

Study of Assam Tea Value Chains

Research Report



Credit : Female workers at a tea Garden of Assam, Wikimedia Commons/Picasa

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1. Introduction

Tea is the second most consumed beverage after water at the global level. Today, world tea consumption is estimated at 5.5 million tonnes and expands at an average rate of 4.5% per year¹. In Europe, the tea market is mature and per capita consumption has declined over the past decade as competition from other beverages has intensified (particularly bottled water and soft drinks). In contrast, demand has increased significantly in most emerging economies, underpinned by the rapid growth in income levels and the promotion of tea for its health benefits.

India is at the same time the 2nd biggest consumer market with 1.05 million tonnes per year (20% of global sales)², the 2nd largest producer with a production of 1.27 million tonnes per year and the 4th largest exporter of tea in the world³. Assam is the largest tea producing state of India and the largest tea producing region of the world (producing approximately 51% of India's tea, and nearly 11% of the world's tea)⁴. The sector is structured by private tea plantations which have pursued the working system put in place by the British colonials, with a high degree of inequality and little qualitative change in the working and the living condition of the millions of workers employed. This situation is further associated with a highly unequal distribution of value along the tea chain, from workers in plantations down to consumers in the different markets. However, the opacity and lack of objective numbers on the distribution of value prevents from understanding the economic dynamics between tea plantations, exporters, importers, brands and supermarkets, and the correlation with the pressure exercised on workers at the beginning of the chain.

In this context, this investigation conducted by BASIC (www.lebasic.com/en/) aims at examining how value is shared along the tea value chain, more specifically estimating historical and projected share of value received by tea workers in Assam compared to the other actors along the value chain (down to the consumer) in major foreign consumer markets, with comparisons with the domestic Indian market.

1 FAO, Intergovernmental Group on Tea, Current market situation and medium term outlook, 2018

2 Ibid.

3 Ibid.

4 http://www.teaboard.gov.in/pdf/Press_Release_on_Exports_pdf9752.pdf accessed on 28 March 2019

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Abbreviations

APPL	Amalgamated Plantations Private Limited
BLF	Bought leaf factory
CTC	Cut, Tear and Curl
GBP	Great Britain Pound Sterling
Ha	Hectare
HUL	Hindustan Lever Limited
ITA	Indian Tea Association
STG	Small Tea Grower
TBI	Tea Board of India
USD	United States Dollar

2. Global tea value chains

a) The global tea market

Tea consumption and production

Tea drinking originated in China and can be traced back to the mythical Chinese emperor Shen Nung who supposedly discovered the plant in 2737 BC (and the use was spread during the 3 Kingdoms epoch in 222 AD)⁵. The Japanese discovered it in the 8th century and it only reached Europe as late as the 16th century⁶. Breaking the Chinese monopoly on tea, the British and the Dutch established tea plantations respectively in India & Sri Lanka, and on Java and Sumatra.⁷

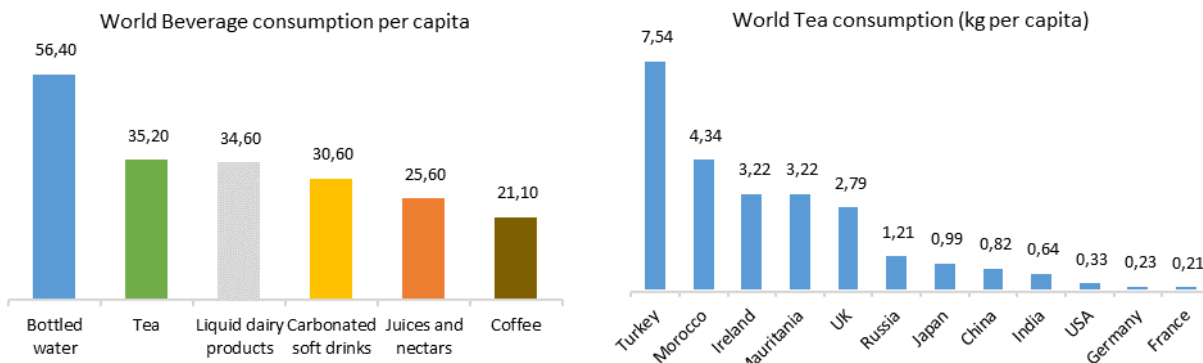


Fig. 1 World consumption of beverages and tea per capita (2017)

Source: BASIC, based on data from H. Nalwala and FAO

Today, tea is the second most consumed beverage after water at the global level, reaching 35.2 litres per person and per year in 2017⁸. More than three billion cups of tea are consumed every day, in all types of varieties. The Turkish are the biggest consumers per capita, followed by Moroccans, Irish, Mauritians and British consumers⁹.

Consumption habits differ greatly from country to country: black tea accounts for 98% of all tea consumed in India compared to only 58% in the USA (due to the strong position of fruit and herbal teas), while China and Japan have a much higher intake of green tea and a preference for loose-leaf tea¹⁰.

Internationally, the global tea market is valued at around 44 billion euros (49.4 billion USD) in 2017 and is expected to reach approximately 65 billion euros (73 Billion USD) by 2024¹¹. Tea is the most domestically-consumed hot beverage: 69% of tea production is consumed in the countries that produce it¹².

5 S. Pashova, K. Nikolova, G. Dimitrov, Study of The Quality of "Twinings" Tea, International Journal of Economic Practices and Theories, Vol. 3, No. 1, January 2013

6 C. K. Magar and B. K. Kar, Tea Plantations and Socio-Cultural Transformation: The Case of Assam, India Space and Culture, Volume 4, Number 1, 2016

7 P. Rogers, A short history of tea, 2004 and M. Groosman, Tea Sector Overview, IDH, 2011

8 <https://worldteanews.com/tea-industry-news-and-features/tea-consumption-second-only-to-packaged-water> accessed on 23 March 2019

9 https://ipfs.io/ipfs/QmXoyvizW3WknFiJnKLwHCnL72vedxjQkDDP1mXWo6uco/wiki/List_of_countries_by_tea_consumption_per_capita.html accessed on 23 March 2019

10 https://effectivedesign.org.uk/sites/default/files/BrandOpus_DBA_Platinum_Discovery_Published.pdf accessed on 23 March 2019

11 <https://www.globenewswire.com/news-release/2018/08/08/1549020/0/en/Global-Tea-Market-Will-Reach-USD-49-456-52-Million-by-2024-Zion-Market-Research.html> accessed on 29 March 2019

12 Durairasi Balasundaram, Case Study on the Global Strategies of Tata Tea Ltd ('Make in India' Realistic), September 2015, Number 2, Volume 2

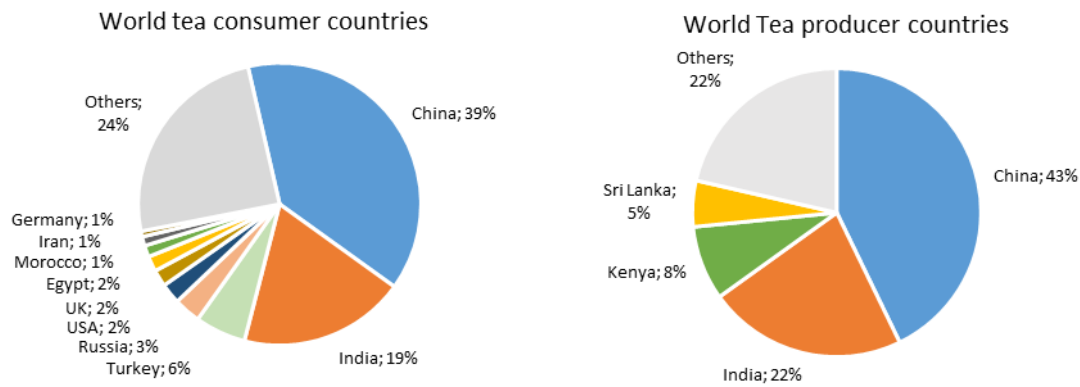


Fig. 2 Main world tea consumer and producer countries
Source: BASIC, based on FAO and Comtrade data (2017)

In terms of volume, world tea consumption has reached 5.5 million tonnes in 2016, a 50% increase since 2006¹³. China is by far the largest tea consumer country (2.1 million tonnes in 2016) and represents 39% of global market, with an outstanding growth rate of 10% per year. It is followed by India with 1.05 million tonnes in 2016, which makes up 19% of the global market¹⁴.

In the rest of the world, the European and Russian tea markets, which represent each 4% of world consumption, have been declining over the past decade as competition from other beverages has intensified (particularly bottled water and soft drinks), whereas demand has increased significantly in emerging economies from Asia, Latin America and Africa, underpinned by the rapid growth in income levels and the promotion of tea for its health benefits. More recently, worldwide consumer demand is on the rise for non-traditional tea products such as lemon-tea, iced-tea or herbal infusions seen as “healthier” alternatives to soft drinks¹⁵.

World tea production has kept pace with this increase and remains slightly above demand at 5.7 million tonnes in 2016¹⁶. Black tea is most produced (56% of volumes) followed by green tea (30%), but the latter is growing 3 times more rapidly and is expected to match black tea production by 2030¹⁷.

China is responsible for this growth in total output, as its production more than doubled over the past decade (from 1.17 million tonnes in 2007 to 2.44 million tonnes in 2016, mainly green tea), underpinned by the country’s economy, increased consumer health consciousness and the rapid development of herbal tea. It now accounts for 43% of world production. India is the 2nd largest producer, but only increased its production from 0.95 to 1.33 million tonnes over the same period. Other major tea producers, such as Kenya and Sri Lanka, are much smaller in size (respectively 0.47 and 0.29 million tonnes).¹⁸

13 FAO, Intergovernmental Group on Tea, Current market situation and medium term outlook, 2018

14 Ibid.

15 Ibid.

16 Ibid.

17 Ibid.

18 FAO, Intergovernmental Group on Tea, 2018 op. cit.

Tea exports and imports

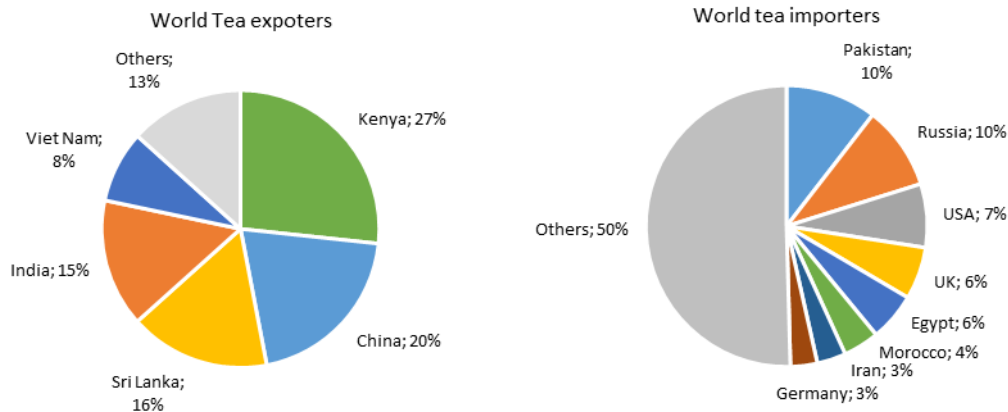


Fig. 3 Main world tea export and import countries
Source: BASIC, based on FAO data (2017)

Only 31% of world tea production is traded internationally, reaching 1.75 million tonnes in 2016, a 14% increase – only – compared with 10 years ago. Kenya is the largest exporter followed by China, Sri Lanka, India, Vietnam, Indonesia, Malawi and Uganda. On the import side, Pakistan ranks first, followed by Russia, the USA, the UK, Egypt, Morocco, Iran and Germany (these countries are the main port of entry of globally-traded tea and are not always the final destination of tea).

b) The global tea value chains

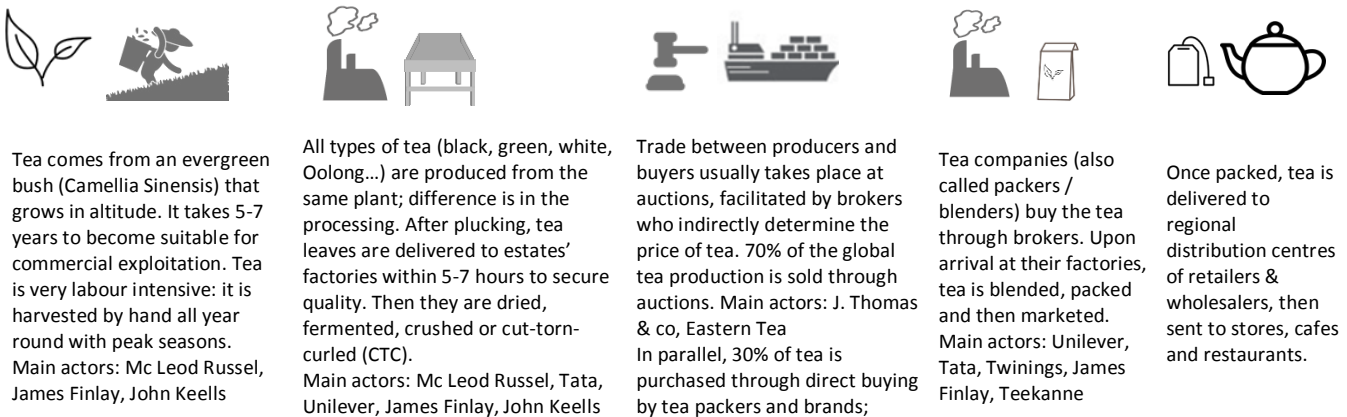


Fig. 4 Technical description of the tea chain - Source: BASIC

At the consumer end, the market is divided into black tea (fully fermented), oolong tea (semi-fermented), green tea (unfermented), fruit & herbal tea, and other teas (such as pu-erh). It is sold in loose tea packets and tea bags (the two most popular packaging formats), as well as aluminium tins and plastic containers. The main channel for packaged tea is supermarkets and hypermarkets, followed by specialty stores, online retail and convenience stores¹⁹.

¹⁹ <https://www.globenewswire.com/news-release/2018/08/08/1549020/0/en/Global-Tea-Market-Will-Reach-USD-49-456-52-Million-by-2024-Zion-Market-Research.html> accessed on 29 March 2019

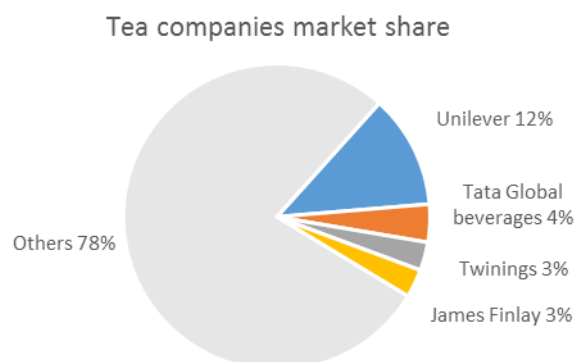


Fig. 5 Market shares of largest tee companies at global level (including traded tea and domestically-consumed tea)

Source: BASIC, based on FIAN (2014) and IDH (2011)

The most popular products (e.g. Lipton yellow label) can contain up to 36 types of tea blended in the consuming country, so as to keep their taste constant (exact composition is a guarded commercial secret)²⁰.

The four leading companies almost account for 20% of the market at international level²¹:

- Unilever (12% global market share). This is the world's largest supplier of tea, owner of the Lipton Yellow Label which is the world's most popular tea brand and Lipton Ice Tea which is the world's most popular ready-to-drink tea brand. In Kenya, its subsidiary Brooke Bond Kenya owns the largest plantation with 11% of the country's output, and in India, Hindustan Lever is the largest Indian brand and Indian exporter of bulk tea, as well as the world's largest packet tea marketer²².
- Tata Global Beverages (4%, owner of the Tetley brand). A subsidiary of the Tata Group producing a range of products from cars to t-shirts, it controls several plantations in India and Sri Lanka, as well as 10 blending and packaging factories in India alone, including the world's largest orthodox tea factory in Munnar. Tata is the second largest brand on the Indian tea market and owns Tetley, the second biggest tea brand worldwide²³.
- James Finlay (3%). Involved in every stage of tea production, the company, it is the largest instant tea producer in the world. It has a major presence in large tea producing countries: Kenya (where it owns the second largest plantation company and Africa's only orthodox factory), Sri Lanka and Argentina (where it owns the largest tea estate, Casa Fuentes)²⁴.
- Twinings (3%, owned by Associated British Foods)²⁵. The company does not own any plantations and never has done. It does not own either tea processing factories, only packing factories. It sources its tea from 160 gardens in India, Sri Lanka, China, Indonesia, Kenya, Malawi and Argentina (countries where it owns tea factories).

Market concentration appears to be much higher when analysed on a regional basis: 7 companies are estimated to make up 90% of the tea sold in European and North American markets (Unilever, Van Rees, James Finlay, Tata Tetley, Twinings, Teekanne, Ostfriesische Tee Gesellschaft)²⁶.

20 M. Groosman, Tea Sector Overview, IDH, 2011

21 M. Groosman, Tea Sector Overview, IDH, 2011 and IUF-FIAN-Misereor, Harvesting Hunger: Plantation Workers and the Right to Food, 2014

22 Institute of Policy and Strategy for Agriculture and Rural Development, The Tea Market – a background study, 2002

23 Ibid.

24 Ibid.

25 Ibid.

26 M. N. Larsen, Sustaining Upgrading in Agricultural Value Chains? State-Led Value Chain Interventions and Emerging Bifurcation of the South Indian Smallholder Tea Sector, 2016

In Hamburg, which has been the main European entry point for tea since the 19th century and which accounts today for 70% of the Europe-wide traded tea²⁷, the German companies specialized in tea blending, flavouring and packaging have a strong presence²⁸. The two biggest players, Ostfriesische Tee Gesellschaft and Teekanne, hold a combined share of 42%, followed by Hälssen & Lyon, Teekante, J Fr Scheibler GbmH, and H & S Tee-Gesellschaft²⁹. These actors re-export tea to the rest of Europe supplying all types of actors, from small specialized tea brands to retailers (for their private label tea) and international brands³⁰.

Historically, the supply chains of leading global brands have been vertically integrated from their own tea plantations all the way to the branded tea on the retailers' shelves. In recent years, they have started to outsource part of their production and processing capacity to focus instead on downstream activities, notably blending, packing, marketing and product innovation which are the most lucrative parts of the tea value chain³¹.

Unlike for other major agricultural commodities, there is no stock or futures market for tea. Almost 70% of global tea harvest is sold through auctions, the 3 biggest centres being the major references for the world market price (Kolkata, India; Colombo, Sri Lanka; Mombasa, Kenya). In all producing countries, local auction centres are key nodes in the chain. They enable producers to receive payment faster and to lower the uncertainty of prices and sales, while guaranteeing faster delivery and quality test for buyers³².

India's largest tea brokers

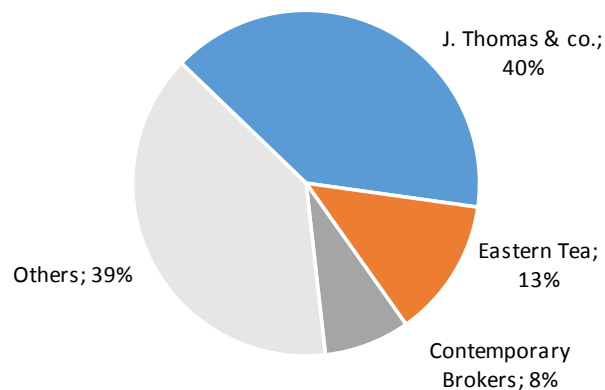


Fig. 6 Market share of Indian tea brokers

Source: BASIC, based on FAO (2018), FIAN (2014) and IDH (2011)

As for downstream stages of the chain, it is highly concentrated and the number of brokers registered by national Tea Boards in each country is quite limited: 11 in Kenya, and only 4 in Kolkata. The three largest Indian tea brokers, J. Thomas & Co. handles 40% of all tea auctioned in India, followed by Eastern Tea and Contemporary Brokers which channel respectively 13% and 8%.³³

27 One of the reasons for Hamburg importance in the European tea trade used to be the tea tax that had been levied between 1953 and 1993, which was not incurred if tea storage and processing remained in the free trade zone of Hamburg's port. Today, many service providers like laboratories, logistical specialists, and suppliers, as well as the German Tea Association and the European Tea Committee are located in this city. <https://marketing.hamburg.de/its-tea-time.html> accessed on 27 March 2019

28 <https://marketing.hamburg.de/its-tea-time.html> accessed on 27 March 2019

29 Export Opportunity Surveys, The Market for Organic Black Tea in Germany and the United States, TH Köln - University of Applied Sciences and University of Wisconsin-Whitewater, EOS Research Paper 2/2016, May 2016

30 Ibid.

31 M. N. Larsen, Sustaining Upgrading in Agricultural Value Chains?, 2016 op. cit.

32 Cividep India, Tainted Tea: Slave Labour in your Cuppa?, May 2016

33 K. Hazarika, Tea Auction Market, With a special reference to Guwahati Auction Centre, 2013

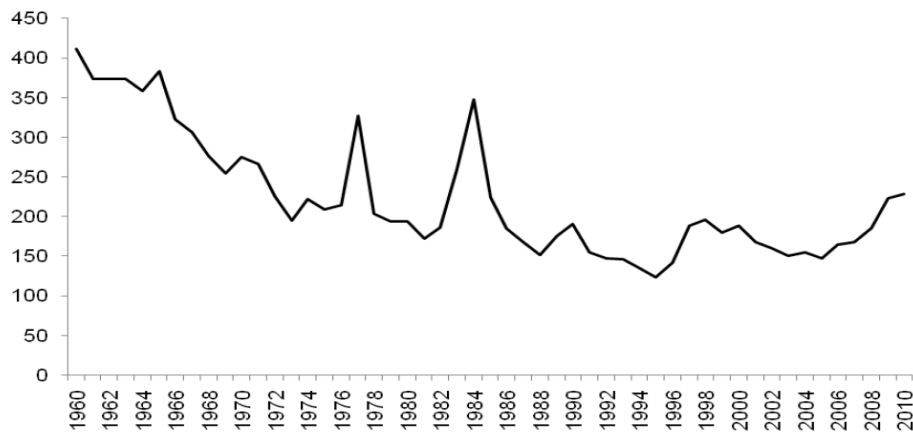


Fig. 7 Tea prices at Colombo, Kolkata & Mombasa auctions 1960-2010 in US cents per kg

Source: R. M. Henderson and F. Nelleman, Harvard Business School, based on World Bank data (GEM Commodities)

As a result, the main drivers of international tea prices are not only pests and diseases or weather conditions, but also market access and the influence of dominant buyers in the chain which have even greater impacts³⁴. This is especially the case at auctions where brokers have the upper hand on negotiations, in close coordination with big brands³⁵. Over the past decades, they have exerted a strong price pressure on the global tea market, which has been exacerbated by the high degree of commoditization and the perishability of the product (which meant prices have often been cut to clear stocks)³⁶. This is best illustrated by the evolution of the average prices of tea at Colombo, Kolkata and Mombasa auctions which have been almost divided by 3 between the 1960's and the 2005 (see previous graph).

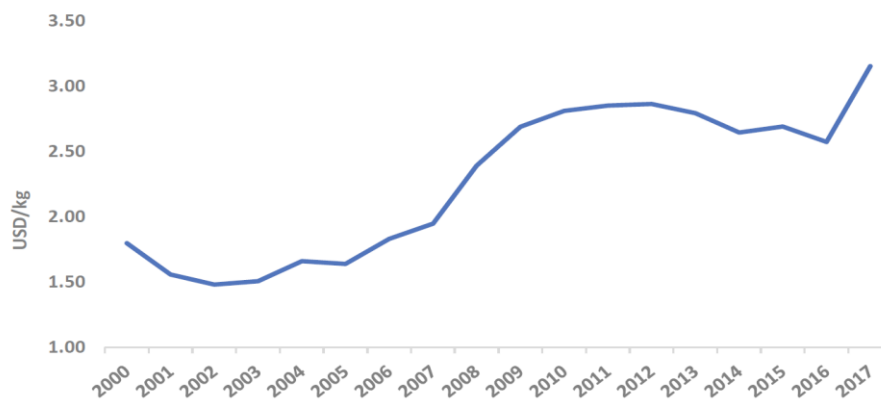


Fig. 8 FAO Tea Composite Price 2000-2017 in US dollars per kg

Source: BASIC, based on FAO (2018)

Since 2005, the prices have partially recovered as demonstrated by the FAO Tea Composite Price (a weighted average of the prices of black tea sold in the main auction centres in the world, which include Colombo, Kolkata and Mombasa but also Jakarta, Limbe...). This price has almost doubled (see above) but remains 40% lower than in 1960 (the latest increase of tea prices in 2017 being mainly correlated with rising domestic and foreign demand as well as tighter supplies)³⁷.

