

BREWING OPPORTUNITY

A MARKET SYSTEMS ANALYSIS OF THE TEA SECTOR IN SOUTHERN SHAN STATE, MYANMAR



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This study was written by Aatif Somji with very valuable inputs from Dr Than Than Sein.
The research team would like to thank all those who participated in the interviews and focus groups.

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Contents

Abbreviations	vii
Executive Summary.	viii
1 Introduction.	1
1.1 Project introduction	1
1.2 Study purpose and scope	2
1.3 Study methods	2
1.4 Report structure.	4
2 Sector Structure.	5
2.1 Market overview.	5
2.2 History and trends	8
2.3 The role of the target group.	9
3 The Tea Market System	11
3.1 Core market	12
3.2 Supporting functions	14
3.3 Rules and Regulations	23
3.4 Constraints summary	28
4 Opportunity	31
4.1 Key market actors	31
4.2 Potential areas for intervention	34
5 Conclusion.	41
Annex A	42
Annex B	43

Figure 1: Map of Southern Shan State.	6
Figure 2: Fermented tea leaf salad, or ‘Lahpet Thoke’	7
Figure 3: The Tea Market System in Southern Shan State, Myanmar.	12
Figure 4: Tea bud and two leaves	15
Figure 5: Women from a village near Ywangan sorting their tea at home . . .	17
Figure 6: Examples of tea processing machinery	18
 Table 1: Cost-benefit analysis of organic tea certification in Pindaya	 19
Table 2: Key Stakeholders in the Tea Sector, Southern Shan State	32

Abbreviations

DOA:	Department of Agriculture
EU:	European Union
FDA:	Food and Drug Administration
GIZ:	Deutsche Gesellschaft für Internationale Zusammenarbeit
ILO:	International Labour Organization
ITC:	International Trade Centre
MMK:	Myanmar Kyat
MT:	Metric Tonne
MTA:	Myanmar Tea Association
PPD:	Plant Protection Division
RMA:	Rapid Market Assessment
SECO:	Swiss State Secretariat for Economic Affairs
SME:	Small and Medium Enterprise
UMFCCI:	Union of Myanmar Federation of Chambers of Commerce and Industry
UNCTAD:	United Nations Conference on Trade and Development
UNIDO:	United Nations Industrial Development Organization
UNOPS:	United Nations Office for Project Services
USD:	United States Dollar
USDA:	United States Department of Agriculture

Notes

On confidentiality. All data collected through primary research have been made anonymous so that individuals cannot be identified. Instead, we refer in generic terms to ‘interviewee(s)’, ‘informants’ or ‘respondents’.

On study limitations. The study is largely developed based on the perceptions and opinions of key sector stakeholders. Although information was triangulated by different sources where possible, it is recognised that not all opinions and perceptions could be cross-checked and validated.

On the views and opinions. The views and opinions in this assessment are those of the authors and not of the International Labour Organization or its country office in Yangon.

Executive Summary

‘The Lab’ team of the International Labour Organization (ILO) conducted an analysis on the tea sector in Southern Shan State as a means of understanding the constraints and opportunities in the sector. This analysis, along with a market systems analysis on the tourism sector¹ have been conducted as part of the inception phase for the “SECO – UN Cluster on Trade and Productive Capacity, Myanmar” project. This project, which is funded by the Swiss State Secretariat for Economic Affairs (SECO), will be coordinated by UNOPS and implemented by UNCTAD, ITC and UNIDO. The project is expected to enhance both the tourism and horticulture markets in Southern Shan State as well as strengthen the links between them. In the process, the project aims to create opportunities for farmers, workers and SMEs as a means to reducing poverty within the region.

To this end, this analysis will be used as a basis for the project to sharpen its implementation focus and as such, potential project interventions have been identified at the close of the study.

A brewing market

The market for Myanmar tea has steadily been growing over the last ten years and looks set to continue. The country is currently the eighth-largest producer of tea, with 25% of production taking place in Southern Shan State. The two key products that are manufactured from the raw tea leaves are green tea and fermented tea – the latter being an edible product that is seemingly unique to the country. With a fast-growing middle-class, domestic consumption of both tea products is likely to rise. At the same time, Myanmar has developed a niche market for high-quality green tea, with exports reaching as far as Germany, France and the Netherlands. There is a clear opportunity to build on the recent progress made in the tea sector in Myanmar, and specifically in Southern Shan State.

The analysis focus and key market constraints

The analysis of the tea value chain and surrounding market system indicated that some of the key ***constraints to the development of the sector include agricultural practices; manufacturing practices; value-adding infrastructure; access to markets; and collective organisation.*** The analysis also identifies certification; access to finance; quality infrastructure; and government policies as additional areas which may be constraining the performance of the market.

The opportunities

A potential intervention strategy has been developed to address the underlying causes of the market constraints deemed most feasible to be influenced by the UN Cluster project, based on the analysis process. Within the strategy, a keen focus has been put on developing sustainable and scalable interventions that put local market actors in the lead.

1. Details of this analysis are presented in a separate report drafted alongside one another.

The strategy looks at a number of key areas to address the market constraints and enhance growth in the tea sector:

1. Setting up and supporting skills development opportunities to address the challenges related to poor agricultural and manufacturing practices.
2. Enhancing market linkages between tea producers, tea processors and buyers of tea – both domestic and international.
3. Developing greater cooperation among different market actors in the sector, with a primary focus on tea farmers.

Linking tea and tourism

Through the analysis, it became clear that Pindaya is the township most famed for its tea within Southern Shan State. This presents an opportunity to develop and promote the location for tea-oriented tourism, which could in turn enhance sales of tea in the township and enhance the reputation and brand value of Pindaya tea. Through the project's approach to ***support the development of a tea tourism brand for Pindaya***, it aims to link local tea and tourism SMEs and coordination bodies to properly define this brand and develop tea-oriented tourism products and services to cater to the tourist market in Southern Shan State, thus contributing to the joint goals of this UN-Cluster project.





1

Introduction

1.1 Project introduction

The Myanmar SECO – UN Cluster on Trade and Productive Capacity project was signed between the Government of the Republic of the Union of Myanmar through the Ministry of Commerce; the Government of Switzerland through the Swiss State Secretariat for Economic Affairs (SECO); and the implementing UN agencies: UNCTAD, ITC, UNIDO, ILO and UNOPS. The first phase of the project is planned to run for four years (2018 to 2022) with a total budget of USD 4.8 million.

The project aims to enhance horticultural productive capacity and improve tourism development, management and promotion for the Inle Lake region of Shan State, Myanmar. The project intervention is expected to enhance the livelihoods of the local beneficiary communities through income generation and employment creation, thus contributing to poverty reduction.

The International Labour Organization has been engaged to assist the Myanmar SECO – UN Cluster project through its work on Market Systems Development for Decent Work (the Lab). In this regard, the Lab has been tasked with conducting market systems analyses of both subjected sectors. The market systems approach is an implementation methodology which aims to address the root causes of why markets may not be meeting the needs of poor people. The approach works within existing market structures, aligning incentives between different market actors – both private and public – to improve the likelihood that positive results are sustained and even scaled-up after intervention. The market systems analyses for both sectors will be used as a basis alongside the findings from the project's inter-agency mission (November 2018) and an initial rapid market assessment of the two sectors to support the redesign of the project's implementation phase, such that future interventions target key market constraints which have been identified through critical analysis.

