearing” has also been planned by the estate for controlling pests in their crops.

Management of Rousdonmullai Tea Estates

The estate stated the application of fertilisers is executed with the recommended dosage and they also have segregated buffer zones. They increased the use of only recommended organic chemicals and are increasingly replacing them with inorganic chemicals. They have earmarked separate chemical mixing areas and are storing chemicals and fertilisers in a separate room with access control. Workers engaged in chemical spraying are doing so using proper techniques and measures.



Judicious use of Plant Protection Formulations (PPFs) leading to production of safe tea for consumption

Proper and judicious use of PPFs is important for food safety. The legal framework for usage of chemicals is contained in the Plant Protection Code (PPC) and the FSSAI norms. The PPC further provides guidance on the IPM Plan. These interventions ensure effective control of pests and diseases with minimal use of PPFs that are safer to use in tea plantations and are line with FSSAI stipulations.

The interventions

trustea-verified entities must only use the PPFs recommended by the TBI and are also required to maintain the records of PPF purchase, use, inventory and applications. Training and hand-holding programmes have been conducted on a regular basis with estate management and STGs. The implementation team continuously engage

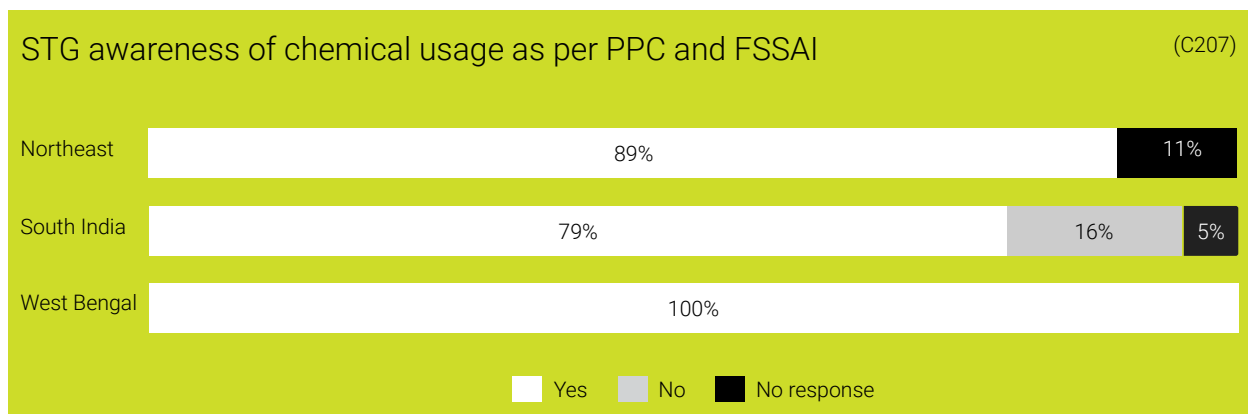
with STGs to create awareness of PPFs, their impact, method of application, safe storage and disposal practices. The entities and growers are made aware of the proper handling of chemical waste by reuse, recycle or safe disposal to help prevent accidents and reduce health risks from exposure and environmental contaminants.

The impact

- Use of PPC-approved chemicals
- Establishing segregated facilities for hazardous chemicals
- Use of PPE

Use of PPC-approved chemicals

PPFs have an impact on human health. Hence, *trustea* only recommends PPFs approved by TBI. The PPC gives a list of chemicals for the growers' use. Chemicals excluded in the list are considered banned chemicals – even the STGs are trained and made aware of this.



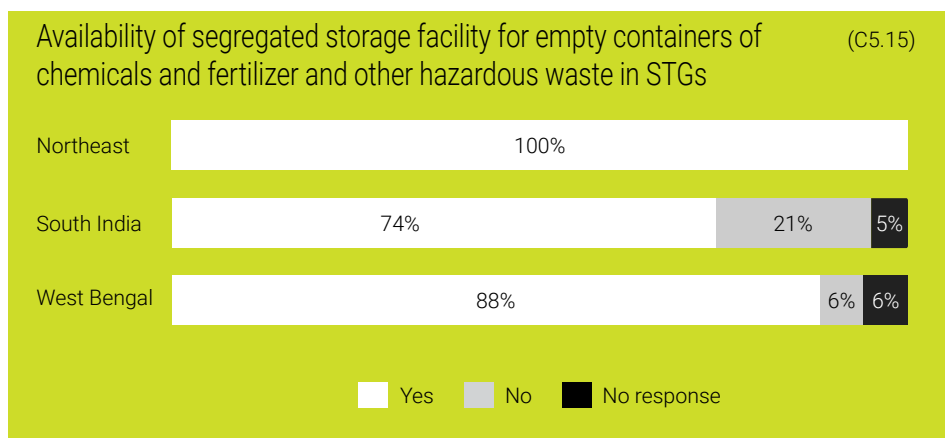
During the on-ground study, special focus was given to the STGs. STGs are mostly a part of the unorganised sector in the tea supply chain, even when it was found they have been trained on chemical use and are applying them as per the PPC.

89% of tea growers in Northeast India and 79% of growers in South India are aware of the approved chemicals, whereas in West Bengal, 100% of the STGs are aware of them.

Establishing segregated facilities for hazardous chemicals

trustea-verified entities have designated areas for mixing, storage, segregation and disposal of chemicals. They ensure safe disposal of chemical containers.

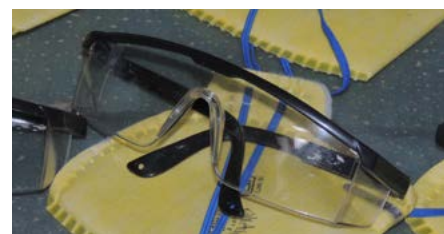
STGs are trained on how to segregate chemicals and store and/or dispose empty containers.



100% of the STGs in the Northeast are segregating the chemicals, while STGs in South India and West Bengal are yet to achieve 100% compliance of this requirement.

PPE for workers (C402)

Worker Type	Region	Percentage
BLF workers	Northeast	100%
	South India	100%
	West Bengal	100%
TE workers	Northeast	100%
	South India	100%
	West Bengal	100%



Use of PPE

PPE is issued free of cost to everybody associated with the *trustea* programme. Workers across the estates and BLFs are using PPE with additional PPE access.

Comparing workers accessing PPEs while working with agrochemicals from the initial stages of the programme to the present shows a significant improvement; the same is true for BLF workers' access to PPE.

The p-value for workers' access to PPE is 6.02E-06 and the p-value for BLF workers' access to PPE is 4.00E-41. In both cases, the p-value is less than .01, which indicates a significant improvement.

	Yes	chi-square	p-value*
Current	100	20.48	6.02E-06
2015	83		

* A p-value less than .01 indicates significant improvement

	Yes	chi-square	p-value
Current	100	180.38	4.00E-41
2017	35.66		

During an interaction with an estate manager at one of the tea estates in West Bengal, IPM techniques have benefited estates greatly by reducing pest-control costs.

Only PPC-approved chemicals are used in estates. Cultural practices have been changed to enable biological control of pests. Verified entities strictly follow the *trustea* guidelines for applying biological preparations and implementing other pest control measures, including using light traps and yellow sticky traps, planting "Citronella" and removing larvae, pupae, etc. Measures in accordance with IPM have been taken to reduce the usage of hazardous agrochemicals. Gardens are using botanicals such as *Clerodendrum Viscosum* (dhopattita), *Polygonum Hydropiper* Casia Tora, *Vitex Negundo* (aromatic shrub) and *Posatia* (fungus) against various pests as propagated by IPM experts and in line with the PPC.



4

GOOD TO KNOW

Harrisons Malayalam Limited SBU B (Wayanad Group STG)

Challenge

There was limited awareness of a holistic approach to environmentally-friendly pest-management practices. Lack of training and knowledge was a major roadblock in adopting IPM's guidelines upheld in the PPC, which resulted in improper use of chemicals and hindered systematic progress towards IPM adoption.

Intervention

trustea contributed largely by developing guidelines on IPM. The Code mandates the adoption of the IPM Plan to provide a balanced set of practices for pest and weed management. The Farm Support Centres also played a key role in adopting the Code and supporting the effective implementation in the estates and smallholder farms.

Impact

IPM, including biological controls and GAPs, is practised across estates and STG gardens, thus reducing excessive use of chemicals and controlling pests and diseases by:

- ☒ ● using eco-friendly chemicals in lieu of toxic chemicals;
- ☒ ● spraying chemicals at the right time using correct techniques;
- ☒ ● producing biocontrol agents for use within the estates – estates are implementing 'predator rearing' techniques for controlling pest infestation on the crops;
- ☒ ● shifting gradually towards chemicals which pose a lesser health hazard;
- ☒ ● utilising organic pest-control measures and PPC-approved chemicals for biological control of pests.

Use of IPM helped producers manage crops more efficiently

ENSURES

▲
REDUCED USED OF AGROCHEMICALS

▲
IMPROVED BIOLOGICAL CONTROLS OF PESTS

▲
IMPROVED YIELD

4.3

Food safety

India is the second-largest producer of tea with an increasing number of consumers every year. Food safety is an important concern, not only from the consumers' perspective but also because compliance with the regulations by FSSAI and TBI is mandatory for all producers.

Food contamination refers to food affected by another substance creating adverse health conditions to the consumer. Generally, there are three types of food-safety hazards – physical, biological and chemical.

Some of the major food-safety hazards are posed by the presence of pesticide residues, heavy metals, iron filings and toxic substances.

From the agricultural practices during tea production until the final consumption, there are several checkpoints to ensure food safety in tea production.

trustea is the first tea sustainability code (national or international) to focus on food-safety issues as one of the key areas in the Code. The chapter on Food Safety in the Code refers to the requirements of the Food Safety and Standards Act, 2006. All *trustea*-verified entities have to implement and follow all good manufacturing practices (GMPs) and good hygienic practices (GHPs) during production.

The interventions

The concept of food safety was introduced to the Indian tea industry by the TBI during the late 1990s when the Hazard Analysis and Critical Control Points (HACCP) standard was published. *trustea* aligned the food-safety requirements along with other social and environmental principles to include all aspects of sustainable tea production. The Code started building capabilities for the producers including BLFs and STGs – creating an awareness of food safety and establishing standard operating procedures on GMPs and GHPs.

The challenge was to change producers’ mindsets to adopt and implement recommended hygiene

practices, particularly in the BLF sector and among STGs who were less exposed to these concepts as compared to the organised, estate segment. Systematic training and awareness programmes coupled with focused assessments helped implement these systems at the verified entities.

Further, the *trustea* Code requires all verified entities to analyse tea and evaluate residue levels against guidelines by the TBI and FSSAI to ensure it does not exceed the maximum residue limits and a food-safe tea eventually reaches the consumer’s cart.

The impact

- Compliance to the national guideline on food safety
- Prevent contamination by foreign and harmful substances and particles

Compliance to the national guideline on food safety

Food Safety and Standards Act India 2006 came into effect several years before the *trustea* programme was launched. However, in many cases, there was a lack of understanding and awareness in the tea industry about the Act and an absence of an enforcement mechanism in the industry because of scale and outreach challenges.

trustea, being the first Indian sustainability tea code, provided a structured approach to address

food-safety issues based on identifying food hazards and promoting GMPs and GHPs as prerequisites of food safety. This resulted in increased awareness among the stakeholders in the tea industry and paved the way for a systematic adoption of FSSAI regulations. The *trustea* Code requirements are in line with FSSAI guidelines which ensures verified entities are also legally compliant.



100%

residue testing
performed across
all verified factories
of all regions

Prevent contamination by foreign and harmful substances and particles

Tea production faces three types of contamination hazards – physical, chemical and biological. In the absence of GMPs and GHPs, the tea produced is exposed to different contamination possibilities. To mitigate these risks, several measures have been taken by *trustea*-verified entities. Light bulbs and other materials are covered and



protected to minimise the chance of physical food contamination. All equipment in direct contact with the tea produced is disinfected regularly to prevent contamination from microbes. A detailed food-contamination, risk-mapping management and risk plan ensures control of the production process resulting in safe tea production for consumption

5

GOOD TO KNOW

Parry Agro Industries Limited – Sheikalmudi Estate, Valparai

The challenge

Product contamination cases were reported due to the absence of specified tests and hygienic conditions, posing a risk in terms of increased probability of customer complaints and other health issues.

Intervention

Food safety practices including GMPs and GHPs along with residue testing were implemented. Residue testing is now done twice a year by an approved authority. Results of the test are always kept within the maximum residue limits.

Impact

As a result of these adopted protocols, there is a recognised improvement as no contamination cases have been reported and all tests (FSSAI, MRL and bacterial) are carried out as regulatory guidelines, which has helped in ensuring food safety and maintaining hygienic conditions.