At the beginning of the chain, there are on estimate 13 million people involved in tea production worldwide, of which 9 million are smallholders. While large estates with integrated processing factories dominate in India (53% of production), smallholders are most prevalent in China (90% of production), Viet

34 FAO, Intergovernmental Group on Tea, 2018 op. cit.

35 K. Hazarika, Changing Market Scenario for Indian Tea, International Journal of Trade, Economics and Finance, Vol. 2, No. 4, August 2011

36 R. M. Henderson and F. Nelleman, Sustainable Tea at Unilever, Harvard Business School, December 2011

37 FAO, Intergovernmental Group on Tea, 2018 op. cit.

Nam (80%), Kenya and Sri Lanka (close to 70%)³⁸. Since processing has to start within 5-7 hours after harvesting, small growers are in a very weak bargaining position vis-à-vis the nearby processing units of independent Bought Leaf Factories (BLFs) and tea estates which purchase their green leaves. The major players at this stage: McLeod Russell which belongs to the Williamson Magor Group, the biggest owner of tea estates in the world (100 000 tonnes of annual production capacity), James Finlay, Tata Tea, Unilever and John Keells.³⁹

3. Assam tea value chains in India

a) Tea production in Assam

The Indian Tea industry

History and current status of the Indian Tea industry

Local tribes in Assam had been drinking a brew made of a local tea plant for a long time when Robert Bruce, a Scottish botanist and adventurer, came to the region in 1823. He managed to get samples of it which were sent for testing in Kolkata and officially identified as a new variety of tea (*Camellia sinensis* var. *assamica*), different from the original Chinese variety (*Camellia sinensis* var. *sinensis*) which Bruce had managed to smuggle into West Bengal.⁴⁰



Fig. 9 Map of tea producing regions in India. Source: Tea Source (www.teasource.com)

Following the success of the first experimental tea estate established in Chabua (Assam), the first tea company, the Assam Company, was set up in 1839 which monopolized tea planting, cultivating and processing until 1860. It put an end to the Chinese monopoly over the commodity. Over the following decades until the end of the 19th century, a flow of independent tea estates and companies were created first in Assam and Darjeeling, then in the Nilgiri Hills of South India⁴¹, thanks to the forced and continuing displacement of cheap labour force, rising demand of British consumers for Indian tea, easy availability of large portions of cheap virgin lands and opening up of auction centres in different parts of India.⁴²

38 FAO, Intergovernmental Group on Tea, 2018 op. cit.

39 Tropical Commodity Coalition, Tea Barometer, 2010

40 The World is a Tea Party, Your guide to Assam Tea & Gardens, 2014

41 Roy, Achinto 2013, An Institution based insight into India's Tea Industry, Academy of Taiwan Business Management Review, vol. 9, no. 3, pp. 20-24

42 C. K. Magar and B. K. Kar, Tea Plantations and Socio-Cultural Transformation: The Case of Assam, India Space and Culture, Volume 4, Number 1, 2016

A new (export-oriented) industry was born out of strong and forceful intervention of the British administration, which in turn created a chain of activities that involved planting, plucking, withering, fermenting, curing, processing, packing, transporting and auctioning of tea controlled by British companies that continued to operate even after India gained independence in 1947⁴³. During this period, tea drinking was promoted in Great Britain by the nascent tea industry, highlighting the health benefits of consuming tea through promotional campaigns that have left a permanent mark for generations of tea drinkers in both countries that continue to provide a market for the industry even today⁴⁴.

After independence, the Indian government realised the potential of tea, both in terms of domestic market and export earnings, but also that this potential could not be realised since the industry was largely in the hands of British companies and agents. As a result, the government subjected the industry to heavy regulations through the creation of the “Tea Board of India”. It is a statutory body set up under the Tea Act, 1953, to promote the Indian tea industry which comes under the administrative control of the Ministry of Commerce and Industry, Department of Commerce. It comprises of 31 members drawn from parliamentarians, planters, tea companies, exporters and trade union representatives. It has certain regulatory functions such as issue of Exporters’ License, Tea Waste License and Tea Warehousing License. The Tea Board takes many initiatives to promote tea market, tea production and improve the quality of green leaves and made tea, including through subsidies to tea cultivation.⁴⁵

Today, the industry employs three million people and contributes around 3% of Indian GDP⁴⁶. In 2017-18, the Indian tea industry recorded its highest ever production as well as export figures:

- the total tea production was 1.325 million tonnes, an increase of 74,500 tonnes (+6%) compared to the previous year⁴⁷.
- The total quantity of tea exported stood at 256,000 tonnes (an increase of 13% compared to 2016-17), corresponding to a value of 786 million USD⁴⁸.

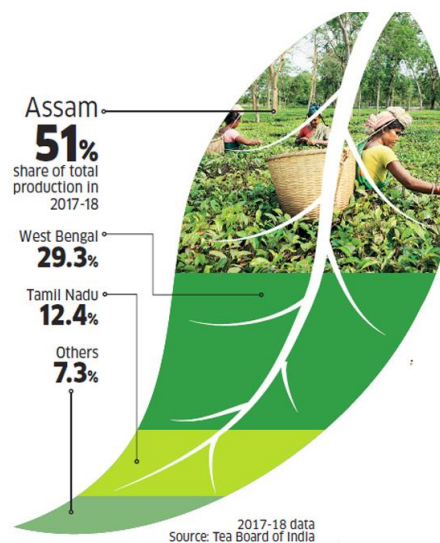


Fig. 10 Tea production per region in India

Source: Economic Times of India, based on data from Tea Board of India

43 Roy, Achinto 2013, An Institution based insight into India’s Tea Industry, Academy of Taiwan Business Management Review, vol. 9, no. 3, pp. 20-24

44 Ibid.

45 Ibid.

46 U. Talukdar and C. Hazarika, Production and Export of Value-Added tea in India and its Global Competitiveness, Economic Affairs, Vol. 62, No. 4, pp. 705-710, December 2017

47 http://www.teaboard.gov.in/pdf/Press_Release_on_Exports_pdf9752.pdf accessed on 28 March 2019

48 Ibid.

India produces some of the world's finest teas thanks to the diversity of its microclimates. Due to soil and climatic requirements, tea cultivation is confined to certain parts of the country, mainly in the states of Assam, West Bengal, Tamil Nadu and Kerala (80% of total harvest is accounted by Assam & West Bengal). In these regions, tea farm ownership is fragmented: large-size plantations account for roughly 20% of the total number of tea producers while some 80% of the farms have less than 8 hectares⁴⁹. These small tea growers have seen their contribution rising in recent years: between 2014-15 and 2017-18, their share of India's tea production has risen from 34% to 47%⁵⁰.

The plantation sector (all privately owned) takes its roots in the British colonial period and constitutes a strong network of capital assets. It relies on the Plantation Labour Act for its operation and regulation. Each plantation manages internally on its own the quality of green leaves, the production of 'made tea', as well as its economic and social responsibilities towards workers in the field⁵¹. The sector comprises both:

- large branded tea companies such as Hindustan Lever and Tata Global Beverages, who used to vertically integrate the whole chain, from owned estates to branding, packaging and marketing. In recent years, they have decided to focus on downstream activities and sell their plantations to large groups which focus on tea cultivation and first processing such as McLeod Russel.⁵²
- medium-size, independent tea plantations who have historically been excluded from compulsory sale through the auction system and allowed to trade their tea "under the garden name" directly to the buyers' blending and packing factories in consuming countries.⁵³

The rest of the production is made by small tea growers who have been operating in India since the 1970s, thanks to government programmes encouraging smallholders to convert from vegetable production for domestic markets to tea cultivation especially for export. But it is the crisis of tea prices on the world market in the 2000's that has spurred their development⁵⁴. The resulting development of new value chains involving small tea growers selling to Bought Leaf Factories (BLF) is one of the most important changes in the history of the tea industry in India. Their integration into tea markets through a loosely coordinated value chain of the "arm's length" kind has started to create a new paradigm by putting forward low cost of production in terms of workforce and technology⁵⁵.

In parallel, the old colonial model of production has been called into question following the crisis of tea prices in 2005, and the failure of tea estates to meet yield targets and maintain the quality of produced tea; some estates were closed and abandoned, triggering a withdrawal of major companies from tea production, and their concentration on downstream market operations⁵⁶. In particular, Tata and Hindustan Lever who used to be among the largest owners of tea plantations in India sold most of their estates in North India – especially in Assam - to McLeod Russel which became the largest tea producer in the world⁵⁷ (it currently owns 32 estates in India, following a strong move of disinvestment whereby it sold 20 estates in the year 2018⁵⁸). As a consequence, it is estimated that Tata and Hindustan laid off 24,000 and 12,000 workers respectively who lost their jobs⁵⁹. In parallel to this transformation, a specific participatory management in tea cultivation was put in place in South India⁶⁰.

49 K. B. Vijaybhaj, P. D. Jayeshkumar et al., Analysis on Indian Tea Industry, V.M.Patel Institute of Management. Ganpat Univ., 2014
50 <https://economictimes.indiatimes.com/industry/cons-products/food/indias-tea-industry-is-struggling-to-move-up-the-value-chain/articleshow/65456045.cms?from=mdr> accessed on 30 March 2019

51 Saji M Kadavil, Indian Tea Research, 2007

52 Marianne Nylandsted Larsen, Sustaining Upgrading in Agricultural Value Chains? State-Led Value Chain Interventions and Emerging Bifurcation of the South Indian Smallholder Tea Sector, Sustainability 2016, 8, 1102

53 Ibid.

54 Saji M Kadavil, Indian Tea Research, 2007

55 Marianne Nylandsted Larsen, Sustaining Upgrading in Agricultural Value Chains? State-Led Value Chain Interventions and Emerging Bifurcation of the South Indian Smallholder Tea Sector, Sustainability 2016, 8, 1102

56 Ibid.

57 Ibid.

58 <https://www.thehindubusinessline.com/companies/after-selling-6-tea-estates-for-23232-crore-mcleod-russel-halts-its-asset-sale-plan/article25030751.ece> accessed on 30 March 2019

59 M. Groosman, Tea Sector Overview, IDH, 2011 and IUF-FIAN-Misereor, Harvesting Hunger: Plantation Workers and the Right to Food, 2014

60 Saji M Kadavil, Indian Tea Research, 2007

At the processing stage, the 2 main operators are Hindustan Lever (subsidiary of Unilever) and Tata Global Beverages Ltd (TGBL) which both account for almost 60% of all tea sales in the country. As disposable incomes have risen in both urban and rural parts, more Indian consumers were able to make the switch from unbranded products to the brands owned by these two operators: Tata, Brooke Bond and Lipton.⁶¹

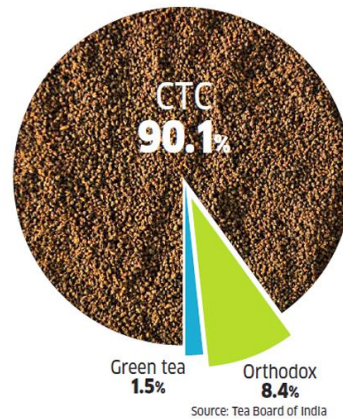


Fig. 11 Tea production per grade of processing.

Source: *Economic Times of India*, based on data from Tea Board of India

The bulk of today's Indian manufactured tea is of granular grade: 90% is made through the machine-based Crush-Tear-Curl (CTC) process⁶². The tea obtained from this CTC manufacturing is less costly to process and sold in the mass market. It has a stronger flavour tending toward the bitter side and is usually consumed with milk⁶³. On the higher end, the more expensive Orthodox varieties are whole-leaf teas which are hand-processed to wither and roll tea leaves which account only for 8.4% of Indian production⁶⁴. Teas of such higher grades emanate more subtle and multi-layered flavours are usually had without adding milk⁶⁵. The rest of Indian production is green tea, which represents a mere 1.5% of the volume produced.⁶⁶

Prices vary greatly, depending on the grade of tea and region of production: Assam CTC tea is only valued at around Rs 150 per kg while Orthodox tea from Assam can on an average fetch at Rs 500 per kg, and prime Darjeeling orthodox commands prices that can reach three times higher, i.e. Rs 1500 per kg and above.⁶⁷

Trade and labour relations in the India tea sector, and related challenges

The British colonial tea plantation model has been established based on scientific and economic devised methods for the 'improvement' of India's landscapes and populations⁶⁸. Calculating and translating labour costs across space were central to this colonial project. The Indian tea plantation complex was thus

61 <https://economictimes.indiatimes.com/industry/cons-products/food/how-more-indians-prefer-to-have-tea-with-small-brands-like-wagh-bakri-amar-tea/articleshow/59260789.cms?from=mdr> accessed on 28 March 2019

62 <https://economictimes.indiatimes.com/industry/cons-products/food/indias-tea-industry-is-struggling-to-move-up-the-value-chain/articleshow/65456045.cms?from=mdr> accessed on 30 March 2019

63 Ibid.

64 <https://economictimes.indiatimes.com/industry/cons-products/food/indias-tea-industry-is-struggling-to-move-up-the-value-chain/articleshow/65456045.cms?from=mdr> accessed on 30 March 2019

65 Ibid.

66 <https://economictimes.indiatimes.com/industry/cons-products/food/indias-tea-industry-is-struggling-to-move-up-the-value-chain/articleshow/65456045.cms?from=mdr> accessed on 30 March 2019

67 <https://economictimes.indiatimes.com/industry/cons-products/food/indias-tea-industry-is-struggling-to-move-up-the-value-chain/articleshow/65456045.cms?from=mdr> accessed on 23 March 2019

68 Sarah Besky, *Tea as Hero Crop? Embodied Algorithms and Industrial, Reform in India*, *Science as Culture*, 2016

developed through the careful classification of people, plants, taste and landscapes into neat and supposedly natural categories, represented in numbers⁶⁹.

The creation of these standardized systems was paralleled by the establishment of brokerage procedures in centralized auctions which channel 2/3 of Indian tea production⁷⁰. Their functioning is based on a complex method for preparing, smelling, touching, and tasting tea: from weighting tea samples with a bronze balance to arranging ceramic cups on long, narrow, tea-stained tables, then smelling each tea with the nose before tasting the tea through partial ingestion and finally describing the tea's qualities using a pre-set array of adjectives not unlike those used by wine sommeliers⁷¹. Each broker has a tasting speciality. Some focus on malty Assams, others on muscatel Darjeelings, and others on the tannic cut-tear-curl teas produced throughout the Northeast and drunk across Indian homes⁷².

But regardless of region, the embodied method for tea's valuation takes the same form. These brokers are very concentrated as they must be registered with the Tea Board which has historically limited the number of auction houses where tea can be sold. This is best illustrated by the 4 registered brokers at Calcutta: J. Thomas & Co. (the world's largest tea broker, which handles 40% of all tea auctioned in India), Contemporary Brokers and Eastern Tea⁷³. As a result of this concentration, there is a strong assumption that brokers often push down the price in the auction, in coordination with large buyers (tea manufacturers and brands)⁷⁴.

Whereas the work of determining price is one of product differentiation, the work of determining labour costs on tea plantations has always been one of standardization⁷⁵. Labour costs include:

- workers' daily monetary wages, which are a matter of state-by-state concern. They are determined through tripartite negotiations (and sometimes bipartite in the past) between workers (represented by unions), planters (represented by guild-like regional associations), and the government (represented by the Labour Department of each Indian state). By law, planters cannot pay less than the state-set wage.⁷⁶
- the 'social costs' associated with tea production as outlined in the national-level Plantations Labour Act of 1951, which include housing, food rations, medical facilities, latrines, and primary schooling for laborers' children.⁷⁷

Through the combination of these monetary and in-kind payments, the living condition of each worker is thus accounted for in a uniform fashion, although brokers and tasters at auctions make fine gradations between flavours, ages, and provenances of the tea they produce.⁷⁸

Whereas tea has played a vital role in the national economy, providing sectoral employment in remote and poor rural areas, yet tea plantation labour wages are the lowest of the organised sector in the country⁷⁹. Cash wages are still typically determined based on piece-rates, i.e. calculated by the amount plucked, instead of working time (with a minimum volume to be picked which is related to a defined daily wage). In addition, most tea workers are not employed upon a long-term labour contract, but on less stable conditions: to a large degree, casual work is the norm in tea production today (on estimate, about

69 Ibid.

70 Ibid.

71 Ibid.

72 Ibid.

73 https://web.facebook.com/236193093072118/posts/j-thomas-courl-wwwjthomasindiacomif-you-look-up-the-internet-or-read-about-jthom/1106178979406854/?_rdc=1&_rdr and

https://finalstepmarketing.com/wp-content/uploads/2015/07/UK_TEA_market.pdf accessed on 24 March 2019

74 Saji M Kadavil, *Indian Tea Research*, 2007

75 Sarah Besky, *Tea as Hero Crop? Embodied Algorithms and Industrial, Reform in India, Science as Culture*, 2016

76 Ibid.

77 Ibid.

78 Ibid.

79 E. M. Biggs et al., *The tea landscape of Assam: Multi-stakeholder insights into sustainable livelihoods under a changing climate*, *Environmental Science and Policy* 82 (2018) 9–18

50% of workers are casual in the Indian tea sector)⁸⁰. The majority of these employees are women (harvesting, generally referred to as plucking, is carried out almost exclusively by female workers, while male workers are employed for pruning, applying agrochemicals and hauling heavy loads)⁸¹, because women are perceived as more able to engage in “quality” picking of tea leaves and have historically been seen as central to the need to “populate” the tea plantation workforce⁸².

Furthermore, tea plantations are not just economic production units, but rather social institutions, controlling the lives of their resident work force to a large extent. Low cash wages supplemented by “social benefits” are one of the enduring legacies of the colonial system, which has defined many aspects of plantation work and life⁸³. 70 years after India’s independence, tea workers are still dependent on tea plantations for their basic needs (food, water, housing...) as they live and work in an enclave⁸⁴. Despite generations having lived in the same estate and same house for generations, most tea workers have still not been given any right to their homestead. They can be evicted at any moment by the management from their houses if they protest about their conditions of work or wages⁸⁵. Thus, while men may migrate to better paid jobs, one or more of the women continue to work on the estate, just to retain possession of the house, which can be described as bonded labour⁸⁶.

Outside tea plantations, small tea growers which are on the rise. While a small minority of smallholders has been integrated into high-margin markets through prominent BLFs, a mass of “others” lay outside these opportunities, being trapped in tightly coordinated tea value chains⁸⁷. They are most often economically and socially vulnerable as they are marginal farmers, Dalits or from tribal communities. Many of them do not possess rights over the land they cultivate⁸⁸. Though the quantity of tea produced by small tea growers has increased over time, the profit accruing to them is very limited, because of their inability to access the market directly and their low price-realisation due to poor quality and inefficient production structures⁸⁹. In some states like Assam, a minimum price for green leaves has been defined per district. It provides some sort of safety net to the small tea growers, but does not take into account the costs of production and their evolution, as it is calculated as a percentage of the auctioned price

In this context, a new vision called “Tea 2030” has started to emerge, mainly promoted by major tea brands and manufacturers such as Tata Global Beverages and Hindustan Lever⁹⁰. They consider the plantation and auction system as inefficient anachronisms and purport to replace this ‘linear supply chain’ (on which bodies are hierarchically arranged) with a ‘value network’ based on a model of worker empowerment – especially women - in which workers become part-owners of plantations and smallholders selling green leaf to centralized factories gradually become the norm⁹¹. However, the capacity of this new dynamic to address the social challenges faced by the Indian tea industry is questioned as it does not aim to balance the high asymmetries in negotiation power along the tea chain in India which have been perpetuated since the creation of this industry in the country⁹².

80 IUF-FIAN-Misereor, *Harvesting Hunger: Plantation Workers and the Right to Food*, 2014 op. cit.

81 K. B. Vijaybhai, P. D. Jayeshkumar et al., *Analysis on Indian Tea Industry*, V.M.Patel Institute of Management. Ganpat University, 2014

82 Ibid.

83 IUF-FIAN-Misereor, *Harvesting Hunger: Plantation Workers and the Right to Food*, 2014 op. cit.

84 Global Network for the Right to Food and Nutrition, *A life without dignity – the price of your cup of tea, Abuses and violations of human rights in tea plantations in India*, Fact-finding mission report, May 2016

85 Ibid.

86 Ibid.

87 Marianne Nylandsted Larsen, *Sustaining Upgrading in Agricultural Value Chains? State-Led Value Chain Interventions and Emerging Bifurcation of the South Indian Smallholder Tea Sector*, *Sustainability* 2016, 8, 1102

88 Ibid.

89 Ibid.

90 Sarah Besky, *Tea as Hero Crop? Embodied Algorithms and Industrial, Reform in India*, *Science as Culture*, 2016

91 Ibid.

92 Ibid.

Tea production in Assam and related challenges

As described earlier, Assam is home to the Indian native variety of tea and is the largest tea producing region in the country. The total area under tea cultivation is roughly 312,000 hectares, mainly situated in the regions of Cachar, North Bank, South Bank and Upper Assam (see map below)⁹³. The volume produced was almost 676,000 tonnes in 2017-18, accounting for more than 50% of the total national production.

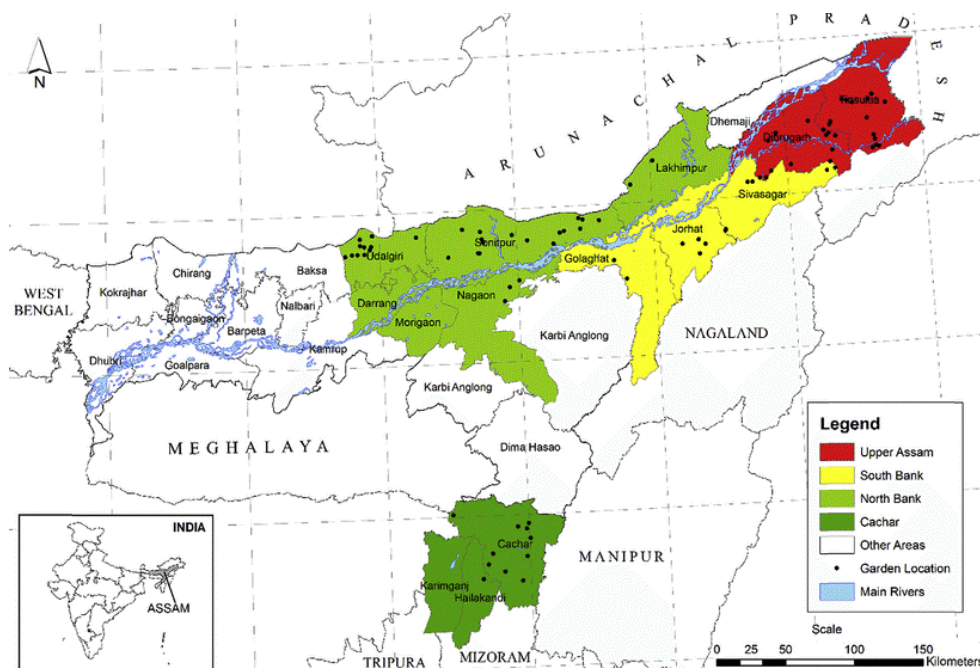


Fig. 12 Main tea producing regions in Assam

Source: J.M.A. Duncan et al. *Observing climate impacts on tea yield in Assam, India, 2016*

Assam is one of Indian's states facing the biggest social challenges: it has a largely rural population (almost 86% of inhabitants) which suffers from a high unemployment rate of 12.6% (compared to roughly 4% at national level) and a growing casualization of labour conditions⁹⁴.

In this context, tea has always played a pivotal role in state livelihood security, particularly since the industry is largely non-mechanized. Historically, tea plantations were very large (over 100 hectares in size) and restricted only to British entrepreneurs, local Assamese people being forbidden from engaging in tea cultivation, except as workers⁹⁵. In the early 1970s, both the Government of India and the Assam State Government abolished barriers to entry: Sonowar Bora (State Minister for Agriculture in 1978), is credited with efforts to popularize small tea holdings to make use of the state's fallow land and provide employment opportunities for the rural youth⁹⁶. Since then, the number of small tea growers – i.e. with farms smaller than 10.2 Ha – has jumped from 657 in 1990 to over 84,000 today (compared to 850 tea estates)⁹⁷.

93 Global Network for the Right to Food and Nutrition, *A life without dignity – the price of your cup of tea*, May 2016

94 C. Idicheria, Okapi and Mercy Corps, *Risk and resilience in Assam's tea industry*, October 2017

95 Ibid.

96 Ibid.

97 Global Network for the Right to Food and Nutrition, *A life without dignity – the price of your cup of tea*, May 2016 and C. Idicheria, Okapi and Mercy Corps, *Risk and resilience in Assam's tea industry*, October 2017

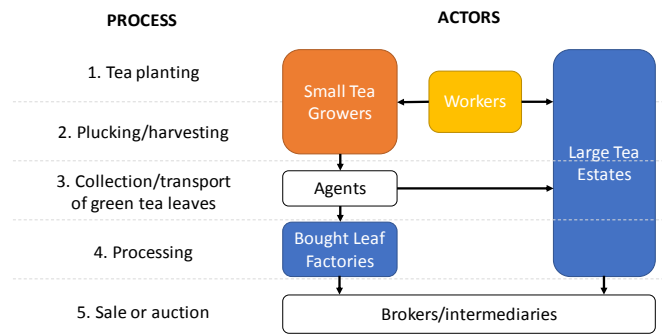


Fig. 13 Tea production process in Assam

Source: C. Idicheria, Okapi and Mercy Corps, *Risk and resilience in Assam's tea industry*, October 2017

The rapid emergence of small tea growers in Assam has transformed the ways in which the sector is organized: processes that used to be exclusively housed in single large tea estates are now disaggregated between small tea growers (STG) who supply green leaves through agents to “Bought Leaf Factories” (BLF) and tea estates which consolidate volumes from a (large) number of STGs and take in charge the processing and marketing of the product (see previous graph)⁹⁸. Quality assurance is hard to control in this process of mass collection and transportation, which has pushed several private institutions to develop training programs to help small tea growers improve their cultivation practices and regulate the use of chemicals to meet industry standards⁹⁹.

In economic terms, the Assamese small tea growers (STGs) are significantly more exposed to the high price fluctuations on the tea market, with severe consequences on the income and living conditions of their families¹⁰⁰. Indeed, only a few large estates have sufficient financial reserves to produce in-house high-quality orthodox tea, leaving STGs as the main providers of green leaves for low-quality CTC-processed tea which floods domestic markets at prices which are directly affected by those of CTC-tea auctioned in Mombasa (Kenya) at much lower production costs (India exhibiting the highest costs of tea production in the world)¹⁰¹. A worsening factor, auction and market prices of tea have not kept up with the rising costs of inputs which have been hard for small tea growers to shoulder (Over the last 10 years, they have increased at a compounded annual growth rate of more than 10%, while the price of tea has only increased by 6 to 7%)¹⁰².

