

THE FUTURE OF TEA

A HERO CROP FOR 2030



Steps towards a sustainable
future for the tea industry

About Tea 2030

Tea 2030 is a project bringing together leading organisations across the tea sector to collaborate and help to create a more sustainable future for the tea sector. We are grateful to the members of Tea 2030 steering group for their support, including Ethical Tea Partnership (ETP), Fairtrade International, Finlays, IDH – The Sustainable Trade Initiative, Rainforest Alliance, S&D Coffee & Tea, Tata Global Beverages, Twinings, Unilever and Yorkshire Tea. We also thank the International Tea Committee for their support.



TATA GLOBAL BEVERAGES



The report was written by Ann-Marie Brouder, Simon Billing and Sally Uren of Forum for the Future on behalf of the Tea 2030 steering group in 2014.

About Forum for the Future

Forum for the Future is an independent non-profit that works globally with business, government and others to solve complex sustainability challenges. We believe it is critical to transform the key systems we rely on to shape a brighter future and innovate for long-term success.

We have a 17-year track record of working in partnership with pioneering partners; advising and challenging organisations such as Unilever, Pepsico, Skanska, Akzo Nobel and Telefonica O2.

Find out more at www.forumforthefuture.org, and find us on [Facebook](#) and [Twitter](#).

London

Overseas House
19-23 Ironmonger Row
London
EC1V 3QN
UK

New York

33 Nassau Avenue
2nd Floor
Brooklyn
NY 11222
USA

India

86/87
Atlanta Nariman Point
Mumbai
400 021
India

Singapore

C/O Swire Pacific Offshore
300 Beach Road
#12-01 The Concourse
Singapore
199555

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1 EXECUTIVE SUMMARY

Introduction

We don't eat it. We certainly don't need it to survive. So, why is tea so important?

Well, it's hugely popular with consumers. According to figures from the International Tea Committee, the global consumption of tea jumped 60% between 1993 and 2010 and significant growth is forecast as more people become consumers of tea. It also has an ancient heritage, dating back 5,000 years, revealing a rich cultural history.

Today, it is the economic and social importance of tea production that is so significant. Currently grown in 35 countries, the tea industry provides a vital source of employment and export earnings, often in some of the world's poorest countries.

And a vast chain or network of people have a relationship with tea – not just consumers, but growers, pickers, suppliers, traders and sellers – impacting on the lives and well-being of millions of people across the world.

However, the future of this much-loved beverage is uncertain. The tea industry faces unprecedented challenges; a shift in consumer demand and habit, a changing climate, resource constraints and mechanisation of farming are converging to put pressure on an industry which recognises it needs to act if it is to create a sustainable future.

What is Tea 2030?

The numerous sustainability challenges faced by many industries, including the tea industry, are too big for any one company to address alone; rather they need the co-operation of all parts of the value chain working together.

For the first time in history, some of the key players in the tea sector have come together to explore the future for tea in a collaborative project called Tea 2030. They are working jointly to identify the key challenges, forecasting the issues that need to be addressed and combining their knowledge and expertise to deliver new solutions that will overcome the issues facing the sector – creating a shared vision for what the global tea industry can do together to ensure it has a prosperous and sustainable future. They are fully committed to implement this initiative in compliance with all applicable laws.

Led and facilitated by Forum for the Future, the leading global sustainability non-profit, this report presents the challenges and opportunities the tea sector will face in the future, including 4 possible future scenarios for the tea industry. The report marks the end of phase II of Tea 2030 which set out to explore the future for tea and the beginning of the implementation phase of Tea 2030.

Tea 2030 is a global project bringing together some of the key organisations in the global tea industry, including the Ethical Tea Partnership, Fairtrade International, Finlays, IDH – The Sustainable Trade Initiative, Rainforest Alliance, S&D Coffee & Tea, Tata Global Beverages, Twinings, Unilever and Yorkshire Tea. We also thank the International Tea Committee for their support.

The issue with tea

Factors affecting the tea industry

Based on interviews with organisations and experts from across the tea industry, as well as desk research and a series of collaborative workshops held during the last 12 months, a number of different factors were highlighted that have the potential to significantly impact the future of the tea industry. There are ten major challenges that we believe are the most significant in terms of their implications for the tea industry:

**TEA HAS AN ANCIENT
HERITAGE, DATING
BACK 5,000 YEARS**

**THE GLOBAL
CONSUMPTION OF TEA
JUMPED 60% BETWEEN
1993 AND 2010**

**THE TEA SECTOR FACES
UNPRECEDENTED
CHALLENGES, TOO BIG
FOR ANY ONE COMPANY
TO TACKLE ALONE**

- Demographic changes
- Resource constraints
- Climate change
- Competition for land and productivity
- Availability of labour and increase in mechanisation
- Balance of power across the supply chain
- Emergence of new business models
- Sustainability leadership in emerging economies
- Improvement in wages and labour welfare in the supply chain
- Consumer attitudes to food value

An evaluation of the future of tea indicates that there is a great deal of uncertainty about what the tea sector could look like by 2030. And this uncertainty is compounded by difficulties in predicting how these different factors might interact with one another.

Future scenarios for tea

To create a deeper understanding of what the world for tea could look like by 2030, four different scenarios were developed. These scenarios explore how the two most impactful and two most uncertain factors could interact and shape the future of tea. These are: the ability of the tea sector to attract investment; and the collective sustainability leadership demonstrated by business and governments. The four scenarios are:

Scenario 1: Chai Time is a world characterised by booming economies that care little for sustainability. Tea has seen strong growth in sales, largely thanks to recognition by the tea sector early in the 2020s that it had to change its image and attract younger consumers;

Scenario 2: Storm in a Teacup is a world in which the tea sector is a shadow of its former self and has suffered from lack of investment in new varieties to cope with extreme weather, pests and diseases;

Scenario 3: Green Leaf in which all products, including tea, must demonstrate their sustainability credentials to consumers, who demand high standards; and

Scenario 4: Rebrewed is a world of food shortages and efficiency. The pressure on land availability has led the tea sector to search for new places to grow tea, with tea-growing shifting to new countries such as Congo and Burma.

The Tea 2030 project team and workshop participants analysed the scenarios and identified the risks and opportunities that each presented. These were then explored and informed the core principles and the call to action for the industry that we think will support the creation of a sustainable future for tea.

**A HERO CROP DELIVERS
MORE THAN JUST A
COMMODITY**

The potential for tea as a hero crop

What is a 'hero' crop?

The Tea 2030 process identified a real opportunity for tea to become a 'hero' crop. A hero crop delivers more than just a commodity. It also delivers major benefits to the millions of people involved in the sector, the planet, and the wider economy.

Central to this transition would be a move away from a long, linear supply chain, to a **value network** that takes into account everyone involved in the tea sector and considers them important members of a network that works together to create a more sustainable industry.

By developing tea as a hero crop, it has the ability to secure a sustainable livelihood for producers by empowering them; address challenges associated with a changing climate; create a transparent and fair approach to production, supply and distribution and act as a carbon sink.

Crucially, tea can create a deeper connection between end-consumers and producers, enabling people to better understand the value of what goes into making their favourite drink, and reinforcing the importance of responsible production of a product that has a place in homes around the world.

As we have outlined, the challenges for the tea sector are numerous. But how it has prepared for them and deals with them as they arrive, will determine the state of the sector in 2030. It is only by coming together that organisations in the tea sector will be able to assess, develop and deliver this transformation across the industry.

The five principles for a sustainable tea network

To create a sustainable network that will transform tea into a hero crop, the sector needs to work collaboratively to apply these five principles:



Working in the tea industry should provide participants with access to a sustainable livelihood. This should occur at all points along the tea value chain, from retailing to growing. However, in the future, a hero crop should also **empower producers**, to improve their skills so that they can create their own livelihood and take more ownership of the chain.

Tea should be produced using sustainable methods so that the production and processing of tea does not degrade the soils, biodiversity and water on which tea production depends, or negatively affect tea workers. A hero crop should look at how it can be **restorative** – replenishing soils, increasing biodiversity and minimising the use of water, energy, fertilisers and pesticides going beyond the field where tea is grown to examine its impacts on the wider community and environment.



The production and consumption of tea will face many challenges in the future and the sector needs to deliver a **resilient value chain** able to collectively manage its risk, particularly from climate change. Tea needs to play its part in reducing emissions – from the processing of tea leaves and transportation, to the boiling of water.

How the market functions for tea is central to not only the price paid but also returns and cash flows to producers, how risk is managed and the liquidity and investment in the sector. A sector that produces a hero crop will help develop and deliver **sustainable market mechanisms** that provide wider sustainability outcomes than just financial ones.



Finally, a hero crop is one that is **connected with consumers**. Consumers know where their tea comes from and how it is produced. Consumers can demand high sustainability standards and therefore give incumbents in the chain the mandate to improve sustainability standards.