This study, referred to herein as the market systems analysis (MSA), provides the analytical basis for identifying the constraints to, and opportunities for enhancing the tea value chain in Southern Shan State, which was selected by the implementing agencies through an evaluative process as a promising horticulture value chain with significant potential to generate further income and employment for female and male farmers, workers and small and medium enterprises in Southern Shan State, thereby contributing towards poverty reduction in the region.

1.2 Study purpose and scope

This market systems analysis was conducted to identify the key constraints to the tea value chain, along with the corresponding root causes that limit functionality within this market. For this study, the analysis looks into understanding the market around the project's target group: **female and male farmers, workers and small and medium enterprises (SMEs)**, with a focus on **boosting income** and **generating employment** as a contribution for poverty reduction.

This MSA builds on an initial rapid market assessment (RMA) of the wider horticulture sector which was completed by the Lab in January 2019. The RMA provided an initial assessment of the horticulture sector in Southern Shan State, identified common constraints in the market system, and narrowed the scope of this study by evaluating the potential of five horticulture sub-sectors. The RMA indicated that the project might be well positioned to focus its implementation activities on the tea value chain, with ginger and avocado also scoring highly.

Based on the findings in the RMA, the analysis in this study focuses on better understanding the tea value chain, diving deeper into the specific constraints that are inhibiting growth across the sector and leveraging this information to propose a set of potential interventions. A complementary document will explore the potential strengths, weaknesses, opportunities and threats of additional implementation activities in ginger and avocado.

As the project is also working in the tourism sector, the scope of this analysis also takes into account possible opportunities to strengthen the link between tea and tourism in Southern Shan State.

1.3 Study methods

The research was carried out in two phases:

1. **Desk research:** Available literature was gathered to provide a framework for the primary data collection process. This included review of national laws, sector data and market trends as well as studies conducted by other development agencies.
2. **Field research:** Primary research was conducted in Taunggyi, Pindaya, Ywangan, Pinlaung, Lawksawk, Aungban, Mandalay and Yangon during the first week of December and the last two weeks of January. During this stage, a total of 32 businesses and organisations were interviewed. The interviews were semi-structured and conducted with government officials, producer associations, formal and informal business owners, community groups, non-governmental organisations, and key industry informants. The interviews provided an in-depth picture of the sector from a diverse set of actors and opinions. A detailed list of all the interviewed stakeholder organisations is included in Annex 3.

The research is based on the methods of ILO's Value Chain Development for Decent Work guide² and the Springfield Centre's Operational Guide on the M4P Approach³.

Findings were validated through triangulation of data and methodologies. This means the research uses different types of data (i.e. primary and secondary) and multiple methods (e.g. observation, surveys).

Results will be validated by relevant stakeholders at a validation workshop in Myanmar in May 2019.

1.4 Report structure

The structure of this report is as follows:

Section 2 provides an overview of the tea value chain in Myanmar, with a particular focus on the tea-producing regions of Southern Shan State. It touches on how this sector has developed over time and the direction in which it appears to be heading. Special consideration is given to how the tea value chain impacts the target group of the programme, along with gender and environmental concerns.

Section 3 analyses the tea market system, taking into account possible constraints coming from the core tea value chain as well as from the supporting functions, rules and regulations which surround it. The key constraints are summarised at the end of the chapter, and are prioritised according to: i. the feasibility of addressing them; and ii. their relevance to the programme.

Section 4 builds on the key constraints identified in the previous chapter to suggest potential areas for project intervention. This entails outlining a vision for what the programme could hope to achieve during its implementation phase, an assessment of the key actors involved in the market system with their relative incentives and capacities for change, and suggested intervention activities. A further set of activities is proposed based explicitly on the link between horticulture and tourism.

2. International Labour Organization: Value Chain Development for Decent Work – *How to create employment and improve working conditions in targeted sectors* (2015).

3. Springfield Centre: *The Operational Guide for the Making Markets Work for the Poor. (M4P) Approach, 2nd edition.* (2014).





2

Sector Structure

2.1 Market overview

Myanmar has a long history and tradition of tea. According to data from the Food and Agriculture Organization, Myanmar is currently the eighth largest producer of tea in the world with an estimated 104,743 metric tonnes produced in 2017, with production steadily increasing year on year⁴. The same data source reckons there are almost 220,000 acres of land harvested for tea, which is grown in the hilly regions predominantly in the central and northern parts of the country. Eighty-five per cent of Myanmar's tea cultivation takes place in Shan State, at altitudes in excess of 1,500 metres above sea level. The conditions for tea-growing there are seemingly ideal due to the high altitude, hilly slopes and good soil quality. While the majority of Myanmar's tea production (58%) takes place in Northern Shan State, twenty-five per cent of the country's total production occurs in Southern Shan⁵.

Tea is reportedly very easy to grow in these areas, with few issues of disease or pests. For this reason, chemical fertiliser and pesticides are rarely used. Herbicide, however, has been introduced in recent years as an alternative to manual weeding. According to consultations, altitude is a strong determinant of quality. In terms of growing conditions, tea ideally requires 20% shade. Silver oak (*Grevillea robusta*) is a good source for this and can be found in many plantations across the country.

Tea leaves can be harvested nine months in the year, beginning around mid-March, before the rainy season, through to December. The high season lasts for the first six months, with low season for the subsequent three. Tea picked before the rainy season begins in May is known as *Shwe Phi Moe Lut*, and is famed for its stronger taste and higher quality. Typical products made from fresh tea leaves are black tea and green tea, both of which are drunk, and fermented tea, which is eaten. The majority of tea produced for drinking is green tea.

The production process for green tea is as follows: once the fresh leaves have been picked, they are sorted, cleaned, withered, heated, rolled and shaped, dried and finally roasted. For fermented tea, the fresh leaves are washed, withered, and then either steamed or boiled before being rolled and packed for fermentation, which generally takes at least three months and ideally upwards of six. The fresh leaf to end-product ratio for green tea is roughly 4:1 while that of fermented tea is closer to 1:1.

4. Food and Agriculture Organization. 2018. *FAOSTAT Statistics Database*.

5. Myanmar – EU Trade Helpdesk. 2018. *Myanmar Product Profile: Organic Green Tea*.



Figure 1: Map of Southern Shan State. (Myanmar Information Management Unit. 2017.)

Green tea and fermented tea both appear to be manufactured largely at the household level, using traditional methods including sun-drying for the former and burying the latter underground during the fermentation process. More developed tea industries do exist, with production factories located in the tea-growing regions of Northern and Southern Shan States while additional processing and packaging facilities are clustered in Mandalay, the country's tea trading hub. Around 80 Myanmar companies are exporting green tea – mostly to Japan, Malaysia and Singapore – while a handful are exporting fermented tea to buyers in the UK and Ireland⁶.

The main tea-producing areas of Southern Shan State include Pindaya, Ywangan and Pinlaung.