This profound transformation was further accelerated by the two leading players of the tea sector. In 2005, Hindustan Lever sold all of its plantations in Assam, primarily to McLeod Russel (making it the largest producer of tea leaf in India but with no retail operation)¹⁰³. This sudden and distorted departure highly questioned its main competitor, Tata Global Beverages which feared it would become uncompetitive in the face of this move. The company also decided to leave the tea plantation sector, but its reputational stakes didn't allow it to cut down operations the way Unilever did¹⁰⁴. Instead, Tata opted for a “voluntary scheme” whereby it granted early retirement to part of the workers and transferred to the remaining employees a partial ownership of plantations through the sale of shares¹⁰⁵. As Tata plantations in Assam were noticeably expensive and profitable, it brought outside investors to ensure the viability of the restructuring¹⁰⁶. As a result, 21 Tata estates were integrated in a new company called Amalgamated Plantations Private Limited (APPL) of which Tata owns 19% of shares¹⁰⁷.

98 C. Idicheria, Okapi and Mercy Corps, *Risk and resilience in Assam's tea industry*, October 2017

99 Ibid.

100 Ibid.

101 Ibid.

102 Ibid.

103 Human Rights Institute of Columbia Law School, *The More Things Change ...*, January 2014

104 Ibid.

105 Ibid.

106 Ibid.

107 M. Rao, *A Bitter Brew: Business Accountability for Human Rights Violations in the Assam Tea Supply Chain*, Wageningen University, February 2018

Whereas these transformations have strongly impacted the business dynamics within the Assamese tea sector, it made little difference to the situation of workers. Indeed, labour practices in Assam have remained almost the same for the past two centuries¹⁰⁸. Their origin lies in the British colonial times when permanent tea workers were forcibly brought in Assam at the end of the 19th century from other states, primarily from tribal communities in central India, because they posed fewer risks of conflicts to employers than native Assamese workers¹⁰⁹. They found themselves immobilized within the spatial confines of plantation enclaves. As a result, today's workers on large tea estates are mostly descendants of these migrant families, and collectively referred to as "coolies" or members of "tea tribes"¹¹⁰. This is further combined with a strict hierarchy among employees based on ethnic, linguistic and caste differences: workers are almost invariably Adivasi (indigenous who don't get recognition nor entitlements as per the Scheduled Tribes provisions as they were brought away from their original States), staff are Ahom locals (upper caste), and managers come from outside the region (often West Bengal or Punjab)¹¹¹.

In this context, numerous researches document the widespread nature of labour rights violations on tea estates in Assam. In September 2015, a BBC investigation on Assamese tea estates revealed severe working and living conditions on several of plantations, among which estates owned by McLeod Russel¹¹². On the research side, two recent extensive studies conducted in Assam, one by the Human Rights Institute of Columbia Law School (published in 2014¹¹³) and another by the Global Network for the Right to Food and Nutrition's (published in 2016¹¹⁴) revealed the extent of rights violations on Assamese tea estates, as reported by the hundreds of workers interviewed:

- Insecurity of tenure, housing and living conditions: cases of land dispossession by the management of tea estates, lack of access to electricity, lack of maintenance of living quarters, ceilings rotting and flooding of houses¹¹⁵
- Low wages and bas working conditions: cases of no resting time during working hours, time of travel not taken into account, increase of the quantity of tea to be picked to achieve the minimum wage, wage deductions, lack of equipment¹¹⁶
- Breach of maternity rights: infringement of maternity leave duration, inadequate prenatal and postnatal care as well as access to day-nurseries¹¹⁷
- Exposure to pesticides: absence of pesticide labels or instructions for use (all the more than most workers are illiterate), absence of storage precautions, absence of training on pesticides use apart from supervisors, absence, inadequacy and lack of repair of personal protective equipment, pesticide spillage, water pollution. These infringements were associated with health problems reported by workers: skin irritation, nausea, vomiting, headache, eye burns, muscle pain...¹¹⁸
- Lack of essential services: lack of access to quality health care throughout the sector (especially for temporary workers), high costs of medical services, low quality of education services, insufficient food rations, cases of malnutrition and anaemia among workers' children, lack of drinkable water (quantity & quality), cases of diarrhoea and cholera...¹¹⁹

A worsening factor is the increasing incidence of informal or casual workers in an industry that has historically been formal¹²⁰. These informal workers do not receive the same legal entitlements, suffer from irregular sources of income, face higher risks of being laid off and are less unionized, thereby widening inequality gaps among workers who are engaged in the same tasks and have similar livelihood concerns¹²¹.

108 Human Rights Institute of Columbia Law School, *The More Things Change ...*, January 2014

109 M. Rao, *A Bitter Brew: Business Accountability for Human Rights Violations in the Assam Tea Supply Chain*, Wageningen Uni, 2018

110 Ibid.

111 Human Rights Institute of Columbia Law School, *The More Things Change ...*, January 2014

112 Cividep India, *Tainted Tea: Slave Labour in your Cuppa?*, May 2016

113 Human Rights Institute of Columbia Law School, *The More Things Change ...*, January 2014

114 Global Network for the Right to Food and Nutrition, *A life without dignity – the price of your cup of tea*, May 2016

115 Ibid.

116 Ibid.

117 Ibid.

118 Ibid.

119 Ibid.

120 C. Idicheria, Okapi and Mercy Corps, *Risk and resilience in Assam's tea industry*, October 2017

121 Ibid.

Even the progressive initiative taken by Tata in partnership with the International Finance Corporation (IFC, member of the World Bank Group) is not immune to these social challenges: the model of tea plantation with shared-ownership of workers they installed through the creation of APPL has also been the subject of serious allegations of wages below the minimum wage, inadequate living conditions, obstruction to freedom of association and lack of risk prevention regarding the use of pesticides as documented by the World Bank's CAO (Office of the Compliance Advisor Ombudsman).¹²²

Finally, on the environmental side too, the stakes are high. Tea in Assam being closely linked to environmental and climatic conditions, it is hence vulnerable to climate. According to the Tocklai Tea Research Institute, Assam recorded a 1.3°C increase in temperatures over the last century, and more recently a steady increase in the number of days with temperatures above 30°C, erratic rainfall patterns and increased periods of drought¹²³. These changes in climate creates conditions that usher in new pests like *Heliopeltis thievora* or mosquito bugs which destroy tea shoots, and ultimately reduce crop productivity. In recent years, tea gardens have reported an alarming increase in pest attacks, with existing pesticides proving to be increasingly ineffective¹²⁴. As a result, tea growing areas in Assam could drastically reduce by 2050 if certain climate mitigation or adaptation strategies are not implemented (tea production could decline of up to 40% by 2050 due to climate change)¹²⁵.

Ability of workers and small farmers to earn a living wage/income

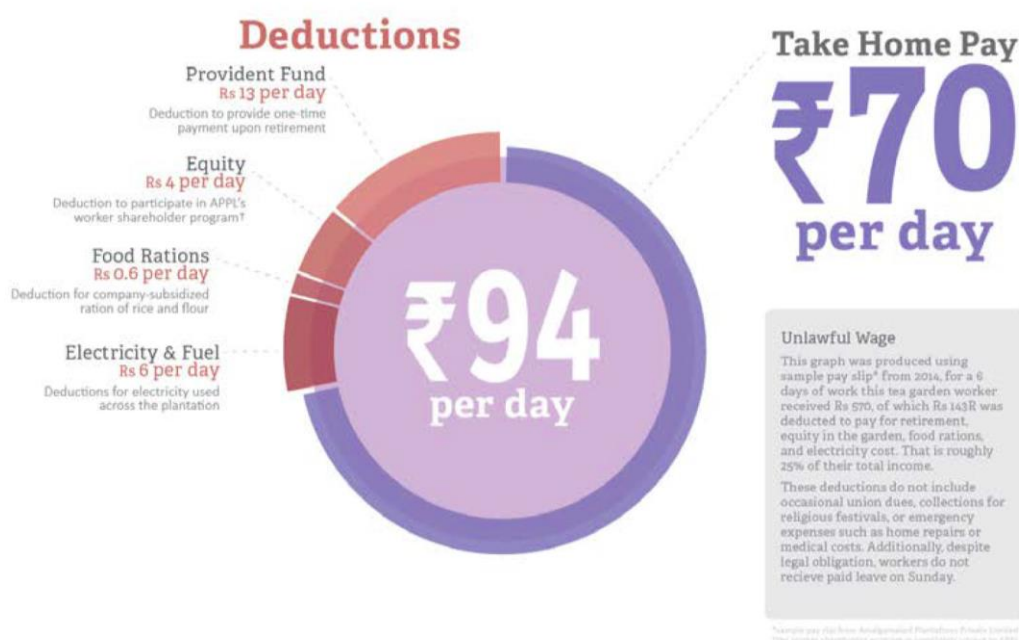


Fig. 14 Income breakdown of tea workers in Assam

Source: Department of Economics of the Indian Institute of Technology in Guwahati, June 2014

A study commissioned by Oxfam and Ethical Tea Partnership demonstrated that the net wage earned by tea pluckers in Assam in 2013 fell just above the World Bank extreme poverty line of 1.25 USD per day, corresponding to 73 INR per day¹²⁶. The following year, two PhD candidates from the Department of Economics of the Indian Institute of Technology in Guwahati analysed pay slips from tea workers from APPL in Assam (a specific case where there are deductions for equity from the workers) which showed that their gross wage was 90 INR per day, and their net wage was lowered down to only 70 INR per day

122 CAO, « Investigation of IFC environmental and Social Performance in relation to: Amalgamated Plantations Private Limited (APPL), India », 2016.

123 Ibid.

124 Ibid.

125 Ibid.

126 Oxfam-ETI, Understanding wage issues in the tea industry, 2013

after company deductions for electricity and fuel, food rations, equity and provident fund¹²⁷. This salary is significantly below the minimum wage of 177 INR per day (2.67 USD), a situation which has been challenged in court by tea growers' associations. According to the study commissioned by Oxfam, workers also receive additional in-kind benefits¹²⁸ that equal to roughly 80% of the net cash wage they receive¹²⁹.

Based on this work of the Department of Economics of the Indian Institute of Technology, we consider that a conservative estimate of the total wage earned by workers in Assam is 126 INR per day in 2013, including both cash pay and in-kind entitlements. This corresponds to 153 INR per day in 2017 when taking into account the Indian inflation since 2013.

Proposed Wage Increase for Tea Workers

A proposed increase in minimum wage for tea plantation workers in Assam, India



Fig. 15 Income breakdown of tea workers in Assam

Source: Department of Economics of the Indian Institute of Technology in Guwahati, June 2014

Still in 2014, two PhD candidates from the Department of Economics of the Indian Institute of Technology also calculated the fair living wage for tea plantation workers per day, based on wage calculation standards established by the Tripartite Committee of the 15th Indian Labour Conference in 1957 and in later directives from the Supreme Court of India¹³⁰. This baseline estimate conducted in 4 districts in Assam calculated the living wage that would enable tea workers to meet the fundamental needs of their family based on the costs to purchase essential goods and services on the market, i.e.:

- food needed to feed a family of 2 adults and 2 children based on a diet of 2700 calories per day and per person
- clothing based on 72 yards of cloth per person and per year
- fuel and electricity
- housing
- essential services, i.e. children's education, medicare, marriage and retirement

127 Cividep India, Tainted Tea: Slave Labour in your Cuppa?, May 2016

128 The Plantations Labour Act, 1951 is a national act applicable to all plantations in India and is administered by State Governments It specifies a number of health and welfare benefits that plantations must provide: housing, medical facilities, canteens, creches, education, rations & dry tea, firewood & fuel

129 Ibid.

130 Cividep India, Tainted Tea: Slave Labour in your Cuppa?, May 2016

The resulting living wage for tea workers would be 330 INR per day (5.50 USD) in 2014 or 400 INR per day in 2017, i.e. a multiplication by 2.6 of the current wages. This result is very much aligned with the study conducted by K. Mamkoottam and N. Kaicker for the Global Living Wage Coalition, based on a similar methodology developed by Richard and Marta Anker¹³¹, which estimated the living wage in rural India at 345 INR per day in 2015¹³².

b) Domestic Tea value chains

Indian food retail sector

The retail sector in India has shown a tremendous growth over the past decade but still remains dominated by traditional retail formats which are independently managed by the owners themselves: family run provision stores (called 'kirana stores'), weekly markets, neighbourhood shops, street shops and hawkers, public distribution system etc¹³³. Purchasing from these localized outlets – which have been into existence since a very long time in India - allows shoppers to purchase affordable quantities, assess quality by seeing and touching, and place orders for specific foods. It also provides opportunities for outings, social interactions, and catching up on neighbourhood news¹³⁴. As a result, the country is one of the last emerging economies in transition towards modern retail formats (as shown in the graph below¹³⁵).

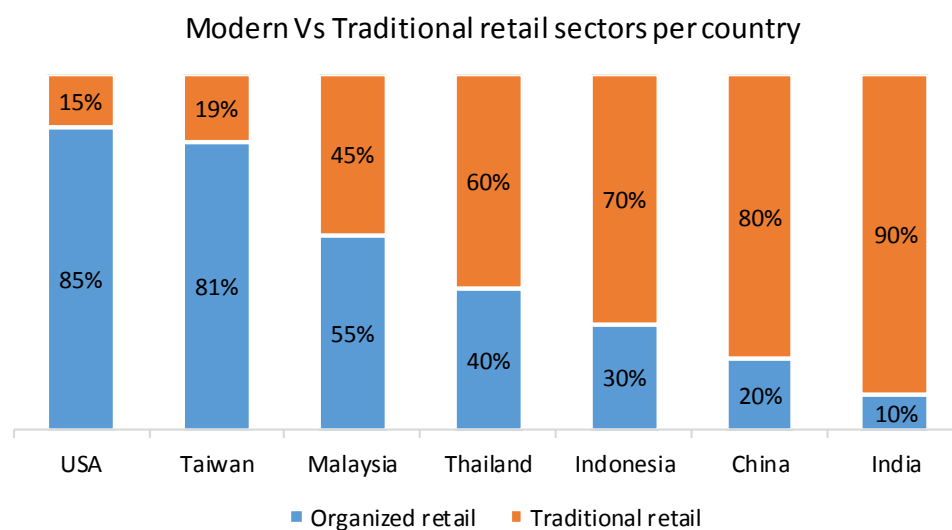


Fig. 16 Modern (organized) Vs Traditional retail sectors per country

Source: BASIC, based on SM Zulaikha Fatima, C. Bisaria, and A. Prakash, Uncovering the Retail Scene in India, 2015

Over the past decade, the emergence and strong development of new formats like hypermarkets & supermarkets which have jumped from 500 stores in 2006 to 8500 in 2016¹³⁶ (Aditya Birla Retail-More, Spencer's daily, Big Bazaar, Reliance Fresh, Hyper City...), department stores (Pantaloon, Westside, Shoppers Stop, Wal-Mart...), discount stores, convenience stores, speciality stores (Titan, Tanishq...), and online retail are profoundly transforming the retailing environment¹³⁷.

131 R. & M. Anker, Living Wage Report Kenya – with a focus on rural Mount Kenya area, October 2016

132 K. Mamkoottam & N. Kaicker, Living Wage Report Rural India – with a focus on Bhadohi, Uttar Pradesh, October 2016

133 SM Zulaikha Fatima, C. Bisaria, and A. Prakash, Uncovering the Retail Scene in India, 2015

134 S. Guttal, The Changing Face of Food Retail in India, 2015

135 SM Zulaikha Fatima, C. Bisaria, and A. Prakash, Uncovering the Retail Scene in India, 2015

136 IBEF. « Indian Retail », 2018. <https://www.ibef.org/download/Retail-Report-2018.pdf>.

137 Ibid.

In 2016, all these modern retail formats (grouped under the name 'organized retail') have generated a turnover of 70 billion USD, accounting for 10% of the total retail market - to be compared with the 672 billion USD sales generated the same year by traditional retail (90% of the market)¹³⁸.

In the short term, the strong development of the 'organized retail' sector (20% growth per year) is expected to give birth to a true retail industry in India, enabling the total retail market to reach 1.1 trillion USD by 2020¹³⁹.

Currently, the most successful players of this trend are:

- the Landmark group, with an estimated annual revenue of 6 billion USD and more than 2200 stores in India & beyond¹⁴⁰.
- RPG which owns 100 stores in India (Foodworld, Music world, Giants, Health & Glow) and is strongly influencing the retail scene in India thanks to the launch of its largest supermarket chain under the brand name Spencer's¹⁴¹.
- K Rahega group which started in Mumbai and owns dozens of Shoppers Stop and HyperCity stores throughout the country¹⁴².
- The Tata group, which has very recently decided to focus on expanding its hypermarket (food and grocery) and lifestyle business by entering into joint venture with UK- based Tesco, in order to open more stores of different sizes and formats all over the country¹⁴³.

Until recently, the Indian retail sector was dominated by Indian corporations. This is changing gradually as the Government of India started to open the sector to Foreign Direct Investment in a bid to attract foreign capital¹⁴⁴.

Food & Grocery segment is the backbone of the Indian retail sector: it is the biggest segment, accounting for 2/3 of India's total retail market, with expected annual growth of 15% over the next decade, due to income growth, urbanization, changes in demographic profile and socio-economic environment, in big metropolis as well as in smaller cities throughout the country¹⁴⁵.

Tea consumption in India

Close to 88% of the total households in India report consuming tea, with hardly any significant difference between socio-economic classes, since tea is a traditional drink and is considered one of the most affordable beverages¹⁴⁶. Over 80% of the people consume tea either before breakfast or with breakfast, essentially milk tea with sugar, which is one of the reasons behind the high in-home consumption of tea¹⁴⁷.

In recent years, close to 80% of the households in both urban and rural India have shifted to buying packet tea instead of loose tea, because of its perceived quality and better storage options. Neighbourhood kirana stores are the most common place for tea purchase for more than 70% of the households, while modern retail is emerging as the 2nd biggest channel for purchasing of tea due to the increasing preference for packet tea, and the growing penetration of modern retail in India¹⁴⁸.

138 IBEF. « Indian Retail », 2018. <https://www.ibef.org/download/Retail-Report-2018.pdf>.

139 IBEF. « Indian Retail », 2018. <https://www.ibef.org/download/Retail-Report-2018.pdf>

140 SM Zulaikha Fatima, C. Bisaria, and A. Prakash, Uncovering the Retail Scene in India, 2015

141 Ibid.

142 Ibid.

143 Ibid.

144 S. Guttal, The Changing Face of Food Retail in India, 2015

145 SM Zulaikha Fatima, C. Bisaria, and A. Prakash, Uncovering the Retail Scene in India, 2015

146 Tea Board of India, Executive Summary of Study on Domestic Consumption of Tea in India, 2008

147 Ibid.

148 Ibid.

Share of leading tea manufacturers in India (by value)

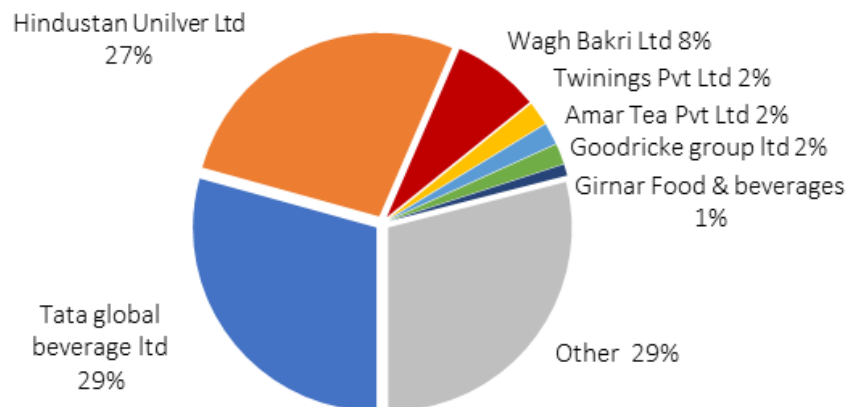


Fig. 17 Market shares of major tea manufacturers in India. Source: BASIC, based on *The Economic Times* (2017)

As disposable incomes are rising in both urban and rural parts of India, more and more consumers are making the switch from unbranded products to national and global brands, especially Tata (29% of the market), Brooke Bond and Lipton yellow label (Unilever – 27% of the market) which have a long history with Indian consumers¹⁴⁹. Local manufacturers Wagh Bakri (western regions) and Duncans Industries (eastern regions) can compete with Tata and Unilever thanks to local affinity, but the impact of Indian popular culture – particularly on young connected consumers in the major cities – give an edge to the larger companies able to secure celebrities for advertisements.¹⁵⁰

Distribution of value from production in Assam to consumption in India

Based on data extracted from public databases, several socio-economic studies published by academics, public and private research institutes, and cross-checks with experts of the tea industry, we have made detailed estimates of the distribution of value, from the tea workers and small tea growers' income in Assam, down to the consumers in India (for further details on the methodology, see the note in appendix).

Based on the results of our analysis of the Indian tea value chain and the available data, we have made estimates for black CTC-processed tea which makes up the vast majority of Assam made tea. The results, expressed in Rupees per kilogramme, and adjusted for inflation – both for large tea estates and small tea growers - are detailed below:

149 <https://economictimes.indiatimes.com/industry/cons-products/food/now-more-indians-prefer-to-have-tea-with-small-brands-like-wagh-bakri-amar-tea/articleshow/59260789.cms?from=mdr> accessed on 28 March 2019

150 <https://economictimes.indiatimes.com/industry/cons-products/food/now-more-indians-prefer-to-have-tea-with-small-brands-like-wagh-bakri-amar-tea/articleshow/59260789.cms?from=mdr> accessed on 28 March 2019

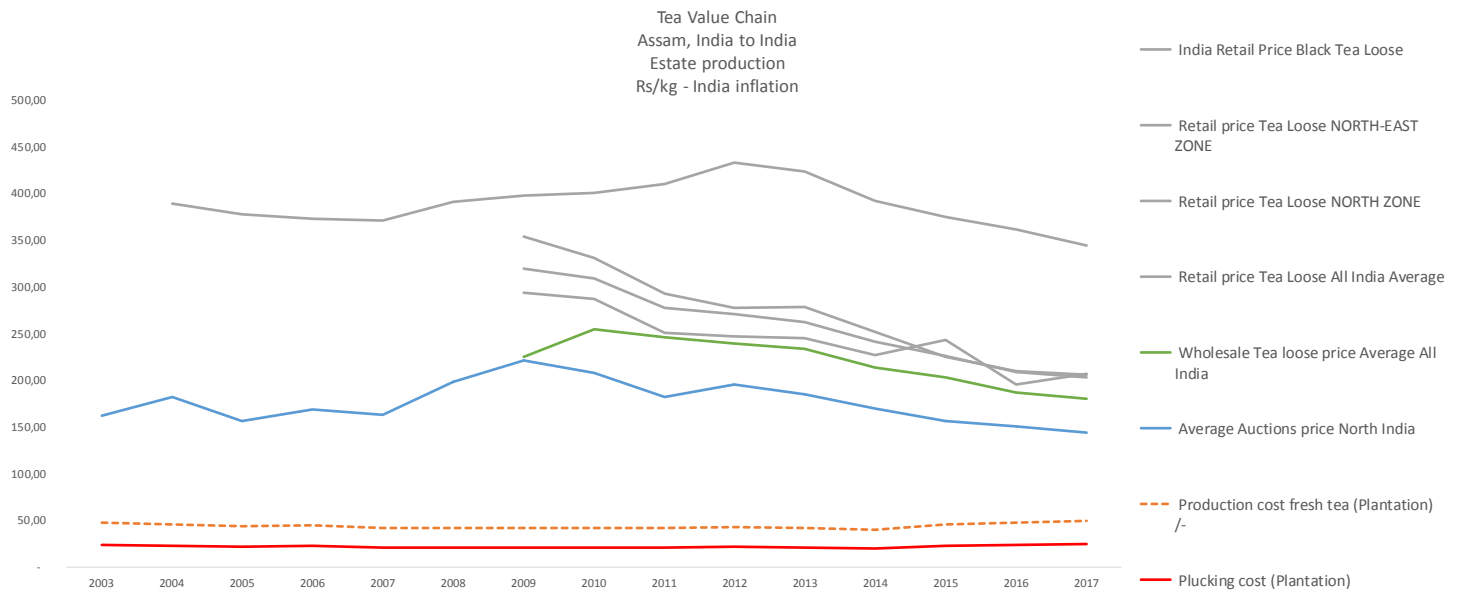


Fig. 18 Distribution of value from Assam tea estates to Indian consumers (inflation adjusted). Source: BASIC

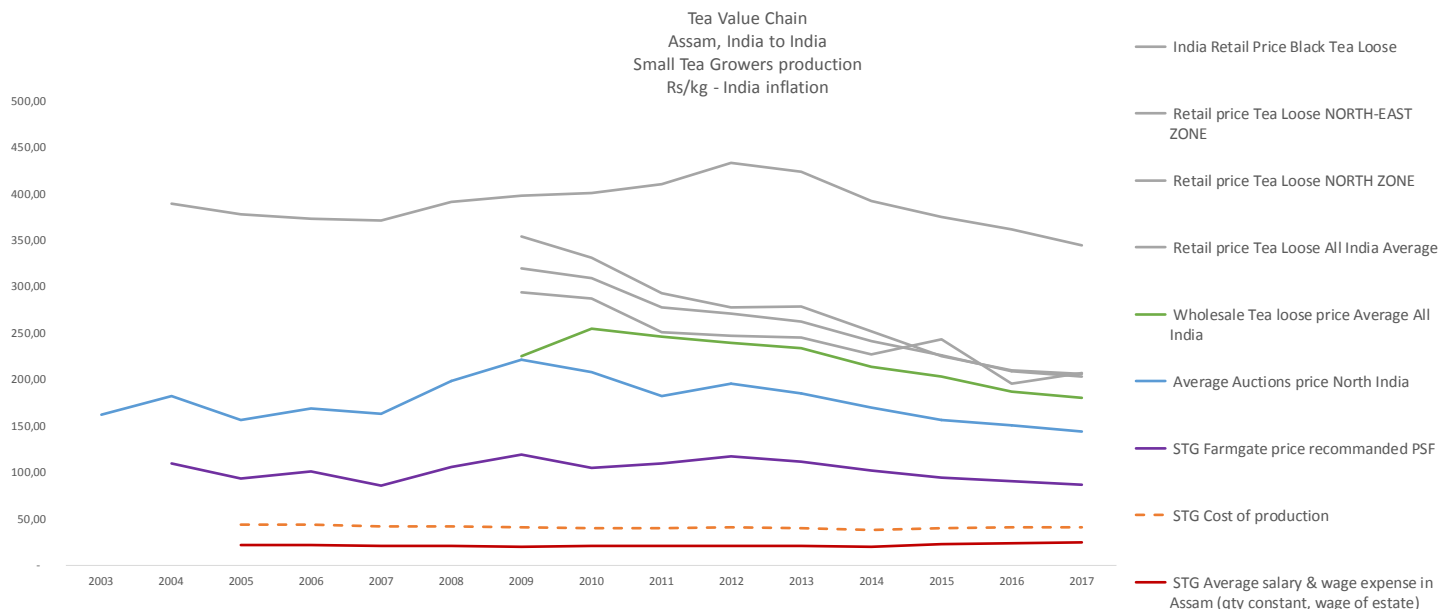


Fig. 19 Distribution of value from Assamese small tea growers to Indian consumers (inflation adjusted). Source: BASIC

On the consumer side, we have collected different price data which show differing trends depending on the way in which tea is sold and the related distribution channel:

- The highest price corresponds to branded packs of loose black tea sold in modern retail stores, which reached 344 rupees per kg in 2017.
- Much lower prices are associated with loose black teas (unbranded) sold in traditional shops, which reached on average 203 rupees per kg in 2017 (a price 40% inferior to branded tea packs). These are further differentiated by regions in India (North and North East) which used to be somehow different, and have converged in recent years

In terms of evolution, two slightly different trends can be observed:

- unbranded loose black tea prices follow closely the changes in wholesale prices and Auction prices – especially the significant fall of 25% since 2009 (once adjusted for inflation),

- the retail price of branded packs has increased up until 2012, and then started to lower down at the same pace as unbranded tea.