Time to work together

Areas for legitimate collaborative action

Tackling these issues is too big a task for any one organisation to achieve by itself. It needs the co-operation of all parts of the value chain – consumer, retailer, packer, trader, processor, grower and worker – working together as part of a sustainable value network. Tea 2030 has developed a wide range of recommendations for collaborative working to deliver the five principles above.

DELIVERING SUSTAINABLE LIVELIHOODS ACROSS THE VALUE CHAIN UNDERPINS ALL PLATFORMS

Moving forward: Three platforms for collaborative action

The Tea 2030 project has set out three key areas in which it will seek to focus its initial collaboration efforts. These are:

Sustainable landscapes. This platform will examine how a producer-led sustainable landscapes approach could understand and deliver improved sustainable outcomes for the wider environment and community affected by tea growing. Its approach would be to focus on issues material to producers in their own environment and determined by them according to common guidelines.

Sustainable market mechanisms. This platform will explore how the market system for tea could better function to deliver greater value and resilience in the supply chain, particularly for farmers.

Consumers. This platform will identify how actions and behaviour by consumers can play a stronger role in pushing forward sustainability within the tea value chain. This could include understanding how different actors within the value chain could work together to change consumer behaviour in key impact areas associated with tea consumption, as well as understanding ways in which tea could be communicated, for example, as a hero crop, which would enhance the value proposition of tea.

These platforms are underpinned by the guiding principles to deliver tea as a hero crop, in particular delivering sustainable livelihoods to all participants in the tea value chain. Tea 2030 will also explore how it can be an on-going platform for collaboration on sustainability issues not currently addressed by existing bodies.

Call to action

Understanding the need for change, and the principles that would underpin a sustainable tea sector, is just the beginning of the journey.

All parts of the value network in all parts of the world – not just in London and New York, but also in China, India, Africa and South East Asia – now need to act on these recommendations, innovate and start to create a sustainable value network for 2030.

Some of the biggest players in the global tea industry have been involved in laying the foundations for the Tea 2030 project. Now we need your help.

If you are a part of the tea sector, as an active player (producer, trader, etc.) or as a contributor along the supply chain (supplier, marketer, etc.), you have a role to play.

So, join us in the next phase in helping to create a more sustainable future for tea.



2 INTRODUCTION

Rudyard Kipling's quote expresses the love affair that many people across the world have with tea. After water, it's the most popular beverage in the world.

And it's getting more popular. According to figures from the International Tea Committee, the global consumption of tea jumped 60% between 1993 and 2010, and significant growth is forecast as producer countries become consumers.

Today, more than three billion cups of tea are consumed every day, in all types of varieties – from Earl Grey, Iced Tea and Assam, to Lapsang, and now ready-to-drink tea.

It also has an ancient heritage, dating back 5,000 years, revealing a rich cultural history. In China, hosts drink tea to honour guests or celebrate significant life events. In Japan, the tea ceremony – or Chado – is revered for its connection with Zen Buddhism. The preparation and serving of matcha tea, for example, is elevated to performance art with an emphasis on aesthetics and harmony. In Russia, it's about drinking strong, black tea from a Samovar. In Morocco, drinking mint tea is a national pastime. In England, taking 'afternoon' or 'high' tea is still a celebrated occasion.

Today, it is the economic and social importance of tea production that is so significant. Currently grown in 35 countries, the tea industry provides a vital source of employment and export earnings, often in the world's poorest countries.

And a vast chain or network of people have a relationship with tea – not just consumers, but growers, pickers, traders and sellers – impacting on the lives and well-being of millions of people across the world.

However, the future of this much-loved beverage is uncertain as the global tea sector faces some unprecedented challenges.

Tea is grown in some of the countries most vulnerable to future climate change making it more susceptible to volatile weather conditions. Tea producers have already had to turn to irrigation for a previously rain-fed crop, making them more vulnerable to any water shortages in the future. The land on which tea is grown is likely to have to compete with other food crops to feed a growing population.

At Forum for the Future, the leading global sustainability non-profit, we believe that these sustainability challenges are too big for any one organisation to address alone. That is why we have been working legitimately with leading players in the global tea industry to create a shared vision for the sustainability of the global tea sector in a project called Tea 2030.

What is Tea 2030?

Tea 2030 is a project bringing together some of the most influential organisations in the global tea industry, including the Ethical Tea Partnership (ETP), Fairtrade International, Finlays, IDH – The Sustainable Trade Initiative, Rainforest Alliance, S&D Coffee & Tea, Tata Global Beverages, Twinings, Unilever, and Yorkshire Tea. We have also had the support of the International Tea Committee. Facilitated and managed by Forum for the Future, the Tea 2030 initiative aims to create a shared vision for the sustainability of the global tea sector and help organisations understand how the entire value chain can work together to secure the long-term sustainability of the sector.

The Tea 2030 platform is designed to stimulate action by all organisations in the tea value chain, both individually and, critically, in collaboration, delivering new solutions to existing and future challenges facing the sector. To explore the future of tea, the Tea 2030 project developed scenarios, which illustrate how global trends may change our world and the tea sector, and how the industry may adapt with new products, services and business models. The scenarios were used to assess future risks and opportunities facing the tea sector, and to identify areas of collaborative action and innovation to build a sustainable future for the tea industry.

**WE HAD A KETTLE; WE LET IT LEAK:
OUR NOT REPAIRING MADE IT WORSE.
WE HAVEN'T HAD ANY TEA FOR A WEEK
...
THE BOTTOM IS OUT OF THE UNIVERSE.**

Rudyard Kipling, novelist and poet

**TEA 2030 BRINGS TOGETHER
SOME OF THE MOST INFLUENTIAL
ORGANISATIONS IN THE TEA SECTOR.**

What is a 'hero' crop?

Exploration of the future possible worlds for tea in 2030 indicates that today's humble cup of tea has the potential to become a 'hero' crop in the future.

A hero crop delivers more than just a commodity; it also delivers social, environmental and economic benefits for all participants within its value chain. This includes benefits such as a resilient value chain, a secure livelihood for producers, a transparent and fair market system, and a deeper connection between producers and consumers.

Redesigning the tea value chain as a tea value network could help deliver a hero crop for 2030. It is only by coming together that organisations in the tea sector will be able to deliver this transformation.

About this report

This report shares the findings of the Tea 2030 project. It provides insights into the potential future of the global tea industry, presenting different scenarios on what the tea sector might look like in 2030, as well as a series of recommendations as to how the sector might collaborate and respond.

These were developed over a 12-month period, involving desk research, interviews with experts from across the world, and a series of three industry-wide workshops. The Tea 2030 steering group, made up of the founder partners, has guided the project's development throughout.

This report: sets out the key challenges facing the industry by 2030 (section 3); summarises the scenarios that have been used to develop the principles and actions for the industry (section 4); sets out what it means to be a hero crop by 2030 (section 5); and some of the actions that are needed to reach that goal (section 6). We have also developed an online toolkit (available on request from tea2030@forumforthefuture.org), to help you make the best use of the scenarios and to provide practical tips on what your organisation can do to help support the creation of a more sustainable tea industry fit for the future.



3 CHALLENGES FACING THE TEA INDUSTRY

The Tea 2030 project interviewed 42 people between December 2012 and February 2013 from a range of organisations across the tea industry asking each about the key challenges and opportunities they face. Interviewees were drawn from across the global value chain, representing both producer and consumer countries, and including experts on topics ranging from climate change to finance and markets. The interviews were complemented by extensive desk research. Discussions covered general economic/political/technology trends, information that was in the public domain or was aggregated and anonymised (at trade association level). Participants did not discuss commercially sensitive information.

Through this activity, Tea 2030 identified as many as 70 challenges and opportunities that could affect the future of tea. These were subsequently narrowed down to 50, which were presented at the first Tea 2030 workshop in February 2013. Factors as diverse as the use of precision farming, biodiversity, political instability and consumer demand for personalisation of products were identified. At this workshop 19 challenges, regarded as critical for the future of the tea sector, were prioritised. A full list of the factors can be found at www.tea2030.tumblr.com.

We summarised the findings into ten key challenges:

1. Demographic changes¹
2. Resource constraints
3. Climate change
4. Competition for land and productivity²
5. Availability of labour and mechanisation
6. Balance of power across the supply chain³
7. Emergence of new business models⁴
8. Sustainability leadership of emerging economies
9. Improvement in wages and labour welfare in the supply chain
10. Consumer attitudes to food value

**“INSTEAD OF EXPORTING,
MANY (PRODUCING)
COUNTRIES ARE NOW
DRINKING THEIR OWN TEA”**

1. Demographic changes

The size and make-up of the global population is undergoing profound change, with the world's population predicted to reach 9.6 billion by 2050. According to the World Bank, the next several decades will see the 'global middle class' population rise from 440 million to 1.2 billion – a rise from 7.6% of the world's population to 16.1%. And two thirds (66%) of the population in developing countries will live in the urban environment – up from 45% today⁵.