Pindaya township, part of the Danu Self-Administered Zone, is traditionally very well known for its tea and is the most famous tea-producing region in Southern Shan State. It has around 8,500 acres of tea plantations across 45 tea-growing villages, with each of its 4,000 farmers owning around 2 acres on average. The altitude of these plantations reaches around 1,150 metres above sea level. Tea farmers tend to intercrop tea with ginger, orange or mango. There are three large tea producers in Pindaya township: Maw Shan, Taung Tan Ni and Sikya Inn. Maw Shan is by far the largest company, its Southern Shan State factory processed more than 1,000 viss⁷ of fresh tea leaves per day in 2018 and is aiming for 2,400 in 2019. They use around 250 farmers who have organic certification. Taung Tan Ni and Sikya Inn both also produce organic green tea which is either certified or under inspection for future certification.

6. Myanmar – EU Trade Helpdesk. 2018. *Myanmar Product Profile: Organic Green Tea*.

7. 1 viss = 1.63293 kilograms



Figure 2: Fermented tea leaf salad, or 'Lahpet Thoke'

Along with tea producers and processors, it was reported that many tea brokers operate in this area: procuring tea from elsewhere in Southern Shan State and selling it here for a profit. At least two foreign companies are importing green tea from processors in Pindaya.

Ywangan township, also part of the Danu Self-Administered Zone, is famous in Myanmar as a coffee-growing region. Nonetheless, it has around 10,000 acres of tea plantations across 64 tea-growing villages. It benefits from an altitude of up to 1,800 metres above sea level, and farmers tend to intercrop tea with coffee and avocado. As a relatively poor region, farmers here generally cannot afford to use chemical fertiliser or pesticide on their fruits and vegetables, giving it strong organic potential for its tea (and coffee) production. Ywangan is conveniently located in relative proximity to the tea trading hub of Mandalay.

Pinlaung township is a relatively remote tea-growing region of Southern Shan, located farther south beyond the Inle Lake. It is part of the Pa-O Self-Administered Zone. Pinlaung has around 18,000 acres of tea plantations, with each of its 7,000 farmers owning between 2 and 3 acres. The altitude in this region is around 1,500 metres above sea level, and it enjoys a cool climate of 14-20 degrees Celsius which is reportedly good for tea cultivation. Pinlaung also appears to be a very poor region, in part due to the conflict and drug problems that have arisen from poppy cultivation. Chemical use is very low, and almost all tea processing is done at the micro level. Smallholder farmers commonly sun-dry leaves themselves during summer to make green tea and sell fresh leaves to small-scale factories making fermented tea during the rainy season.

2.2 History and trends

Tea production has steadily been increasing in Myanmar over the last ten years, as the area allocated to it has risen. Yields, on the other hand, appear to have stagnated in recent years with little change since 2011⁸.

A large shock to the Myanmar tea market took place in 2009, when the Ministry of Health declared that 43 brands of tea contained a chemical dye not suitable for food use. By 2010, 116 out of the 128 green tea manufacturing factories had reportedly closed due to a drop in demand following the dye scandal⁹. Since economic liberalisation in 2011, Myanmar has enjoyed greater access to international markets and has generally seen its exports of tea increase over time¹⁰.

According to consultations with tea processors, domestic consumers – particularly those in urban areas – are increasingly demanding higher quality green tea. They are more likely to purchase tea that has been processed by machinery and whose quality and food safety is assured, rather than buying cheaper, sun-dried varieties. Subsequently, many tea farmers are showing interest in improving the quality of their tea, but tend to lack the technical knowledge to do so easily. Domestic demand for organic green tea and fermented tea remains low for now. On the other hand, organic green tea was exported from Myanmar for the first time in 2018.

Growth in the supply of and demand for tea from Southern Shan State appears to have been financed or supported largely by donor-funded initiatives. However, other domestic businesses have either already crowded in or are looking to do so, demonstrating the commercial feasibility and potential of tea production in this region.

The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) worked on the tea value chain in Southern Shan State for over five years through its Private Sector Development Programme. Its programme activities were targeted at four levels: plantations, processing, associations and market linkages. At the plantation level, the project conducted trainings on proper tea cultivation. For processing, it funded the creation of model green tea factories in a number of villages in Southern Shan. It worked to strengthen the Myanmar Tea Association, an umbrella group of tea producers, processors and traders, and facilitated market linkages with German tea buyers. Its project activities were concentrated mostly in Pindaya. Funding for the second phase of the GIZ Private Sector Development Programme finished at the close of 2018. The project will operate a third phase centred on digitalisation and B2B of innovative product development, however the scale, scope and start date of that programme are unclear.

Helvetas is working directly with tea companies including at least four with operations in Southern Shan State¹¹, along with the Myanmar Tea Association, as part of its Biotrade programme. Project activities include helping companies become export ready by implementing food safety, traceability and sustainability standards; building capacity of companies to conduct export marketing; and linking companies to buyers through incoming buyer missions. The Biotrade programme, which is worth \$5 million and funded by SECO, began in 2016 and is set to continue until 2020.

8. Food and Agriculture Organization. 2019. *FAOSTAT Statistics Database*.

9. Khin Su Wai. *Brewing up a recipe for success in tea production*. Myanmar Times. 17 July 2018.

10. International Trade Centre. 2019. Trade Map.

11. Maw Shan; Nara Green Tea; Shan Shwe Taung; Taung Tan Ni

2.3 The role of the target group

The objective of this project is to encourage greater income generation and employment for female and male farmers, workers and small and medium enterprises in order to contribute towards poverty reduction in Southern Shan State.

With regards to the tea value chain, tea farming is almost exclusively composed of SMEs and micro-producers and processors, most of whom are relatively poor. Based on consultations, it is clear that tea farmers want to improve their livelihoods but lack the information and resources to do so. The focus of this

“Women are carrying a very heavy burden. Farm work and all the house work. It’s not easy.”

Large-scale tea processor

market systems analysis will therefore concentrate on understanding the underlying constraints to the market and why it does not better serve the target group. This will be discussed in greater detail in the next section.