As shown in the above diagrams, the difference between branded and unbranded tea has strongly increased over the last decade: whereas branded tea was only 12% more expensive than unbranded tea in 2009, it was 70% more expensive in 2017. A possible reason for such a difference is likely to be the leveraging of brand awareness. As a matter of illustration, both Tata and Unilever brands have tapped Bollywood actors to promote their tea products as premium and healthy alternatives to other beverages. These marketing campaigns are particularly important because brand names play a large role in regional preferences¹⁵¹. Furthermore, as higher income Indian consumers diversify their beverage choices, the ability to provide multiple packaging formats and flavour variants has helped create more value, as demonstrated by Tata's Kanan Devan and Unilever's Taj Mahal Tea's various premium tea blends¹⁵². Over the past 5 years, these leverages seem to have reached certain limits as the price of branded black tea in modern supermarkets has been lowering down at the same pace as loose tea in traditional shops. A possible assumption is that this may illustrate a dynamics of price wars between brands and supermarket chains, in a similar way as it has happened in the more mature European and North American markets.

In addition, the parallel relationship between the auction prices and the retail prices - especially for branded tea in modern retail outlets - is quite striking. Given the significant concentration of negotiation power at auction level and the long-standing relations between large brokers and big brands – in particular Tata and Unilever – a possible assumption is that the tea brands, especially the leading ones, may have managed to exert price pressure down in the chain upon auction prices in order to keep their margins stable (as observed in our estimates). In order to prove that it is not the opposite (i.e. tea brands adapting their consumer prices to the price level at auctions), further investigations would be required.

Looking at the costs in Assam tea estates, the most striking observation is the stagnation of workers' wages – which correspond to the line “plucking costs” on the graph. According to our estimates, after adjustment for inflation, the costs related to workers' wages have gone from 23.60 rupees per kg in 2003 to 24.68 rupees per kg in 2017, i.e. an increase of 4.5% in 14 years. This increase does not necessarily mean that the wages of the workers, especially the low-paid women, has increased over the period as the plucking costs have been pushed up mainly by eroding yields in tea estates. In 2017, tea workers appear to be suffering from the same low wages as 14 years ago, when taking into account inflation.

The case of small tea growers does not look any better according to our estimates: the price they receive for their fresh green leaves is a fraction of the Auction price, following similar downward trend when there is price pressure on the tea market, but not benefiting from increases when the tea market prices are up. This most probably illustrates the lack of negotiation power of small tea growers who are forced to sell their fresh tea to Bought Leaf Factories within 4 hours after there are plucked, giving the latter the upper hand on price discussions.

As a result, the income generated by small tea growers, after deduction of input costs and wages of temporary workers can be estimated at only 45.30 rupees per kg in 2017, to be compared with 78.45 rupees per kg in 2009, hence a fall of 42% of their income over the past 8 years. In the vast majority of cases, this important decrease is not compensated by higher yields due to the stagnation of productivity, in particular because of the growing adverse impacts of climate change on tea production in Assam (see the chapter on the Assamese tea sector for further details).

Further investigations would be required in order to fully demonstrate the assumptions made in our analysis, and understand in more details the relationships between the prices at the different stages of the

151 <https://economictimes.indiatimes.com/industry/cons-products/food/now-more-indians-prefer-to-have-tea-with-small-brands-like-wagh-bakri-amar-tea/articleshow/59260789.cms?from=mdr> accessed on 28 March 2019

152 <https://economictimes.indiatimes.com/industry/cons-products/food/now-more-indians-prefer-to-have-tea-with-small-brands-like-wagh-bakri-amar-tea/articleshow/59260789.cms?from=mdr> accessed on 28 March 2019

chain, and issues such as quality grades, packaging formats, growing concentration of buyers, changes in public regulations/policies and competition from foreign tea producers (amongst others).

Leverage for paying living wages/income in the Indian tea sector

As described in the chapter on the tea industry in Assam, the current wages of tea workers – most of all women – is much below what can be considered as a living wage. According to academic estimates, their wage (cash and in-kind) should be multiplied by 2.6 in order to achieve sustainable living conditions (cf. section 3a).

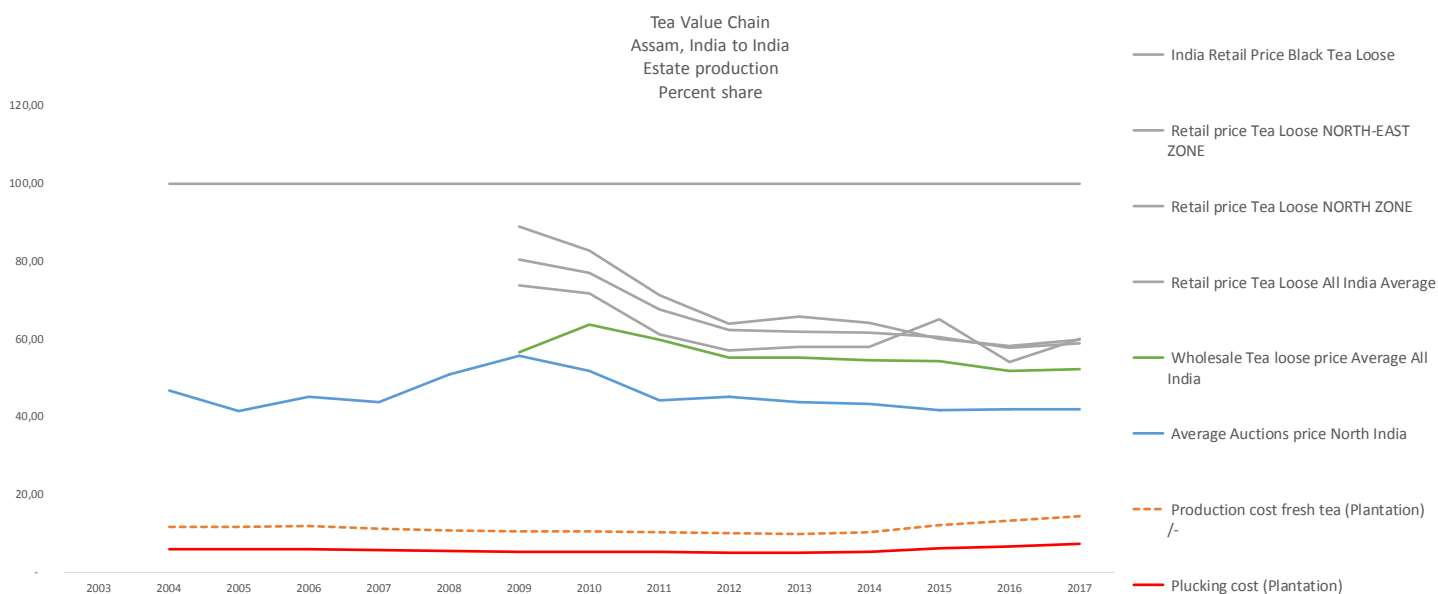


Fig. 20 Distribution of value from Assam tea estates to Indian consumers (in %). Source: BASIC

Looking in terms of percentages, the workers’ wages in 2017 accounted for roughly 7.2% of the total price to consumers of a branded pack of black tea from Assam. Paying a living wage to workers would thus require increasing that percentage to 18.7%. Looking at the margin captured at the end of the chain by both tea brands (such as Tata and Unilever) and supermarket chains, there seems to be enough financial capacity to buffer this increase. Indeed, whereas these two actors captured 44.4% of the total price in 2009, this share of value has jumped to 58.2% in 2017 – and the difference of almost 14% over the past 8 years seems therefore sufficient to cover the payment of living wages in the case of branded tea. Further investigations would be required in order to fully demonstrate this assumption.

Based on our analysis of the Assam tea value chain, enabling a transmission of value back to the workers to enable them to achieve a living wage would require a profound reverse of the structural asymmetries of power (between buyers, brokers, estates and workers) which have been in place for almost two centuries in the sector.

Available data didn’t enable us to make estimates of the living income gap for small tea growers in Assam (given the sketchy and variable data). Their situation looking almost as much precarious as the one of workers in estates, further investigation would be required in this field too (looking both at the situation of small tea growers and the workers they employ).

c) Exported tea value chains

Indian tea export market

Over the past decades, export of tea from India has significantly declined in proportion of the global tea trade: whereas India accounted for more than 53% of world's global tea trade in 1971, this proportion has fallen to 15% in 2017¹⁵³.

This can be explained by a series of different factors: higher production by other tea producing countries, low competitiveness, high input costs, availability of substitutes, high domestic consumption, and the low efficiency of value chains¹⁵⁴. The resulting disadvantage of India on the world tea trade is illustrated by the comparison with the other 2 leading tea exporters: Kenya and Sri Lanka (see below).

Name of countries	Productivity per hectare (000 kg)	Labour productivity (kg/worker)	Cost of production (Rs/kg of made tea)	Realization of profit/ha (Rs in 000)
India	2140	1903	108	29.03
Sri Lanka	1788	578	82	188.42
Kenya	2240	5600	77	76.63

Fig. 21 Relative advantages of tea production in different countries

Source: U. Talukdar and C. Hazarika, Production and Export of Value-Added tea in India and its Global Competitiveness, 2017

The major players of Assam tea exports, mostly based in Kolkata are the following: McLeod Russel, Telojan Tea Company, SSK Exports, Jalinga Tea Company, Purba Tea Exports, Baghmari Tea Company, Newby Teas Overseas, Godfrey Phillips India, Saket Impex, and Agri Import & Export¹⁵⁵.

Distribution of value from production in Assam to export stage from India

Based on the data collected, we made detailed estimates of the distribution of value, from the tea workers and small tea growers' income in Assam, down to export prices in order to analyse the different market dynamics linked to 5 major consumer countries of Assam tea: Germany, the Netherlands, the UK, France and the USA. The results are illustrated in the following graph:

153 Ibid.

154 U. Talukdar and C. Hazarika, Production and Export of Value-Added tea in India and its Global Competitiveness, Economic Affairs, Vol. 62, No. 4, pp. 705-710, December 2017

155 Cividep India, Tainted Tea: Slave Labour in your Cuppa?, May 2016



Fig. 22 Distribution of value Assam tea estates to Indian exports (inflation adjusted). Source: BASIC

Based on the data collected and CIF import prices, we observe very distinct trends depending on the country of final consumption of Indian black tea:

- Whereas the Netherlands seems to have been a profitable market for Indian black tea back in 2003 (447.30 Rs./Kg after correction for inflation), its import price has fallen by 70% over the past 15 years, becoming the destination country which has the lowest CIF prices of our panel of countries in 2017 at 144 Rs./Kg (see the following chapter for more details).
- In contrast, France sets itself apart with a much higher and more stable CIF price of imported tea (474 Rs./Kg in 2017), which is potentially linked to a greater focus on quality from the French buyers. Expressed in Rupees, the French import price is more than three times higher than the Dutch estimated price in 2017.
- In between, Germany, the UK and the USA are associated with quite similar CIF import prices in 2017: 198.5 Rs./Kg for the USA, 204.60 Rs./Kg for the UK and 243.50 Rs./Kg for Germany. Germany used to be the most profitable destination of our panel in 2003 (567 Rs./Kg), with CIF prices even greater than the French ones at that time. However, as in the case of the Netherlands, its import price has fallen sharply - by 60% - since 2003. In comparison, the UK and the USA seem to be linked to quite low CIF import prices since 2003 (between 200 and 300 Rs./Kg), with very similar evolution trends between the two countries until 2017. The relative parallelism between the two latter and the auction price in India seems to indicate a correlation between them (potentially linked to the influence of vertically-integrated leading brands, see the following chapter for more details).

4. International Assam tea value chains

a) Germany

German Food retail sector

Germany is the biggest market for food and beverages in the European Union. According to the USDA International, grocery retailing reached sales of 240 billion Euros in 2015¹⁵⁶. Over the past ten years, Germany is one of the very few European countries where households have continuously increased their household expenditure spent on food, a tendency which accelerated since the economic crisis in 2008¹⁵⁷. In comparison with other major European retail food markets, Germans are very price-sensitive consumers who also expect high quality products. As a result, the key characteristics of the German market are consolidation, market saturation, strong competition and low prices¹⁵⁸.

In this context, discounters have been a prominent feature of the German retail market for the past 30 years: their market share has grown from 12% in the 1980s to 33% and above since the early 2000s, one of the highest proportions in world's food retailing. There is on average one discounter for every 5,231 people in the country, within a 10-15 minutes-drive of every German home¹⁵⁹. Their success was strongly driven by the development of private label food products focused on (low) price. Because of the competition with discounters, traditional retail chains have strongly developed their private labels, creating whole ranges of products from low-priced to high quality premium products (in 2011, the market share of private label products was above 40%)¹⁶⁰. After years of growth, the discounter's share is somehow stagnating, in particular because of their limited ability to open new stores¹⁶¹.

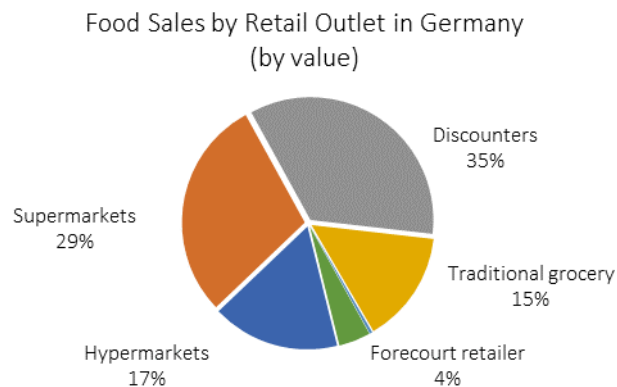


Fig. 23 Main retail outlets in Germany. Source: BASIC, based on USDA data (2016)

The overall breakdown of food sales by retail outlet in Germany was estimated in 2015 as follows: 35% in discounters, 29% in supermarkets, 17% in hypermarkets, 15% in traditional grocery stores and 5% in convenience stores¹⁶².

156 USDA, Retail Foods in Germany, 2016

157 Eurostat data (2004-12) analysed in 'The economic impact of modern retail on choice and innovation in the EU food sector', European Commission, September 2014

158 USDA Foreign Agricultural Services, The German Food Retail Market, 2012

159 Ibid.

160 USDA Foreign Agricultural Services, 2012

161 Planet Retail, European Grocery Retailing, May 2014

162 USDA Foreign Agricultural Services, The German Food Retail Market, 2016

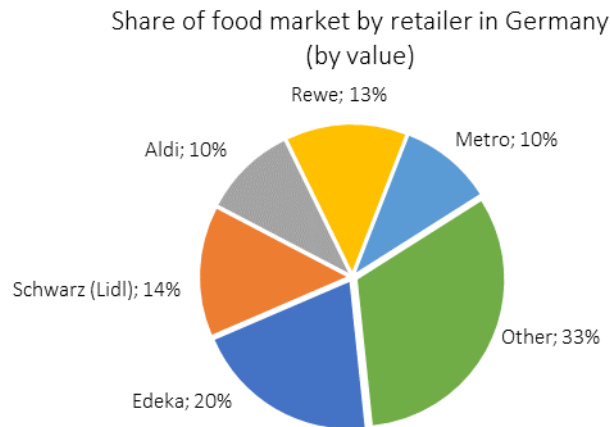


Fig. 24 Main retailers' market shares in Germany. Source: BASIC, based on USDA data (2016)

As a result, the German retail market is dominated by 5 major retailers: Edeka, Rewe, Lidl, Aldi and Metro. Most of them are positioned on the 3 distribution formats: supermarkets, hypermarkets and discounter stores (Aldi being a specific case focused on discounter outlet only). The concentration of the market is more pronounced than on average in Europe; to illustrate, in 2012, the sales of the top 5 German retailers amounted to 61% of the consumer spending on food and drink (compared to 45% on average in the EU)¹⁶³. The main retailers' market shares were estimated as follows in 2014: 20% for Edeka, 14% for the Schwarz group (Lidl), 13% for Rewe, 10% for Aldi and 10% for Metro¹⁶⁴.

Tea consumption and imports in Germany

Total German tea consumption amounted to 19,000 tonnes in 2014, accounting for almost 18.7 billion cups of tea. The German market only represents 0.4% of total global tea consumption (5 million tonnes in 2014), increasing at an annual average rate of 1.1% in volume. Black tea remains the most popular type of tea in Germany, accounting for 71% of consumption in 2014. Most black tea is sold in the north of Germany as Ostfriesentee (East Frisian tea). In comparison, the share of green tea increased from 24.5% in 2013 to 29% in 2014.¹⁶⁵

More and more German consumers are replacing their cup of coffee with a cup of tea, as a healthy addition to their lifestyle, especially green, herbal, rooibos and fruit teas. The growing demand for high quality leads to an increasing popularity of speciality tea among German consumers. Quality standards for tea are extremely high, resulting in a premiumisation of the tea market in the country.

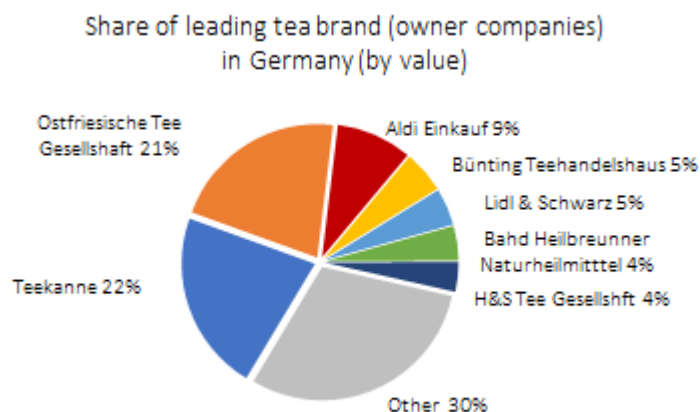


Fig. 25 Market shares of major tea manufacturers in Germany. Source: BASIC, based on CBI (2017)

163 European Commission, The economic impact of modern retail on choice and innovation in the EU food sector, September 2014

164 USDA Foreign Agricultural Services, The German Food Retail Market, 2016

165 CBI, Product factsheet Tea in Germany, 2016

The Ostfriesische Tee Gesellschaft (OTC) and Teekanne are the leading tea companies in Germany. Together, they represent a market share of 43%. These companies sell most types of tea and their products are sold by all larger retailers. Other important players of the market in Germany are the private labels of discounters: Aldi is the 3rd biggest tea seller with 9% of market share and Lidl is the 5th with 5% market share. These two figures show the significant influence of discount chains on the German tea market, not only as a leading distribution channel, but also as major tea sellers.

Germany is the largest re-exporter (approx. 28,000 tonnes in 2015) and second largest importer of tea in Europe (approx. 57,000 tonnes in 2015, growing at an annual rate of 1.1%), which illustrates the importance of the country as a trade hub. Germany has two large seaports that are important for tea trade: Hamburg (unofficially known as the "tea capital" of Europe and home to major tea trading companies) and Bremen.¹⁶⁶

Germany's most important suppliers of conventional tea are China (26%), India (23%), and Sri Lanka (15%).

Distribution of value from production in Assam to consumption in Germany

Based on data extracted from public databases, several socio-economic studies published by academics, public and private research institutes, and cross-checks with experts of the tea industry, we have made detailed estimates of the distribution of value, from the tea workers and small tea growers' income in Assam, down to the consumers in Germany (for further details on the methodology, see the note in appendix). Based on the results of our analysis of the Indian tea value chain and the available data, we have made estimates for black CTC-processed tea which makes up the vast majority of Assam made tea.

The results, expressed in euros per kilogramme, and adjusted for inflation – both for large tea estates and small tea growers - are detailed below:

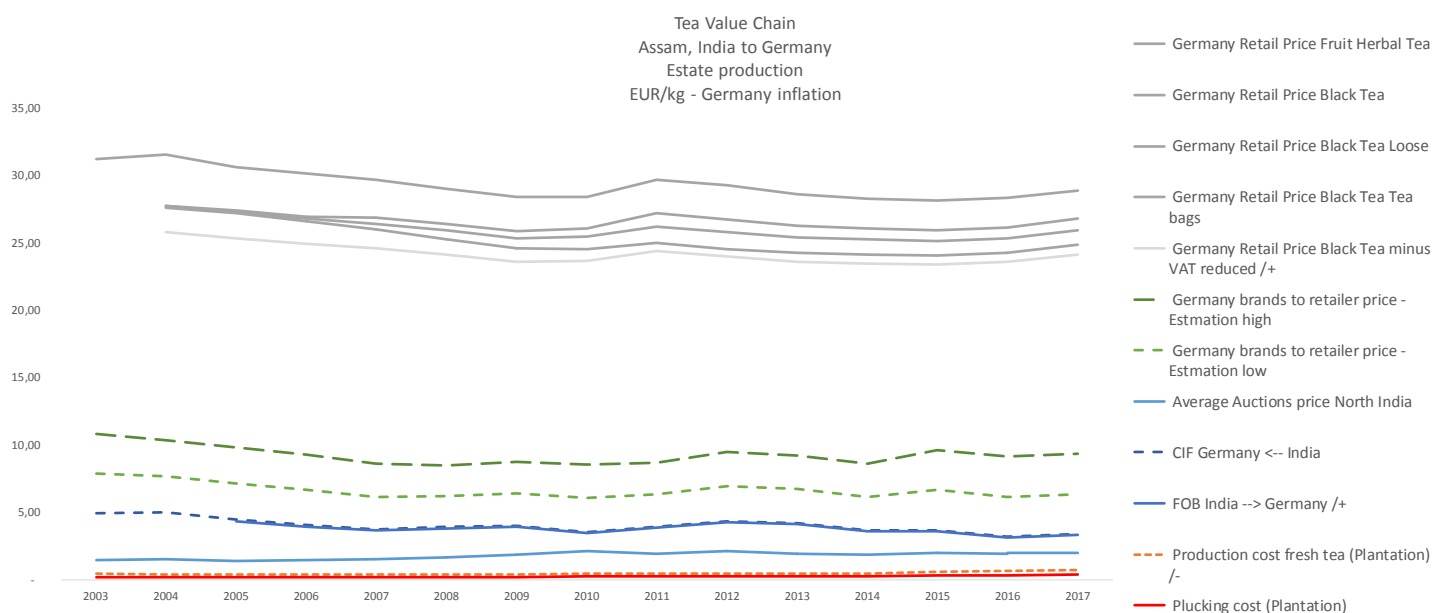


Fig. 26 Distribution of value from Assam tea estates to German consumers (inflation adjusted). Source: BASIC

166 CBI, Product factsheet Tea in Germany, 2016

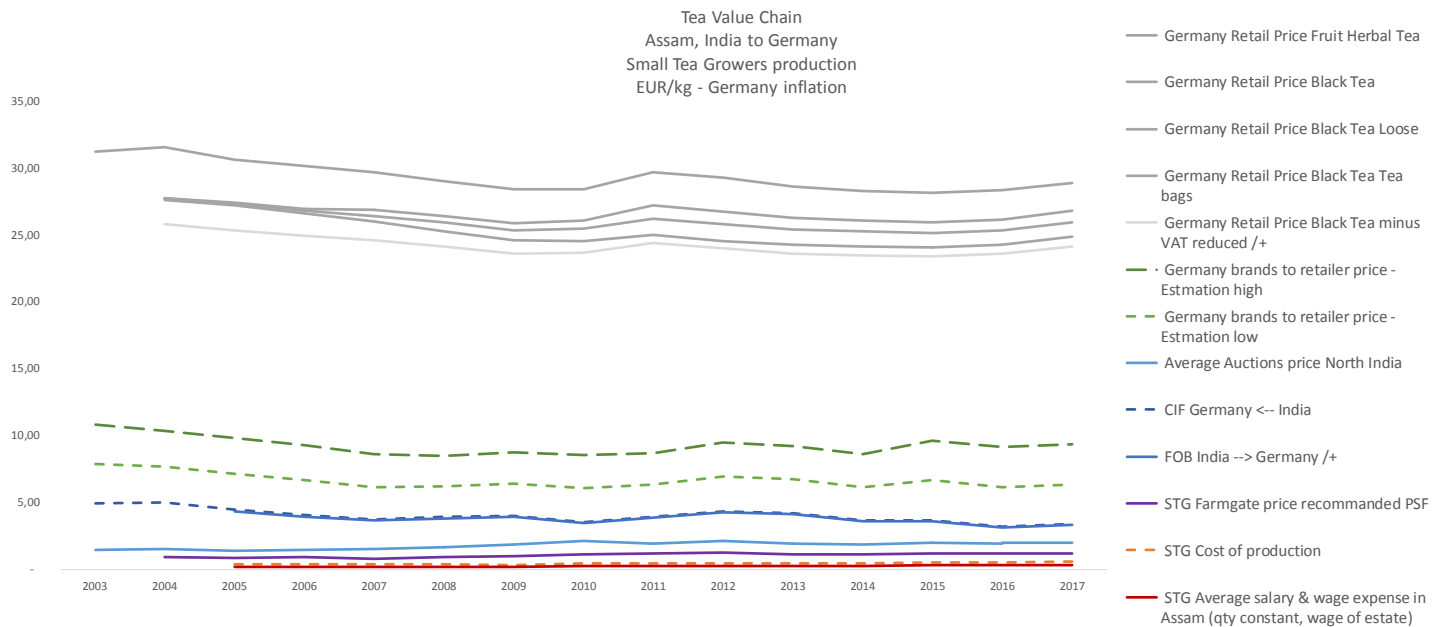


Fig. 27 Distribution of value from Assamese small tea growers to German consumers (inflation adjusted). Source: BASIC

On the consumer side, the different price data we have collected show very similar trends, whatever the type of tea sold: the consumer prices for black tea – whether sold in loose packs or tea bags – and fruit & herbal tea have eroded by 3% between 2004 and 2017 after adjustment for inflation (the only exception being 2011 when prices have slightly increased by 4.5% for all tea formats). In this context, our estimations show that:

- The highest price – and value creation - corresponds to fruit & herbal tea which have reached almost 29.00 euros per kg in 2017
- Lower prices are associated with packs of loose black teas (26.80 euros per kg in 2017) and tea bags which are sold at 24.85 euros per kg (14% cheaper than fruit & herbal tea).