Higher buyer confidence on safer and compliant product

ENSURES

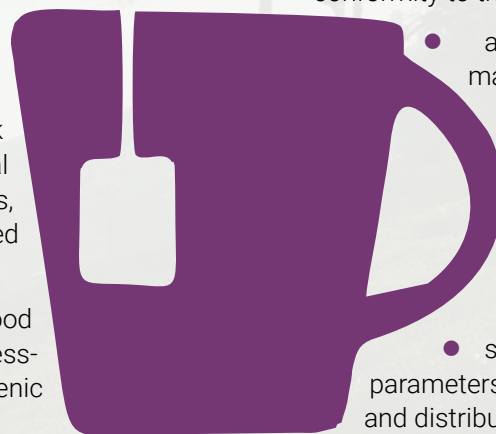
MRL TESTING

GOOD GMPs AND GHPs

COMPLIANCE TO NATIONAL REGULATION RELATED TO FOOD SAFETY

CHENG MARI TEA CO. PVT. LTD. in North Bengal has taken several measures as per the *trustea* Code to prevent contamination. These measures have helped the entity ensure food safety in their products and have met national legal requirements. Some of these measures include:

- periodic sampling of Black Tea for iron fillings and chemical residues – as per their reports, all samples are within stipulated levels;
- use of food-grade grease, good quality conveyor belts and stainless-steel materials to provide a hygienic production environment;
- in areas where the tea is in open exposure, light bulbs are adequately covered or replaced gradually by LED lights to ensure there



is no risk of miniscule glass fragments causing contamination to the tea under packaging;

- regular analysis of tea ensures safety and conformity to the PPC;
- an increased number of magnets to reduce contamination by iron particles;
- netting over factory windows and doors to reduce contamination ingress of insects or birds in the manufacturing area;
- strict monitoring of all quality parameters of manufacturing, storage and distribution;
- ensuring food safety by strictly following FSSAI standards and regulating usage of approved chemicals within prescribed limits.

4.4

Health & safety

The Indian tea industry is a very labour-intensive process with varying degrees of automation. Workplace safety is a critical focus area for the *truste*a programme. Government regulations also require adoption of preventive measures to ensure a safe working environment for the workforce.

Workers in the tea industry are exposed to a variety of occupational health and safety (H&S) hazards. To minimise this, a systematic approach of hazard identification, risk assessment and setting subsequent controls across the processes and activities is required.

National regulations such as the Factories Act, 1948 and the Plantation Labour Act (PLA), 1951 elaborate on the safety and health measures required to follow while working in the tea factories and plantations respectively. A safe workplace not only prevents accidents, but improves productivity and boosts the morale of the workforce.

Accident prevention and ill health are priorities for everyone in the workplace. *trustea*-verified units analyse and work to prevent potential hazards to minimise its impact on human health. An operation-wide, end to end detailed mapping of personnel exposure to workplace hazards leading to a risk identification and mitigation plan is a mandatory part of the *trustea* process. This creates a framework for safe workplaces going beyond legal compliance.

The interventions

The *trustea* Code requires verified entities to have a safety policy along with health and safety risk assessments across operations. As a first step, identification of hazards and risk evaluations are conducted by the entities. Subsequently, risk mitigation plans and control mechanisms are introduced and implemented.

Before *trustea* implementation, occupational H&S risk management was not a guided practice in the Indian tea industry. With the implementation

of the *trustea* programme, training programs on lesser known areas of work (e.g. safe spraying of agrochemicals and PPE importance and use) raised the level of awareness among the estate management and workers as well as STGs and BLFs. This resulted in a greater awareness, especially among the vulnerable working groups (adolescent workers, pregnant women and nursing mothers) and the management of how to deal with operational risks and hazardous substances.

The impact

- H&S awareness and competence development
- H&S risk-management protocols in place
- Reduction in reported incidents caused due to improper handling of chemicals
- Improvement in medical facility



**Use of PPE
during chemical
handling**

results in
reduction of accidents

H&S awareness and competence development

Training and capacity building of the management, supervisors and workers on occupational H&S is a critical part of *trustea*. Awareness of safe working practices across the verified entities, including BLFs and STGs, has improved significantly over time. Through regular trainings, workers are made aware of common operational hazards and H&S debriefing sessions (toolbox meetings) are conducted before activities like spraying, which can be particularly hazardous in nature.

50% of West Bengal workers and 91% of tea estate workers in Southern India have been trained on workplace safety measures.

H&S risk-management protocols in place

Traditionally, occupational H&S management has not been an area widely discussed in the sector.

trustea Code recommended a systematic risk assessment approach where every process is mapped to its associated hazards and relevant controls.

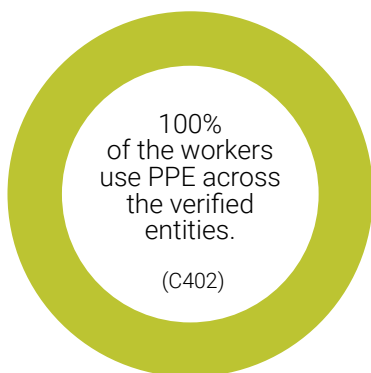
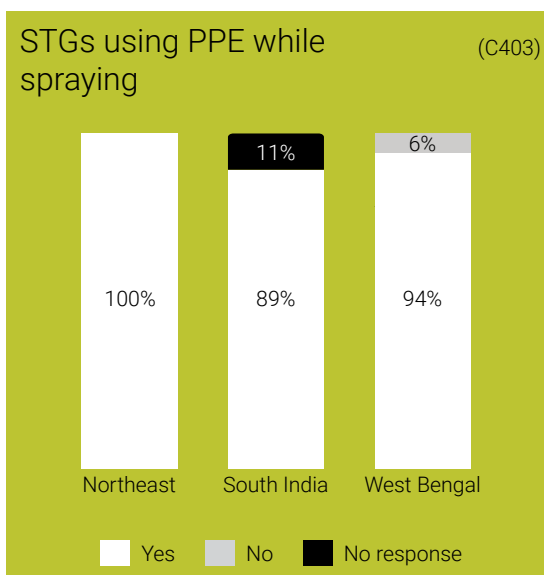
Today, the verified entities are compliant to risk assessment requirements – with higher H&S awareness among the management and workforce and introduction of engineering (such as machine guards), administrative controls (emergency evacuation plan) and use of appropriate PPE. Workers have started using PPE as required while performing hazardous tasks.



Reduction in reported incidents caused by improper handling of chemicals

Handling, mixing, storage and spraying chemicals and disposal of the empty chemical container are considered, among others, to be hazardous processes.

During programme implementation, workers are trained on the hazards associated with individual production and processing activities and the importance and use of PPE, which is mandated. PPE (aprons, gloves, masks, gumboots, umbrellas, slippers and goggles, etc.) are provided free of cost to the workers.



Today, the use of PPE for handling chemicals among all STGs in the Northeast is higher than those in West Bengal and South India.

No major incidents have been reported due to the misuse of agrochemicals in verified entities. Knowledge and awareness of PPE is now much higher among the workers, management and growers.

Improvement in medical facility

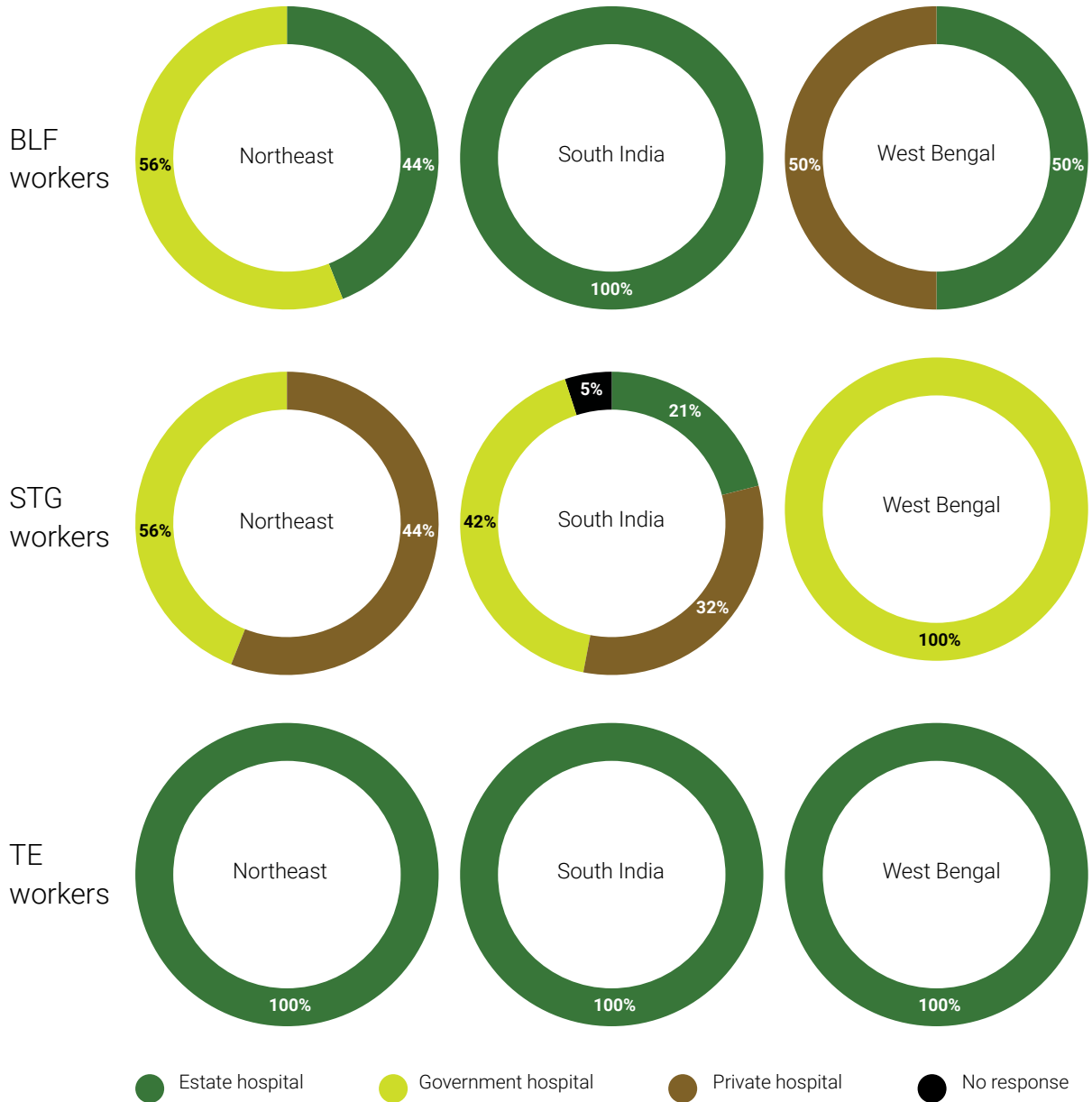
The *trustea* programme ensures all legally-mandated health benefits reach the workers and their families. Any gaps in healthcare-related facilities are assessed and the system ensures the entities close these gaps to comply with programme mandates.

While the PLA sets the requirements of medical facilities for estates, BLF and STG workers have to access the medical facilities in the vicinity. The programme reviews the accessibility of such facilities to ensure emergency care is available and directs the entities' focus towards ensuring such provisions.

Moreover, implementation of the *trustea* system has ensured the Factories Act mandated first-aid provisions are provided for and made fully available within the manufacturing establishments.

Where do you get treatment for your ailments? (first preference)

(C404)



6

GOOD TO KNOW

STGs supplying to Bilatibari Tea Company Pvt Ltd (Estate)

The challenge

The lack of awareness and focus on due precautions and not using PPE caused exposure to chemical hazards for the small growers during chemical application.

Intervention

During implementation of the *trustea* programme, the PPE requirement was identified as a key risk-mitigation tool. Growers were trained on the importance of PPE and which PPE was identified for use in hazardous operations; appropriate PPE was issued free of cost to the growers.

Evidence exists for PPE requisition, purchase and issue records. PPE is properly stored by the growers.

Impact

The usage of PPE improved significantly. Workers started to understand PPE is for their own safety. This resulted in reduction of exposure and health hazards due to spraying of chemicals.

Risk of ill health due to exposure to hazardous chemicals has been reduced

ENSURES

**▲
LESSER OCCUPATIONAL
HEALTH RELATED INCIDENTS**

**▲
IMPROVED
PRODUCTIVITY**

**▲
IMPROVED WORKER
MORALE**

4.5

Working conditions and workers rights

The Indian regulatory framework sets clear guidelines on working conditions applicable to all organisations, paving the way for a socially-protected landscape. Adhering to labour rights result in workforce stability which can influence long-term sustainability and growth of the organisation.