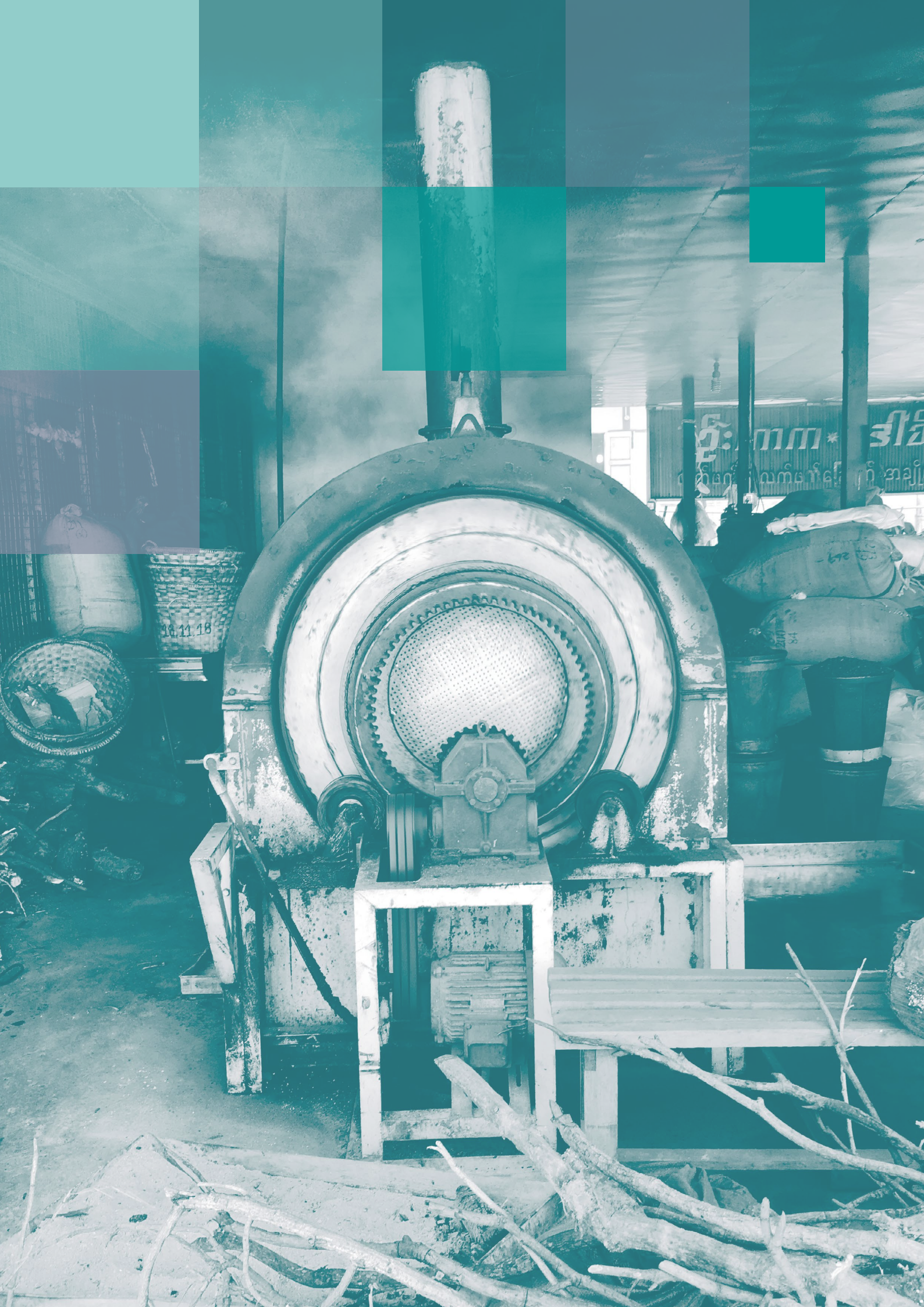
Regarding **gender**, it is interesting to note that at the surface level there does appear to be very good gender equality across tea farmers, processors and traders in Myanmar. For example, many tea companies reported having a majority female labour force. Indeed, they explicitly

stated their preference for women due to issues of alcohol and other drug abuse among men. Similarly, the chairperson and vice-chairperson of the Myanmar Tea association are both female. However, upon further interrogation, two common findings arose.

- **Employment segregation.** While most respondents suggested that men and women in the same job would receive equal pay, they overwhelmingly stated that they pay their male labourers more because they are conducting more ‘dangerous’ or ‘physical’ work. Salaries for men were up to twice as high as women’s.
- **Unpaid work.** Respondents unanimously confirmed that the vast majority of unpaid care and domestic work is carried out by women. This represents a significant additional work (and time) burden, which should be taken into account by the implementing agencies when planning programme activities.

Regarding the **environment**, two key findings came out of the consultations:

- **Diversification.** Despite this market systems analysis focusing on tea, it is unadvisable to encourage tea monoculture. Not only is this risky due to potential market fluctuations in price, but it can also increase the likelihood that entire livelihoods of farmers are destroyed due to disease, labour shortages, lack of market access and climate change. Therefore, while it is useful to focus on a specific crop or set of crops for the purposes of this project, these should remain non-exclusive and the project should maintain a degree of flexibility to pilot other products based on local demand and the readiness of local farmers/clusters.
- **Deforestation.** Another potential environmental risk associated with developing the tea value chain is the increased use of firewood. This is traditionally used for the roasting of tea leaves in basic factories. An element of forestry should be considered if the programme promotes factories powered by firewood. Alternative energy sources include electricity (which usually requires a generator) or, ideally, biomass (other than firewood) – though this is relatively more expensive and can increase production costs by up to three times.





3

The Tea Market System

The market system is the overall picture of how a sector operates. The market system includes the supply-demand transactions in the core value chain - from producer to retailer to end consumer - and the 'supporting functions' and 'rules and regulations' that shape the way in which businesses and employees work in this core chain. The market system therefore takes a broader scope, because different actors in the value chain do not operate in a vacuum: their commercial success or well-being of the target group are influenced - directly and indirectly - by what happens in their surroundings. For example, access to financial services, which is a supporting function, does not directly operate within the tea value chain but strongly influences how businesses set-up, grow and operate.

Figure 3 shows an illustrative market system for tea in Southern Shan State, which includes a simplified value chain surrounded by the supporting functions and rules and regulations which strongly influence and constrain market performance.

Going forward, the analysis (Section 3) and opportunities (Section 4) sharpen the focus on female and male farmers, workers and small and medium enterprises – the target beneficiaries of the programme – with a view to encouraging greater income generation and employment opportunities and contributions towards poverty reduction in Southern Shan State.