Overall, consumer prices for tea appear to be relatively higher in Germany than in other European tea markets (except France), illustrating the fact that German consumers seem to be looking for higher quality products compared to their counterparts in other countries.

In the middle of the chain, we only managed to approximate the selling price of tea brands to retailers between two extremes: the low estimate amounted to 6.34 euros per kg in 2017, while the high estimate reached 9.32 euros per kg. According to these estimates, it seems that the greatest share of value in the German tea value chain is probably captured by retailers with a minimum of 14.80 euros per kg (a quite stable amount over the past 15 years according to our estimate).

This result can be put in the context of the strong bargaining power of retailers in Germany which is documented in many studies – especially the discounters Aldi and Lidl¹⁶⁷. This might be an explanation for the fact that they manage to gain the majority of the total value of black tea from Assam sold on the German market. In order to consolidate these first findings, a more detailed analysis would be required in order to better assess the selling price of tea brands to retailers and connect more precisely our first estimates to concrete tea products containing Assam tea (whether pure origin teas or blends).

In India, based on the comparison of the estimated FOB prices and auction prices, the share of value gained by exporters seems to have shrunk from 2.95 euros per kg in 2005 to 1.30 euros per kg in 2017 (hence a fall of 56% in 12 years). A possible assumption is that, despite the concentration of brokers at auction level, German importers and tea brands – especially Ostfriesische Tee Gesellschaft (OTG) and

167 Diw Econ, The power of retailers, Can buyer power of large retailers cause grocery prices in Germany to rise?, 2018
 Špička, J. Market Concentration and profitability of the grocery retailers in Central Europe, Central European Business Review, 2016

Teekanne – may have sufficient bargaining power to pressure Assam tea import prices from India and to increase their share of value over time (as observed in our estimates). Further investigations would also be required in this field to document this evolution.

Looking at the costs in Assam tea estates, the main result is the very low and stagnating share of value accruing to workers (which corresponds to the line “plucking costs” on the graph, and is analysed in the chapter on Indian domestic chains). According to our estimates, after adjustment for inflation, the value directed to workers’ wages only represented 0.34 euros per kg in 2017 – to be compared with 24.85 euros to 29.00 euros per kg paid by consumers in supermarkets. This fact is all the more striking than tea workers appear to be suffering from the same low wages as 14 years ago, when taking into account inflation. The case of small tea growers does not look any better according to our estimates: the price they get for fresh tea leaves is also stagnating and only represents 1.19 euros per kg in 2017 (which farmers use to cover not only their costs of living but also the costs of inputs and seasonal labour).

Further investigations would be required in order to fully demonstrate the assumptions made in our analysis, and understand in more details the relationships between the prices at the different stages of the chain, and issues such as quality grades, packaging formats, growing concentration of buyers, changes in public regulations/policies and competition from foreign tea producers (amongst others).

Leverage for paying living wages/income in the German tea sector

As described in the chapter on the tea industry in Assam, the current wages of tea workers – most of all women – is much below what can be considered as a living wage. According to academic estimates, their wage should be multiplied by 2.6 in order to achieve sustainable living conditions (cf. section 3a).

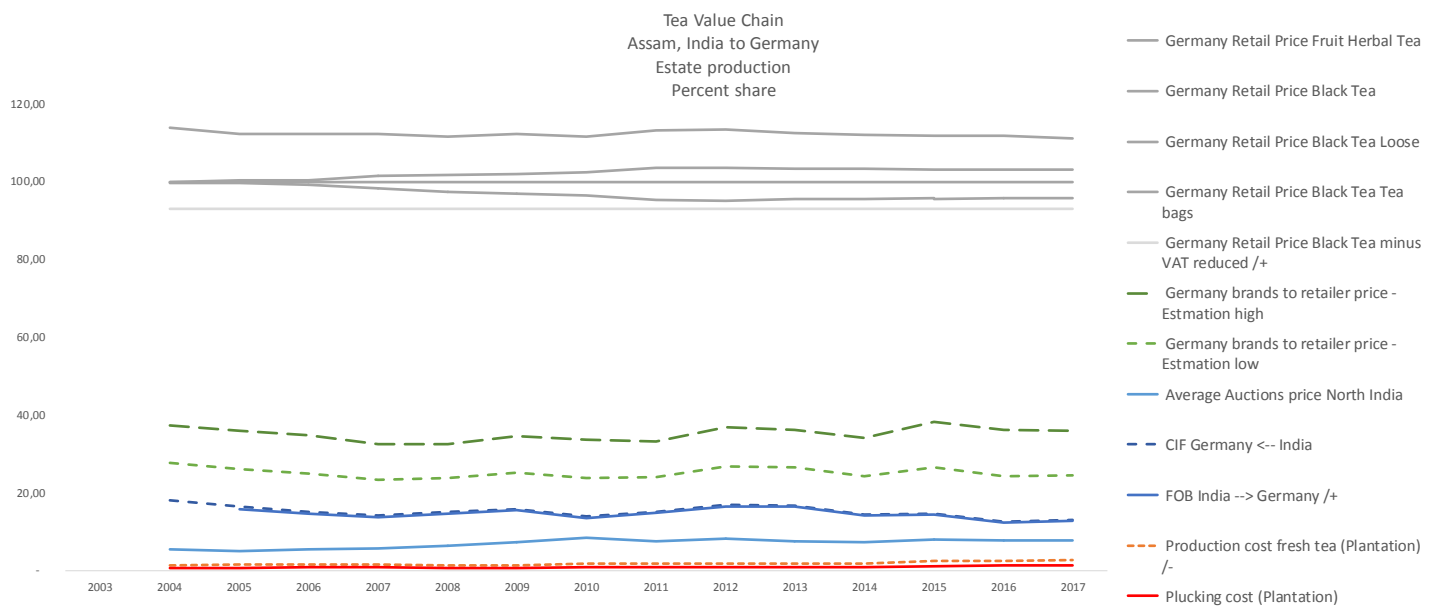


Fig. 28 Distribution of value from Assam tea estates to German consumers (in %). Source: BASIC

Looking in terms of percentages, the workers’ wages in 2017 accounted for roughly 1.3% of the total price to consumers of tea bags of black tea from Assam (and even less for other tea formats). Paying a living wage to workers would thus require increasing that percentage to 3.4%.

Based on our estimates, German retailers seem to have the financial capacity to cover these living wages for all the Assam tea workers employed by their suppliers as tea seems to be a quite profitable product for them, their share of value being estimated at roughly 60%. Further investigations would be required in order to fully demonstrate this assumption. Moreover, building up on our analysis of the Assam tea value chain, enabling a transmission of value back to the workers to enable them to achieve a living wage would

require a profound reverse of the structural asymmetries of power (between buyers, brokers, estates and workers) which have been in place for almost two centuries in the sector.

Available data didn't enable us to make estimates of the living income gap for small tea growers in Assam (given the sketchy and variable data). Their situation looking almost as much precarious as the one of workers in estates, further investigation would be required in this field too (looking both at the situation of small tea growers and the workers they employ).

b) Netherlands

Dutch Food retail sector

Approximately 80% of the Dutch food retail outlets are full-service supermarkets, operating on floor space between 500 and 1,500 square meters located downtown and in residential areas. The remaining 20% includes mainly convenience stores situated near office buildings, city centre, motorways and train/metro stations, some wholesalers and just a few superstores (located in shopping malls and industrial parks).¹⁶⁸ Retailers tend to operate their stores separately by product category and have 2 or 3 preferred suppliers responsible for the full range of products within each category (fruits & vegetables, meat products, seafood products, groceries, beverages, bakery products, etc.). For the international branded and specialty products, retailers usually work with a few specialized importers. Supermarkets' private label products are significantly growing in the country, as in the rest of Europe, but their penetration level is still relatively low: they account for 29% of Dutch supermarkets' food sales, compared to 51% in Spain and 45% in the UK.¹⁶⁹

Traditional food channels (grocery stores, butcher stores, bakeries etc.) increasingly face competition from these food retail chains, trying to survive through extra service, sales of high-quality added value products and niche markets.¹⁷⁰

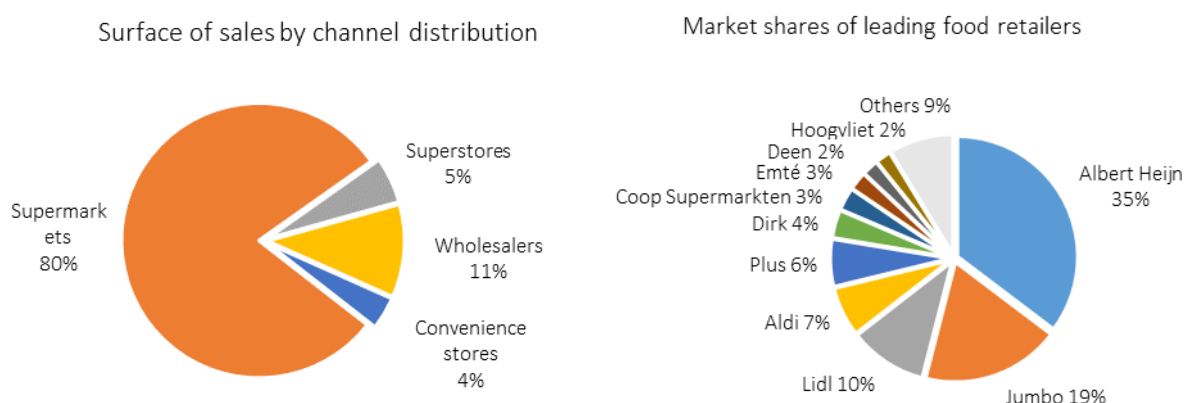


Fig. 29 Main retail outlets and retailers' market shares in Netherlands. Source: BASIC, based on USDA data (2017)

The retail sector is quite concentrated in the Netherlands. The top two food retail chains, Albert Heijn (which has merged in 2016 with the Belgian leader Delhaize to become one of the top 5 European retailers) and Jumbo, have a combined market share of 54%. German discounters Lidl and Aldi are their direct competitors, together accounting for 17% of the market. Independent food retail stores are increasingly leaving the scene; a trend accelerated by shrinking margins and on-going consolidation in the retail market. The concentration is further reinforced by the existence of buying alliances among retailers that enable them to coordinate their procurement across borders and obtain the lowest possible prices for well-known brands and/or basic private label groceries. A typical example is Superunie which buys for 13 smaller supermarket chains in Holland (Plus Holding, Deen Supermarkten, Coop Holding, etc.).¹⁷¹

168 USDA, Retail Foods in Netherlands, 2016

169 Ibid.

170 Ibid.

171 SOMO, Eyes on the price: International supermarket buying groups in Europe, 2017

Tea consumption and imports in the Netherlands

Although the Netherlands is a relatively small country (about 17 million inhabitants), it is Europe's 5th largest consumer of tea, amounting to 9,000 tonnes in 2015. The current growth in tea consumption is based primarily on its (perceived) health benefits. Most teas are sold to consumers as blends: mixtures of teas from 20 or more origins to achieve a certain flavour profile. More recently, single origin teas are also increasingly sold in specialised tea shops¹⁷². As 75% of tea is consumed at home, the retail channel is the most dominant force in the Dutch tea market. Jacobs Douwe Egberts remains the largest tea packer in the Netherlands due to its traditionally popular Pickwick brand, followed by the Dutch retailer Albert Heijn (with its private label).¹⁷³

The Netherlands is also a major hub of tea trade in Europe after Germany (Hambourg) – a situation that dates back to the establishment of modern tea trade in the 19th century. In 2015, Dutch total tea imports amounted to about 26,000 tonnes (increasing annually by 1.6% since 2011) and a value of 99 million euros, making the Netherlands the 4th largest tea importer in Europe, after the United Kingdom, Germany, and Poland. Black tea represents 77% of imports, decreasing at a rate of 2.3% per year whereas green tea imports grow by more than 25% per year. Netherlands also exports a total volume of 17,000 tonnes of tea, with a value of 68 million euros (with an average increase rate of 13.7% per year since 2011)¹⁷⁴. Netherlands' most important suppliers of conventional tea are Sri Lanka (19%), India (10%), and China (9%).

Distribution of value from production in Assam to consumption in the Netherlands

Based on data extracted from public databases, several socio-economic studies published by academics, public and private research institutes, and cross-checks with experts of the tea industry, we have made detailed estimates of the distribution of value, from the tea workers and small tea growers' income in Assam, down to the consumers in the Netherlands (for further details on the methodology, see the note in appendix). Based on the results of our analysis of the Indian tea value chain and the available data, we have made estimates for black CTC-processed tea which makes up the vast majority of Assam made tea. The results, expressed in euros per kilogramme, and adjusted for inflation – both for large tea estates and small tea growers - are detailed below:

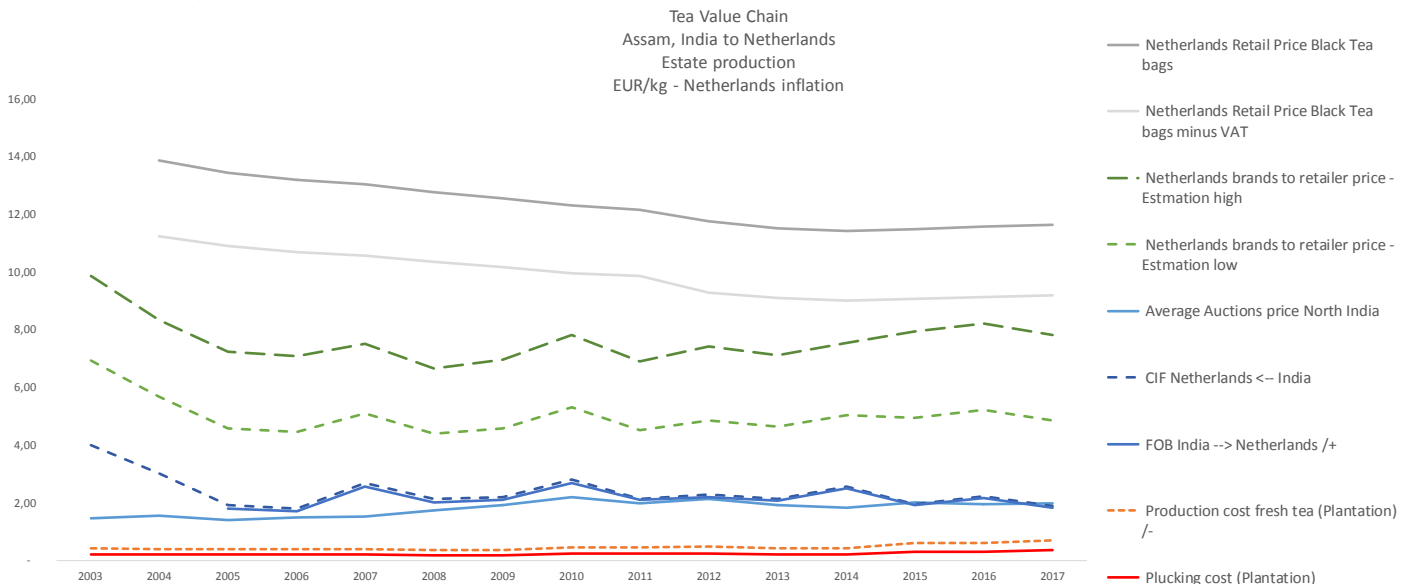


Fig. 30 Distribution of value from Assam tea estates to Dutch consumers (inflation adjusted). Source: BASIC

172 CBI, Product factsheet Tea in Netherlands, 2016

173 CBI, Product factsheet Tea in Netherlands, 2016

174 CBI, Product factsheet Tea in Netherlands, 2016

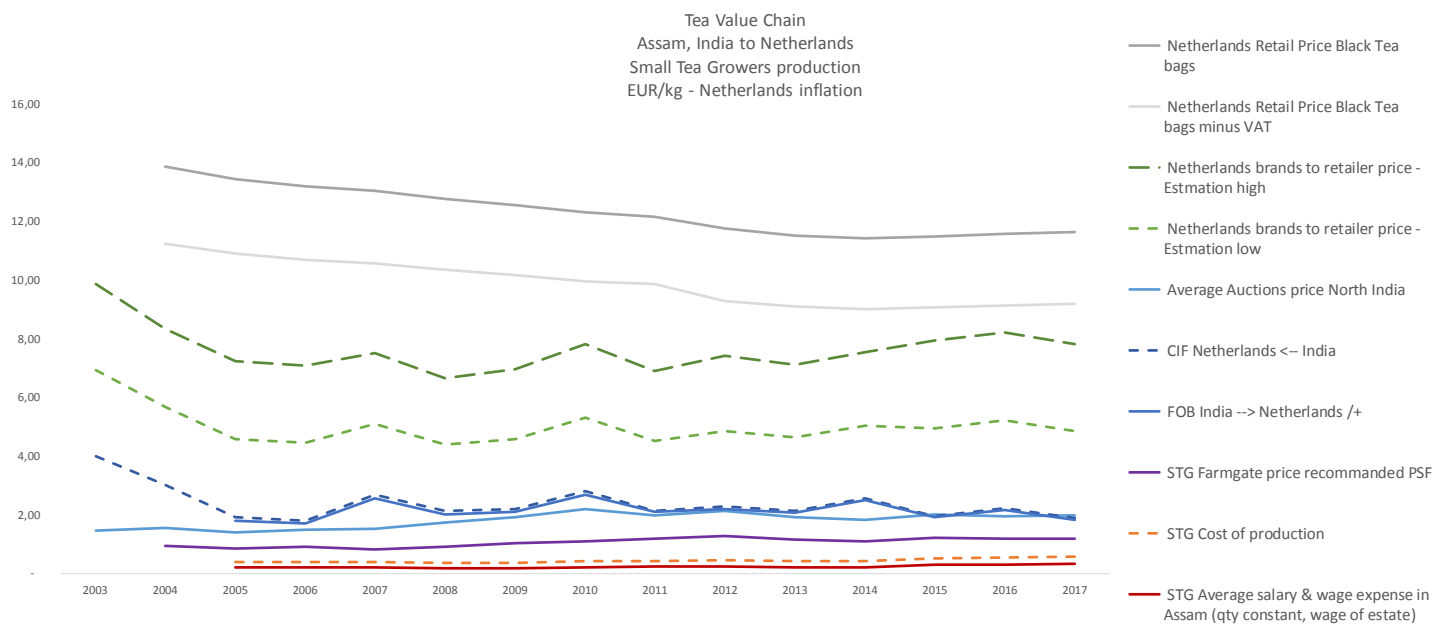


Fig. 31 Distribution of value from Assamese small tea growers to Dutch consumers (inflation adjusted). Source: BASIC

According to the data we have collected, the Dutch market seems to be quite specific. Compared to other tea markets in Europe, the price of tea bags is quite low: 11.6 euros per kg in 2017, compared to for example 24.8 euros per kg in Germany. Moreover, these prices are also on the decline. Based on our estimates, consumer prices for tea bags of black tea have gone from 13.9 euros per kg in 2004 down to 11.6 euros per kg in 2017 (after adjustment for inflation), corresponding to a decrease of almost 17% over the past 13 years (note that fruit & herbal tea, not shown on the graph above, is sold in the Netherlands at a much higher price – 42.3 euros per kg in 2017, almost 3 times the price of tea bags – and has decreased by only 10% between 2004 and 2017).

These estimates can be put in the wider context of the concentration of retailers in the Netherlands (see previous section) and of the price wars they sustain, both being documented in academic studies¹⁷⁵. Based on our estimates, an assumption can be that black tea – sold in the form of tea bags – may be a loss leader for Dutch supermarkets which may use this product to portray themselves as the cheapest chains towards consumers. Further investigation would be required to analyse and demonstrate this assumption.

In the middle of the chain, we only managed to approximate the selling price of tea brands to retailers between two extremes: in 2017, the low estimate amounted to 4.85 euros per kg while the high estimate reached 7.85 euros per kg (most probably corresponding to high quality tea, or fruit & herbal tea). According to these estimates, Dutch tea brands seem to capture a share of value roughly as high as retailers, as opposed to the situation in Germany where supermarkets get the highest share, while the selling price of tea brands to retailers is of the same order of magnitude in the two countries. As a result, a possible assumption is that the price war between supermarkets induces lower gross margins of retailers in the Netherlands (compared to Germany), while tea manufacturers manage to maintain theirs. In order to verify these first findings, a more detailed analysis would be required in order to better assess the selling price of tea brands to retailers, and connect more precisely our first estimates to concrete tea products containing Assam tea (whether pure origin teas or blends).

In India, based on the comparison of the estimated FOB prices and auction prices, the share of value gained by exporters appears to be the lowest among the consumer country analysed, at roughly 0.20 euros per kg or less. A possible assumption is that Dutch importers and tea brands may have exerted

175 For example: SOMO, Eyes on the price: International supermarket buying groups in Europe, 2017, F. Sotgiu and K. Gielens, Suppliers Caught in Supermarket Price Wars: Victims or Victors? Insights from a Dutch Price War, 2015 and SOMO, The Abuse of Supermarket Buyer Power in the EU Food Retail Sector, 2009.

sufficient price pressure to drive the FOB price almost to the level of the Auction prices, which could mean that, in the case of the Netherlands, the whole value chain of black tea may be enduring the consequences of the price wars initiated by the supermarkets.

Looking at the costs in Assam tea estates, the main result is the very low and stagnating share of value accruing to workers (which corresponds to the line “plucking costs” on the graph, and is analysed in the chapter on Indian domestic chains). According to our estimates, after adjustment for inflation, the value directed to workers’ wages only represented 0.34 euros per kg in 2017 – to be compared with at least 11.60 euros per kg paid by consumers in supermarkets. This fact is all the more striking than tea workers appear to be suffering from the same low wages as 14 years ago, when taking into account inflation. The case of small tea growers does not look any better according to our estimates: the price they get for fresh tea leaves is also stagnating and only represents 1.19 euros per kg in 2017 (which farmers use to cover not only their costs of living but also the costs of inputs and seasonal labour).

Further investigations would be required in order to fully demonstrate the assumptions made in our analysis, and understand in more details the relationships between the prices at the different stages of the chain, and issues such as quality grades, packaging formats, growing concentration of buyers, changes in public regulations/policies and competition from foreign tea producers (amongst others).

Leverage for paying living wages/income in the Dutch tea sector

As described in the chapter on the tea industry in Assam, the current wages of tea workers – most of all women – is much below what can be considered as a living wage. According to academic estimates, their wage should be multiplied by 2.6 in order to achieve sustainable living conditions (cf. section 3a).