The ILO Declaration on Social Justice states social security, fundamental principles and workers' rights are inseparable, interrelated and mutually supportive. Of course, there are many ways in which social security interrelates with fundamental principles and rights at work. Social protection systems are closely interrelated with other areas of labour rights. It is important for the organisations to not only be legally compliant, but also aspire to move beyond compliance in order to positively impact the workforce.

Responsible business practices in a labour-intensive tea industry entail protection of labour rights, ensuring a secure working environment and satisfactory living conditions.

The *trustea* Code recognizes the right of workers to a conducive work environment. Moreover, a healthy, skilled and motivated worker will be an asset to any entity. To ensure labour rights are exercised and to support social justice, the *trustea* Code makes it mandatory for verified organisations to be compliant to all applicable national laws of well-being and social security.

The interventions

When *trustea* was launched, the primary focus of the programme was ensuring compliance to national and sector-specific labour laws across all verified entities, including the relatively new components of the tea supply chain, namely the STGs and BLFs' segment of the supply chain. The programme ensured the implementation of the labour laws as key to protect human rights, including:

- prohibition of child labour;
- prohibition of forced or trafficked labour;
- freedom of association and right to collective bargaining;
- equal treatment among workers;
- minimum wage compliance;
- stipulations related to working hours;
- providing social security benefits (PF, ESI, Bonus);
- maternity benefits;
- prevention of sexual harassment;
- gender equality.

Prior to the outreach by the programme partners, very limited knowledge/awareness among the STGs and BLFs on these requirements had been assessed. The *trustea* implementation team intervened at different levels to create an awareness through continuous trainings to the entities and growers. The initiative was further supported by provisions of crèche and educational facilities for children. Interventions were also made on standardisation of accommodation, provision of drinking water and sanitation facilities as mandated by law.

The impact

- Elimination of child labour
- Protection of human rights
- Grievance redressal system
- Wage payment and statutory compliances
- Decent housing and accommodations

Elimination of child labour

Child labour has traditionally been a concern for the agricultural sector in India and the tea sector is no exception. There have been several reported incidents in which a child is engaged in farm activities at the cost of his/her education or other aspects of childhood, mostly inadvertently. Awareness was low in the sector regarding what defines child labour, impact on the child and the community and the legal repercussions. There were conflicting messages on applicability due to incongruence between well-known global definitions and the definition as per Indian laws.



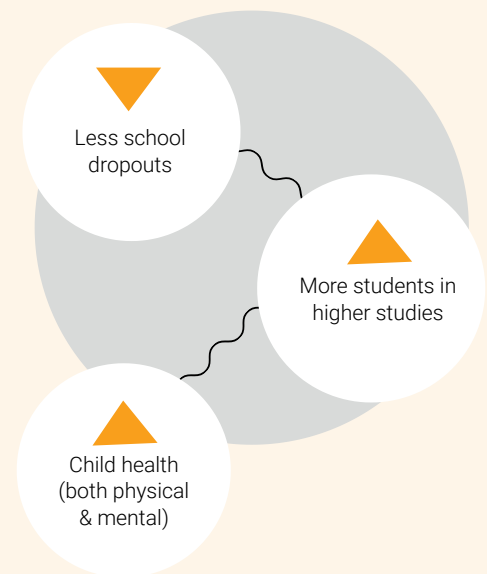
With the introduction of *trustea*, two very important interventions came into place:

- awareness of legal requirements on child labour and the remediation plans;
- introduction of the age-verification system.

As a result, the verified entities have 100% compliance due to the elimination of child labour and this outcome will create further impact, such as improvement in child education.



This is an outcome which will create further impacts like improvement in child education.



Protection of human rights

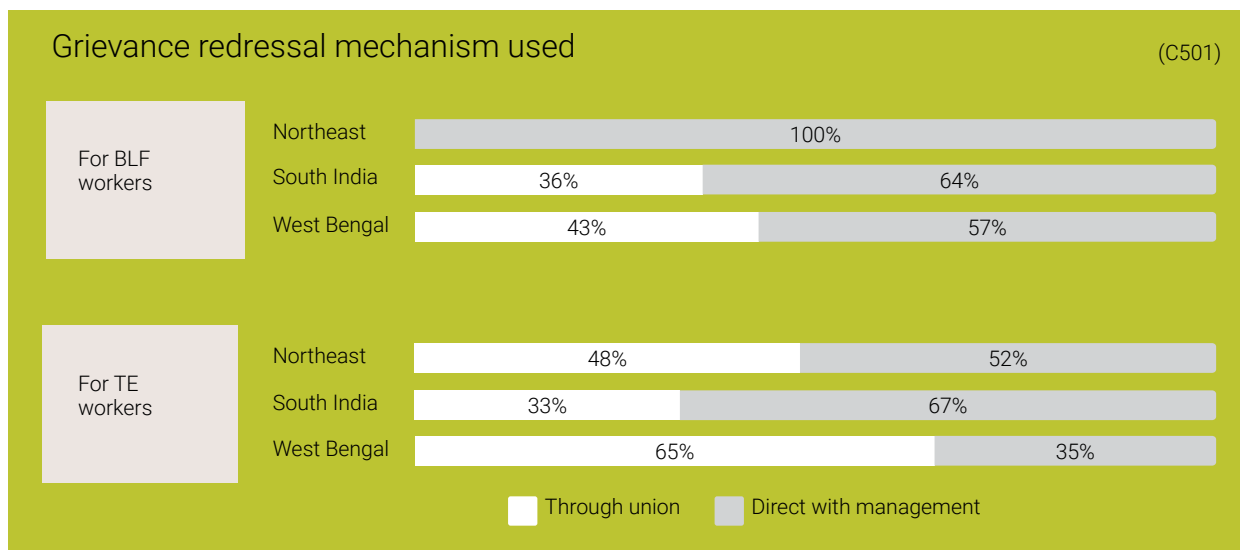
The areas under tea cultivation are spread far and wide and several estates/producing units are located in remote corners with limited access to some facilities, resulting in limited contact and field outreach by agencies and resources. Moreover, the awareness across the management and workforce on human rights' issues were also low due to the informational asymmetry in the regulatory practices.

Through the implementation of the *trustea* Code, these entities have been made aware of the applicable human rights' stipulations and satisfactory working conditions for the workers and the growers. The requirements of the Code and sensitisation by the programme implementation resources at the field level for management as well as workforce resulted in a sea change in the way management engaged with the workforce.

Today, the verified units comply with human rights' requirements including anti-slavery, equal opportunity, equal pay for equal work, fair and transparent hiring practices, fair remuneration, access to training and upskilling and transparent promotion processes.

Grievance redressal system

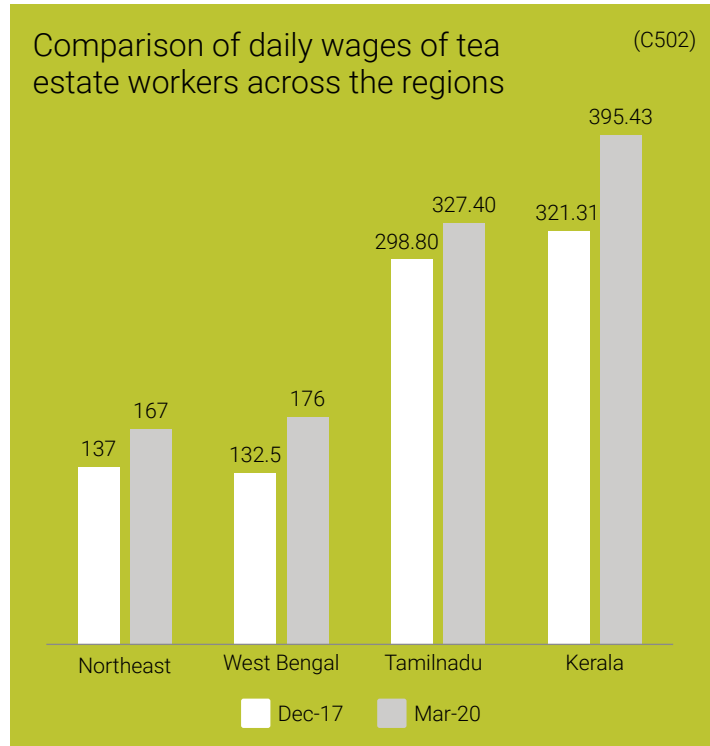
A structured grievance redressal system has been established across the verified entities to protect the identity and the rights of the worker. Workers are aware of this procedure and either directly approach management or the union with their grievance.



Wage payment and statutory compliances

Through the Code adoption, entities have been engaged in and trained on how to improve standard processes such as payment of wages, calculation and compensation for overtime work and other statutory compliances. After implementing *trustea*, uniformity in the system has been observed in compliance with statutory requirements in the following areas:

- payment of minimum wages;
- regularisation of payment method and working hours;
- proper recording and paying overtime work especially for the factory workers, which is ascertained through the factory in-and-out register;
- ensuring social-security benefits like PF and gratuity.



Daily wages for tea estate workers have significantly improved due to better compliance as a result of *trustea* implementation across the three regions compared to the survey data of 2017.

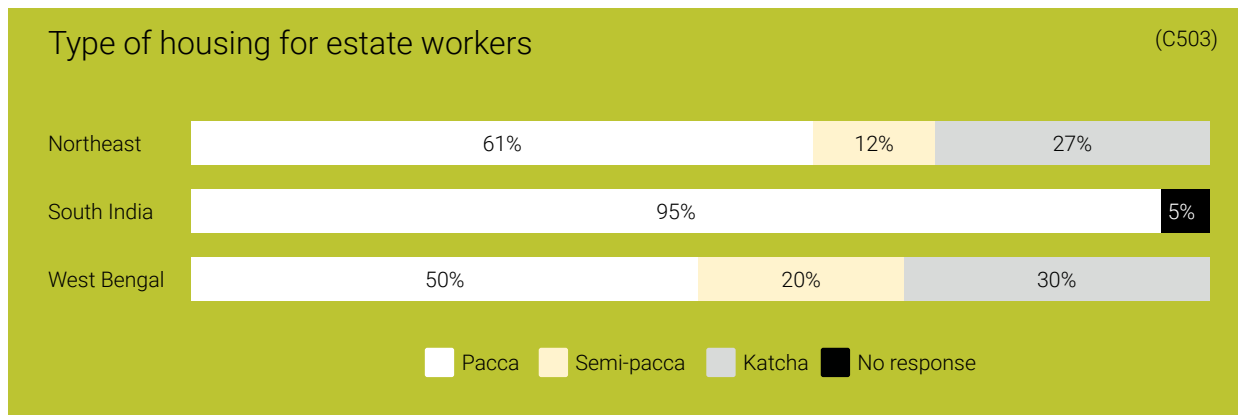
Decent housing and accommodations

Housing and sanitation have been areas of concern in many Indian tea-producing units because of high maintenance costs, especially in the estates struggling with overall high overheads.



A 'pacca' house at a tea estate in Northeast India.

Now, a large number of verified estates are providing accommodations to permanent workers including their family members. There is a plan for transformation from 'Katcha' house to 'pacca' house.



7

GOOD TO KNOW

Arun Tea Estate

Challenge

Many tea estates struggled to bring drinking water from ring well or tank to remote places and Arun Tea Estate was not immune from these issues. Water purity emerged as a major issue. The unavailability of potable drinking water thus became one of the greatest challenges, posing a threat of waterborne diseases across the community.

Intervention

While there was a legal provision on the water supply for estate workers, the implementation on the ground had much scope for implementation. Due to continuous intervention, training and assessments by *trustea*, good water-quality water within easy reach is now available at estate-worker colonies as well as manufacturing locations and crèches. Water supply from ring well or tank is tested periodically to keep free from bacterial and other impurities.

Impact

Availability of potable drinking water.
Reduction in incidences of waterborne diseases.

Easy access to potable drinking water helped reduce water-related diseases

ENSURES

WORKER HEALTH & WELFARE

HUMAN RIGHTS

COMPLIANCE TO LEGAL REQUIREMENTS

4.6 Environmental management and protection

Tea cultivation entails utilising natural resources such as land, water and different forms of energy. Even though it is perceived as a green industry, there are several environmental concerns associated with tea production including deforestation, imbalance in biodiversity, overuse of water and agrochemicals, generations of hazardous waste and possible contamination of water bodies.

However, a systematic analysis of environmental risks can help set adequate controls throughout the process to minimise the harmful effects. This would result in an environment-friendly industry and ensure compliance with national legal requirements like Environment Protection Act (EPA) and a sustainable future for the communities dependent on the sector.

A. Biodiversity and environmental management

Tea-producing entities in India are mostly situated in, around or within sensitive biodiverse zones or hotspots. It is important to protect biodiversity by reducing the dependence on scarce natural resources and impact on the land and habitat (flora and fauna) of the native species.