Underlying these figures are specific regional trends. Most of the next billion people to come into the world will be born in Africa and South Asia. The African population alone is set to double reaching two billion by 2050. Most of the growth in the 'global middle class' is expected to come from countries such as India and China.

So, what are the implications for tea?

Growing populations will drive demand for food, which is predicted to increase by 50% by 2030. And this, coupled with urbanisation⁶, will put pressure on all available agricultural land. Tea will increasingly have to compete with other food crops to access land for production.

Tea estates across the world are also already experiencing the impact of rural depopulation as smallholders and rural workers move to the city to seek better wages and lifestyles.

One positive impact of demographic changes is the growth of domestic tea consumption in producer countries, such as India and China. In India, tea consumption is forecast to rise from 1.118m tonnes in 2011 to 1.365m tonnes in 2015. China is seeing similar trends.

1 Includes the factors: urbanisation; population growth; growing middle class and domestic consumption

2 Including the factors: competition for land; productivity and use of agrochemicals.

3 Including the factors: buyers' responses to tea scarcity and balance of power across the supply chain

4 Including the factors: propensity to invest in the tea sector and emergence of new business models

5 https://infocus.credit-suisse.com/data/_product_documents/_shop/344677/opportunities_in_an_urbanizing_world.pdf

6 In the agricultural sector up to 0.37 million sq km of cropland may be lost to urbanisation by 2030 (& a further 0.3m sq. km by 2050)

As one expert said: “Instead of exporting, many countries are now drinking their own tea. China is now drinking 60% of its own tea; Bangladesh is a new importer. Countries that were suppliers are now becoming users.”

If local markets grow as anticipated in some of the key producer countries (e.g. India and East Africa), there might be less tea available for exports, and consequently higher prices for importing countries. Pressure on prices would be further exacerbated with competition from growing markets in the Middle East, Russia and North Africa.

What is less certain is the extent of this increase and the impact if further tea-producing countries, such as those in Africa, start to consume an increasing proportion of their own tea.

Changing demographics present other potential opportunities and challenges, as the growing middle class and urbanised population of many emerging and developing markets may also change the types of teas they drink.

2. Resource constraints

Looking at resource constraints in general, the availability of water, energy and vital nutrients, such as phosphorous, will all put severe pressure on the tea industry in the future.

By 2030, total world energy demand is predicted to increase by 50%. Demand for water could be as much as 40% higher than supply.

Phosphorus, a non-renewable resource, is in increasingly short supply: approximately 25 years of reserves remain in the US; China recently imposed a 135% export tariff to secure the supply of domestic fertiliser.

On a global scale this will potentially lead to higher prices and greater competition for resources. The likelihood of ‘water wars’ is rising with increasing skirmishes on the India-Pakistan border⁷.

Tea processing is also energy intensive. Withering, drying, grading and packing tea requires 4 to 18 kWh energy per kg of made tea⁸, compared to 6.3 kWh required to make a kilogram of steel. A number of tea-producing countries, including India and many in Africa, experience frequent outages and unreliable power supplies. There are, however, opportunities such as those posed by the falling costs and increased take-up of renewable energy⁹, which might provide localised, sustainable energy supply for industries such as tea.

Although tea uses less water than other crops¹⁰, these demands are increasing as one expert¹¹ explains: “The use of irrigation in the tea sector has increased over the last 20 to 30 years, partially to offset the changes in weather patterns.”

**“THE USE OF IRRIGATION
IN THE TEA SECTOR HAS
INCREASED OVER THE LAST
20 TO 30 YEARS, PARTLY TO
OFFSET CHANGES IN WEATHER
PATTERNS”**

3. Climate change

Tea is a very delicate perennial plant, sensitive to changes in temperature and precipitation. In the last 60 years in Assam, a primary tea-growing region in India, rainfall has fallen by more than a fifth and minimum temperatures have risen by one degree to 19.5C¹².

Projections indicate that Sri Lanka will experience a warmer climate and more intense rainfall with the possibility of a 10% increase in the length of dry and wet seasons per year in the main tea plantation areas¹³, with drought damage and soil losses the likely consequences. Climate change is also expected to increase the number of pests and diseases affecting tea plants.

7 <http://www.thenews.com.pk/Todays-News-8-192809-Water-wars>

8 http://somo.nl/publications-en/Publication_2548

9 Electricity from solar is now cheaper than that from diesel generators in India. Bloomberg analysts show that prices of solar panels fell by 50% in 2011 and are now just one-quarter of what they were in 2008, making them a cost-effective option for many people in developing countries.

10 According to www.waterfootprint.org tea needs 35 litres of water for one cup compared to 140 litres for a cup of coffee, 1550 litres for a kg of wheat and 15,415 litres for kg of beef

11 Tea 2030 interviews

12 Guardian (Ibid)

13 http://www.researchgate.net/publication/226628882_Vulnerability_of_Sri_Lanka_tea_production_to_global_climate_change

Projections for Kenya indicate that climate change will shift optimal tea growth to higher altitudes, with some regions becoming less suitable. And those areas that will become more suitable are likely to be in environmentally protected areas¹⁴. Planting varieties that are more resistant to these climatic changes will be critical in the future.

Tea is grown in some of the countries most vulnerable to climate change and if extreme weather events affect several growing areas simultaneously, it will impact on tea yields and tea prices. This unpredictability in weather, and the resultant swings in market prices, is illustrated in two Financial Times (FT) articles in consecutive years. In 2012, the FT reported on high tea prices and poor harvests due to drought. In 2013¹⁵, the same newspaper reported low prices and a bumper year for harvests due to favourable growing conditions.

One expert interviewed commented: “We may have underestimated the impact of climate change in our models. One scenario will see a 40% to 80% decline in Darjeeling tea, and we might not see production in Uganda by 2050.”

TEA IS GROWN IN SOME OF THE COUNTRIES MOST VULNERABLE TO CLIMATE CHANGE.

“KENYA IS EXPERIENCING SERIOUS PRESSURE ON LAND DUE TO URBANISATION, AND THERE IS NO ROOM TO EXPAND TEA PRODUCTION”

4. Competition for land and productivity

The tea sector has already seen the impact of competition for land. Between 2005 and 2010, 13,000 hectares of land in Indonesia was converted from tea to other purposes such as growing rubber, palm oil and fruit. Smallholders in Sri Lanka are increasingly looking at converting their land from tea to cashew nuts¹⁶. And other tea-producing countries are already facing land constraints.

One expert remarked: “The growth of tea volume will be in Africa not India, where land is plentiful and there are good growing conditions. However, Kenya, one of the most fertile countries in Africa, is experiencing serious pressure on land due to urbanisation, and there is no room to expand tea production.”

This increasing demand for land is luring many investors to buy up farmland worldwide, attracted by rising food prices and high returns. China’s need to secure land and water resources is pushing its companies to invest overseas to secure its supplies.¹⁷

Tea is not a staple crop and many of the Tea 2030 interviewees raised questions as to whether the land on which tea is grown will be needed for other crops in the future. However, tea has the advantage that it is often grown in hillside locations that are commonly deemed to be unsuitable for growing other crops. But this might alter over time as a changing climate may mean that tea has to compete with more crops grown at higher altitudes.

The competition for land will stress the importance of improving yields per hectare. As with other crops, advances in agronomy and chemical inputs since the Second World War have resulted in significant increases in tea yields per hectare. But it is uncertain whether further advances can be made in tea to increase yields per hectare even further. What is more certain is the potential to spread the advances in productivity made to date to countries such as China and some African countries, as well as among smallholders.

The drive to increase productivity and to combat the problem of growing pests and diseases due to climate change will lead some in the tea sector to increase their demand for pesticides. Countering this is a negative consumer perception of the health impact of pesticides and the health impacts on tea workers.

International Labour Organization (ILO) studies have revealed that two categories of illnesses – respiratory and water-borne – account for 60% to 70% of the diseases affecting tea plantation workers. The tea sector has also experienced an increasing demand from consumers for more pesticide-free products.

A solution advocated by one interviewee is a return to more natural farming practices where “tea bushes are part of the natural ecosystem and don’t require as much input such as water and fertiliser, and are not subject to pests”.

14 Climate change adaptation in the tea sector, report from Kenya workshop. 16 May 2011, ETP

15 <http://www.ft.com/cms/s/0/2378b76c-12f8-11e3-a05e-00144feabdc0.html#axzz2hu0LvdC>

16 <http://www.asianewsnet.net/home/www.nationmultimedia.com/business/Sri-Lankan-smallholders-abandon-tea-for-cinnamon-47077.html>

17 <http://www.bloomberg.com/news/2011-09-22/foreign-investor-land-grabs-harm-farmers-in-poorer-nations-oxfam-says.html>

5. Availability of labour and mechanisation

Growing and harvesting tea is labour intensive, but young people are choosing to leave the tea plantations and move to city-based jobs in the service sector. This raises real questions about the ability of the sector to source the labour it needs for tea production in the future – and to what extent this trend will drive greater mechanisation.