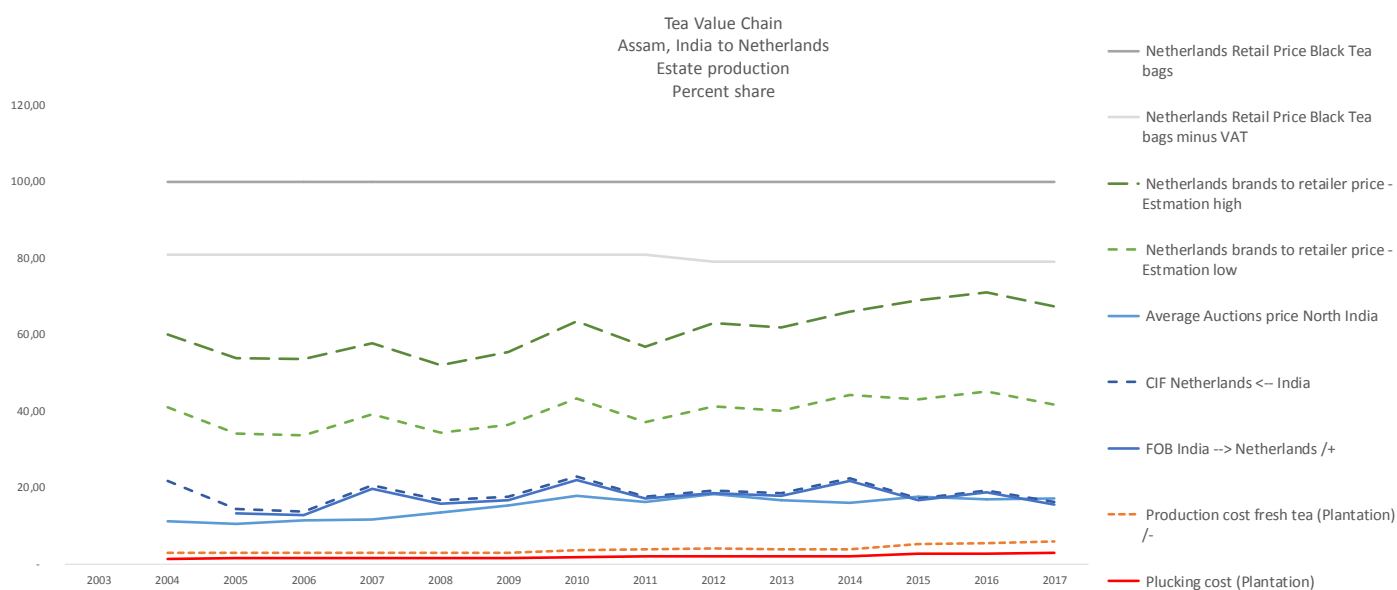


Fig. 32 Distribution of value from Assam tea estates to Dutch consumers (in %). Source: BASIC

Looking in terms of percentages, the workers’ wages in 2017 accounted for roughly 2.9% of the total price to consumers of tea bags of black tea from Assam (and much less for other tea formats). Paying a living wage to workers would thus require increasing that percentage to 7.6%.

Based on our estimates, Dutch retailers and tea brands seem to have the financial capacity to cover these living wages for all the Assam tea workers employed by their suppliers as their combined share of value has grown from 78.3% in 2004 up to 83.9% in 2017, which would apparently leave enough room for covering the 4.7% necessary to pay for living wages. Further investigations would be required in order to fully demonstrate this assumption.

Moreover, building up on our analysis of the Assam tea value chain, enabling a transmission of value back to the workers to enable them to achieve a living wage would require a profound reverse of the structural asymmetries of power (between buyers, brokers, estates and workers) which have been in place for almost two centuries in the sector.

Available data didn't enable us to make estimates of the living income gap for small tea growers in Assam (given the sketchy and variable data). Their situation looking almost as much precarious as the one of workers in estates, further investigation would be required in this field too (looking both at the situation of small tea growers and the workers they employ).

c) United Kingdom

UK Food retail sector

The UK grocery sector is one of the most diverse and sophisticated in the world. It was worth £175 billion (220 billion euros) in 2014, rising by 2.8 % over 2013. Food & grocery expenditures account for 54 pence in every £1.00 of retail spending (excluding restaurants).¹⁷⁶

- Grocery sales channels in the UK are split into five categories¹⁷⁷:
- Hypermarkets (superstores) are defined as stores that have a sales area above 25,000 square feet, selling a broad range of grocery and non-food items.
- Supermarkets have a sales area of 3,000-25,000 square feet and a broad range of items.
- Discounters which main features are everyday low price and limited product ranges. Stores are smaller and relatively uniform in size and layout. Stores range from 8,600 square feet to 16,000 square feet. They carry predominately private label products.
- Convenience stores that have sales areas of less than 3,000 square feet, are open for long hours, and sell products from at least eight different grocery categories.
- Cash & Carry stores which are no frills type operations where products are not usually displayed on shelves but rather on pallets or fixtures supplied by the manufacturer.
- Alternative channels are mainly made up of online purchases.

The UK's grocery retail landscape is undergoing a significant structural change, with online, convenience and discount retailing all registering robust growth. Most noteworthy is the rapid growth of the online channel (with double-digit figures, UK being the most dynamic online grocery market in the world) but which still only represents 5% of the grocery market.¹⁷⁸

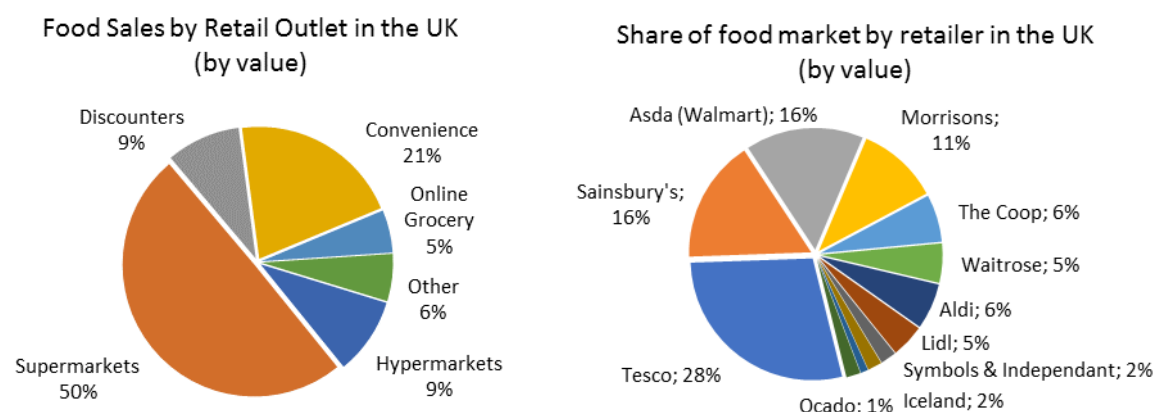


Fig. 33 Main retail outlets and retailers' market shares in the UK.

Source: BASIC, based on Planet Retail & USDA (2015)

176 USDA, United Kingdom Food Retailers, 2014

177 Ibid.

178 Kantar, United Kingdom Country Report, 2013

Five supermarket chains dominate UK food retailing, accounting for 77 % of the market. The concentration of the market is roughly the same as the average level in Europe. Tesco is the market leader, with 28 % market share, followed by Sainsbury's with 16.3 %, Asda/Wal-Mart with 15.6 %, Morrison's with 11 % and the Coop with 6.3 %. Other UK supermarket chains include Waitrose and Marks & Spencer, as well as the 2 discounters Lidl and Aldi.¹⁷⁹

Tea consumption in the UK

The United Kingdom is by far the largest tea consuming country in Europe, with total tea consumption amounting to about 113,000 tonnes in 2015. Ireland is the only European country with a higher per capita tea consumption of 2.19 kg per year, as compared to 1.94 kg in the UK. Overall, 'Breakfast Tea' represents more than 90% of UK consumption¹⁸⁰. Although tea remains the most popular hot drink in the country (165 million cups being drunk every day), coffee has gained more popularity at the expense of tea (currently about 70 million cups every day)¹⁸¹.

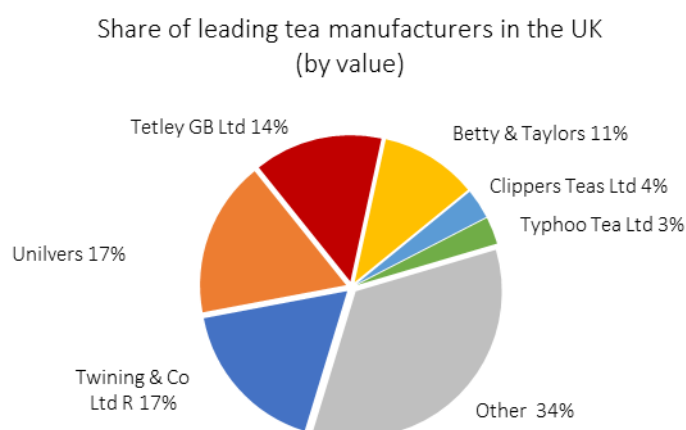


Fig. 34 Market shares of major tea manufacturers in the UK.

Source: BASIC, based on Final Step Marketing, UK Tea Market (2015)

With regard to tea brands, there are two frontrunners on the UK market: Twinings with a market share of 17.3% just above Unilever Foods (owner of the brands Lipton and PG Tips) with 17.2% and Tata Global Beverages (owner of the brand Tetley) with 14.2%. Tea is mainly consumed at home in the UK and these two companies are present as staples in the cupboards of most households within the country.¹⁸²

The British tea market has traditionally been characterised by black tea consumption. However, there is a noticeable shift away from black tea to other categories of tea, mostly fruit/herbal teas and green tea. Between 2012 and 2014, sales of ordinary black teabags fell by 13%, whereas sales of fruit and herbal teabags increased by 31%, sales of speciality teabags increased by 15% and sales of green teabags leaped by 50%, these teas being perceived to be healthier and appealing to the younger generations. In response, tea brands have spent millions of pounds diversifying into new ranges of green tea (as illustrated by the launch by PG Tips of a complete range of green teas, alongside its fruit and herbal teas, in 2014). The British market is a mature market, highly competitive and prices tend to be very low. The supermarket price wars add to the focus on low purchase prices, and prices continued dropping in recent years.¹⁸³

In terms of imports, the United Kingdom is the largest European tea market with tea imports amounting to some 133,000 tonnes (97% black tea and 3% green tea), with a value of about 310 million GBP in 2015. Even though tea imports have shown an average annual decrease of 3.6% in volume since 2011, the UK still accounts for 39% of all European tea imports. Exports are also decreasing but still amounted to 20,000 tonnes, with a value of 111 million GBP in 2015.¹⁸⁴

179 USDA, United Kingdom Food Retail, 2014 op. cit.

180 Final Step Marketing, UK Tea Market, 2015

181 CBI, Product factsheet Tea in UK, 2016

182 CBI, Product factsheet Tea in UK, 2016

183 CBI, Product factsheet Tea in UK, 2016

184 CBI, Product factsheet Tea in UK, 2016

UK's most important suppliers of conventional tea are Kenya (40%), India (15%), followed by Malawi (4%).

Distribution of value from production in Assam to consumption in the UK

Based on data extracted from public databases, several socio-economic studies published by academics, public and private research institutes, and cross-checks with experts of the tea industry, we have made detailed estimates of the distribution of value, from the tea workers and small tea growers' income in Assam, down to the consumers in the UK (for further details on the methodology, see the note in appendix). Based on the results of our analysis of the Indian tea value chain and the available data, we have made estimates for black CTC-processed tea which makes up the vast majority of Assam made tea. The results, expressed in GBP per kilogramme, and adjusted for inflation – both for large tea estates and small tea growers - are detailed below:

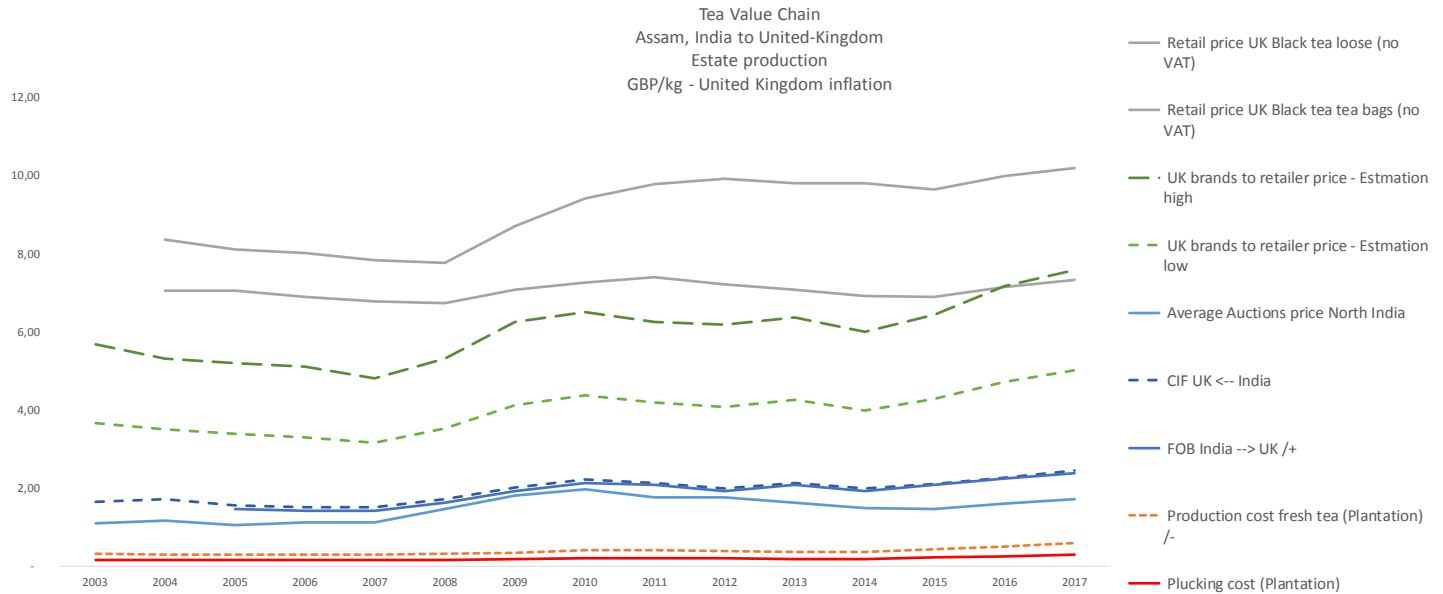


Fig. 35 Distribution of value from Assam tea estates to British consumers (inflation adjusted). Source: BASIC

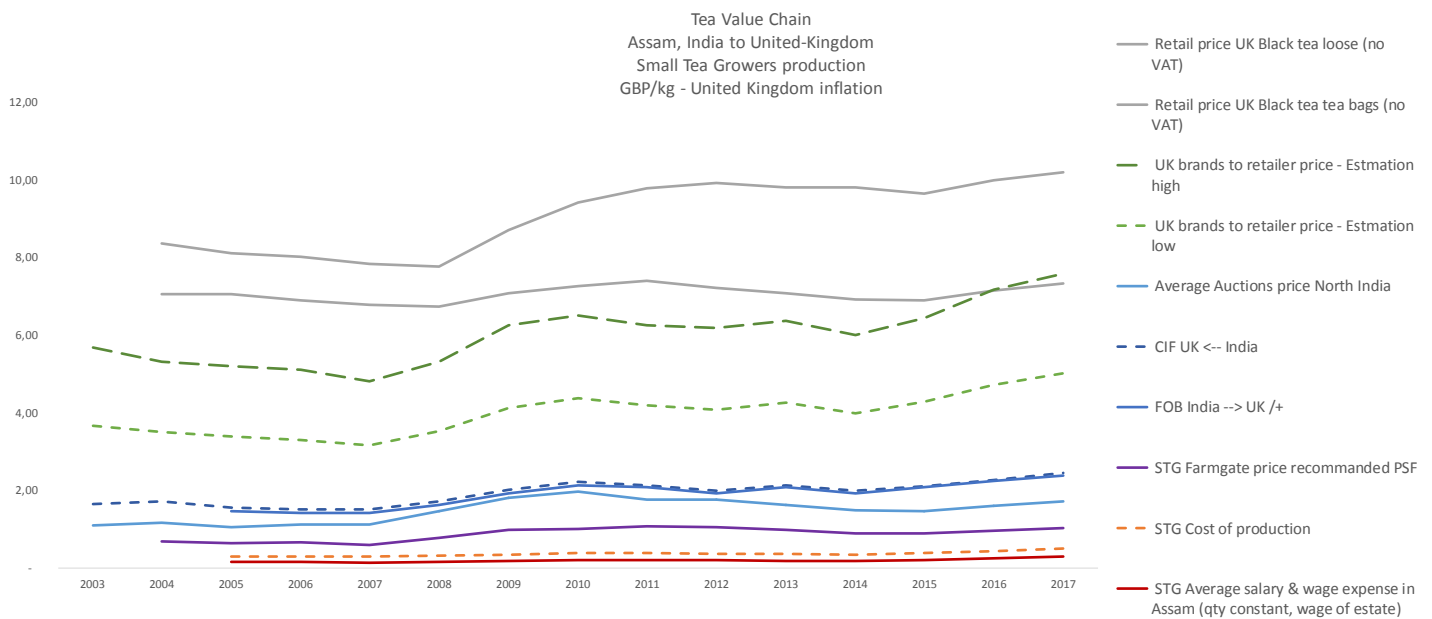


Fig. 36 Distribution of value from Assamese small tea growers to British consumers (inflation adjusted). Source: BASIC

According to the data we have collected, the UK market is quite specific compared to other tea markets in Europe: the price of tea bags – which account for 95% of consumption¹⁸⁵ – is the lowest among the 5 countries analysed, reaching 7.50 GBP per kg in 2017 (equivalent to 8.70 euros per kg, compared to 11.60 euros in the Netherlands, the second cheapest market included in our study). This price has been somehow stagnating over the past 10 to 15 years, after adjustment for inflation. By contrast, the consumer price of loose black tea sold in branded packs is not only higher but also on the rise: it has jumped from 8.35 GBP per kg in 2004 up to 10.20 GBP per kg in 2017 (an increase of 22% after adjustment for inflation). As for other countries, fruit & herbal tea (not shown on the graph above) is sold at a much higher price – 36.70 GBP per kg in 2017 – which equals more than 4 times the consumer price of tea bags.

As for Germany and the Netherlands, these estimates can be put in the wider context of the concentration of retailers in the UK, and of the intense price competition on the UK tea market which is described in several studies¹⁸⁶. An assumption can be that black tea – sold in the form of tea bags – may be a key product used by UK supermarkets to portray themselves as the cheapest towards consumers. Further investigation would be required to analyse and demonstrate this assumption.

In the middle of the chain, we only managed to approximate the selling price of tea brands to retailers between two extremes: in 2017, the low estimate amounted to 5.00 GBP per kg (most probably linked to cheaper tea bags), while the high estimate reached 7.60 GBP per kg (most probably linked to loose tea sold in packs). According to these estimates, UK tea brands seem to capture a share of value roughly as high as retailers, as opposed to the situation in Germany where supermarkets get the highest share, while the selling price of tea brands to retailers is of the same order of magnitude in the two countries.

A possible assumption is that the price competition in the UK may induce lower gross margins of retailers (compared to Germany) while tea manufacturers manage to maintain theirs. In order to verify these first findings, a more detailed analysis would be required in order to better assess the selling price of tea brands to retailers, and connect more precisely our first estimates to concrete tea products containing Assam tea (whether pure origin teas or blends).

In India, based on the comparison of the estimated FOB prices and auction prices, the share of value gained by exporters seems to have increased over the past decade: from 0.42 GBP per kg in 2005 to 0.65 GBP per kg in 2017. A possible assumption is that the leading tea brands on the UK market (in particular the largest ones Unilever and Tata Beverage Group) which have vertically integrated the exporting stage of the chain, may have been able to maintain a certain price pressure on Indian brokers so as to keep their supply costs stable, thereby transmitting the pressure of UK retailers. Further investigations would also be required in this field to counter-verify this assumption.

Looking at the costs in Assam tea estates, the main result is the very low and stagnating share of value accruing to workers (which corresponds to the line “plucking costs” on the graph, and is analysed in the chapter on Indian domestic chains). According to our estimates, after adjustment for inflation, the value directed to workers’ wages only represented 0.29 GBP per kg in 2017, to be compared with 7.50 GBP per kg for teabags paid by consumers in supermarkets. This fact is all the more striking than tea workers appear to be suffering from the same low wages as 14 years ago, when taking into account inflation. The case of small tea growers does not look any better according to our estimates: the price they get for fresh tea leaves is also stagnating and only represents 1.03 GBP per kg in 2017 (which farmers use to cover not only their costs of living but also the costs of inputs and seasonal labour).

Further investigations would be required in order to fully demonstrate the assumptions made in our analysis, and understand in more details the relationships between the prices at the different stages of the

185 Final Step Marketing, UK Tea Market, 2015

186 Final Step Marketing, UK Tea Market, 2015 and <https://www.ft.com/content/0e432650-1a6e-11e5-8201-cbdb03d71480>, <https://www.theguardian.com/business/2019/mar/05/long-read-aldi-discount-supermarket-changed-britain-shopping> and <https://www.mirror.co.uk/money/asda-sparks-supermarket-price-war-11824889> accessed on June 19th 2019

chain, and issues such as quality grades, packaging formats, growing concentration of buyers, changes in public regulations/policies and competition from foreign tea producers (amongst others).

Leverage for paying living wages/income in the UK tea sector

As described in the chapter on the tea industry in Assam, the current wages of tea workers – most of all women – is much below what can be considered as a living wage. According to academic estimates, their wage should be multiplied by 2.6 in order to achieve sustainable living conditions (cf. section 3a).

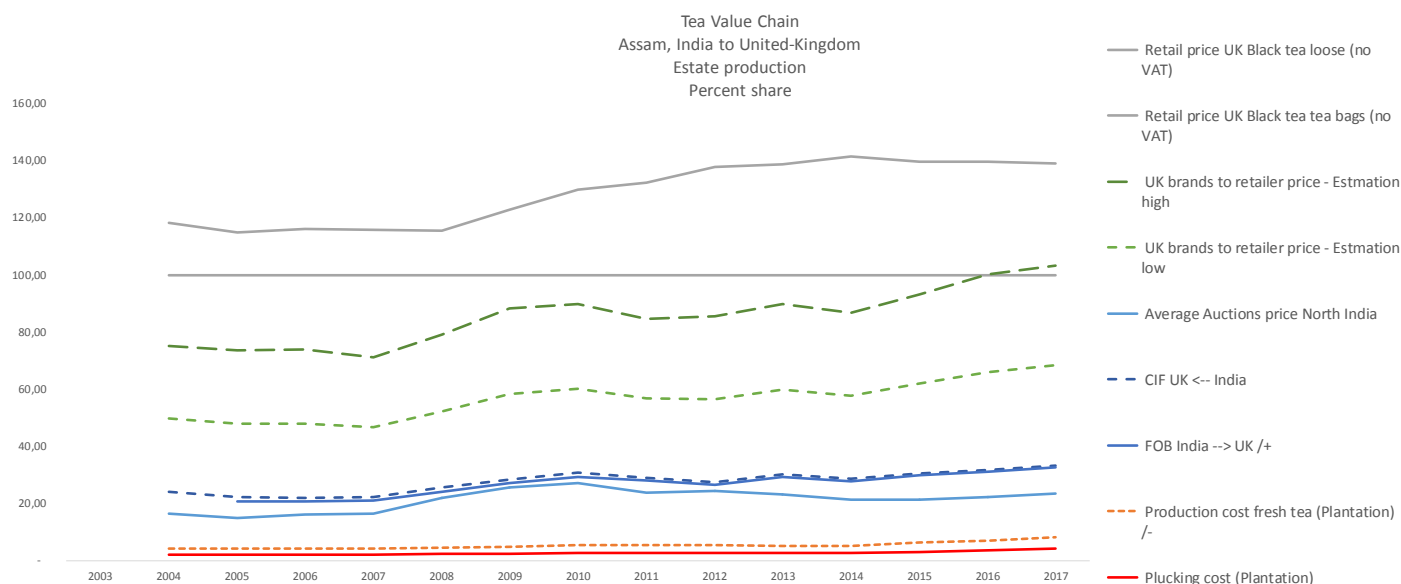


Fig. 37 Distribution of value from Assam tea estates to British consumers (in %). Source: BASIC

Looking in terms of percentages, the workers’ wages in 2017 accounted for roughly 3.8% of the total price to consumers of tea bags of black tea from Assam (and less for other tea formats). Paying a living wage to workers would thus require increasing that percentage to 10%.

Based on our estimates, UK retailers and tea brands may have the financial capacity to cover these living wages for all the Assam tea workers employed by their suppliers, as their combined share of value reached 67% in 2017, and their average combined profits roughly 10% of this amount¹⁸⁷ (hence enough to cover the living wage gap of workers). Further investigations would be required in order to fully demonstrate this assumption.

Moreover, building up on our analysis of the Assam tea value chain, enabling a transmission of value back to the workers to enable them to achieve a living wage would require a profound reverse of the structural asymmetries of power (between buyers, brokers, estates and workers) which have been in place for almost two centuries in the sector.

Available data didn’t enable us to make estimates of the living income gap for small tea growers in Assam (given the sketchy and variable data). Their situation looking almost as much precarious as the one of workers in estates, further investigation would be required in this field too (looking both at the situation of small tea growers and the workers they employ).