The interventions

trustea emphasises minimising the adverse impact of the tea industry on the environment. There has been a shift as verified entities have developed structured environmental-management systems, including identifying procedures to reduce environmental loads of farming and processing on the flora and fauna. Other controls include ensuring non-degradation of forest lands, maintaining shade trees of indigenous varieties and promoting native vegetation.

Additionally, to mitigate any risks of human/animal conflict, awareness programmes on 'no hunting' are conducted. *trustea* has also trained growers and workers to create vegetative barriers or buffer zones in areas where there is an interface between the areas of human activities adjoining plantation areas where chemicals are applied.

The impact

- Supporting biodiversity through environmental management
- Protecting wildlife
- Taking precautions to avoid chemical cross-contamination in the community

Even BLFs and STGs improved their intervention in protecting the environmental ecosystem by protecting surrounding natural habitats, birds, animals and afforestation.

Supporting biodiversity through environmental management

Most tea estates and producing units are situated very near or within unique biodiverse zones; biodiverse landscapes in India are very rich and fragile. In most cases, land and habitat (flora and fauna) of native species in these regions require special attention and protocols going beyond following GAPs.

Verified entities have developed procedures and biodiverse action plans based on local biodiverse studies to identify and protect endangered species. They follow protocols to ensure notified forest land is not degraded by their activities and are encouraged to grow and maintain native and indigenous species of vegetation and shade trees.

These intentional efforts towards biodiverse conservation contribute greatly to reduce environmental impact of the tea industry.

Protecting wildlife

The increased efforts towards wildlife protection are a visible area of improvement, including prohibiting hunting and collecting and trafficking threatened and endangered species within the farm. The verified entities document wildlife species within and around the facility regularly, which helps them to become aware of the species and their importance.

The verified entities' drive campaigns to raise the levels of consciousness among their workers and communities on wildlife protection and benefits to the ecosystem.

The senior manager of Sheikalmudi TE of Parry Agro Industries Ltd, Valparai, shared his views for the purpose of this report – conservation of a biodiverse and natural ecosystem is being strictly monitored after implementation of the *trustea* programme at the estate.



Taking precautions to avoid chemical cross-contamination in the community

trustea requires the entities to have native vegetative barriers between crop production and human activity (such as schools, housing and public roads). The native vegetative barriers help reduce cross-contamination of fertiliser or other PPF into human activity areas, however it also helps maintain an ecological balance.





8

GOOD TO KNOW NEPUCHAPUR TEA ESTATE

Challenge

Before the implementation of *trustea*, the entity did not have a protocol on maintaining any planned vegetative barriers. As a result, there existed a cross-contamination hazard between the field and human habitation.

Intervention

Use of vegetative barriers with proper planning helped to reduce the probability of cross-contamination from human habitats. During the planning and implementation stage, at first, the sources of cross-contamination were identified, then the barriers were chosen according to the purpose it would serve. A list of native species was developed to be used as a vegetative barrier.

Impact

This structured initiative has helped to stop the cross-contamination and protect the land.

Higher confidence of the buyer on safer and compliant products

ENSURES

MRL TESTING

FOLLOW - GMPs AND GHPs

COMPLIANCE TO NATIONAL REGULATION RELATED TO FOOD SAFETY

B. Waste management

Waste segregation and management is a challenge for any agribusiness in terms of hazardous, non-hazardous and biomedical waste and the tea sector is no exception. If not managed properly, it can lead to soil and water pollution and attract large fines and penalties owing to the violation of statutory requirements. *trustea* has acknowledged the importance of waste management and defined a clear set of guidelines to be followed.

The interventions

trustea Code requires a waste-management plan for factories, plantations, hospitals as well as residential facilities. Management, workers and community members are made aware of different types of waste, importance of proper segregation and disposal and the impact of lacking waste-management systems through training programmes.

The entities and the STGs are trained in identifying hazardous, non-hazardous and biomedical waste as well as the protocols for their segregation, storage, handling and disposal. Colour-coded

bins are used for waste segregation. Biomedical waste is treated as per the Bio-Medical Waste Management Rules, 2016 (Central Pollution Control Board, India).

Empty containers of crop-protection products (CPPs) are rinsed thrice and punctured so they are not reused for domestic purposes such as carrying or storing water etc.

Verified entities have made improvements in the areas of energy monitoring and conservation and now use incineration methods for waste burning.

The impact

- Proper identification, storage, segregation and disposal of hazardous, non-hazardous and biomedical waste
- Conservation of energy through energy-monitoring plans
- Reducing, recycling and reusing waste through waste-management plans

Proper identification, storage, segregation and disposal of hazardous, non-hazardous and biomedical waste

trustea requires the entities to implement a waste-management plan to identify hazardous, non-hazardous and biomedical waste. Based on the identification, waste needs to be properly segregated in colour-coded containers and disposed of as per the requirements of the Pollution Control Board. Hazardous agrochemical waste is stored as per the Hazardous and Other Waste (Management and Transboundary Movement) Rules, 2016 thereof to prevent health-related incidents or injuries.

These measures have also been taken up by the STGs, which is a significant achievement.

Waste-segregation practices followed by the STGs in the states in Northeast and South India have a higher compliance (89%) rate than STGs in West Bengal (31%).

Conservation of energy through energy-monitoring plans

The verified entities are now measuring and monitoring energy-consumption sources. Based on this data, they have planned several energy-efficient measures – such as the use of energy-efficient appliances like motors, illumination system, etc. With such measures, the level of awareness of energy efficiency has been increased among the entities.

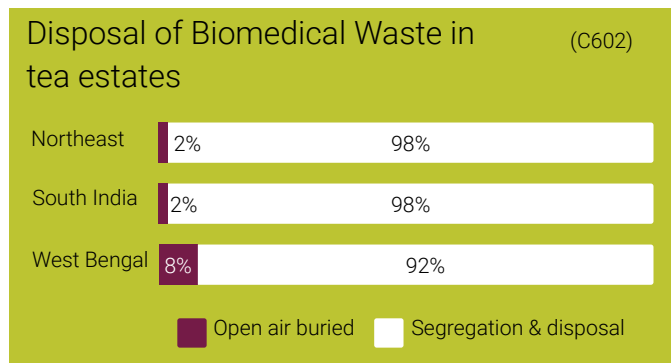
Many entities have conducted energy audits to understand the sources of energy use and possible improvement opportunities.

Reducing, recycling and reusing waste through waste-management plans

The entities and STGs are sensitised about waste types generated in tea production including hazardous and non-hazardous and are trained on its identification, segregation, storage, handling and disposal. Colour-coded bins are used for segregation of waste and biomedical waste is treated as per handling requisites.

Some activities undertaken by the tea growers and entities include:

- empty CPP containers are triple-rinsed and punctured;
- entities took energy monitoring and conservation initiatives.



9

GOOD TO KNOW

Sheikalmudi Tea Estate, Valparai, Kerala

Challenge

There was no clear procedure of waste handling at this estate. Workers were dumping waste at different convenient places of their choice as there was no designated area. Lack of awareness of the hazardous and non-hazardous waste created a risk of leading to soil and water pollution and high environmental loads on the surroundings.

Intervention

trustea brought in awareness through trainings on the need for site- and entity-specific waste-management plans. The implementation team extended their support in the processes of identification, segregation, storage and disposal of different kinds of waste.

Impact

Hazardous and non-hazardous waste is segregated and kept in the colour-coded bins for disposal. Biomedical waste is incinerated. Open-air burning has been reduced across the regions.

Setting clear site-specific procedures in line with *trustea* guidelines helped create awareness and effective implementation

ENSURES

▲
REDUCE,
REUSE AND
MANAGE OF
WASTES

▲
MANAGEMENT
OF HAZARDOUS
WASTE

▲
PREVENTION OF WATER
AND SOIL POLLUTION
AND COMPLIANCE WITH
RELEVANT STATE AND
NATIONAL LAWS



5.0

VOICE OF THE STAKEHOLDERS

This chapter captures the voice of the stakeholders from the three different tea-producing regions of India. *trustea* is a multi-stakeholder programme and the voice of our stakeholders is vital in understanding the programme's impact and potential scope for future collaboration.

5.1 Accelerating Market Transformation

5.2 *trustea*: Contribution to the Sector

5.3 Collaborations within the Sector

5.4 Moving towards Building Consumer Demand



Stakeholders

Producers

Estates, BLF,
small tea
growers

Buyers

Buy the
trustea
verified tea

Funders

Fund the
trustea
programme

**Implementation
partners**

Help in handholding &
implementation
of *trustea*

**Auction centre/
Tea traders**

The *trustea*
verified tea is
being sold

**Industry
associations**

Producers association,
research or
tea traders
association

**Certification
bodies**

Independent verifiers
of the *trustea*
verified tea

5.1

Voice of stakeholders on Accelerating market transformation

trustea has created a significant share within the sustainable tea market in India – today, 48% of tea produced in India is *trustea*-verified.



Producer

Tea producers have reflected their satisfaction on the impact of the *trustea* programme.

Most producers sense comfort and confidence especially when they come across major buyers who are demanding only *trustea*-verified tea, making them optimistic about the future.

However, the producers hold apprehension about a greater supply of *trustea*-certified tea than the demand.

Further, a large number of producers detect they are not reaping any additional price benefit by being *trustea* certified. When compared to other market transformation enablers, the general consensus is that the codes are similar. Thus, the producers expect an improved auditing

“

Premium tea should be selected based on quality. Its price should be determined accordingly. Existing buyers should buy from the auction centre directly. Looking forward to some more significant buyers to participate.

Amarmmeet Singh Nain
Goodricke
February 2020

48%

of the total India tea is now trustea verified

methodology and capacity building of the auditors for additional value.

In general, producers unanimously agree *trustea* improved sustainability awareness in the sector yet a strong percentage of the producers are not sure about the increase in productivity as a direct benefit of *trustea* implementation.

To enhance sustainability in tea supply chain, producers seek more trainings on quality and productivity – beyond the existing training on the *trustea*-certification process and they expect *trustea* to evaluate the impact of the trainings and implementation programmes.



Funders

When IDH united with other founding partners, it was clear that – in order to sustainably transform the tea sector – it was necessary to make this a success in India, which is not only one of the largest producers but also consumers of tea. The opportunity lay in India to demonstrate when sector actors converge and collaborate for sustainability, market transformation is truly possible.

“2012 was the time when sustainability standards were shifting the base of sustainability across supply chains over the world and across sectors. The high-entry barriers created by incongruence between national laws and the technicalities in global standards posed a need to create a locally-developed Code that would strive for continuous improvement while leaving no one behind.”

Judith Fraats
Senior Programme Manager IDH
February 2020



Buyers

trustea has seen committed buyers from the programme’s inception – demonstrated not just by way of their continuous funding to the programme’s activities and support to producers, but also by their corporate-level ambitions of supporting and procuring a sustainable tea to be produced in line with globally-benchmarked and accepted standards.

The buyers perceive confidence as the *trustea* Code is well received by the producer community including a significant percentage of the STGs. They believe the focus on systematic management of operations, environment, consumer safety and labour rights in the *trustea* Code will help with significant market transformation.

Contrary to the producer’s apprehension of oversupply, many buyers detect a shortage of *trustea*-verified tea.

In the competitive certification landscape, most key buyers expressed high confidence in *trustea* and that the *trustea* Code has potential to include

STGs and bring sustainable development even at the grass-root level.

Just as the producers, the buyers are sensible of the need for continuous engagement in the post-verification period.



IPs

IPs generally found *trustea* stands out as a code. It encompasses every aspect – from GAPs and GMPs to social, legal, ethical and environmental issues. This helps the triple bottom line of the entities in the course of time.

They have called out the food-safety chapter as the most distinctive, which the other tea sustainability codes generally do not cover. However, as of now, this chapter only includes guidelines on ‘factory operations’; other processes may be included in this chapter at a later time. The IPs appreciate *trustea*’s attempts to standardise and implement good



*We’ve seen the growing knowledge and understanding level of the *trustea*-verified entities. Through a feedback process from the estate managers, we seek to know their level of engagement and understanding immediately after the hand-holding session.*

Vikram Chauhan
Regional Manager, Ethical Tea Partnership
February 2020

practices among the unorganised BLFs and STGs and are aware the programme has opened up the opportunity to engage with both segments, demonstrating advantages beyond certification.

However, the IPs expressed their concerns regarding a lesser number of self-motivated entities and desired an awareness campaign to highlight the benefits of adopting the Code.



Auction centre/Tea Traders

Tea traders are more focused on the commercial value proposition of the *trustea*-certified products. As most of the certified STGs are selling through the auction, tea traders expect *trustea* certification to help increase sales.



Industry Associations

Industry Associations are of the view *trustea* is driven by buyers. Nonetheless, they sense it helps the producers a great deal in terms of product traceability, food safety and worker welfare. They expect a further remunerative price for sustenance.