Mechanisation of tea harvesting is the issue in the tea industry that attracted the most comment during the Tea 2030 interviews. Most interviewees believed that mechanisation would be a feature of the future. Clearly, there's a danger of social and economic problems for the employees and communities left behind.

6. Balance of power across the supply chain

In the last 20 years, we have seen the rise of big food companies, in both the food processing and retail sectors. Although the tea sector has a large number of small players, large companies, predominantly in the packing part of the value chain, play a highly significant role.

Likewise, within the last 20 years we have experienced the rise of supermarkets that have penetrated almost every continent across the globe. In many countries only a handful of supermarkets dominate. One expert commented: "We used to have a food market dominated by the brands, and then the supermarkets started to develop their own brands."

This balance of power within the tea sector may shift in the future. Producers are slowly beginning to capture more economic value in the chain, often through tea blending and packaging at source (e.g. in Sri Lanka and India). The tea sector is also seeing the emergence of new powerful players from the growing ready-to-drink market, which may play a more dominant role within the tea sector in the future.

This raises questions about where the power in the value chain will lie in the future, and whether any shift in power will result in consolidation in the tea sector, either horizontally or vertically, with longer-term contracts and a shift towards terms and conditions determined by sellers rather than buyers

MOST TEA 2030 INTERVIEWEES BELIEVED THAT MECHANISATION WOULD BE A FEATURE OF THE FUTURE.

THE BALANCE OF POWER WITHIN THE TEA SECTOR MAY SHIFT IN THE FUTURE.

7. Emergence of new business models

Disruptive new technologies and social media could transform the tea industry in remarkable ways. Clearly, it's difficult to predict the emergence of new business models for the sector, but there are signals in technology, markets and finance that show how the tea sector could change in the future.

Technology: the coffee sector has seen rapid changes with the emergence of the single cup brew. This already has ramifications for the tea sector as most coffee machines also brew tea. However, newer technologies, such as 3D printing, may push the development of new teas in a totally different direction. While the printing of the tea leaves themselves is probably unlikely within the timeframe to 2030, the development of composite products, such as ready-to-drink teas, could well emerge.

Trading in tea: one possible development is a move away from an auction system towards participation in a futures market at national or international level – or simply a move towards more online-based trading systems. Many incumbents within the tea sector resist what they view as the "commoditisation" of tea and the problems it could create, such as exacerbating price volatility. Others feel a change in the market is inevitable.

Different models have been experimented with in the past, but new technology and new markets may make a different system for trading tea more viable in the future.

Investment: a key question for the tea sector in the future will be its ability to attract investment. If profitability is low within the sector, a lack of investment could mean higher interest rates for loans, a lack of investment in yields, an inability to replant and the growth of smallholders as a 'cheaper' way to produce tea.

Conversely, an ability to attract investment could mean more favourable interest rates and an increased investment in

agronomy and related infrastructure. New models of funding are emerging that could be used to fund developments in the tea sector. These include: social impact bonds or development impact bonds which attract funding from the investment community to deliver on, usually, social outcomes; crowd-funding through internet sites; and funding to address action on climate change through the Clean Development Mechanism¹⁸. For instance, the Kenya Tea Development Agency's (KTDA) Gura project in Kenya has Clean Development Mechanism financing for a hydroelectric scheme to generate energy for tea factories. The development of a carbon market and new financial models may mean that alternative sources of finance are available to the tea sector.

8. Sustainability leadership of emerging economies

As the consequences of unsustainable development become increasingly manifest in developing nations, such as China and India, it is increasingly likely that these emerging economies will take a more active role in sustainability leadership.

Signs of this are emerging. For instance, China is planning to steadily introduce a progressive pricing scheme¹⁹ for water use before 2015, according to a government water conservancy plan. In India the companies act passed in 2013 requires large companies to invest 2% of after-tax profit into corporate social responsibility²⁰.

Alternatively, the pressure for governments and businesses to take a more active role on sustainability may come from consumers within emerging markets. According to the Regeneration Roadmap, a 2012 survey of more than 6,000 consumers across six countries, sustainable consumption is being led by consumers in developing markets, such as Brazil, China and India. The survey found that consumers in developing markets are more than twice as likely as their counterparts in developed markets, such as Germany, the UK and the US, to purchase products based on their environmental and social benefits.

Within the tea sector signs are also emerging of increased leadership on sustainability. India is now trialling its own sustainability standard for tea, known as Trustea²¹.

If we do see emerging economies taking a greater leadership role in sustainability it could have a considerable impact on sustainability within tea production, given that all tea production occurs in emerging and developing markets.

9. Improvement in wages and welfare in the supply chain

Wages have traditionally been low in the tea sector, often failing to meet the basic needs of workers. Although wages meet minimum standards in some countries, these are often below a realistic living wage.²² According to a 2013 article in the Observer newspaper in the UK²³, wages in the tea sector are so low in the Assam region (at 12p per hour) that parents cannot afford to keep their girls and they are trafficked out of the region.

“IF (TEA) ONLY PROVIDES JOBS TO PEOPLE IN DISTRESS SITUATIONS, I CANNOT SEE HOW THIS SECTOR IS GOING TO SURVIVE”

Working in tea production is generally not regarded as an attractive option. “If it only provides jobs to people in distress situations, I cannot see how this sector is going to survive,” said one interviewee. However, to date there is no accepted definition of what constitutes a ‘living wage’, and its calculation is further complicated by the provision of in-kind benefits, such as housing and health facilities²⁴.

The welfare of workers on the tea estates remains an ongoing issue. As mentioned, most tea estates tend to provide in-kind benefits, such as housing, food, education and medical facilities, and reports²⁵ have questioned the quality of these on some tea estates. The welfare issue is particularly true for temporary or seasonal workers who tend to have fewer rights and benefits than permanent workers. Moreover, local trade unions tend to be weak and bargaining processes are often absent.

18 http://unfccc.int/kyoto_protocol/mechanisms/clean_development_mechanism/items/2718.php

19 <http://www.globalltimes.cn/NEWS/tabid/99/ID/716509/China-to-adopt-progressive-water-pricing.aspx>

20 <http://www.kordant.com/assets/2-Percent-India-CSR-Report.pdf>

21 <http://www.trustea.org/>

22 <http://policy-practice.oxfam.org.uk/publications/understanding-wage-issues-in-the-tea-industry-287930>

23 <http://www.theguardian.com/world/2013/jul/20/poverty-tea-pickers-india-child-slavery>

24 Recent efforts through ISEAL have resulted in an industry-wide agreed definition and methodology amongst certification bodies but this has yet to be implemented

25 For instance the Ecologist in 2011 reported on low wages, poor housing conditions, basic medical care and child labour on plantations.

Many of these issues are particularly pertinent to women as they make up the majority of the tea picking workforce.

However, some Tea 2030 interviewees have noted an improvement in standards. “This is largely due to increasing support for governments to introduce and monitor standards in their countries, increased consumer intolerance for ‘unethical’ exposures of brands and commodities, the introduction of industry standards and bodies to monitor these, and a reduction in the availability of labour in certain countries,” said one interviewee.

It is uncertain whether estates will continue to provide in-kind benefits in the future or whether they will focus solely on wages.

A key uncertainty up to 2030 is how the availability of labour, the push for higher wages and better welfare standards, and the move to mechanisation will interact. It is also unclear whether tea producers (farmers and workers) will become more empowered through strengthened trade unions, greater ownership and power shifting in the value chain.

10. Consumer attitude to food value

Many consumers in the developed world are disconnected from the food they consume. They are often unaware of where their food is sourced, the price paid to farmers and how it has been produced.

The situation is similar for tea, which has traditionally been a cheap everyday product. Consumers are generally unaware of the true cost of producing tea. Whilst the widespread adoption of certification schemes such as Fairtrade, Rainforest Alliance and Utz by private brands and retailers has helped communicate to consumers that work is ongoing, it still remains unclear how consumers will value food (including tea) in the future and whether they will demand higher standards.

Implementing social, environmental and economic measures at the production level has cost implications. With increasing use of social media and demand for greater transparency, consumers will have more access to information on supply chains in the future, which may mean that they demand higher standards.

According to one interviewee: “Organisations have seen increasing awareness and resulting demand for responsibly-sourced and produced consumer goods. Previously there was a reliance on governments to define the consumer agenda. But with greater consumer involvement and the exercising of choices, consumers are themselves in a better position to drive the sustainability agenda by choosing ethical products.”