¹⁸⁷ Based on the annual reports of Tata Global Beverages, Unilever Lipton Tea and main UK retailers (Tesco, Sainsbury’s and M&S).

d) France

French Food retail sector

The overall retail food sales in France reach amount to more than 230 billion euros, making it one of the biggest food markets in the European Union. The French retail distribution network is diverse and sophisticated: it is generally comprised of six types of establishments: hypermarkets, supermarkets, hard discounters, convenience, gourmet centres in department stores, and traditional outlets. Sales within the first five categories represented 75 % of the country's retail food market, and traditional outlets, which include neighbourhood and specialized food stores, represented 25 % of food sales.¹⁸⁸

Starting in 2008, a steep decline in mass food retailers' sales has been observed, which can be explained by a combination of factors: the economic crisis, the hypermarket model crisis, the rise of hard discount, e-commerce and drive-through retail, and the maturation of the retail food sector. In reaction, recent trends in the French retail market are the development "drive-thru" services, the expansion of private labels offer, and the growing investments in smaller format stores¹⁸⁹. The overall breakdown of food sales by retail outlet in France is estimated as follows:

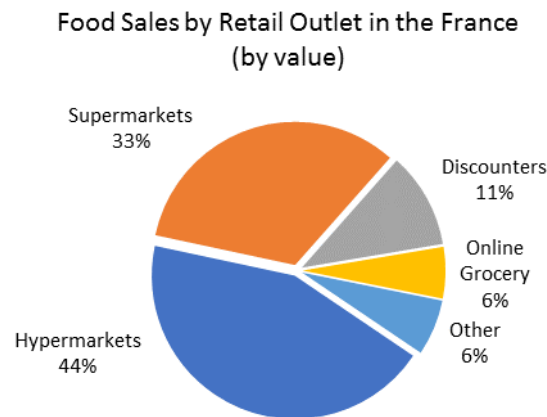


Fig. 38 Main retail outlets in France. Source: BASIC, based on Nielsen data (2017)

The food retail market in France is dominated by a small number of large firms: Carrefour (Carrefour, Shopi), Auchan (Auchan, Simply Market, Atac), Leclerc (Leclerc, Coop), Groupe Casino (Casino, Franprix, Leader Price, Monoprix), Groupe les Mousquetaires (Intermarché, Netto) and Système U. They are followed by the two German leading discounters Lidl and Aldi. Other banners include Match and Cora¹⁹⁰. The respective share of food market sales of the main retailers in France is estimated as follows:

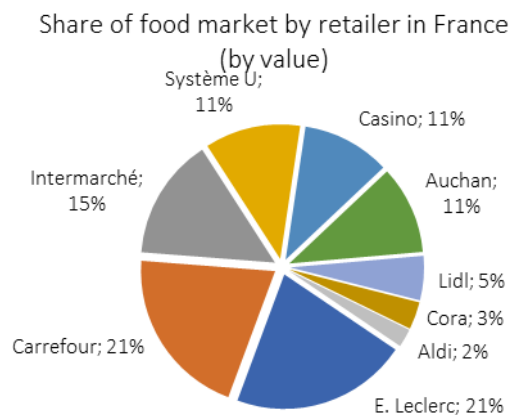


Fig. 39 Main retailers' market shares in France. Source: BASIC, based on Nielsen data (2017)

188 USDA, Retail Foods France, 2012

189 DGCCRF, Panorama de la grande distribution alimentaire en France, February 2014

190 Ibid.

The top 5 retailers account for 79% of food sales in the French modern grocery market.

A smaller number of buying groups owned by the leading retailers within parent companies act as intermediaries between producers and retailers (e.g. Galec for Leclerc), ITM for Intermarché, Interdits for Carrefour). A total of these 5 firms are responsible for 90% of purchases in large retail outlets and tend to bolster further the oligopolistic nature of the French market, creating a situation of significant market power vis-à-vis suppliers.¹⁹¹

Carrefour has been losing ground in recent years, while the Leclerc model is strengthening its position and expanding, due to its policy of lower prices. The growing popularity of hard discount stores, introduced by Lidl and Aldi, is the source of additional competitive pressure, and has led the other retailers to continually lower their prices, devoting additional shelf space to private label products and the introduction of their own discount banner.¹⁹²

Tea consumption in France

French people consume only 2.5 litres of tea on average per person and per year, a very low level compared to the other countries analysed in this study which is explained by the fact that French are traditionally drinkers of coffee (5.5 kilos per capita and per year). Tea accounts for around 20% of the hot beverages market, a proportion that has been declining in volume over the long term but growing in value. More than 80% of tea consumed at home is bought in hypermarkets and supermarkets, more than 85% in the form of tea bags. Overall, the French market is one where tea is premiumized with high consumer prices compared to benchmark countries.

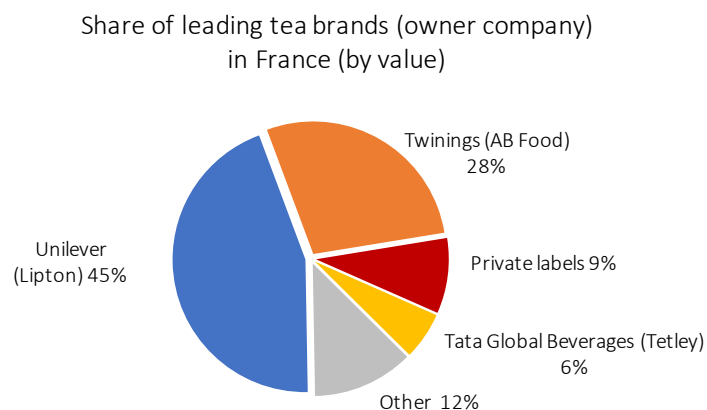


Fig. 40 Market shares of major tea manufacturers in France. Source: BASIC, based on LSA (2017)

The tea sector in France is one of the most concentrated (compared to the other countries analysed in this study): Unilever, the undisputable market leader, has a 45% market share, followed by Twinings (28%) and Tata (6%). Another noticeable characteristic is the relatively strong presence of private labels which altogether make up 9% of the total market.

France is a medium-size importer of tea in Europe (approx. 17,000 tonnes in 2017). The main supplier countries for tea being China (34%), Sri Lanka (7.5%) and India (4%). A point worth noticing is that France is one of the main importers of final tea products (loose tea in packs and tea bags ready to sell to consumers), mainly from Germany, Belgium and Poland (29% of imports).

191 DGCCRF, Panorama de la grande distribution alimentaire en France, February 2014

192 Ibid.

Distribution of value from production in Assam to consumption in France

Based on data extracted from public databases, several socio-economic studies published by academics, public and private research institutes, and cross-checks with experts of the tea industry, we have made detailed estimates of the distribution of value, from the tea workers and small tea growers' income in Assam, down to the consumers in France (for further details on the methodology, see the note in appendix). Based on the results of our analysis of the Indian tea value chain and the available data, we have made estimates for black CTC-processed tea which makes up the vast majority of Assam made tea.

The results, expressed in euros per kilogramme, and adjusted for inflation – both for large tea estates and small tea growers - are detailed below:

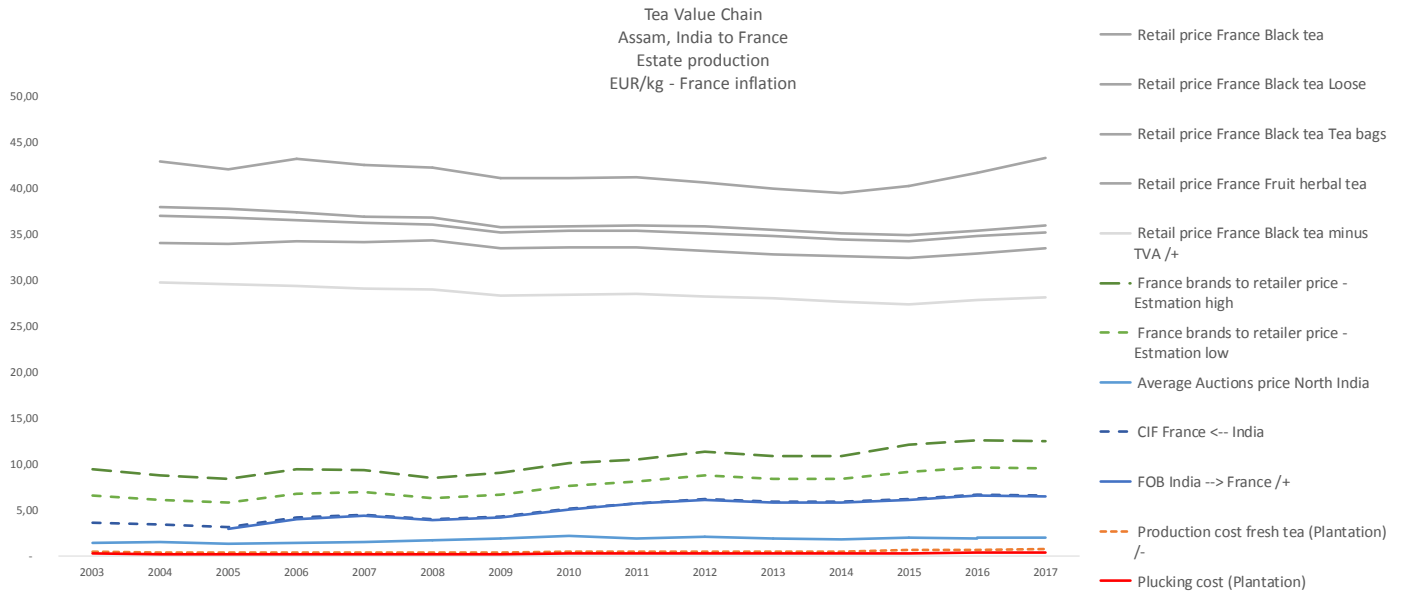


Fig. 41 Distribution of value from Assam tea estates to French consumers (inflation adjusted). Source: BASIC

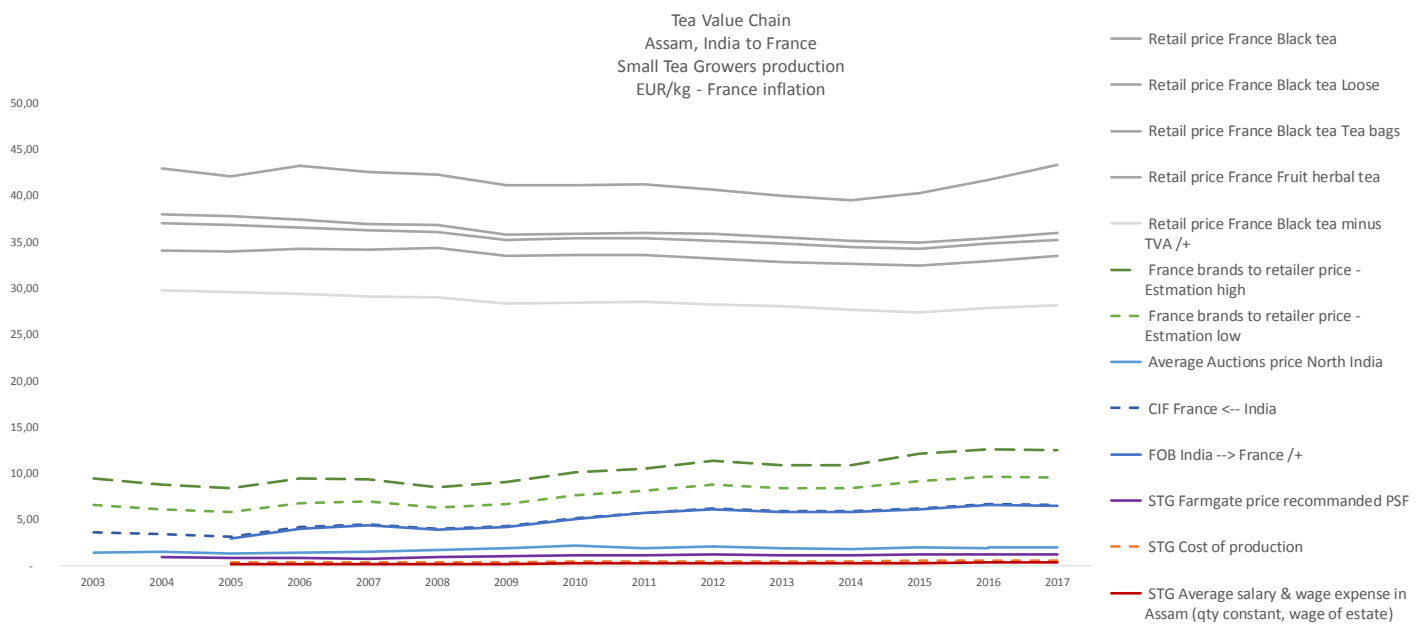


Fig. 42 Distribution of value from Assamese small tea growers to French consumers (inflation adjusted). Source: BASIC

On the consumer side, the different price data we have collected show very similar trends regardless of the type of tea sold: after adjusted for inflation, the consumer price of black tea (whether sold in loose packs or tea bags) and fruit & herbal tea has been quite stable between 2004 and 2017.

In terms of price level:

- The highest consumer price – and value creation – corresponds to fruit & herbal tea; it reached more than 43.00 euros per kg in 2017
- Slightly lower prices are associated with packs of loose black teas which were sold at 33.50 euros per kg in 2017, and tea bags which were sold at 35.95 euros per kg over the same year.

Overall, consumer prices for tea appear to be higher in France than in any other European tea market analysed in this study. A possible assumption is that French consumers may be looking for higher quality products compared to their counterparts in other countries, linked to the fact that tea is not a mainstream beverage in the country.

In the middle of the chain, we only managed to approximate the selling price of tea brands to retailers between two extremes: in 2017, the low estimate amounted to 9.50 euros per kg while the high estimate reached 12.50 euros per kg. These figures have increased by more than 40% since 2004 and tend to show a growing negotiation power of tea brands with regards to French retailers, despite the high concentration of the latter. Notwithstanding this, based on our estimates, retailers seem to continue capturing more than 50% of the total value of Assam black tea purchased by consumers (probably because of the high consumer price on the French market). In order to verify these first findings, a more detailed analysis would be required in order to better assess the selling price of tea brands to retailers, and connect more precisely our first estimates to concrete tea products containing Assam tea (whether pure origin teas or blends).

In India, based on the comparison of the estimated FOB prices and auction prices, the share of value gained by exporters seems to have significantly increased: from 2.20 euros per kg in 2008 up to 4.50 euros per kg in 2017 (hence a multiplication by 2). A possible assumption is that the leading tea brands on the French market, namely Unilever and Tata Beverage Group, which have vertically integrated the exporting stage of the chain may have been able to sell their tea at higher prices to French retailers while maintaining pressure on Indian brokers so as to keep their supply costs stable. Further investigations would also be required in this field to counter-verify this assumption.

Looking at the costs in Assam tea estates, the main result is the very low and stagnating share of value accruing to workers (which corresponds to the line “plucking costs” on the graph, and is analysed in the chapter on Indian domestic chains). According to our estimates, after adjustment for inflation, the value directed to workers’ wages only represented 0.34 euros per kg in 2017 – to be compared with 33.50 euros to 43.00 euros per kg paid by consumers in supermarkets. This fact is all the more striking than tea workers appear to be suffering from the same low wages as 14 years ago, when taking into account inflation. The case of small tea growers does not look any better according to our estimates: the price they get for fresh tea leaves is also stagnating and only represents 1.19 euros per kg in 2017 (which farmers use to cover not only their costs of living but also the costs of inputs and seasonal labour).

Further investigations would be required in order to fully demonstrate the assumptions made in our analysis, and understand in more details the relationships between the prices at the different stages of the chain, and issues such as quality grades, packaging formats, growing concentration of buyers, changes in public regulations/policies and competition from foreign tea producers (amongst others).

Leverage for paying living wages/income in the French tea sector

As described in the chapter on the tea industry in Assam, the current wages of tea workers – most of all women – is much below what can be considered as a living wage. According to academic estimates, their wage should be multiplied by 2.6 to achieve living conditions.

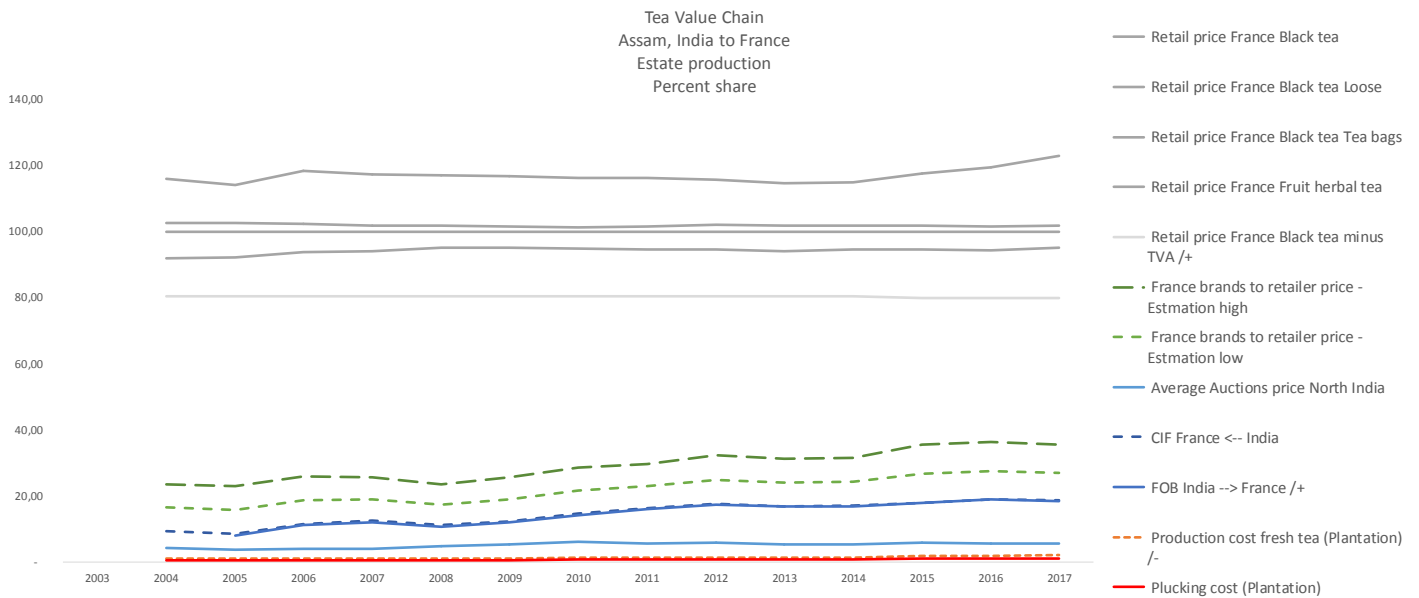


Fig. 43 Distribution of value from Assam tea estates to French consumers (in %). Source: BASIC

Looking in terms of percentages, the workers' wages in 2017 accounted for not even 1% of the total price to consumers of tea bags of black tea from Assam (and even less for other tea formats). Paying a living wage to workers would thus require increasing that percentage to roughly 2.6%.

Based on our estimates, French retailers and (vertically integrated) tea brands seem to have the financial capacity to cover these living wages for all the Assam tea workers employed by their suppliers, as their combined share of value appeared to reach 95% in 2017, and their average combined profits roughly 4% of this amount¹⁹³ (hence enough to cover the living wage gap of workers). Further investigations would be required in order to fully demonstrate this assumption. Moreover, building up on our analysis of the Assam tea value chain, enabling a transmission of value back to the workers to enable them to achieve a living wage would require a profound reverse of the structural asymmetries of power (between buyers, brokers, estates and workers) which have been in place for almost two centuries in the sector.

Available data didn't enable us to make estimates of the living income gap for small tea growers in Assam (given the sketchy and variable data). Their situation looking almost as much precarious as the one of workers in estates, further investigation would be required in this field too (looking both at the situation of small tea growers and the workers they employ).

e) USA

US Food retail sector

With a large population and diverse ethnic groups, food preferences in the USA are significantly determined by consumers' socio-economic profiles, household budgets, but also regions and ethnic groups. Modern grocery retailers - which include hypermarkets, supermarkets and discounters - are the top distribution channel for grocery products in the country.

Supermarkets lead sales with approx. 330 billion USD per year, offering a large variety of food and drink close to where people live and work in urban, suburban and rural area, in contrast to hypermarkets. The latter are in second position with almost 300 billion USD sales and use their scale effect and bargaining power to offer prices lower than supermarkets.

193 Based on the annual reports of Tata Global Beverages, Unilever Lipton Tea and the annual report of the "Observatoire des Prix et des Marges des produits alimentaires" published by FranceAgrimer each year..

Discounters, which offer minimal customer service in no-frills stores and a limited selection of products, are the fastest-growing category, but only account for 25 billion USD. Among all three retail formats, the market share of private label is growing, although it remains twice less than in Europe (22% of US grocery retail sales compared to more than 40% on average in the EU).¹⁹⁴

Smaller grocery formats include convenience stores, forecourt retailers, cash and carry warehouse clubs and drug stores and pharmacies. Convenience stores and forecourt retailers are the 3rd biggest food channel in the USA, accounting for almost 150 billion USD per year. Best known for quick shopping trips, convenience stores such as 7-Eleven, Circle K and Pantry are located in high traffic areas and offer limited selections of food. Drugstores are now becoming an increasingly important channel in the US grocery market, with large chains such as Walgreens, CVS and Rite Aid offering sophisticated ranges of products in their stores (with a focus on snack foods and drinks, but also more and more fresh and frozen foods). In contrast, traditional grocery stores are losing ground, only accounting for approx. 150 billion USD.¹⁹⁵

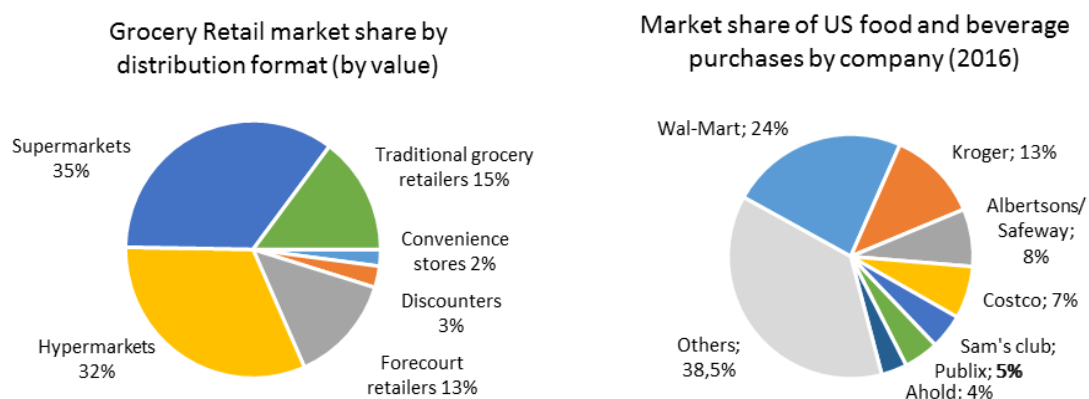


Fig. 44 Main retail outlets and retailers' market shares in the USA.
Source: BASIC, based on Agrifood Canada, CSG and Statista data (2015)

With many domestic and international companies in the US grocery industry, the market is relatively fragmented in comparison with Europe (the top 5 grocery retailers being all domestic). With its strong national presence and low prices, Walmart dominates with approx. 24% value share of all food and grocery products sold in the country, followed by Kroger at 13% and Safeway at 8%. Some internationally owned retailers are also successful in the United States, such as Ahold (Netherlands) and Delhaize (Belgium) which have merged in 2016.¹⁹⁶

Tea consumption in the USA

USA is one of the world's largest tea markets: Over 22% of Americans drink tea regularly, a typical U.S. consumer drinking tea three times a week (highest in the Mid-Atlantic and New England regions). Black tea and fruit/herbal tea lead the market in value, while green tea is the fastest growing segment. Tea has benefited from the recent health and wellness trend. As for coffee, the rising demand for premium and specialty tea and single-serve pod brewing are strongly increasing.¹⁹⁷

194 Agriculture and Agri-food Canada, Modern grocery retailing in the United States, 2013 and Bord Bia, US Food & Beverage Market overview, 2014

195 Ibid.

196 Statista, Market share of U.S. food and beverage purchases in 2016, by company - <https://www.statista.com/statistics/240481/food-market-share-of-the-leading-food-retailers-of-north-america/> accessed on 28th May 2017

197 Agri-Food Canada: American eating trends report: Tea, 2012

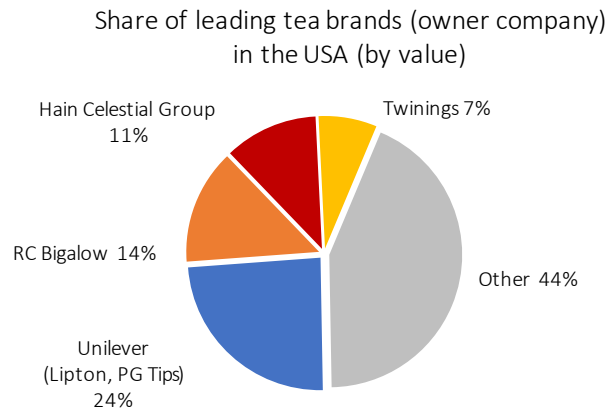


Fig. 45 Market shares of major tea manufacturers in the USA. Source: BASIC, based on Food & Water Watch (2013)

The U.S. tea market is quite concentrated: Unilever (owner of the brands Lipton and PG Tips) is the leading tea blender in the USA with 24.1% market share followed by RC Bigalow (owner of Bigelow brand) with 14% market share, Hain Celestial Group (11.4%) and Twinings (7.1%)¹⁹⁸.

US most important suppliers of bulk tea are China (22%), Argentina (18%), and India (8%).