They are confident regarding statutory compliances since the *trustea* Code requires the producers to meet the law of the land.



Certification Bodies

The certification bodies discern many producers joined the *trustea* programme under compulsion, however it has helped them to achieve continuous improvement over time.

They strongly are aware the *trustea* Code covers all dimensions of sustainability elements and admire elements of the programme such as transparency, benefits to STGs, effective garden management, agrochemical-spraying practices and creating awareness among the workers.



trustea, being an Indian sustainability code, addresses the issues applicable in Indian context. Sustainable practices in tea industry has improved a lot. The awareness and compliance to PPC has improved even for the STGs.

Paran Chowdhury

Auditor, DNV GL

January 2020

5.2 trustea: Contribution to the sector

Voice of stakeholders on trustea: its contribution and uptake

Since inception, the quantity of trustea-verified tea in the market grew year on year. This created long-term uptakes for the key stakeholders.



Producers

In general, the producers have adopted the trustea Code, which is helping to improve their practices in the areas of environment, human rights, good agricultural practices and food safety.

Most producers believe trustea has assimilated legal compliance across their operations

“



To make the programme more effective, the verification system of trustea should be more effective to add value

Jagjeet Kandal
MD, Amalgamated Plantations Pvt Ltd
February 2020

whereas some experience the same kind of compliance has not yet been established for the STGs.

The industry has witnessed increased investments in the forms of PPE and capacity building.

“Sustainability is based on three pillars – Environmental, Social and Economic.

While there has been a widescale impact on the social and environmental aspects, perhaps there is need to truly examine the business case or the economic case when it comes to standards and this includes trustea. On the environmental side, trustea has contributed to reduced and responsible use of chemical fertilisers, changed practices, record-keeping and better analysis, etc. Socially, we can see visible changes in the presence of medical facilities, benefits to temporary workers, maternity benefits, etc. Council of trustea Foundation now has a fair representation of all the stakeholders and should be continued. This gives an opportunity for trustea to look at playing a convincing role in exploring the factors that impact the economics of tea supply chain and the ways to increase production/consumption.

But the value for trustea-verified tea needs to be better distributed across the value chain, from the producer to the buyer.”

Jagjeet Kandal
Managing Director
Amalgamated Plantations Pvt Ltd
February 2020



Funders

It was the focus on all key pillars on sustainability – environment, social and food-safety aspects, that encompassed all that was relevant to the Indian tea sector from land and crop protection; to the growing small teagrower segment and need to improve the working conditions – that gave *trustea* impetus. With wide engagement from the sector in its creation, it truly was and remains – of, by and for with the industry.

Judith Fraats

Senior Programme Manager, IDH
February, 2020



Buyers

The buyers recognise *trustea* supports sustainable and responsible supply chain and acknowledge the programme is supporting the global sustainable agenda in collaboration with the tea suppliers.

On the sourcing side, buyers/funders value the confidence they obtain with *trustea* in basic compliance and decent working conditions based on the Indian code and implemented in the Indian context as well as the multi-stakeholder approach adopted by *trustea*. The Code focuses on the long-term best practices in sustainability.



the trustea Code represents the commitments of the tea packers towards responsible and sustainable sourcing, whereby we work with our suppliers to comply to the regulations in the sector but also aspire for continuous improvement.

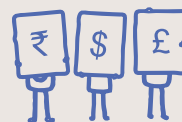
Daleram Gulia

Senior Procurement Manager
Unilever
February 2020



IPs

IPs respect the alignment of *trustea* with Indian legal requirements applicable for the tea industry, however, they observe additional investments will further improve the programme impact.



Auction centre/Tea Traders

Tea traders recognise the producers have benefitted in terms of imbibing good agricultural practices and becoming a part of the responsible supply chain.



Industry Associations

Industry associations acknowledge *trustea* grasped consciousness of responsible and sustainable tea production in the entire tea value chain, starting with the STGs, however, one interviewee stated *trustea* needs to work on product traceability.



"Definitely feel the programme has achieved positive impact. Reaching 50% coverage from where it was through facilitating the process of codifying the existing practices. The tea industry is covered by a number of legal compliances and through the process of codification, proper record keeping could be achieved.

*As time went by, people ... invested heavily in record keeping. I remember in 2010-11, in a FAO Meeting [in] Washington..., discussions were growing variance in governance around tea. The discussions were around – why don't we have producer-led and producer-participated governance rather than consumer-led or guided. That itself highlighted the need to have a home-grown programme. In that backdrop, looking at numbers entirely the compliances to and awareness of *trustea* Code is visible. Overall *trustea* has had a positive impact."*

Arijit Raha
Secretary General,
Indian Tea Association
May 2020



Certification Bodies

Certification bodies maintained sustainability issues have improved along with overall compliance with the Code and legal norms and they have witnessed investments including infrastructure development becoming compliant.

5.3

Voice of stakeholders on

Collaborations within the sector

Collaborations and inclusions create shared goals across the community to inspire inclusive social and economic changes. This section presents views of stakeholders concerning the challenges beyond the Code's mandate and how *trustea* has been a part of this process.



Producer

Most producers strongly agree *trustea* has brought significant collaboration and inclusion in the tea value chain, especially by including STGs and BLFs.

Producers sense they could witness a significant change within STGs and BLFs in areas such as implementing sustainability parameters, increasing awareness, general compliance and maintaining food safety. Most agree and acknowledge there is an improved relationship between the growers and manufacturers.

While discussing challenges, the producers pointed out two important issues; the initial resistance by the STGs and BLFs and difficulties in covering suppliers spread across large geographic areas.

Producers also expect increased collaboration with the regulatory bodies.



Funders

As a founding funder, IDH believes there is always opportunity for continuous improvement – *trustea* is not static and there must be improvement and progression – and to achieve this there must be greater collaboration with different stakeholders. Progress has already taken place since the establishment of the *trustea* Sustainable Tea Foundation and the formation of the *trustea* Council, which is truly multi-stakeholder. Together with representatives on the Council as well as other stakeholders, we must push the needle on the higher-hanging fruit – meaningfully engaging the STGs who now account for over 50% of India's production, building a sector understanding of living incomes and living wages for growers and workers, creating safe and empowered workspaces for women workers and managing and building a traceable and transparent supply chain.

“There is increasing global focus on India tea industry and in Assam. Along with trustea, programmes like the UNICEF partnership, TRINITEA, etc. are all looking beyond productivity and addressing hard topics like working conditions, gender empowerment, women and child safety, smallholder livelihood. The opportunity to scale impact exists – and illustrative of the ambition is demonstrated by the Global CEO round table that was launched this year where producers and buyers have convened to find and implement solutions to the perpetuating challenges. It is time to introspect and improve the standards, to deepen the impact – there is a need for trustea 2.0. Given the scale

and representation of the Code, I would be keen to see *trustea* evolving as a platform for wider sustainability – livelihood security, living incomes, biodiversity, etc.”

Pramit Chanda

India Country Director

IDH and *trustea* Council member

June 2020



Buyers

Generally, buyer and funder segments are content about the fact that global principles on sustainability and responsible business practices are well understood by estates, BLFs and STGs. The STGs under the programme have integrated sustainable agricultural practices, however, they expect more voluntary acceptance for the Code in future.

Presently, relevant data is available on the public domain. The implementation of ‘digital chain of custody’, currently under progress, will surely enhance the transparency of the system further.

Buyers and funders see the future scope of improvements in the areas of deep and penetrated coverage of STGs and they expect a greater focus on food-safety issues.

“This is R&D time of the certification. Reboot on what to we what to achieve, let’s go back to the start and define the real KPIs for sustainable impact across all pillars – economic, social, environmental. When we engage at the estate or factory level, let us truly engage with top management across the board to gauge the ‘true’ buy-in and get a real sense of challenges in getting there, not count on compliance alone to imbibe the ideals of sustainability in the sector”

Jagjeet Kandal

Sustainability Advisor, TCPL

June 2020



IPs

IPs expressed their concern over the present level of voluntary acceptance of the programme. In their opinion, many estates, BLFs and STGs are considering the *trustea* programme as a ticket to sell to some of the biggest buyers in the tea market. The awareness of the programme is starting to build but has a long way to go before they consider this as a beneficial tool for their own business.

However, the IPs appreciate the fact that *trustea* has reached out to more than six lakh (600,000) STGs, which is substantial. The programme created a platform for direct dialogue and engagement between the STGs and the buyers, which helped the STGs to understand the market need. They recognise this is a complex component of the supply chain and mentioned the change is slow but there is a great potential for changing more and creating positive impact.

As per the IPs, improving accessibility further will definitely facilitate more interactions and successful trainings.



Auction centre/Tea Traders

It gives a different perspective to see *trustea* through a commercial lens, which is what we get from the auction centres and tea traders. They appreciate sustainable and responsible business practices that have been adopted by the verified entities, but maintain it will take additional years to reap the real benefits.

They also presume this change will be more welcome if it brings a price benefit to the

producers who are investing to achieve Code compliance and they expect the awareness should be created at retail level and – to be more specific – the consumers.



Industry Associations

The benefit of the *trustea* programme has reached different stakeholders of the tea value chain including producers, BLFs, STGs and primary buyers. This is endorsed by the industry associations while considering the outcome and impacts of the *trustea* programme. In addition, they detect the coordination between BLFs and STGs has improved considerably.

Industry associations welcome the fact that different national and international NGOs and Civil Society Organisations are now approaching the verified entities to become a part of their sustainability agenda.

They have pointed out there is a growing requirement of coordination and implementation between *trustea* guidelines and regulatory requirements from FSSAI and PPC. The industry associations expect *trustea* to consider the possibility of *trustea*-certified packages are made available directly to the consumers and also feel a need for reviewing certain exclusions in the Code requirements existing for STGs, as they are the backbone of the tea industry



When the trustea Code is properly enforced, it surely benefits the producers in terms of product traceability, food safety, workers welfare, etc. A remunerative price is definitely required from the buyers to maintain the standard.

P K Bhattacharya
Secretary General,
Tea Association of India
January 2020



Certification Bodies

Being a part of the audit, verification and assurance communities, certification bodies have a stringent view on the situation. They believe most entities have participated in the *trustea* programme because of their interest in selling to the big buyers. This mindset poses a hindrance in getting the real benefit of such a programme. They suggest implementing more stringent internal audits leading to system improvements.

They perceive *trustea* as a very practical programme, suitable for the Indian tea industry.



5.4

Moving towards building consumer demand

Voice of stakeholders on consumer demand

Consumers are one of the most important stakeholders in a tea supply chain. So far, the benefit of the *trustea* programme has reached up to the buyers; it is important to include the consumers in the *trustea* value chain.

Improving consumer awareness of responsibly-produced tea along with quality and food safety can potentially bring disruptive change in market dynamics.

FAO Intergovernmental Group (IGG) on Tea has pointed out modern tea consumers around the world are paying attention to environmental, social, economic and ethical attributes in selecting their tea varieties. These concerns for food safety and health as well as social and environmental sustainability have highlighted the need to ensure traceability, quality control and production-level certification under sustainability standards.

“

We need to move quickly towards consumer awareness, it should have begun long time back with communications around sustainability and trustea, and would have resulted in the reach and participation from consumers in brand recognition and brand relatability.

Jagjeet Kandal

Sustainability Advisor

TATA Consumer Products Ltd

June 2020



Producer

The producers sense the consumers are increasingly becoming more health-conscious. There is a growing demand for a responsibly-sourced product in terms of lower pesticide usage, environmentally friendly production and compliance with human rights' requirements among other aspects.

Producers consider it is challenging for them to meet these expectations in the highly price-sensitive market and they want more promotional messages communicated to the consumers about the advantages of *trustea*-certified tea.



IPs

The IPs perceive the Indian consumers are not yet aligned to the value added through responsible tea production. *trustea* as a brand needs to be self-sustaining and promote itself further to create more value, which would also lead to an increase in consumer awareness of sustainable tea.



Auction centre/Tea Traders

They suspect *trustea* needs to bring out value for the consumers so consumers will choose *trustea*-certified tea.



Industry Associations

Industry associations expressed, in the long run, *trustea* might be able to earn the confidence of the consumers but it would take a good deal of effort.



Certification Bodies

They advised higher promotion and engagement at the consumer level to make the brand *trustea* more visible.

6.0

THE WAY FORWARD

1. Supporting STGs and estates to improve livelihood and competitiveness

A grouping of STGs will be established and training on GMPs, GAPs, business skills and management and agrochemical use (lead farmers and farmer field schools) will be offered. *trustea* will continue its focus on gender equality, fair treatment and H&S at the workplace for workers including women. Government-notified minimum wages will be strictly adhered and living-wage benchmarks for Assam and North Bengal will be introduced.