“CONSUMERS ARE IN A BETTER POSITION TO DRIVE THE SUSTAINABILITY AGENDA BY CHOOSING ETHICAL PRODUCTS”

4 WHAT MIGHT THE FUTURE FOR TEA LOOK LIKE IN 2030?

To help paint a picture of how these challenges will impact the tea sector, the Tea 2030 project has developed four different scenarios of what the world may look like for the tea value chain in 2030. These aim to visualise how issues affecting the sector might interact across the value chain – from workers picking the crop, to consumers enjoying the final product.

The scenarios are not intended to be predictions or visions of desired futures. Instead they explore how global trends may change our world and the tea sector. In order to bring the scenarios to life we have created product ideas, and stories from archetype characters who might live in these future worlds.

Future scenarios are an invaluable tool for planning ahead. They help identify risks and opportunities, inform strategy development, and stimulate innovation. In order to create our scenarios we took the two trends that according to our consultation would have the greatest role in shaping the future of the tea industry and about whose future pathway there was most uncertainty:

Sustainability leadership Will business and government have demonstrated significant leadership on addressing sustainability challenges by 2030?

Propensity to invest in the tea sector – Will there be sufficient capital available for the tea sector to invest by 2030?

Scenarios for the Future of Tea

Scenario 1: Chai Time is a world characterised by booming economies that care little for sustainability. Tea has seen strong growth in sales, largely thanks to recognition by the tea sector early in the 2020s that it had to change its image and attract younger consumers;

Scenario 2: Storm in a Teacup is a world in which the tea sector is a shadow of its former self and has suffered from lack of investment in new varieties to cope with extreme weather, pests and diseases;

Scenario 3: Green Leaf in which all products, including tea, must demonstrate their sustainability credentials to consumers, who demand high standards; and

Scenario 4: Rebrewed is a world of food shortages and efficiency. The pressure on land availability has led the tea sector to search for new places to grow tea, with tea growing shifting to new countries such as Congo and Burma.

The full text of the scenarios and accompanying toolkit can be made available on request. Just send an email to tea2030@forumforthefuture.org.

SCENARIO 1: CHAI TIME

Chai time is characterised by access to capital, but poor or fragmented global sustainability leadership.

“DRINKING A DAILY CUP OF TEA WILL SURELY STARVE THE APOTHECARY.”

Chinese Proverb



GLOBAL ECONOMY



The global economy is doing well in 2030, spurred on by a culture of entrepreneurialism and advances in technology. World power bases have now firmly shifted from the West to the East and South. India is performing particularly well having taken advantage of its young and well-educated workforce. The role of governments is viewed as little more than promoting capital flows and free trade; it is the global networks of businesses, unencumbered by legislation, that drive the global economy. Little attention is paid to the environment and oil is king, and although climate change affects economic growth, it has been manageable to date.

TEA PRODUCTION



The tea market has seen strong growth right across the globe, but the way tea is produced and consumed has changed radically compared to the 20th Century. Tea is now traded on the futures market and is truly a commodity product. Large-scale mechanisation and technology dominate tea production and processing – and the drive to year-round harvesting has led to an increase in the use of fertiliser and pesticides. The pursuit of new areas to grow tea has led to the destruction of previously protected areas.

TEA CONSUMERS

People spend much of their lives in virtual worlds and are disconnected from how and where food is produced. The tea industry has actively promoted a cooler, healthier image to attract new, younger consumers. Personalisation and branding has encouraged a wide range of teas, often fortified or modified to give health benefits. Most consumers now rarely have one variety of tea they drink all day. Instead they personalise them according to need – energy boosters in the morning, calming ingredients in the evening. And they are all certified through pharma-certifiers, new private agencies regulating medically-enhanced foodstuffs.



RAJEEV, AGED 45, TEA PRODUCER

My father never wanted me to go into the tea industry; he wanted something better for me. The tea estate my father worked on actually helped pay for my university education but it's still strange to be back working here.

My job is completely different from my Dad's. I hardly ever set foot in the actual fields because it's all run by the 'control centre'. In fact, with all this new technology, the job is getting a bit dull now. The computer runs the plucking machines in the fields, assesses the right amount of pesticides to add (which are so expensive the cost is crippling us) and then automatically sends the order back to the control centre for water, energy and all the other resources. The only people you really see in the fields are the technicians, sent out to fix the machines when they go wrong. The tea estate hardly employs anyone now. At least when you had to drive the machines, some people were needed. But these new driverless ones that came in two years ago mean the place is empty. To begin with it was hard to find the right labour and we did have to let people go. I often feel the resentment among the local community; lots of them feel the tea estate has abandoned them, especially the women.



PRISCILLA, AGED 23, TEA CONSUMER

I grew up surrounded by both tea and coffee, but I definitely associated tea with my grandparents' generation. I think that changed for me when I went to the new tea store that opened up at the university. I was able to sit at the table in the store and select exactly the type of tea I wanted to drink, where it was from and how I wanted it brewed. While I was waiting for it I watched some footage of how it was produced, which was a bit boring as it was just machines going up and down fields. After that I tried to choose the handpicked varieties; it just looks so much better. I've just taken the plunge and got myself my first 3D food printer. It's good for iced tea but I actually prefer my old fashioned 'teapod' for a cup of tea; you just have more choice of brands.

SCENARIO 2: STORM IN A TEACUP

Storm in a Teacup is characterised by poor access to capital and poor or fragmented global sustainability leadership.

“TEA IS DRUNK TO FORGET THE DIN OF THE WORLD”

Tien Yiheng, Chinese scholar



GLOBAL ECONOMY



The world is fragmented with many stagnant economies and widespread protectionist behaviour by governments. Many countries have young disenfranchised populations. Climate change has had a hugely disruptive impact and is blamed for the lack of prospects for the global economy. People feel insecure in the face of rising food, energy and water costs. Co-operation is almost non-existent; this is a 'pass the buck' world where someone else can deal with the problem, but nobody does.

TEA PRODUCTION



The tea sector is a shadow of its former self. In a world of food shortages and high prices, it's the wrong product at the wrong time. Water, energy and land are expensive resources and there's intense competition from other crops. Tea has suffered from lack of investment in new varieties that can cope with pests, diseases and droughts, while conditions for tea workers have deteriorated. However some low volume boutique teas have emerged. These are largely grown, blended and packaged close to the market. These are seen worldwide – US, Europe, India, China – anywhere a small market of consumers remain who want better quality tea.

TEA CONSUMERS

Consumers across the world will happily drink whatever tea they can find at the lowest cost. Many brands have downgraded the tea in their blend to keep prices manageable and everyone says teabags are smaller now than they used to be. Supermarkets dominate the tea industry worldwide, buying direct from producers and few specialist tea traders remain. Young tea drinkers are turning towards the ready-to-drink (RTD) market, in part driven by industry marketing efforts to find products that use low-grade tea. The RTD market has now diversified, with not just traditional high-sugar RTDs, but also healthier teas with a diversity of flavours added.



VLAD, AGED 45, SOMETIMES TEA DRINKER

Sure, I remember the old Russian tea customs and they still exist among my parent's generation. I enjoy visiting Mum and having tea with almost a feast alongside. But to be honest, I prefer the convenience of a soft drink these days. I do drink iced tea if that counts, but it's actually getting harder to find the old fashioned kind – you know, the one with plenty of sugar. I tend to buy the cans in bulk at the supermarket; it helps to cut costs because all food and drink is expensive these days. My wife considers it a luxury but you can't keep drinking water all the time.



MICHAEL, AGED 30, FACTORY OWNER

I bought this factory on the cheap about five years ago. The estate that owned it gave the land to the smallholders and I've set up the factory as a joint venture with the local smallholders as a 50:50. The estate couldn't really see a future for tea and though it tried to explore other crops to grow, the cost of switching was too much so they just cut their losses and ran.