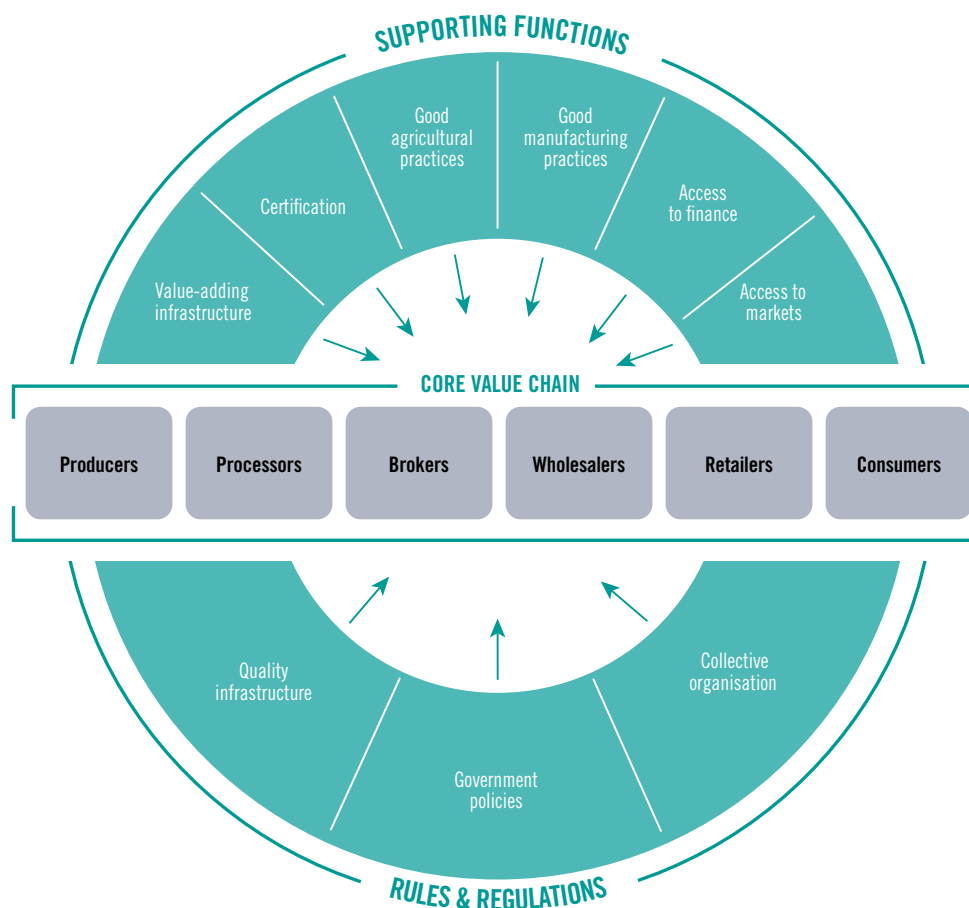


Figure 3: The Tea Market System in Southern Shan State, Myanmar

3.1 Core market

Value addition and market power:

Producers

The majority of tea production in Southern Shan State appears to take place at a very small scale. These producers lack the means to add significant value to the products they make from fresh tea leaves, whether green tea or fermented tea. Most process their harvested leaves within the home using traditional methods, which tend to result in lower quality end-products – and a corresponding low value. A notable example is the use of sun-drying techniques for green tea production, which reportedly lead to poorer taste, reduce quality and minimise the market price.

Processors

The alternative for smallholders without the means to process their tea using machinery is to sell the fresh leaves to local factories. However, this can be even less desirable as reduced ownership over the stages of the value chain clearly reduces the amount of added value that can be accrued to the small-scale producers.

This is particularly the case given the tendency of farmers to harvest their tea at the same time during high season following rains, which leads to a surge in supply and an opportunity for buyers to offer substantially lower prices (up to 50% less according to consultations)¹².

Brokers

Those who process their tea at the household level have to then find channels to market. This role is commonly filled by commodity traders, or brokers. Brokers tend to have greater access to market information, coupled with an intimate knowledge of certain remote areas where tea is cultivated. They act as the intermediary between production and wholesale: collecting green tea and fermented tea from small-scale producers and selling it on to wholesale markets in Pindaya, Aungban, Mandalay and elsewhere for a handsome profit. Brokers leverage their greater access to market information to buy from smallholders for a relatively low price compared to what they can sell it for, rising to up to four times as much. The farmers, meanwhile, are generally price-takers: each acting as a very small player with limited access to complete market information.

**“Pindaya traders
are playing the market
and giving us low prices”.**

Ywangan tea farmer

While brokers clearly fulfil an important market function by connecting small-scale tea farmers to markets, it seems that they are often misleading them: withholding and monopolising market information while exploiting poor farmers who have little negotiating leverage or choice but to accept the price offered. One small-scale producer recalled how brokers often took the tea from them and

returned only one or two months later to give them their payment. Another explained how Pindaya brokers would lie to them about the market price of tea in Mandalay in order to secure greater profits for themselves. Once this information came to light, a group of smallholders came together under the leadership of the local tea cluster to sell directly to buyers in Mandalay instead.

The greater the number of different actors along the tea value chain, the more likely it is to lead to higher prices for end consumers. On the other hand, the limited ownership over the different stages of the value chain by producers themselves reduces the added-value that accrues to them.

Market for high quality tea:

The low quality of both green tea and fermented tea was frequently cited as a key challenge to improving the tea value chain, coming from government, businesses and producer associations alike. Quality of tea is determined, inter alia, by the altitude at which it is grown, the plucking techniques employed and the timing of the harvest. In order to better understand why low quality was oft-cited as a challenge, it makes sense to analyse the incentives for farmers to produce at a higher quality.

Current channels to reach the market, such as brokers, tea processing factories and local wholesale markets, do not appear to pay a significant premium for quality.

12. The market price for fresh tea leaves in Pinlaung was reportedly 800-1,200 MMK per viss, which drops to 600 during peak season.

For example, several large tea companies reported paying farmers for their tea according to weight alone. This is likely to **disincentivise farmers from investing in improving the quality** of their tea products. Instead, farmers would have to link with new market channels in order to sell higher quality produce, such as directly selling to companies trading on premium domestic and international markets.

There appears to be a strong and growing demand for high-quality tea products. Domestic markets are demanding green tea and fermented tea that have been processed with machines and attain high quality standards, though domestic demand for organic certified products is still relatively low. **International markets are concentrated on green tea – with buyers already demanding organic Myanmar green tea at a scale that exceeds supply.** For example, two German tea companies have requested 50 and 30 metric tonnes of organic green tea per year respectively from producers in Pindaya – equating to 700-1,000 acres of cultivated land and 350-500 farmers. This is vastly greater than what can be supplied – seemingly due to the **limited supply of organic certified land**. The export potential for fermented tea, meanwhile, seems quite weak at present. This is most likely due to the fact that consumers in markets outside of Myanmar are not yet aware of this edible form of tea.

On the supply side, there are at least three significant barriers for producers to enter high quality markets. The first is awareness of and **access to the market** itself. The second is **technical capacity** to consistently deliver high quality products, which requires improving agricultural and, where applicable, manufacturing processes. The third is investment in these higher quality standards, which requires **access to finance**. All three are explored in further detail as ‘supporting functions’, below.

Labour shortages:

A recurring complaint from tea producers was the shortage of labour to pluck tea leaves during harvest season. With the exception of the smallest producers, who tend to use a system of mutual aid within their communities, tea farmers hire labourers to pluck tea leaves. Most of the labourers are ‘internal migrants’ from the Dry Zone in central Myanmar, with almost all tea labour migration being carried out by women. Whilst the issue of labour shortages is likely to be a macroeconomic one which the project will not be able to directly address, it merits inclusion to the extent that it is taken into account by the implementing agencies when developing intervention activities.

3.2 Supporting functions

Good agricultural practices:

Limited awareness of good agricultural and manufacturing processes was identified as a significant constraint to further development of the tea market.

On the agricultural side, a common complaint from medium-sized companies that source from farmers was that **farmers lack the technical knowledge** to properly maintain and cultivate their plantations. For example, pruning delivers a number of benefits to producers and is a simple way to increase the yield of high-quality young leaves from tea trees. However, it is often not performed – presumably as farmers are either not aware of the tangible benefits of pruning, or view these benefits as being outweighed by the additional labour costs.



Figure 4: Tea bud and two leaves.