Distribution of value from production in Assam to consumption in the USA

Based on data extracted from public databases, several socio-economic studies published by academics, public and private research institutes, and cross-checks with experts of the tea industry, we have made detailed estimates of the distribution of value, from the tea workers and small tea growers' income in Assam, down to the consumers in the USA (for further details on the methodology, see the note in appendix). Based on the results of our analysis of the Indian tea value chain and the available data, we have made estimates for black CTC-processed tea which makes up the vast majority of Assam made tea. The results, expressed in USD per kilogramme, and adjusted for inflation – both for large tea estates and small tea growers - are detailed below:

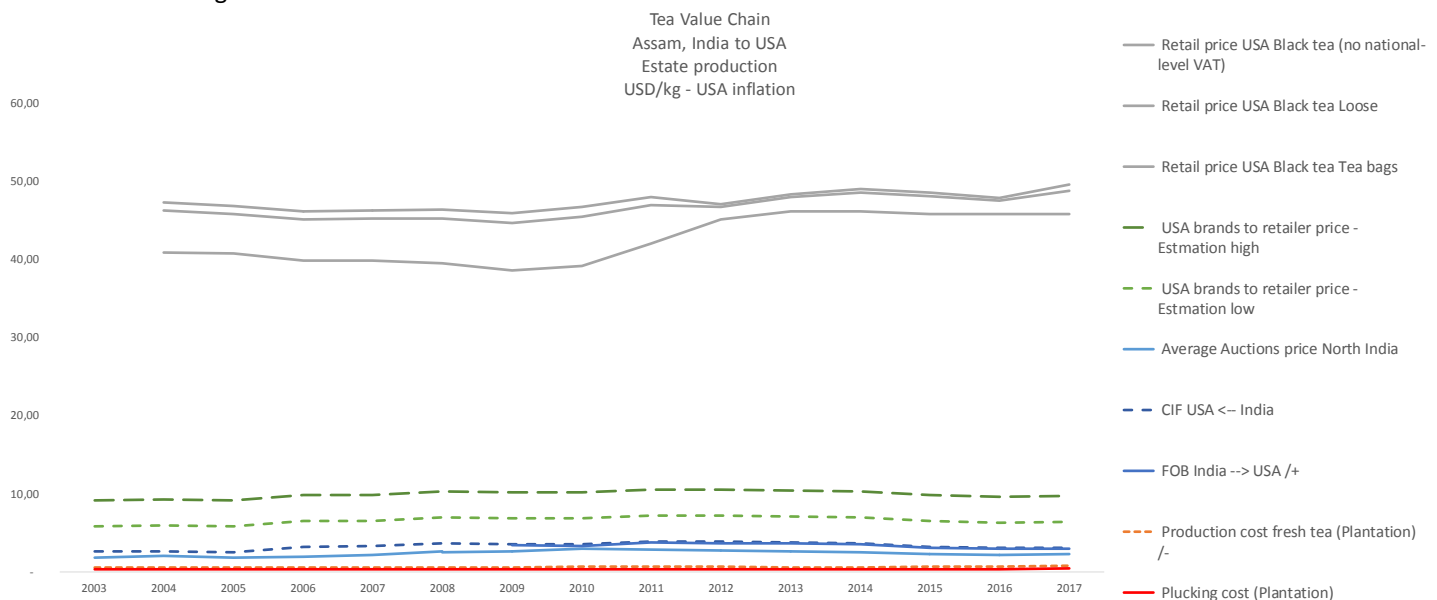


Fig. 46 Distribution of value from Assam tea estates to US consumers (inflation adjusted). Source: BASIC

198 Food & Water Watch, Grocery Goliaths: how food monopolies impact consumers, 2013

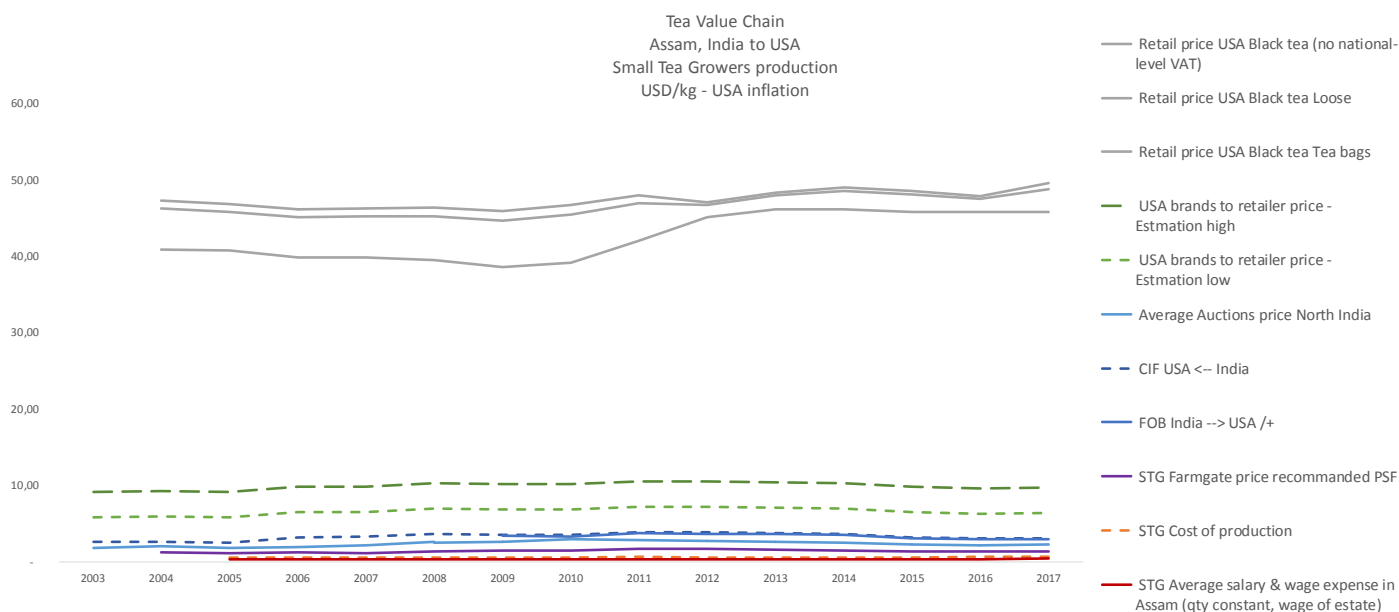


Fig. 47 Distribution of value from Assamese small tea growers to US consumers (inflation adjusted). Source: BASIC

The US market appears to be very specific compared to its European counterparts analysed in the scope of this study. The consumer price recorded in the USA – regardless of the packaging format – is the highest of all countries: from 45.80 USD per kg in 2017 for loose black tea in branded packs, up to 49.60 USD per kg in 2017 for tea bags (whereas the highest consumer prices in Europe were recorded in France at 36 euros per kg for the same year, equivalent to 43 USD per kg).

The second key characteristic of the US market is that the consumer prices of tea have increased by 5% to 10% for all formats since 2003, a very noticeable difference with European markets. A possible assumption is that, as in the case of France, US consumers may be looking for higher quality products compared to their counterparts in other mature consuming countries.

In the middle of the chain, we only managed to approximate the selling price of tea brands to retailers between two extremes: in 2017, the low estimate amounted to 6.35 USD per kg while the high estimate reached 9.65 USD per kg, both having remained quite stable over the past 10 to 15 years. Based on our estimates, the greatest share of value in the US tea value chain seems to be captured by retailers, with a minimum of 36 USD per kg for loose black tea in 2017 (an amount which has apparently increased by 24 % since 2010 according to our estimate). This result can be put in the wider context of the strong bargaining power of retailers in the USA – especially Walmart – which is documented by several studies¹⁹⁹.

In order to verify these first findings, a more detailed analysis would be required in order to better assess the selling price of tea brands to retailers, and connect more precisely our first estimates to concrete tea products containing Assam tea (whether pure origin teas or blends).

In India, based on the comparison of the estimated FOB prices and auction prices, the share of value gained by exporters seems to have remained quite stable: from 0.78 USD per kg in 2009 to 0.72 USD per kg in 2017. A possible assumption is that the exporters of Assam tea to the USA may not have managed to increase their gains, although the US market seems quite lucrative at the end of the chain, probably because of the strong bargaining power of downstream actors in the chain.

Looking at the costs in Assam tea estates, the main result is the very low and stagnating share of value accruing to workers (which corresponds to the line “plucking costs” on the graph, and is analysed in the chapter on Indian domestic chains). According to our estimates, after adjustment for inflation, the value directed to workers’ wages only represented 0.38 USD per kg in 2017 – to be compared with 45.80 USD to 49.60 USD per kg paid by consumers in supermarkets. This fact is all the more striking than tea workers

199 Food & Water Watch, Grocery Goliaths: how food monopolies impact consumers, 2013

appear to be suffering from the same low wages as 14 years ago, when taking into account inflation. The case of small tea growers does not look any better according to our estimates: the price they get for fresh tea leaves is also stagnating and only represents 1.33 USD per kg in 2017 (which farmers use to cover not only their costs of living but also the costs of inputs and seasonal labour).

Further investigations would be required in order to fully demonstrate the assumptions made in our analysis, and understand in more details the relationships between the prices at the different stages of the chain, and issues such as quality grades, packaging formats, growing concentration of buyers, changes in public regulations/policies and competition from foreign tea producers (amongst others).

Leverage for paying living wages/income in the US tea sector

As described in the chapter on the tea industry in Assam, the current wages of tea workers – most of all women – is much below what can be considered as a living wage. According to academic estimates, their wage should be multiplied by 2.6 in order to achieve sustainable living conditions (cf. section 3a).

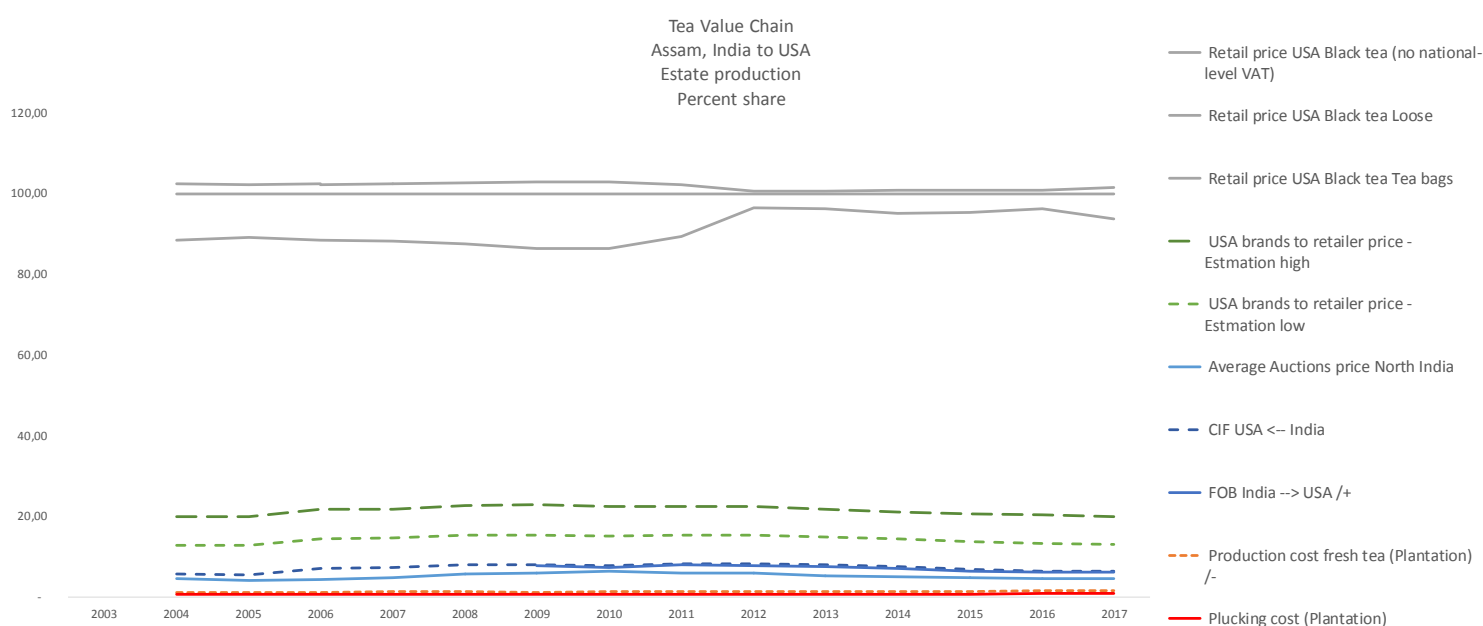


Fig. 48 Distribution of value from Assam tea estates to US consumers (in %). Source: BASIC

Looking in terms of percentages, the workers’ wages in 2017 accounted for roughly 0.8% of the total price to consumers of tea bags of black tea from Assam (and even less for other packaging). Paying a living wage to workers would thus require increasing that percentage to 2.1%.

Based on our estimates, US retailers seem to have the financial capacity to cover these living wages for all the Assam tea workers employed by their suppliers, as tea seems to be a quite profitable product for them, their share of value being estimated at more than 80% of the total consumer price in 2017. Further investigations would be required in order to fully demonstrate this assumption.

Moreover, building up on our analysis of the Assam tea value chain, enabling a transmission of value back to the workers to enable them to achieve a living wage would require a profound reverse of the structural asymmetries of power (between buyers, brokers, estates and workers) which have been in place for almost two centuries in the sector.

Available data didn’t enable us to make estimates of the living income gap for small tea growers in Assam (given the sketchy and variable data). Their situation looking almost as much precarious as the one of workers in estates, further investigation would be required in this field too (looking both at the situation of small tea growers and the workers they employ).

5. Appendix: Objectives, perimeter & methodology

a) Objectives

While there has been significant reporting on the issues in Assam tea plantations, it is hard to get access to granular data; especially the data on the transition of value happening at each step of the Tea value chain in the domestic and the international market.

In the current scenario, the available data on value transition along the tea value chain is discrete and inadequate to connect the dots and understand the percentage of margins earned by each stakeholder for every cup of tea consumed by a consumer in the domestic and the international market.

Without specific data on value share, pricing, the supply chain remains very opaque. This opaqueness limits the ability of civil society to campaign, advocate and demand specific actions. The objective of this study commissioned by Oxfam and conducted by BASIC is to unpack the pricing of Assam tea and the distribution of value share across the whole supply chain, from large tea estates (plantations) and small tea growers in Assam to consumers in 6 different countries.

b) Research questions & countries

The central research question is: “How has the distribution of value along tea value chains changed over the last 10-20 years, and why?”, in particular:

- How do consumer prices compare today with 10-20 years ago, and what factors could account for any change?
- How does the proportion of the value captured by intermediaries and/or retailers compare today with 10-20 years ago, and what accounts for any change?
- How does the proportion of the final consumer price reaching producers/workers compare today with 10-20 years ago, and what accounts for any change?
- How do the costs of production and costs of living of the producers & workers in tea value chains compare today with 10-20 years ago, and what accounts for any change? What increase/redistribution of value would be needed to enable farmers to reach a living wage?

The study focuses on tea value chains in the following countries:

Country	Consumer markets	
India (Assam)	Export markets	Germany
		United Kingdom
		France
		Netherlands
		USA
	Domestic market	India

c) Methodological approach

Conceptual framework

Our analysis of value chains is both quantitative and qualitative, based on the conceptual frameworks of Global Value Chains and Global Production Networks.

The concept of Global Value Chains (GVCs) derives from the world systems theory developed by Immanuel Wallerstein in the 1970's. He introduced the concept of global commodity chains (GCCs) defined as 'networks of labour and production processes whose end result is a finished commodity'²⁰⁰. In 1994, Gereffi and Korzeniewicz revived the concept in order to better understand the impacts of growing trade liberalisation, focusing on the strategies and actions of lead firms conceived as the core actors in a globalised economy²⁰¹. In 2005, Gereffi, Humphrey and Sturgeon consolidated the global commodity approach with the theory of Global Value Chains (GVC)²⁰².

More recently, the related conceptual framework of Global Production Networks (GPN) has been developed by the Manchester school of geography, as a multi-dimensional approach to understand the structuring of value chains with a particular focus on "value generation/capture", "power" (corporate, collective and institutional) and "embeddedness" (territorial and network).

In comparison with other approaches, the theories of Global Value Chains and Global Production Networks provide a radically new view on international trade²⁰³:

They enable to analyse the whole set of economic activities and actors ranging from the production of raw materials up to the end consumption of final products, whereas traditional economic trade theory only focuses on supply and demand.

They offer a framework to investigate the interactions between the configuration of global chains (input-output, key nodes, territories, governance and institutions....) and their economic determinants (supply and demand, value and cost breakdown, price dynamics, income distribution...)

They focus on the institutional context of power relations in which trade is embedded, the characteristics of economic governance and share of value, with key agents setting the rules of the game, while economic trade theory assumes that 'buyers and sellers in different markets meet each other as independent agents'.

Over the past 20 years, Global Value Chain and Global Production Network analysis have been flourishing approaches used for studying the dynamics of globalisation and economic governance. Widely adopted by sociologists and geographers, it has also attracted growing interest from economists, anthropologists and historians to analyse the international organization of industries such as food, clothing and electronics²⁰⁴. More recently, a number of international agencies such as the World Bank, the OECD, the ILO and the FAO have also started to use Global Value Chain analysis to investigate industrial upgrading and poverty alleviation.

200 Hopkins and Wallerstein (1986: 159) - <https://www.jstor.org/stable/40241052> accessed on 12th November 2018

201 Gereffi and Korzeniewicz, Commodity Chains and Global Capitalism, 1994 - https://edisciplinas.usp.br/pluginfile.php/4209363/mod_folder/content/0/Gary%20Gereffi%20Commodity%20Chains%20and%20Global%20Introduction%20C3%A7%20C3%A3o.pdf?forcedownload=1 accessed on 12th November 2018

202 Gary Gereffi, John Humphrey, and Timothy Sturgeon. "The Governance of Global Value Chains." *Review of International Political Economy* 12, no. 1 (February 2005): 78–104 - http://www.fao.org/fileadmin/user_upload/fisheries/docs/GVC_Governance.pdf accessed on 12th November 2018

203 Gibbon, Bair and Ponte (2008) "Governing Global Value Chains: An Introduction," *Economy and Society*, Vol. 37, No. 3, pp. 315-338 - https://research-api.cbs.dk/ws/portalfiles/portal/46585232/stefano_ponte_governing_global_value_chains_postprint.pdf accessed on 12th November 2018

204 The Global Value Chains approach initiated a wave of interdisciplinary literature which investigated the ways in which organizationally fragmented and geographically dispersed processes of production have been a critical feature of economic globalization: fresh fruit and vegetables (Raynolds; Dolan et al.), tropical commodities such as coffee, cocoa, cotton, sugar, rubber, tobacco, etc. (Ponte, Raynolds, Fold, Gibbon, Daviron, Gwynne, Barrientos), exports of apparel from East Asia, Mexico and the Caribbean (Gereffi, Palpacuer), electronics (Kenney and Florida), automobile industry (Hill; Doner; Barnes, Kaplinsky and Morris), semi-conductors (Henderson), tourism (Clancy), services (Rabach & Kim)...

Operational framework

Operationally, we have implemented a 3-tier research process (see diagram below):

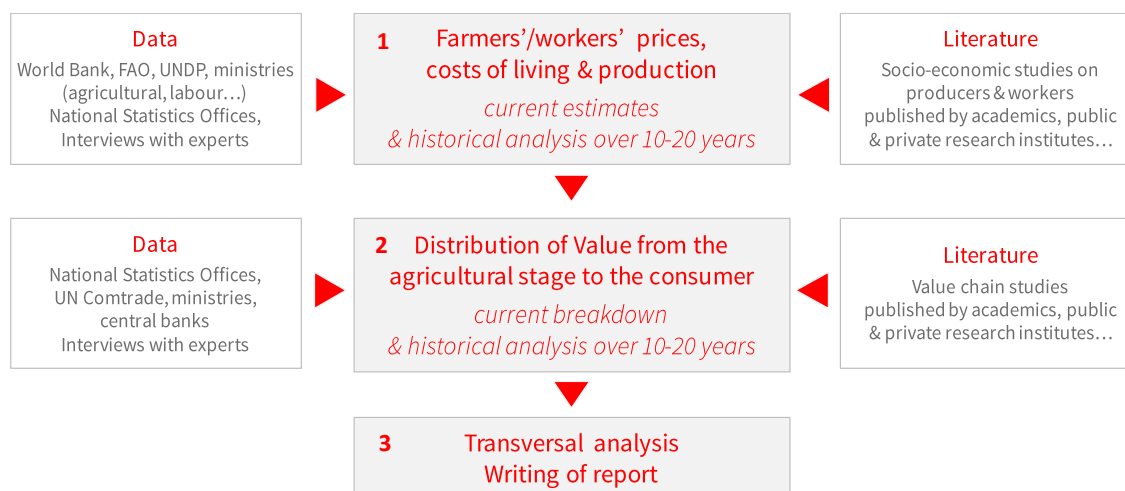


Fig. 49 Operational research framework used for the study. Source: BASIC

1. The first part of the work will focus on the agricultural stage of the chain: plantations' prices, costs of (agricultural) production, workers' wages and costs of living of workers. To achieve this, we will use the following sources of information:

- Data extracted from National Statistics Offices in producing countries (and potentially the FAO or other UN agencies) on yields, costs of inputs, plantations' costs, prices and benefits as well as tea workers' wages... and their evolution over the past 10-20 years
- Socio-economic studies published by academics, public & private research institutes on:
 - Plantation set-ups and costs of production: sectoral diagnosis of Assam tea performed by trade or agriculture ministries in producing countries, by the partner organization working with Oxfam on the working and living conditions of workers, by PhD/Masters' students...
 - Living income / living wage by country: studies conducted by R. & M. Anker, absolute poverty analysis conducted in collaboration with the World Bank, studies conducted by the Ministries of Labour in producer countries...
- Interviews with at least one expert of the tea sector in India (based on potential contacts provided by Oxfam's teams, or otherwise identified by Basic) in order to cross-check/verify estimates and "fill in the blanks" for missing data/elements.

2. The second phase of the work will be to estimate and analyse the value distribution in the downstream part of the chain (after the agricultural stage). To achieve this, we will collect information at different reference points (the same across all countries analysed):

- Intermediate prices in the upstream part of the supply chain (costs and margins of semi-processed products) and estimation of their evolution over the past 10-20 years
- For export markets: export prices (FOB), import prices (CIF/FOT) over the past 10-20 years
- Intermediate prices in the downstream part of the supply chain (wholesale prices, costs and margins of end processing - e.g. packaging - and transport to supermarkets) and estimation of their evolution over the past 10-20 years
- VAT rate over the past 10-20 years
- Average consumer prices in supermarkets (end price) over the past 10-20 years

The necessary information to be collected will be a combination of:

- Data extracted from public databases:

- National Statistics Offices, ministries (economy...) and/or central banks of the different countries under investigation for data on consumer prices, intermediate prices (when available) and processing costs.
 - World Bank & National Statistics Offices for indices enabling to estimate the evolution of prices & costs over the past 10-20 years
 - for import and export: UN Comtrade data
 - Literature review: value chain analysis (published by academics, public & private institutions) will be identified and analysed for each country under investigation in order to collect complementary data, in particular on intermediate prices which are most often lacking in public databases.
 - Interviews with at least one expert of the tea sector in India (based on potential contacts provided by Oxfam's teams, or otherwise identified by Basic) in order to cross-check/verify estimates and "fill in the blanks" for missing data/elements.
3. Based on these, and using Basic's methodological framework, we will conduct a quantitative and qualitative analysis of the distribution of value in Assam tea chains, and its evolution over the last 10 to 20 years. In addition, we will provide estimates and an analysis of the evolution of the costs of production and costs of living vis-à-vis the evolution of the value left for the workers analysed in the previous stage.

d) Limitations

The main challenge of the study will be to collect detailed and credible data along value chains from producers up to retailers. Indeed, prices, costs and margins fluctuate and are the most confidential information in business, very difficult to access and to counter-verify from the outside.

To address this issue, the Basic's approach is to:

- collect and analyse quantitative data from public and private databases (UN Comtrade, World Bank, research institutes, ministries in producing countries...) through an internal dedicated IT system
- combine this quantitative data with the qualitative analysis emerging from literature through different angles of investigation (economic, sociologic...),
- cross-check and enrich this information/analysis through at least one or two experts of the tea sector in each country analysed (based on potential contacts provided by Oxfam's teams, or otherwise identified by Basic).

The modelled value chains only provide quantitative estimates/orders of magnitude for the most common set of actors and operations from agricultural cultivation by small farmers and workers, up to the consumer purchases in retail shops. A wide variety of other organisational frameworks can be found in reality for each product analysed, leading to potential variations in the value distribution estimates. However, the prices and costs levels and trends calculated in this study provide a first comprehensive evaluation and a sound basis for discussion among actors and stakeholders of each of the value chain analysed.

Regarding the calculation of "living income/wage", the proposed approach will give a first estimate. Given the objectives of the study, and the time & resource constraints, using the average costs of essential goods & services for a typical family will provide enough details and credibility to the analysis. To achieve this, we will collect the most recent studies conducted on this subject in the countries under investigation (in particular the ones developed by the Global Living wage Coalition and WageIndicator).

e) Reading guide for estimates

Our value distribution estimates are always displayed according to the following framework:

ACTOR	CONTENT OF THE SHARE OF VALUE
Retailer	<ul style="list-style-type: none"> - profit - annual payroll of their employees - costs of their shops and offices - costs of storage and logistics from regional distribution centres to local shops - financial costs to cover foreign-exchange risks - payment of tax and other financial expenses
Middle chain actor	<ul style="list-style-type: none"> - profit - logistics and processing costs - annual payroll of their employees - financial costs to cover foreign-exchange risks - payment of tax and other financial expenses
Producer	<ul style="list-style-type: none"> - profit – income - social contribution
Worker	<ul style="list-style-type: none"> - wages - employer & social contribution
Cost of inputs	<ul style="list-style-type: none"> - agro-chemicals & seeds - energy & water - Etc.

Fig. 50 Operational research framework used for the study. Source: BASIC

It should be noted that share of value should not be mistaken for net profits or benefits: each actor along the chain uses the share of value that it manages to capture in order to cover its internal costs, and potentially make a net benefit, once all costs have been paid.

As illustrated in the previous diagram:

- The retailers' share of value is the money left when they have paid the products to their suppliers. They use this money to pay their employees, manage their stores, organise the logistics through their distribution centres, invest in marketing and communications, pay their taxes and their financial expenses...and potentially make a net profit on top of it.
- The share of value captured by tea brands, tea manufacturers and traders is the amount of money they get after deduction of the payment of their own suppliers. They use this money to cover their costs of logistics and/or processing (for brands/manufacturers: energy, packaging, machinery.... – for wholesalers: storage and transport), pay their employees, conduct marketing campaigns, pay taxes and financial expenses, plus a potential net profit.
- The small tea growers' share of value in our estimates is what is left for them to make a living (for themselves and their family) after the payment of their workers and costs of farm inputs (agrochemicals, water, energy...)
- The last component is the costs of agricultural production (workers' wages, seeds, fertilizers, pesticides, land rental....)