2. A more robust, credible and self-financing tea-verification scheme

Future improvements include: auditing quality through control by implementing a robust System Assurance Audit Programme; delivering best practice impact assessments; expanding the programme to more tea packers; implementing the traceability app ('tracetea'); code revisions and reviews; capitalising on the independence of *trustea*; generating sufficient funding from the market introduction of *trustea* and a sustainable revenue-generating model; and achieving ISEAL membership and certification to the ISO 9001 quality-management programme.

These improvements will bring peer and global recognition to the *trustea* programme and will pave the way for the tea exporters to leverage the *trustea* certification for export markets.

3. Continual improvement of current verification processes and assurance system

trustea will devote a significant amount of its work on enhancing Code credibility with globally-recognised accreditation. Continual improvement of current verification processes and assurance systems will be undertaken to drive sustainability in the Indian tea sector.

4. Assuring customers they are consuming safe tea

Increasing the availability of PPC-compliant and FSSAI-compliant tea will help eliminate one of the most dangerous agrochemicals from Indian tea production and will reduce the overall volume of active ingredients. Such a result will decrease the toxic load in tea production to acceptable levels for workers, consumers and the environment. *trustea* will continue to actively promote the concept of Integrated Pest Management, which encourages farmers to reduce dependence on chemicals and to move to organic and natural means of pest control.

5. Strict adherence to a 'biodiversive action plan'

Biodiversity will continue to be an important factor for overall farm health – strict adherence to a biodiversive action plan will be required by the estates, factories and SHFs to protecting flora and fauna, thus ensuring there will be no degradation, deforestation, confinement, hunting, trafficking or commercial collection. Wildlife Registers are being developed to aid the recording of any rare species, if found. Proactive afforestation will be incorporated as a requirement of the *trustea* programme to improve the situation regarding reducing forest cover.

6. Beyond certification

Empowering and adding value to the vulnerable members of the tea supply chain will proceed. Actively seeking linkage with other initiatives other than the *trustea* programme will contribute to the improvement of all the stakeholders' livelihoods. Initiating and participating in initiatives and projects towards the goal of living income for the vulnerable stakeholders will ensure the benefits of the programme flow to the stakeholders who are the backbone of the tea supply chain of India – going beyond the legal compliance and exploring more opportunities to collaborate with smallholders and workers towards mutual benefits.

7.0

APPENDICES

7.1 Methodology

7.2 Data and Graphs

6.3 List of charts

6.4 List of abbreviations

7.1

Methodology

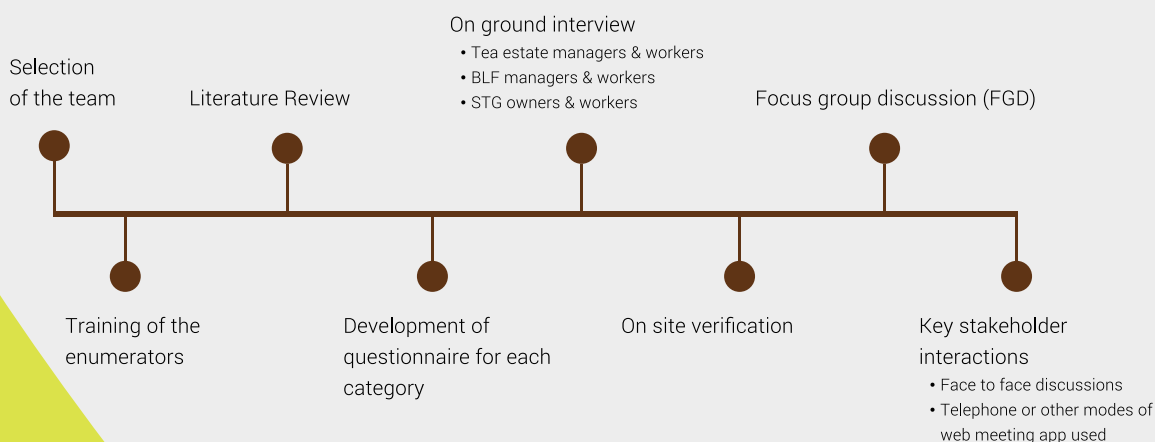
The way we did it

Planning: Involving the stakeholders

We planned an experimental design to understand the impact of *trustea* for different stakeholders. Two methodologies were implemented to highlight:

- a. On-ground impact
- b. Key stakeholders' feedback and perception

Research Process



The research was conducted between December 2019 and March 2020 with field research taking place in January 2020. The research plan broadly involved:

- review of relevant literature on the tea value chain, supply and demand dynamics, the operations and functioning of tea plantations in India, operations and impact of *trustea* certification and broader evidence on how working and living conditions affect business performance;
- a series of interviews and focus group interactions with plantation workers, community-based organisations in plantations, plantation management and tea companies to better understand the core functioning of plantations. Field research occurred in Kolkata, Assam, West Bengal, Kerala and Tamil Nadu;
- interviews with key actors across the tea supply chain, supporting functions, rules and regulations to gain insight on how the broader market system functions;
- follow-up interviews with key stakeholders, after the main research, focusing on specific interventions to resolve outstanding knowledge gaps and addressing emerging questions.

Further data cleaning, analysis and interpretation had been done using statistical data-analysis software.

Across all tea growing regions, the verified entities – estates, BLFs and STGs were involved

The methodology of this study included designing the data points to be analysed and developing questionnaires for four segments – estate workers, BLF workers, STGs and management of the entities.

Covered material issues: questionnaire developed

The questionnaires were shared through one-on-one interviews and during focus group discussions. Document review and physical verification were also conducted at the site. In the on-ground impact assessment, the control points of the *trustea* Code had been verified.

A separate set of questionnaires was developed for key industry stakeholders to obtain their views on the macro impact of the Code in the industry. Seven stakeholder groups were identified across all tea-growing regions and the relevant stakeholders were contacted. Stakeholder feedback was collected in the following areas:

- market transformation in the tea industry;
- role and contribution of *trustea*;
- collaboration within the sector on challenges beyond the Code’s mandate for sustainability of all efforts;
- building consumer awareness and demand for sustainable tea.

Sampling: We covered representative samples & more

Using the **snowball method**, relevant people were identified for key stakeholder interviews. A snowball method is a method by which the samples are identified through references.

A total of **26 key stakeholders** had been considered for the study from different segments of buyers, funders, industry associations, certification bodies, producers, IPs, auction centres and tea traders, among others.

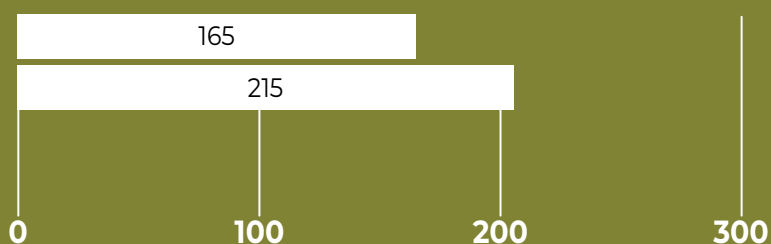
A total of **25 verified entities** had been covered under the scope of the study. Samples had been selected from verified entities of Assam, West Bengal, Kerala and Tamil Nadu. Of these 25 verified entities, eight are stand-alone estates, eight are estates and BLFs, and nine are stand-alone BLFs. In addition, 53 STGs were outreached during the course of this study.

Quantitative	Planned			Actual		
	NE	WB	SI	NE	WB	SI
Location	NE	WB	SI	NE	WB	SI
TE Workers	18	18	36	33	32	43
BLF Workers	15	10	20	16	16	22
STGs	15	13	20	17	16	20
Total	165			215		

West Bengal	Northeast	South India
Nepuchapur Tea Estate	Chubwa Tea Estate & STG	Harrisons Malayalam Ltd, SBU-B
Chengmari Tea Co Ltd	Budlabeta Tea Estate Factory & STG	Parisons Estates and Industries Pvt Ltd
Goodricke Group Limited Es	Arun Tea Estate	Kanan Devan Hills Plantations Company (P) Ltd - Estates
Atal Tea Co (1943) Ltd	Gopal Krishna Tea Estate	The Nelliampathy Tea & Produce Co.Ltd – (Manalaroo Tea Estate)
Bilatibari Tea Company Pvt Ltd	Rameshwara Tea Factory & STG	Kanan Devan Hills Plantations Company (P) Ltd - STGs and BLFs
Elegant Tea Producer	Lekhapani Tea Company Pvt Ltd – STG	Harrisons Malayalam Ltd, SBU-B (Wayanad Group STG)
	Segunbari Tea Co Ltd	Darmona Tea Industries
		Cross Hill Aravenu Tea Company Pvt Ltd
		Tata Coffee Limited(Anaimallis Division)
		The Nonsuch Tea Estates Ltd
		Parry Agro Industries Ltd
		Havukal Tea & Produce Company Pvt Ltd(Havukal) & Maris Agro Products Pvt Ltd

Data sampling

Total sample size planned
Actual sample size collected



35% more samples collected

for on-ground assessments.

This data is excluding managers, BLF owners and STG owners' interviews and FGD

ON GROUND IMPACT ASSESSMENT

Total **25 verified entities** (Estates and BLFs) and **53 STGs** have been covered across the **25 selected organisations**

Data sampling was selected from four states – Assam, West Bengal, Kerala and Tamil Nadu – in which *trustea* operates on a proportionately random basis. The list of verified units was obtained from the *trustea* Secretariat and samples were drawn from each state in proportion to the verified volumes and national production. The list of sampled units was shared with the *trustea* Secretariat. The Secretariat then issued formal letters to the units introducing Consultivo and the research work and requested them to cooperate for the survey. The Consultivo team connected independently with each unit to finalise the actual date and duration of the research. On the agreed date, the Field Research Team from Consultivo contacted the Proprietor or the Manager, introduced the purpose of the survey in person and conducted the field research.

Tools we used

The following tools were used for the research work:

- individual survey with STGs;
- workers' individual survey;
- group interview with STGs;
- workers' group interviews;
- key stakeholder interviews;
- interview with senior management of the estate and BLF owners;
- field visit.

Apart from this, the research team used observational methods to triangulate some of the information collected during the survey and group interviews.

Bringing transparency to the core

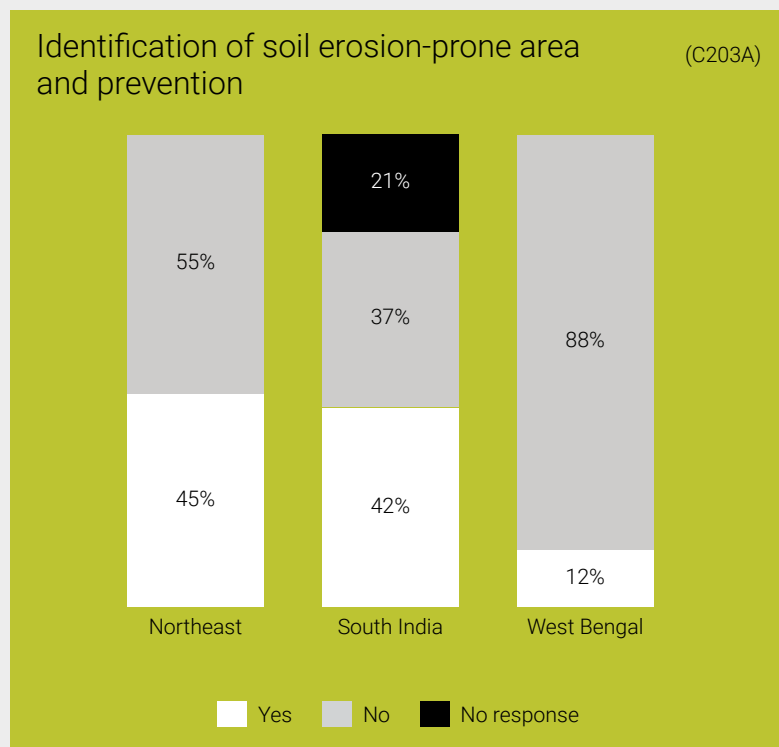
The data and analysis represented in this report are from primary sources and collected by our trained resources. The secondary information used is collected from the authentic sources – previous *trustea* impact reports and the website of Tea Board India (<http://www.teaboard.gov.in/>).