Another example is the **use of chemicals**. Despite tea being relatively easy to grow, with no need for chemical pesticide or fertiliser, plantations do require weeding. Since around 2015, agro-chemical companies have been heavily promoting herbicide in Southern Shan State as a substitute for the labour required for weeding. However, use of chemical herbicide leaves traces of these chemicals in the final product – a food safety risk for consumers. Farmers do not appear to be aware of this issue relating to quality standards. Similarly, many farmers intercrop tea with other products which they spray with chemicals, seemingly unaware of the contamination effects this will have on tea. In Pindaya, for instance, tea is often intercropped with mango which is commonly sprayed with chemical pesticides. Overall, the effect of these poor agricultural practices is that despite producing a lot of fresh tea leaves, they do not meet the minimum quality standards required to gain access to higher value markets.

A similar argument can be made for the organic green tea market. While many smallholder farmers do not use chemicals on their land, particularly those in poorer areas who simply cannot afford them, there are still a number of agricultural practices which need to be followed in order to assure organic quality standards. For example, manual weeding, irrigation, bio-fertiliser and record keeping for traceability were all mentioned by various interviewees as additional practices that were often lacking.

Plucking tea leaves is commonly cited as another key challenge to higher quality tea. Typically, this requires tea pickers to pluck only two leaves and the bud. However, many pluck at least three leaves if not more, significantly impairing the quality of the resultant tea. Tea producers who are aware of this can instruct tea pickers to only pluck two leaves, but many farmers appear to lack this knowledge in the first place. Moreover, as discussed previously, those farmers who sell fresh leaves seem incentivised to maximise weight rather than quality, which may compound this problem.

The Union Government of Myanmar has an **extension education service** for farmers, which sits within the Department of Agriculture (DoA). Its aim is to improve agricultural practices in order to contribute towards food security and poverty reduction. The staff in Pindaya seemed to be highly knowledgeable, with all of them having been trained at Yezin Agricultural University, the only agricultural university in Myanmar. However, according to consultations, **only 5% of the DoA budget is allocated to extension education**. This is evident through the fact that only ten technical staff are employed in the township office for an estimated 60,000 farmers, averaging one extension worker per 6,000 farmers. Moreover, each has to use their own motorbike to visit farmers and pay for their own fuel to get there. Whilst those interviewed stated that farmers are now interested in improving the quality of their tea, the DoA staff are competing with agro-chemical companies – with plentiful resources – that are encouraging farmers to use pesticides, herbicides and chemical fertiliser.

Good manufacturing practices:

Improvement of manufacturing practices for tea can be grouped into two categories: **infrastructure** and **hygiene**. Value-adding infrastructure such as processing machinery is required to improve efficiency of production, boost supply and compete on high-value markets. At the same time, improved hygiene standards need to be attained in order to serve this market. Infrastructure is considered separately in the following sub-section, so this section will primarily address issues related to hygiene.

Upon inspection of several home-based tea processors, it became clear that **hygiene factors are rarely taken into consideration**. Knowledge of hygiene standards and practices were particularly weak at the farm level.

Figure 5 illustrates one stage of the fermented tea production process at the household level. The tea is being sorted on a dirty tarpaulin sheet on the floor. A small child, wearing shoes and playing with a marker pen, often runs across – making contact with the tea leaves with both shoes and pen. A dog also passes through the processing site during our short visit.

Examples of poor hygiene practices that were witnessed or reported during the research included:

- Contamination of tea during sun-drying;
- Stray hairs being found in the final product due to hair not being tied up;
- Traces of smoke due to household members smoking cigarettes or cheroot;
- Using dirty feet to press down on the tea for fermentation;
- Fungi growing during the outdoor ageing process for fermentation;
- Adding industrial grade preservatives such as sodium benzoate and sodium metabisulfite;
- Adding industrial dye to make fermented tea more yellow in colour;
- Using old chemical fertiliser bags to transport tea to wholesalers; and
- Children and animals coming into regular contact with the tea during processing – one buyer recounted witnessing a child urinating on the tea he was intending to purchase.



Figure 5: Women from a village near Ywangan sorting their tea at home.

Even those producers who are able to assure good agricultural practices can be constrained by poor manufacturing ones. For example, the tea-producing Sikya Inn village in Pindaya attained organic certification with support from GIZ and was set to export green tea to Germany in 2016. However, the sample was rejected by the buyer due to smoke residue, most likely the result of improper use of firewood during the roasting process.

A clear business case exists for improving hygiene practices. The final selling price of green tea can increase by up to 50%¹³ through simple behaviour changes that do not require any substantial investment of time or money.

A final point on manufacturing practices is unique to fermented tea. Given its relative obscurity worldwide, there seems to be a gap in the market for technical expertise related to this product. Processors consulted during the research said they struggled to find any international experts with whom to consult on fermentation practices, processing techniques, packaging methods and recipes. This is likely to limit the potential of fermented tea processors to scale-up their businesses and improve efficiency, constraining future growth in the market.

Value-adding infrastructure:

Storage, processing, and packaging are three stages commonly identified as areas that can increase the value of horticulture products.

13. E.g. from 4,000 to 6,000 MMK per viss in Pinlaung.



Figure 6: Examples of tea processing machinery, in order of increasing sophistication from left to right.

Of these, **processing** appears to be the key stage relevant for the tea value chain: green tea and fermented tea both require a number of processing steps to get from fresh leaf to final product. **Processing in Southern Shan State is largely done at the household level** using the traditional methods outlined above, which limits both the efficiency of production and the value it can attain. Processing infrastructure in the form of machinery could therefore be one way in which to scale-up higher quality, higher value tea products.

For green tea, a number of processing steps carried out manually can be substituted with machinery, including heating, rolling, drying and roasting. Green tea processing machines can be purchased from China to carry out these steps. However, buying and importing the machinery is costly, with estimates around \$25,000-30,000 for one heater, roller, dryer and roaster suitable for medium-scale production (100 viss of fresh tea leaves per day). Moreover, tea leaves in Myanmar tend to have a harder tissue than those in China. Kyaw Thiha, owner of Nara Green Tea Company, has designed his own machinery – adapting the design of the Chinese versions to suit the harder tissue. He sells the set of machines to other producers for around \$7,000 in total, and supplied at least three of the factories visited during the research¹⁴. All expressed their satisfaction with the price and quality of these machines as well as their ability to increase the value of their products. In total, the costs of setting up a medium-scale green tea factory seem to be around \$10,000-15,000, excluding land. Additional costs of production varied from 1,500 to 4,000 MMK per viss of final product, depending on the scale of the factory. **Acquiring processing machinery represents a significant investment for small-scale tea farmers;** it is therefore unlikely that these producers will have sufficient resources to do this individually. Alternative solutions could focus on grouping different producers that are concentrated around the potential factory site, to be discussed further in the next section.

For fermented tea, the processing stages are much less standardised – probably stemming from the fact that there is an apparent **lack of consensus and expertise related to fermented tea**. Different producers use different techniques to ferment the tea. For example, some producers steam the tea leaves while others boil them (boiling is more common in Southern Shan). Large-scale processors use pasteurisation machines to greatly increase the shelf life of the final product. Despite the differing procedures, the actual process of fermentation is still predominantly done manually – either by burying the tea or storing it in a cool, dark place for upwards of three months. To this extent, fermented tea could be a more promising avenue for those seeking to enter higher quality markets with limited access to finance.