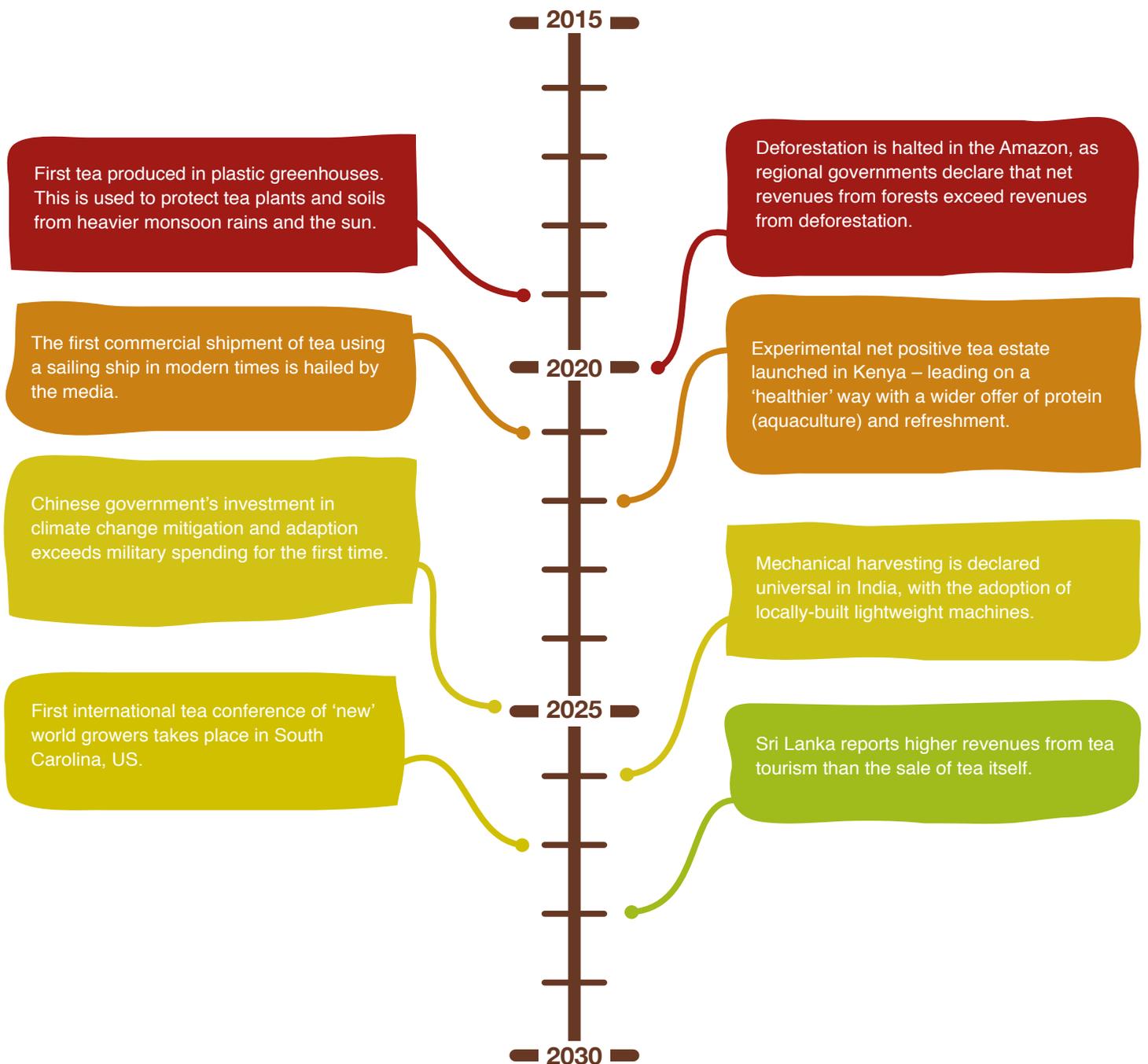
I've changed the focus away from conventional tea to tea extracts to supply the ready-to-drink market. Boy, am I glad I did because everyone wants iced tea now. It's hard to get the formula right and people are a lot more savvy about the amount of sugar in RTDs so I've had to cut that drastically. But now our product has hit the right balance and I'm optimistic for the future.

SCENARIO 3: GREEN LEAF

Green Leaf is characterised by good access to capital and strong global sustainability leadership.

“ARTHUR BLINKED AT THE SCREENS AND FELT HE WAS MISSING SOMETHING IMPORTANT. SUDDENLY HE REALIZED WHAT IT WAS. IS THERE ANY TEA ON THIS SPACESHIP? HE ASKED.”

Douglas Adams, 'The Hitchhiker's Guide to the Galaxy'



GLOBAL ECONOMY



The global economy enters a period of sustained growth after a rapid cycle of boom and bust, but extreme weather events are common. The 'war on weather' is led by the top ten largest global companies to maintain growth levels by developing innovative climate change solutions. Companies now have to reduce and offset the environmental costs of their products and services.

TEA PRODUCTION



In the tea industry, the balance of power is in the hands of producers, who invest heavily in marketing their tea directly to consumers. There is a strong focus on improving productivity with new tea varieties and growing techniques. Demonstrating sustainability to consumers is vital and tea is promoted as a 'carbon sink', giving growers access to the new carbon market.

TEA CONSUMERS

Consumers demand clean tea, high sustainability standards, and no residues or evidence of negative impact on the environment. There is a huge range of teas available – from high-quality loose tea, to health-led RTD. There are many new and different ways of drinking single origin teas at home conveniently and brewing has become much more sophisticated. The T-quality brew machine has taken the market by storm. It blends leaf tea according to personal requirements, brews the tea to an exact temperature and length of time, and pours directly into a cup. The system cuts waste and energy, while brewing a perfect cup of tea with none of the hassle.



LI, AGED 35, TEA CONSUMER

I'm glad that the old Chinese customs remain. I recently got married and just like my mother and her mother before her, my new husband and I served tea to our parents. But as with all the food we consumed at the wedding, I made sure that I knew where the tea was from. I chose Solar tea this time. Yes it's expensive but I know exactly which tea garden it's from and the efforts they have made to address sustainability. In fact

this may sound sad but we went there for our honeymoon – glad we booked as I think there were more tourists there than tea workers!



KASUN, AGED 40, TEA PRODUCER

I feel lucky that my predecessors had the foresight to really invest in the tea estate and we're now reaping the benefits. We've invested a lot in new varieties that are more tolerant to the variable weather we get now. We've also spent money on new technology and machinery so we can package at our factory. We are now marketing direct to India and China.

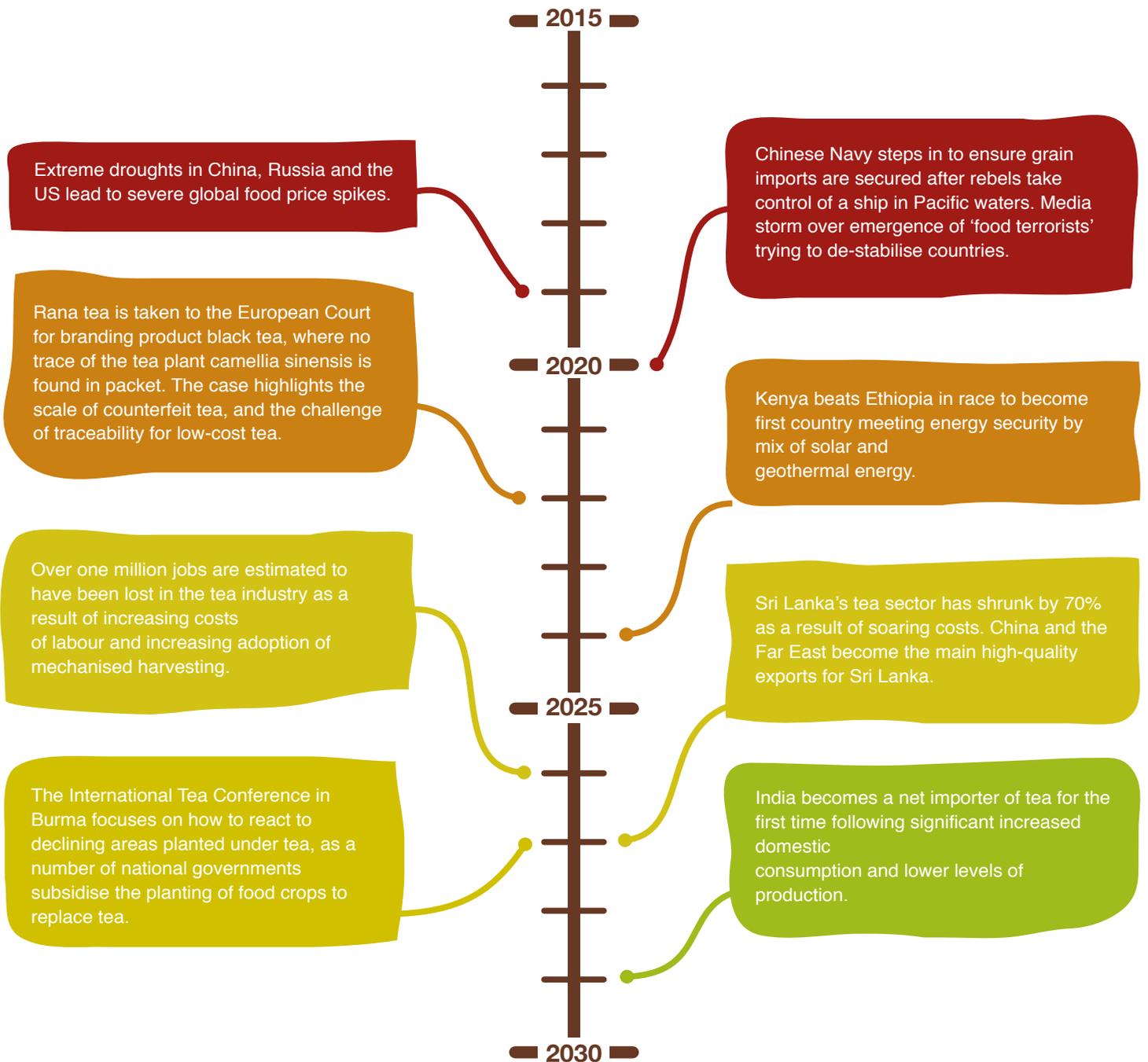
Today, all our tea is sold in advance at a guaranteed price to companies we know. We're better able to plan, and have found other sources of income from tea tours. Our environmental projects are supported by consumers in other countries.