Quality assurance interventions:

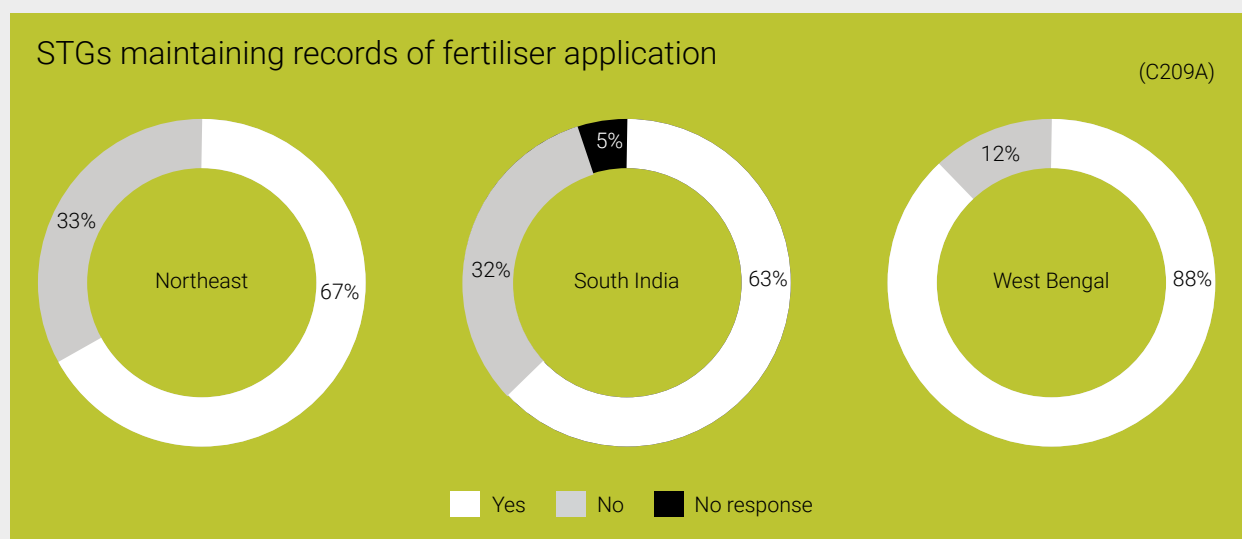
- development of questionnaires had been reviewed to check the alignment with the research objectives and confirm the data points;
- review of sampling plan in terms of completeness;
- training of enumerators and sample data fill-up;
- on-site random witness (if planned);
- data cleaning and data accuracy checking;
- review and validation of the first set of samples being analysed;
- stage review of outcome analysis and interpretation;
- final review by review team/mentor group.

7.2

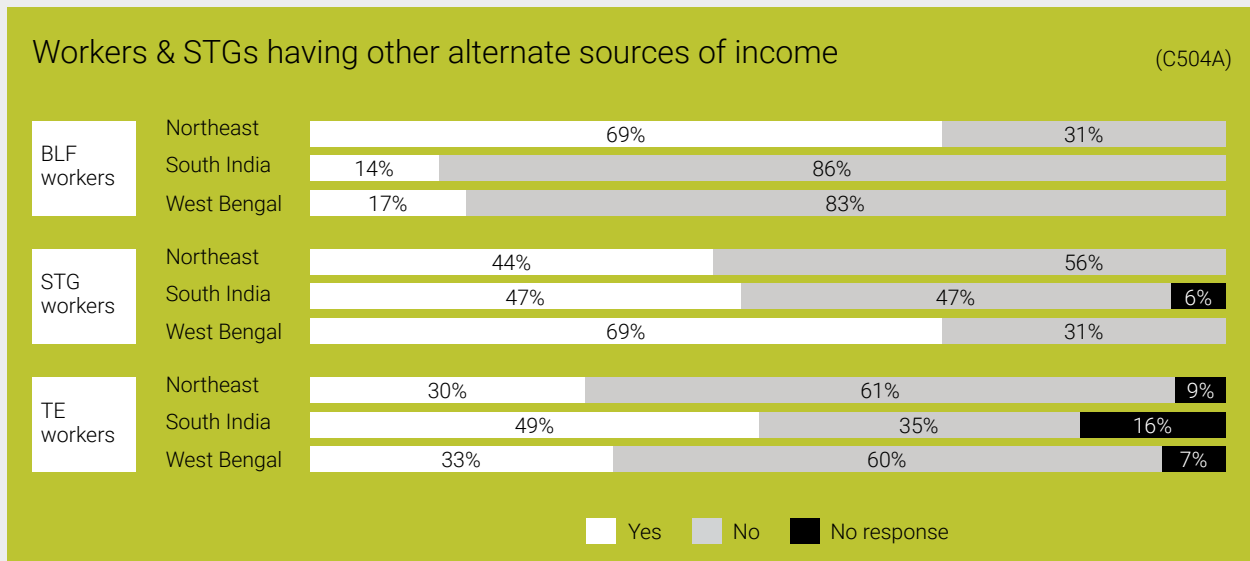
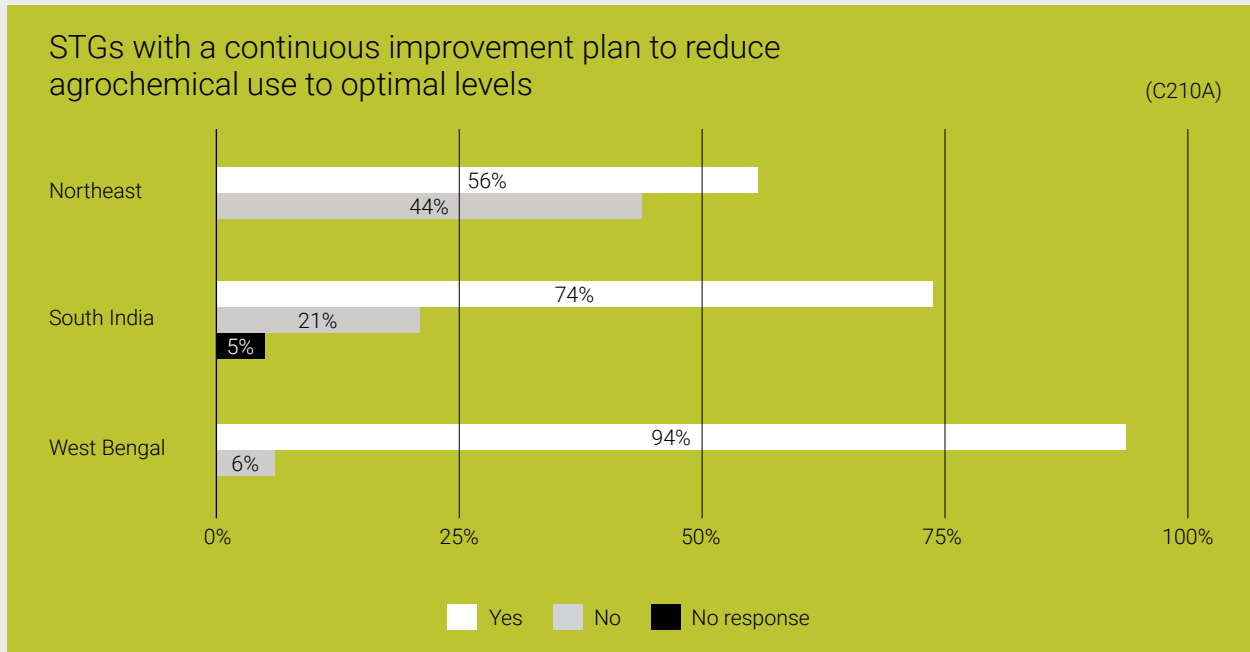
Data and graphs



Identification of soil erosion-prone areas is one of the major activities to prevent soil erosion. The verified STGs across the regions have initiated the process of identifying soil erosion-prone areas. Few measures have also been initiated to prevent soil erosion. This planting vegetative covers, maintaining traces, barriers, wind breakers, etc.



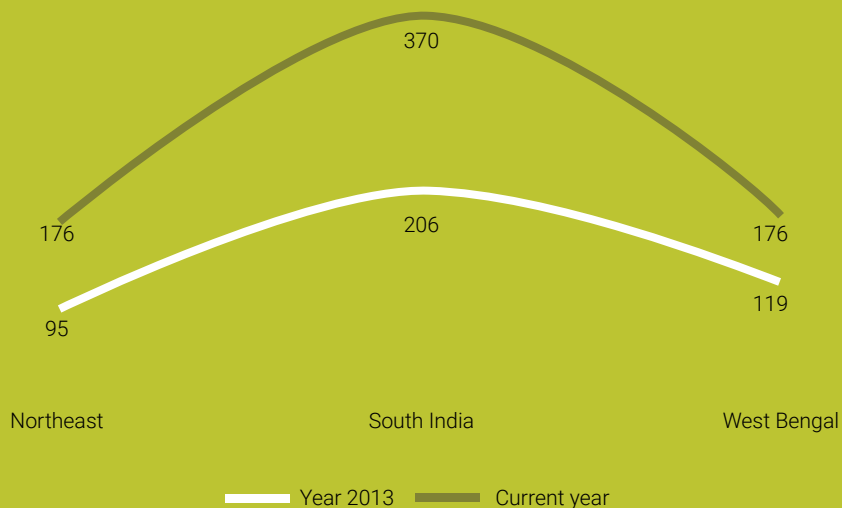
The records of fertiliser application is maintained by STG for the transparency of fertilizer being used. The STGs have started maintaining the fertiliser application record. However, the compliance level is not satisfactory.



Verified entities also have income from sources other than tea. The diversities of other sources of income include, but are not limited to: agent for STGs; Aganwadi worker in tea garden; business worker; cook; driver; agricultural labour in nearby villages.

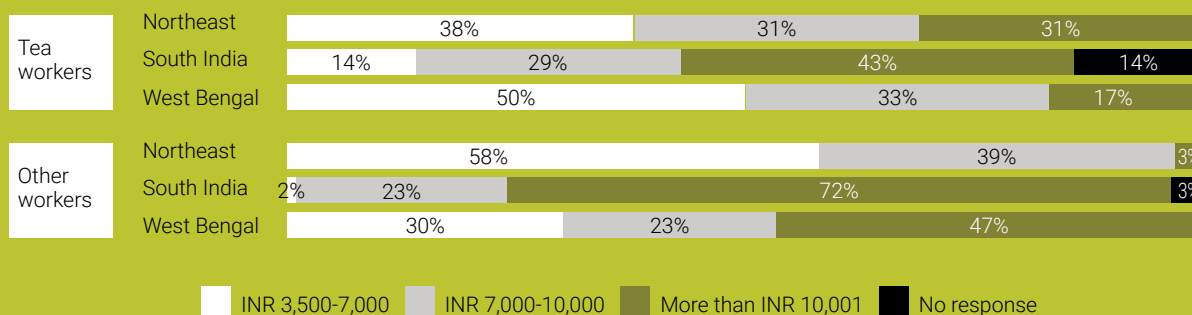
Comparison of daily wages for estate workers

(C505A)

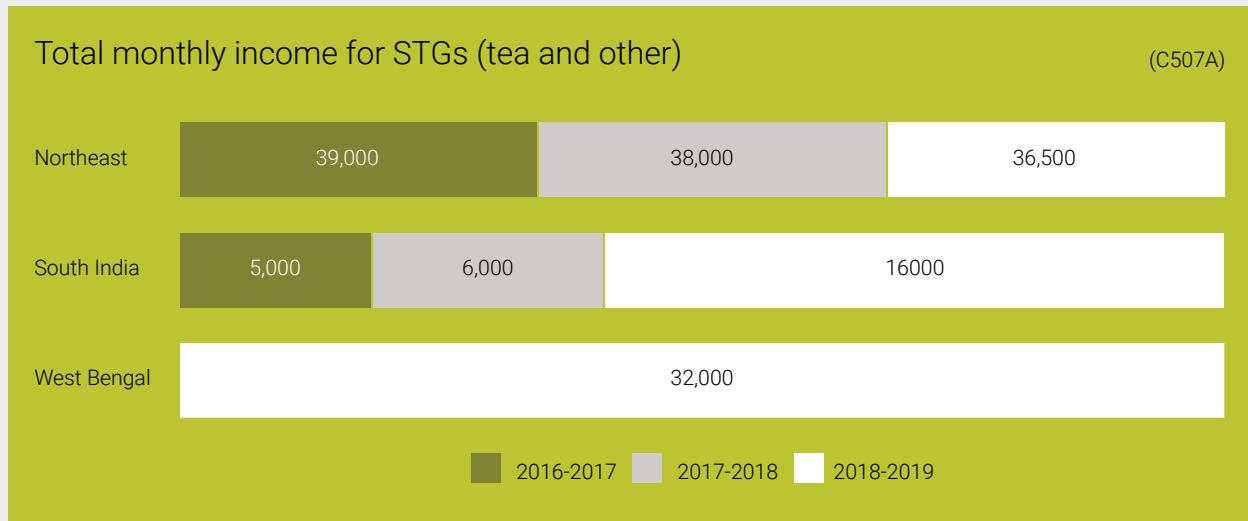


Total monthly income for workers (tea and other)