14. Htin Shu Kone village, Pindaya; Sikya Inn village, Pindaya; Hta Min Paung village, Ywangan

Certification:

Certification is a key step to demonstrate improved quality standards and therefore boost the potential value of one's product. This is especially the case for export markets, for which certification is often a prerequisite.

Certification encompasses both the agricultural and manufacturing aspects of production. On the agricultural side, **organic certification for export** (EU and USDA) is by far the most sought after, both for green tea and fermented tea markets. Many poor farmers in Southern Shan State are already cultivating tea on naturally organic land, given that they tend not use any chemicals. However, the land requires organic certification before produce can be sold as such. This is a somewhat **costly process**: according to consultations, organic certification costs \$5,000 - \$7,000 per year for 200 - 300 tea farmers, each with an estimated two acres of land – or around \$25-30 per farmer per year.

Organic certification for export markets is typically carried out at the request of, and paid for by, larger processors, which could limit tea farmers to only selling to these companies. Whilst there is evidence to suggest that they do pay a premium for the tea¹⁵, it could nonetheless put tea farmers in a precarious position with an over-reliance on one company, with high leverage, for their continued livelihood. Group certification among farmers might be an alternative way to enter higher quality tea markets. To do this, an assessor is dispatched to a group of farmers who work the same area and can all be certified in one day. The daily rate charged by the certification body can then be shared either between the number of farmers certified or by the amount of acres each farmer is certifying. While group certification seems preferable from the perspective of tea farmers, it should be noted that group certification still requires a significant capital expenditure for them. It is therefore important that they are able to form harmonious groups, easily access buyers in order to benefit from the organic certification and, where applicable, manufacture end-products of sufficiently high quality for them.

Table 1: Cost-benefit analysis of organic tea certification in Pindaya

Cost		
Total cost of certification	1,000,000	MMK
Est. no. of farmers certified per day	20	farmers
Marginal cost per farmer	50,000	MMK
Benefit		
Yield	350	viss/acre
Acreage per farmer	2	acres
Total production per farmer	700	viss
Organic premium per farmer ¹⁶	500	MMK/viss
Marginal benefit per farmer	350,000	MMK
Total		
Marginal benefit - marginal cost	300,000	MMK

Table 1 shows an estimated cost-benefit analysis for tea farmers of organic certification, based on consultations with producers and processors in Pindaya. According to this calculation, each farmer could receive a net benefit of roughly 300,000 Myanmar Kyat (MMK), or USD \$200 per year by obtaining organic certification.

15. For example, a large tea company in Pindaya reported paying up to 1,600 MMK per viss for organic fresh tea leaves compared to 1,000 MMK per viss for non-organic.

16. Organic premium = organic selling cost – non-organic selling cost

Using other data from the research yield similar conclusions: the benefits associated with organic production are **five to ten times** as much as the costs of certification.

Another certification that medium- and large-scale processors of green tea discussed was **Fair for Life**. Fair for Life is similar to Fairtrade in that it guarantees a fair price above an agreed floor price and pays a premium to farmers and their communities, but without the license fees involved with the latter. Fair for Life is apparently being requested by buyers in Germany and USA. It is accredited by Ecocert and is estimated to cost around \$5,000 per year for a similar farmer group to the one described in the organic example above. Two processors are seeking to obtain this certification in 2019.

On the manufacturing side, the certification deemed most attainable by medium-sized processors is **GMP** (Good Manufacturing Practices). More advanced processors were certified to **HACCP** (Hazard Analysis and Critical Control Points). Finally, the largest companies interviewed were targeting **ISO22000** (Food Safety Management System) and **BRC** (British Retail Consortium Food Safety) certification. With the exception of GMP, which appears to be relatively accessible to smaller-scale processors, manufacturing certifications are also a somewhat **costly process**. For example, respondents estimated certification costs of \$3,000 and \$4,000 per year for ISO and HACCP respectively, notwithstanding the significant costs of compliance that should be taken into account.

Control Union, a private certification body, appears to be the key market actor for almost all agricultural and manufacturing certificates. The company has a very strong awareness of the agriculture industry, including the tea sector, and can easily leverage its global network of firms.

While certification can clearly increase the market value of products, three questions are worth considering to better understand the situation of tea producers and processors in this regard:

- Firstly, are they **aware of certification**? Here it seems the answer is a resounding yes. For instance, small-scale tea farmers discussed their aim to obtain organic certification, while processors often cited GMP as a means to accessing higher value markets.
- Secondly, do the **benefits of obtaining certification outweigh the costs** associated with it for specific individuals or groups? For organic, this appears to be the case. For other certifications it remains unclear, particularly for the higher-level food safety standards which would likely require a newly-designed factory and finding international buyers. That being said, the fact that a number of large processors are targeting these certificates suggests that it is in their commercial interests to do so. Returning the focus on the project target group of smaller scale farmers and enterprises, it does appear that the benefits of certification outweigh the costs.
- Finally, given that producers and processors are responding yes to the above questions, what is stopping them from obtaining certification? **Access to finance** was most commonly cited as the key constraint here for producers and processors of all sizes, and is considered in further detail below. For smaller-scale producers and processors, there are also risks around **access to markets** characterised by **the lack of a guaranteed buyer**. For larger-scale processors, an additional challenge is that different buyers may have different requirements regarding certification, each of which is associated with additional costs of certification and compliance. For example, one processor estimated that compliance and certification costs for Organic, GMP and HACCP totalled almost \$25,000. With limited resources, processors prioritise the certificates required by buyers deemed most beneficial to them, potentially precluding them from accessing other market opportunities.

Access to finance:

Access to affordable finance was consistently cited as a key constraint to the development of businesses along the tea value chain, from smallholder farmers seeking to certify their land, to small-scale producers considering purchasing machinery or large businesses looking to invest in new factories.

Myanmar can be generally understood as a **'cash market'**, according to one knowledgeable informant. The financial sector in Myanmar is nascent and still quite under-developed, particularly in rural areas of the country. Those without cash often struggle to invest in their business.

Formal bank loans come with a yearly interest rate of **13%**. Moreover, these bank loans come with **strict collateral requirements**. For example, cultivated land used for agriculture is generally not acceptable – leaving those without other means to secure a loan in a difficult position.

Those without assets that fulfil banks' collateral requirements instead have to look to *informal* financing. However, the cost of credit here is often prohibitively expensive – with enterprises being quoted **interest rates upwards of 30% per year**.

On a positive note, a number of initiatives have begun recently aiming to address these constraints. SME loans are available from local banks through financing from the Japan International Cooperation Agency (JICA) and the German government development bank, KfW, at an **8.5%** yearly interest rate. However, qualification for these “two-step loans” is a difficult process, requiring **formal registration**, financial statements and business plan, along with recommendations from the SME Development Department and the Union of Myanmar Federation of Chambers of Commerce and Industry (UMFCCI). The borrower must also be a UMFCCI member and the business must have been operational for at least two years¹⁷. The Myanmar Tea Association (MTA) is looking into how it can act as an intermediary between banks and producers to generate greater access to these SME loans for tea processors, such as by using purchased machinery as collateral.