SCENARIO 4: REBREWED

Rebrewed is characterised by poor access to capital but strong global sustainability leadership.

“UNDER CERTAIN CIRCUMSTANCES THERE ARE FEW HOURS IN LIFE MORE AGREEABLE THAN THE HOUR DEDICATED TO THE CEREMONY KNOWN AS AFTERNOON TEA.”

Henry James



GLOBAL ECONOMY



The global economy is experiencing very low growth levels. The countries performing best are those least affected by climate change and those that invested in climate adaptation, as frequent climate emergencies hit. There is strong environmental regulation, and pressure on land availability. Food shortages are common and spark political tensions. With limited capital available, the focus is on efficiency of resource use.

TEA PRODUCTION



The tea industry has struggled in this world of uncertainty, with tea volumes down and prices higher. Tea production has grown in new areas close to the equator, such as the Congo and Burma, and almost disappeared in places like Sri Lanka and Darjeeling. The industry increasingly uses tea's environmental benefit as a carbon sink to counter moves to limit its production in favour of food crops. Tea is no longer largely mono-cropped but intercropped, with trees planted to improve organic soil management and food crops to support local food security. Farmers are seen as custodians of the environment and high standards are expected of them, backed up by legislation.

TEA CONSUMERS

Tea isn't cheap, but continues to be enjoyed as a moment of indulgence or 'simple pleasure', as well as playing a ceremonial role for many cultures around the world. Because of price, the majority is of standard quality, and overall consumption is stagnant. There is a move away from tea bags, now seen as a wasteful era for the industry, as consumers re-use tea leaves. This trend has been accompanied by growth in green tea, as consumers like opportunity to re-brew (the 'Chinese way').



RAY AGED 47, TEA CONSUMER

My grandmother tells me that she drank eight cups of tea a day, and it wasn't very expensive. I find that hard to believe now. Tea is something I can't do without, but I definitely notice it on my shopping bill. But food is just a whole lot more expensive than before. I've been buying smaller quantities of loose tea and brewing in a pot. I've got the art of re-brewing now – pouring boiling hot water onto soaked leaves. I heard that the Chinese have done it for generations. So like many things today, it's just the old fashioned becoming the new fashion.



MAKENA NJOGO, AGED 36, TEA FARMER

I wasn't planning to grow tea on my smallholding in the Congo, but since starting out it has opened many doors for me. My father left me land, as I am one of three daughters. We grew crops for our home consumption, and sold some at our local market. One day we were approached by a man from the state-owned estate, who offered us tea plants, advice on growing the crop, and a guarantee that they would buy it. It was an offer too good to refuse.

Tea is a good regular income earner for us now. It has helped me buy solar panels, and together with other growers I have invested in a biogas unit which is powered on plant and animal waste. I'm surprised to find out that my tea is sold all around the world and commands good prices, and I even get tourists stopping on their way to the national park to view my tea garden.

5 CREATING A SUSTAINABLE TEA SECTOR FOR 2030

The Tea 2030 scenarios demonstrate that the tea sector is facing some major challenges that will have a profound impact on the growing, distribution and marketing of tea in the future. The industry has some choices to make as to how it responds to these challenges while continuing to provide a competitive market for consumers.

A final Tea 2030 workshop identified the risks and opportunities for the tea sector posed by each of the scenarios. Risks and opportunities that were common across several scenarios were deemed to pose more of a challenge or opportunity, and these were used to develop vision statements and the actions necessary to transform tea into a hero crop. These were then developed and expanded in discussions with the Tea 2030 steering group.

Exploration of the future scenarios indicates that there is a real opportunity for value creation in new and different ways within the tea industry – and for tea itself to be redefined from a standard commodity into a hero crop. When it comes to social issues, there are opportunities to improve the wellbeing and quality of life of those involved in production. And by changing the way in which they engage consumers by communicating more creatively on how and where tea is made, brands have a huge opportunity to change the perception of tea among its drinkers, and to encourage them to value it as a high-quality, sustainable product.

Such opportunities can only be realised by new ways of working and collaboration between all the current actors in the tea value chain – smallholders, growers, estate owners, processors, traders, packers and consumers.

This is why we believe the tea value chain also needs reframing and redefining into a value network – where there is a move away from managing the value chain as a long linear entity, to viewing all those involved in the tea sector as members of a network, who are working together to deliver a shared vision of sustainability for the sector. This in turn will bring the end consumer closer to production – a must if value really is to be added in a permanent way.

**TEA VALUE CHAIN
NEEDS REFRAMING AS
A VALUE NETWORK**

**TEA NEEDS TO BE
PRODUCED IN WAYS
THAT EMPOWER
WORKERS**

Principles of a Sustainable Tea Network

Principle 1. To sustainable livelihoods and empowered producers

A central feature of a sustainable value network for tea must be that it is not produced through any exploitation, dangerous conditions or unreasonably low wages, and profits and value creation are not concentrated in small pockets of the value chain. There is still work needed to understand what constitutes a sustainable livelihood including issues such as labour rights, welfare of workers and a living wage in many countries. If tea is to be a hero crop, it needs to become an attractive industry to work in for those involved in all aspects of its growth and production.

Tea estates often operate in remote locations where there is little alternative employment, so whole communities can depend directly or indirectly on tea growing. Tea companies need to ensure that their production benefits local communities by providing employment, respecting communities, contributing to local services and by treating the environment sustainably - ensuring that the land maintains productivity in the long term.

The impact of mechanisation on tea-growing communities could have severe implications and more thought is needed within the sector about how this should be implemented, who will be affected and what happens to those left behind, including the wider local communities.

However, being a hero crop means more than simply ensuring that all participants in the value chain have enough to live on. Tea needs to be produced in ways that empower producers (both farmers and workers) to own and control more of the value network. This especially needs to include women, who make up the majority of the tea labour force.

The scenarios potentially point to a world where tea growers could have more control of the value chain and where smallholders could produce more tea. For this model to be successful, producers need to feel more ownership of their product within the network, giving them the opportunity to improve their agronomy and business skills and enhance their share of the economic value created. Ultimately this will not just benefit producers, but all members of the chain, as productivity and professionalism are likely to improve.

Principle 2. To sustainable and restorative production

A sustainable production system for tea will ensure that tea is produced in ways that are economically, socially and environmentally viable. However, within the tea sector, more needs to be done to understand what sustainable production looks like in different geographical contexts. As the factors and scenarios demonstrate, land for tea is under pressure from urbanisation, and the need to meet future food security, water and energy needs. This necessitates an approach from the tea sector to maximise yields on existing land within environmental boundaries.

**THE MARKET MODEL FOR
TEA NEEDS TO DELIVER
ON SUSTAINABILITY
OUTCOMES, NOT JUST
FINANCIAL.**

A restorative approach to tea growing and processing seeks to not only minimise tea's impact on the environment but looks for ways to improve the natural capital on which it depends. Agricultural practices can often diminish the store of natural capital. To be a hero crop, tea production needs to be associated with practices that rebuild or replenish the store of natural capital. Production methods need to be adopted that restore ecosystem services and landscape quality through practices such as reforestation, increasing biodiversity, improving water management and improving soil quality.

Principle 3. To low carbon and resilience

The scenarios highlight how climate change may affect the tea industry. To become a hero crop, the industry needs to adapt to the challenges of climate change. Although the tea sector is not a major contributor to climate change, it needs to explore how to reduce its energy footprint across the value chain, particularly in how it is processed and consumed. The tea industry will need to consider how the future supply chain and distribution networks across the world promote efficiency and new technologies.

The greatest impact of climate change on the tea sector will be in production. The sector will need to address how to adapt to changing weather patterns and volatility. Although many measures to adapt to climate change will be implemented in production (e.g. new drought-resistant varieties), they will need to be supported by the whole value network.

Principle 4. To value chain transparency and sustainable market mechanisms

A drive towards greater sustainability may also necessitate a change in how the market model for tea operates, so that it delivers on sustainability outcomes rather than just financial ones. The scenarios show that the demand for transparency, information availability and technology will also influence how the market functions in the future. This could mean a change in the way tea is traded, where it is processed and packaged, transparency of price flows and how finance flows into the sector. Today, the role of intermediaries within value chains is often either overlooked or viewed as a negative, with the emphasis on manufacturers and retailers to go direct to producers. However, traders have traditionally played a key role in the sector as a conduit between producers, manufacturers and retailers.