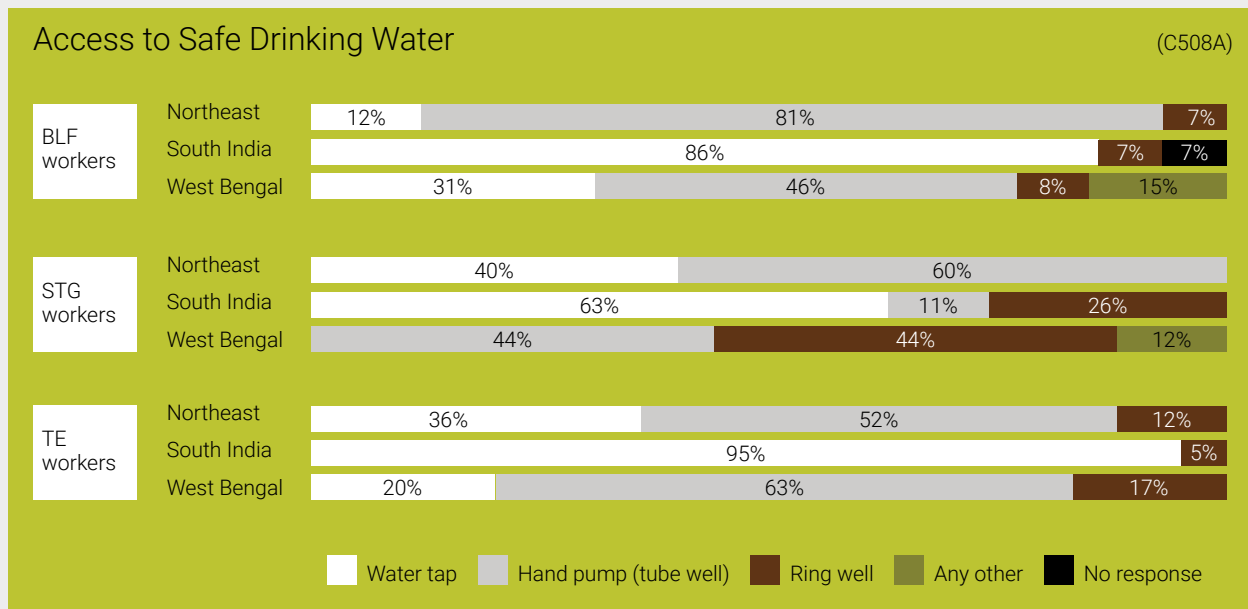
(C506A)



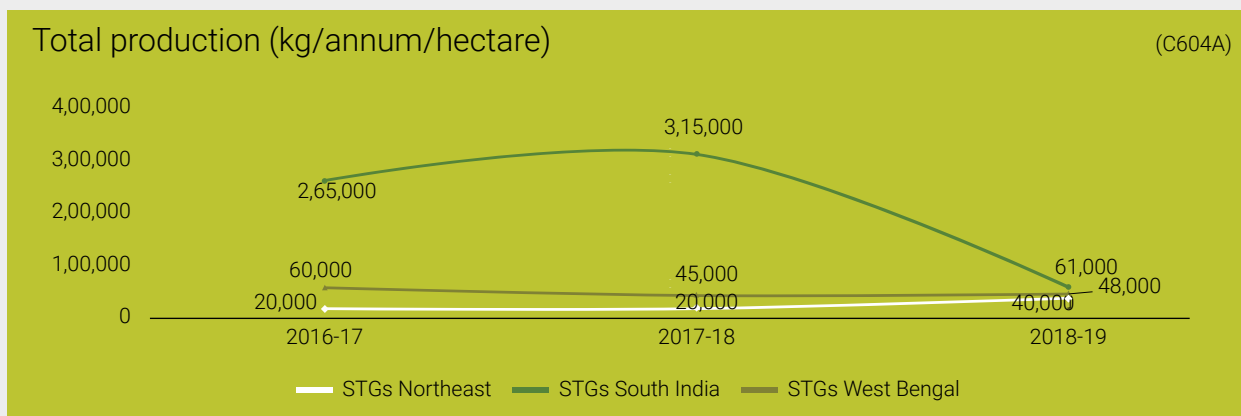
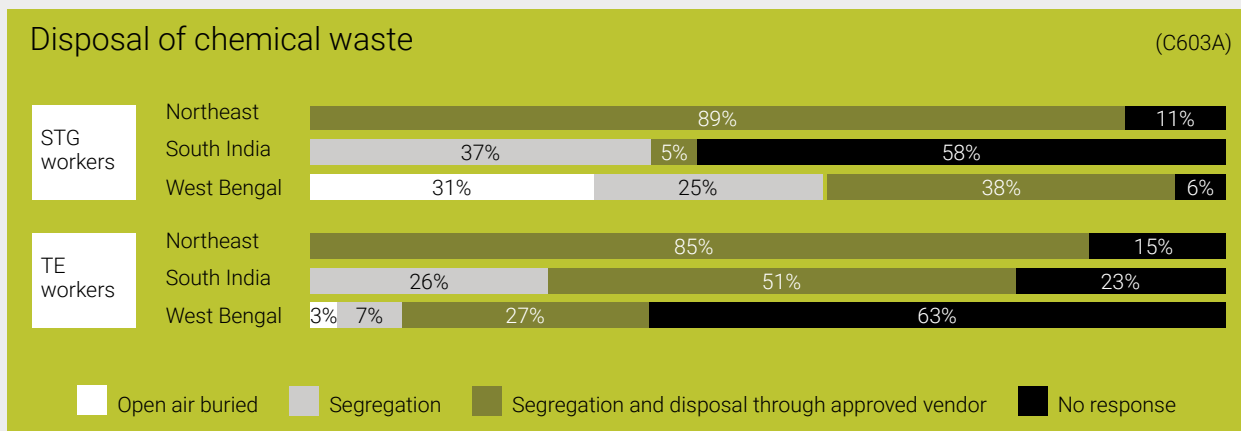
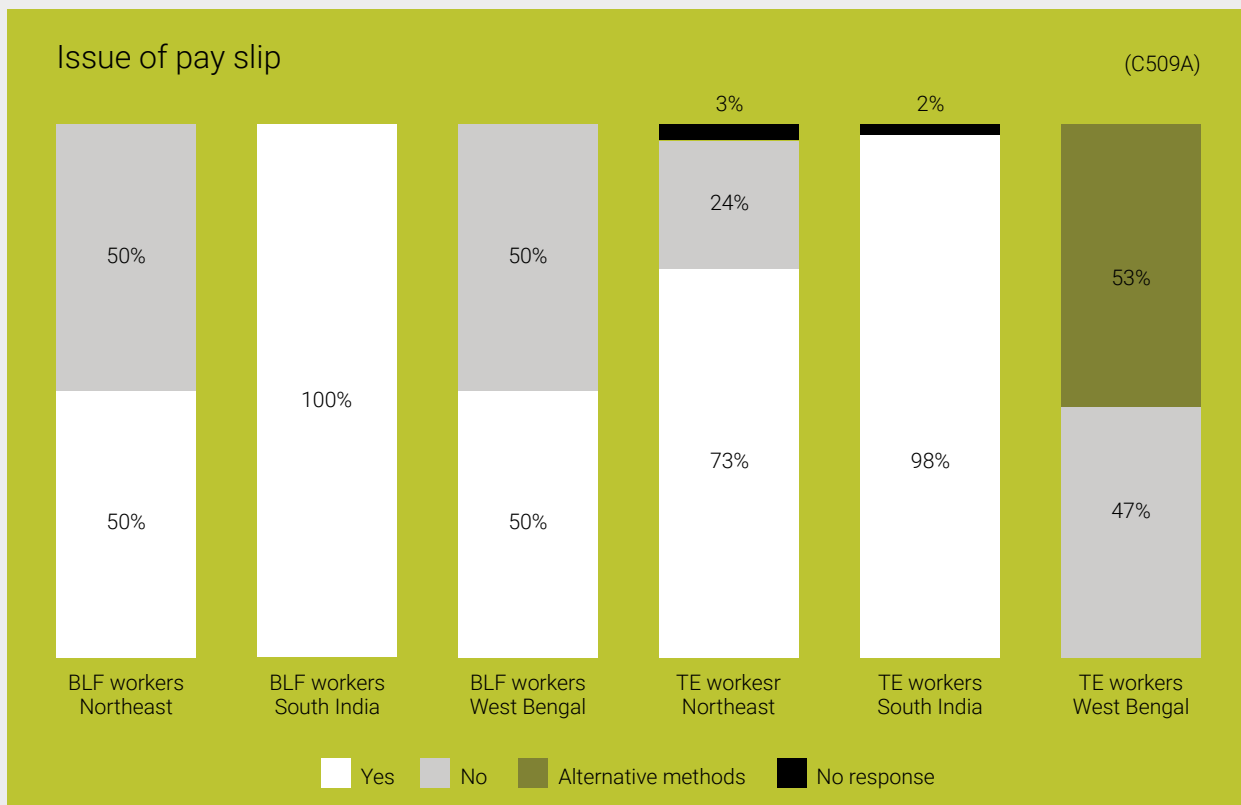
This graph represents total monthly income of the workers from tea and other sources and gives the impression workers have sources of income other than tea.



The total income of STGs in Northeast have gradually reduced over the years whereas the income of STGs in South India have increased over the years.



The provision of potable water is mainly from water tap and hand pump (tube well). In the few cases where supply is via ring well or tank, it should be treated periodically to free from bacteria and other impurities.



7.3

List of charts

SI No	Chart No	Chart Title
1	C101	Traceability in place across the process
2	C201	Soil tests conducted in estates
3	C202	Soil tests conducted in STG gardens
4	C203 – A	Identification of soil erosion-prone area and prevention
5	C204	STGs having control mechanisms for chemical run-off and sewage
6	C205	Proper storage and segregation of fertilisers in STG gardens
7	C206	Awareness of the area earmarked as buffer zone, storage area for fertiliser and PPF, etc. in STG gardens
8	C207	STG awareness of chemical usage as per PPC and FSSAI
9	C208	STGs segregating and storing PPF safely in a secured facility
10	C209 – A	STGs maintaining records of fertiliser application
11	C210 – A	STGs with a continuous improvement plan to reduce agrochemical use to optimal levels
12	C401	Workers and STGs trained on safe working conditions and practices
13	C402	PPE provided to workers and its use
14	C403	STGs using PPE while spraying
15	C404	Access to medical facilities
16	C501	Grievance redressal mechanism used
17	C502	Comparison of daily wages of tea estate workers across the regions
18	C503	Type of housing for estate workers
19	C504 – A	Workers and STGs having alternate sources of income
20	C505 – A	Comparison of daily wages for estate workers
21	C506 – A	Total monthly income for workers (tea and other)
22	C507 – A	Total monthly income for STGs (tea and other)
23	C508 – A	Access to safe drinking water
24	C509 – A	Issue of payslips
25	C601	STGs segregating hazardous and non-hazardous waste
26	C602	Disposal of biomedical waste on tea estates
27	C603 – A	Disposal of chemical waste
28	C604 – A	Total tea production (kg/annum/ha)

7.4

List of abbreviations

BLF	Bought Leaf Factory
BOD	Biological Oxygen Demand
CoC	Chain of Custody
COD	Chemical Oxygen Demand
CPP	Crop Protection Product
DBMS	Data Based Management System
EPA	Environment Protection Act
ESI	Employees' State Insurance
FAO	Food and Agriculture Organisation
FGD	Focus Group Discussion
FSSAI	Food Safety and Standards Authority of India
GAP	Good Agricultural Practice
GHP	Good Hygienic Practice
GMP	Good Manufacturing Practice
H&S	Health and Safety
ha	hectare
HAACP	Hazard Analysis and Critical Control Points
IDH	IDH, The Sustainable Trade Initiative
IGG	Intergovernmental Group
ILO	International Labour Organisation
INR	Indian Rupees
IP	Implementation Partner
IPM	Integrated Pest Management
ISEAL	The global membership association for credible sustainability standards
ISO	An international standard specifying requirements for a quality management system
IT	Information Technology
kg	Kilograms
KPI	Key Performance Indicator

LED	Light-emitting diode
MRL	Maximum Residue Limit / Level
NGO	Non-governmental Organisation
p-value	Probability value
PF	Provident Fund
PLA	Plant Labour Act
PPC	Plant Protection Code
PPE	Personal Protective Equipment
PPF	Plant Protection Formulation
R&D	Research and Development
Rs.	Rupee
SHF	Smallholder Farmer
STG	Small Tea Grower
TBI	Tea Board India
TE	Tea Estate
TRA	Tea Research Agency
TRI	Tea Research Institute
UNICEF	United Nations Children's Fund (formerly United Nations International Children's Emergency Fund)
UPASI	United Planters' Association of South India

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