To remain relevant, traders must play their own role within a sustainable value network by helping manufacturers and retailers understand the sustainability issues faced by producers and do more to facilitate co-operation on addressing risks within the chain. They could also help producers understand more about the operating reality of retailers, manufacturers and the end consumers.

Principle 5. To engaged and connected consumers

Implementing sustainable measures at the production end is not enough over the longer term to deliver a sustainable value chain. Consumers need to be brought on the journey so that they develop a greater understanding of where their tea comes from, who produces it, how it's produced and how it reaches them. They need to value tea in social, environmental and economic terms, and by doing so support sustainable production. Private brands and retailers have their own role to play in ensuring that consumers are educated about the value of tea. Other companies have started on this journey. For instance, many coffee drinkers now eschew instant coffee in preference for a greater range of 'quality' coffees. However, the same understanding of tea has not emerged, still viewed by many as a cheap commodity.

Greater transparency and a better understanding of the value chain by consumers can lead to higher standards, a greater demand for social and environmental measures and a demand for better quality tea. Many of the aspirations for becoming a hero crop, and the required investments, will not be possible without the support of consumers.

The marketing teams of brands and retailers have an important part to play in engaging consumers and connecting them to the tea they drink while ensuring that consumers continue to receive the benefits of a competitive market.

6 RECOMMENDATIONS FOR A SUSTAINABLE FUTURE

Tea 2030 has created a series of recommendations highlighting the areas in which the tea industry needs to work together.

Empower producers

Understand how a smallholder model could work successfully in different contexts and how it needs to be supported.

Understand what constitutes sustainable livelihoods on estates. This includes driving forward the work on living wages begun by Oxfam and the Ethical Tea Partnership in addition to considering the future role for estates in the provision of in-kind benefits. It also needs to include how collaboration can work to ensure that human rights including gender equality are delivered throughout the tea value chain.

Investigate and implement models for enhancing value for producers, whether it's blending or packaging at source, or growing local market opportunities.

Understand the potential impact of mechanisation on tea workers and the wider community and whether collaborative action could be taken to reduce the impact on vulnerable workers and make tea work more attractive.

Focus on restorative production

Examine how a producer-led sustainable landscapes approach could help us understand and deliver improved sustainability outcomes for the wider environment and community within which tea is grown.

Conduct further agricultural research in specific areas, such as developing drought-resistant varieties of tea suitable for different climates and locations, and improving soil nutrition and water management.

Focus on improving productivity with fewer inputs to ensure that production continues into the longer term.

Ensure knowledge is transferred to smallholders and research on improving productivity is shared more widely across the industry.

Explore how tea can deliver additional benefits beyond producing the tea crop. This includes examining how the growing of tea can be aligned with food security, particularly at the early stages of tea growing. Other benefits include: diversification; inter-cropping; carbon sequestration; and pest management.

Improve resilience

Improve research and mapping of tea-growing areas likely to be affected by climate change.

Learn how other agricultural sectors are tackling climate change, and learn from best practice within the tea sector and elsewhere to scale up adaptation measures.

Examine how tea could play a part in carbon sequestration and access carbon financing.

Scale-up existing low-carbon processing practices including the use of renewable energy in production and processing.

Evaluate transport emissions. Although proportionally low in a tea supply chain, more investigation is needed into how emissions can be reduced and alternative models of supply and distribution need to be explored.

Educate consumers on their role. In the case of hot tea, most emissions occur at the consumer end of the chain in boiling water, creating an opportunity around changing consumer behaviours and adopting new technology

Evaluate and utilise the genetic diversity of tea to improve sustainability and quality of the crop

Improve composting and reduce waste. Tea leaves and bags frequently end up in landfill although they can generally be composted. The tea sector needs to play its role in ensuring that all teabags are compostable and that they are not disposed of in landfill, as well as exploring the potential of new innovations and sustainable ways to serve tea to consumers.

Help to create sustainable market mechanisms

Investigate new and different financial and trading models to evaluate how they could work to deliver sustainable outcomes and benefits for all players across the tea sector. This includes specific areas such as payment terms and cash flow and wider questions, such as whether a futures market for tea is desirable and needed, and in what form.

Examine the future role of the trader and intermediaries within the context of a sustainable value network and how they could help manufacturers and retailers understand the sustainability issues faced by producers, and do more to facilitate co-operation on addressing risks within the chain.

Actively seek to be transparent, along all points of the chain. This should be possible for the tea sector given its shorter and less complex supply chains (where this is legitimate under applicable laws).

Connect the consumer

Raise the profile of tea and sustainability issues in the supply chain through brands and consumer-facing organisations, and in so doing create a demand for more sustainable tea which enables better social, environmental and economic conditions at the production end of the chain.

Explore how the value proposition for tea amongst consumers could be enhanced.

Use sustainability to pursue opportunities for product and service innovation. There are opportunities for creating multiple benefits, for example supporting consumers in reducing their energy and water use.

Engage new and younger tea drinking consumers. Tea drinking is often regarded as 'traditional' and for the older generation rather than the young and dynamic. This needs to change.

Use social media and new technology to reach consumers and create dynamism in the sector.

Moving forward: Three platforms for collaborative action

The Tea 2030 project has set out three key areas in which it will seek to focus its initial collaboration efforts. The three platforms are:

Sustainable landscapes

This platform will examine how a producer-led sustainable landscapes approach could understand and deliver improved sustainable outcomes for the wider environment and community affected by tea growing. Its approach would be to focus on issues material to producers in their own environment and determined by them according to common guidelines.

Sustainable market mechanisms

This platform will explore how the market system for tea could better function to deliver greater value and resilience in the supply chain, particularly for farmers.

Consumers

This platform will identify how actions and behaviour by consumers can play a stronger role in pushing forward sustainability within the tea value chain. This could include understanding how different actors within the value chain could work together to change consumer behaviour in key impact areas associated with tea consumption, as well as understanding ways in which tea could be communicated, for example, as a hero crop, which would enhance the value proposition of tea.

7 CONCLUSION

The Tea 2030 project set out to understand the challenges facing the tea sector up to 2030 and to highlight the various ways in which the world it operates in could change. It specifically set out to examine challenges and opportunities for actors across the value chain – from producers to consumers – and how these challenges and opportunities may interact.

This report presents some of the key factors that will affect the tea sector in the coming years and sets out four plausible scenarios showing how the world for tea might look in 2030. The scenarios are a tool to help us understand how factors such as the competition for land or consumer attitudes might develop, how they might interact and affect each other, and the implications this might have for the tea sector.

Of course, understanding the need for change within the tea sector, and the principles that would make a sustainable tea sector, is only the beginning of the journey. Innovative action is now needed by all parts of the sector's value network in all parts of the world – not just in London and New York, but also in China, India, Africa and South East Asia – to act on these recommendations and start to create a sustainable industry fit for 2030.

Next steps - how to support a sustainable future for tea

Some of the leading players in the global tea industry have been involved in laying the foundations for the Tea 2030 project. Now we need your help.

If you are a part of the sector, as an active player (producer, seller, etc.) or as a contributor within the supply chain (supplier, marketer, etc.), you have a role to play. So, join us in the next phase of Tea 2030, and help to create a more sustainable future for tea.

It can be difficult for individual companies to identify how they should go about doing this. So, we would like to share our learnings and create opportunities for you to respond as an individual, as an organisation or as part of the Tea 2030 collaboration project moving forwards. Here are some actions you can take:

Take action in your own organisation

The scenarios and vision statements outlined in the report and the accompanying toolkit can be used as starting blocks for helping to build a sustainable value network for your own organisation. Use them to map where you currently stand and where you want to be by 2030. Apply the five principles and start thinking about how your organisation can be a part of the solution.

A separate toolkit contains exercises and materials to help you get started. The toolkit is available on request - contact tea2030@forumforthefuture.org

Share among your own national networks

We designed a set of global scenarios for the future of tea, but in each country the future of tea faces its own unique challenges. If you think re-evaluating and visioning the future of tea is important, then share the materials among friends and colleagues in your own country and adapt the challenges and scenarios to your own situation.

Join Tea 2030 to collaborate and help build a more sustainable future

The Tea 2030 steering group invites you to join us in creating a collaborative and sustainable future for tea.

Wherever you are in the tea value chain and no matter what your size – whether you're a large player or an innovative supplier – your expertise and input is valuable.

Only by working together as a network will we be able to realise the potential of tea as a hero product with an exciting and sustainable future. Please contact project manager, Ann-Marie Brouder (a.brouder@forumforthefuture.org) if you are interested in helping us drive forward the next phase of Tea 2030.