Local banks are slowly beginning to provide more favourable loans to tea producers and processors. For example, after facilitation by GIZ through study visits to farms, Yoma Bank is linking directly with tea producers and providing financing to them on favourable terms. A-Bank is beginning to provide loans to tea processors based on the purchase order of buyers.

Another recent development is the Myanmar Central Bank's plan to introduce collateral-free loans as a means of providing financial inclusivity to SMEs¹⁸. The loans would be offered at a maximum interest rate of 16% per year, 3% higher than that of secured loans. This measure only came into effect on 1 February 2019 so it remains to be seen whether local banks will supply credit to small companies on these terms or not. Given that would-be borrowers without access to collateral are used to interest rates in excess of 30%, it is likely that demand for these loans will be very high.

A final point relating to finance is the existence of **credit constraints for larger companies**. For example, despite one company being able to access formal bank loans, they still required more credit due to limited cash flow after investment in machinery and paying farmers for fresh tea leaves.

17. Htin Lynn Aung. *Myanmar takes step towards providing greater liquidity for SMEs*. Myanmar Times. 12 January 2018.

18. Htin Lynn Aung. *Central Bank permits loans without collateral at 16pc interest rate*. Myanmar Times. 15 January 2019.

Access to markets:

Access to markets is a critical constraint in the development of the tea value chain in Southern Shan State. Without access to further markets, the marginal gains from scaling up quality production are likely to quickly diminish. This section focuses predominantly on the demand-side of market access, while issues relating to the supply-side are referred to in the above sections on the market for high quality tea; good agricultural and manufacturing practices; certification; and quality infrastructure.

Current channels to export markets for tea products appear to have been facilitated by development actors, most notably GIZ and Helvetas.

**“Yield is not your goal!
Even if you are producing
high quality at scale, who
will buy your products?”**

Agricultural expert

GIZ has been working on the tea value chain in Southern Shan State for roughly five years as part of its Private Sector Development programme. One aspect of this involved facilitating **market linkages** for tea producers and processors. Through this work stream, it built up at least two promising partnerships with German tea companies: TeeGschwendner and Cha Do. Since introducing these companies to the Myanmar organic green tea market, both have continued to purchase from producers in Pindaya. Their requests to suppliers for 2019 are 20-30 and 30-50 metric tonnes, respectively, quantities which the tea processing companies will apparently not be able to supply.

In February 2018, GIZ facilitated six Myanmar tea companies, under the umbrella of the Myanmar Tea Association, to exhibit their products at BIOFACH, the world's largest organic trade fair which takes place annually in Nuremberg, Germany. Following on from this, BIOFACH will be visiting Myanmar in March 2019 to scope organic produce for BIOFACH South East Asia, to be held in Bangkok in July 2019.

Helvetas' Bio Trade project works with individual tea suppliers to become export ready and with the Myanmar Tea Association to support **export promotion and advocacy**. As part of this programme, they began linking companies to buyers through incoming buyer missions, which motivated more than 10 other tea companies to crowd-in.

Other companies have found access to markets through more 'organic' means. For example, a French buyer of fine tea made contact with one medium-sized processor after discovering their organic green tea in a local high-end supermarket. Another processor began exporting fermented tea to California, USA after a person of Burmese origin opened a restaurant there serving typical Myanmar fare.

Beyond the direct market export linkages between producers and buyers described above, MTA (with support from Helvetas) is developing training for its members on how to better market tea products and conducting export promotion through trade fair visits and approaching potential clients. Further, MTA is seeking to scale up its online presence in 2019 and, to this end, has recently set up a contract with an online marketing company.

For the domestic market, access for small-scale producers is not straightforward. Those located in Pindaya are able to sell their fresh leaves to local factories for a good price but those in other locations are still mostly reliant on (potentially exploitative) brokers. The existence of brokers may be a symptom

of the underlying **lack of direct access for smallholders to domestic processors or buyers**. Therefore, **access to better market information** for these producers is key. Mobile technology could be one solution: according to data from the International Telecommunication Union, 90% of the Myanmar population had a mobile cellular subscription in 2017¹⁹. MTA plans to leverage this by collaborating with existing digital platforms such as Greenway, an agri-mobile app, to provide market information and other services to members.

3.3 Rules and Regulations

Quality infrastructure:

Quality infrastructure is the system comprising the organizations (public and private) together with the policies, relevant legal and regulatory framework, and practices needed to support and enhance the quality, safety and environmental soundness of goods, services and processes. Examples include technical regulation, standardisation, testing, inspection, certification and accreditation. The key quality infrastructure challenges for tea in Southern Shan State appear to be the limited standardisation and testing capacities.

There are two main government bodies responsible for standardisation and testing capacities, the **Food and Drug Administration (FDA)** and the **Plant Protection Division (PPD)** of the Department of Agriculture (DoA).

The Food and Drug Administration's remit includes processed products made for consumption and therefore encompasses both green tea and fermented tea. Factories apply for a license for production, which is granted according to standards similar to Good Manufacturing Practices (GMP). Each individual product is then registered provided it reaches a required threshold of food safety standards. Tea products are subjected to microbiological and chemical tests. Microbiological tests include E.coli, yeast and mould. Chemical tests include artificial dye, moisture, heavy metals and industrial grade preservatives.

FDA approval is a voluntary standard for the sale of products within Myanmar. Premium domestic retailers, however, do demand an FDA certificate. It is also required by government for products destined for export markets – despite the fact that most importing countries do not recognise this certificate. This is because the FDA's food testing facilities **lack ISO17025, the international standard for testing and calibration in laboratories**. The FDA microbiology laboratory in Nay Pyi Taw carried out proficiency testing in 2017 and 2018 and reportedly intends to apply for accreditation in 2019. According to respondents, the FDA approval process takes around six to eight months.

FDA has a presence in each state and region of Myanmar. It has roughly 3,000 staff in total, with the majority located in Nay Pyi Taw. FDA has two food testing laboratories across the country, in Yangon and Nay Pyi Taw. Samples from elsewhere are sent to these laboratories for testing. Each state also has one mobile laboratory for post-market surveillance. The Taunggyi office has around 20 staff who conduct post-market surveillance across Southern Shan State, including random checks on samples.

Key challenges for the FDA are:

- **Severely limited local testing facilities;**
- **General lack of machinery, instruments and chemicals;**
- **Severe shortage of technical capacity** – due to salaries at private clinical labs between two and three times higher;

19. International Telecommunication Union. *ICT-Eye Data Portal*, <http://www.itu.int/net4/itu-d/icteye/>

- **Employees operating at full capacity;**
- **No accredited body** in Myanmar for calibration and limited means of proficiency testing.

Most of these seem to stem from the limited monetary support received by the food branch of the FDA from central government. However, this appears to be on the uptick with the FDA investing in equipment for their food labs – which are in the capacity building phase – and enrolling 700 new recruits in 2018.

“We are very far from ISO... most companies will not use our facilities and go to Thailand instead”

FDA employee

The Plant Protection Division (PPD) is the government body responsible for upholding food safety standards for raw, agricultural products. Regarding tea, it tests for pesticide residue and heavy metals and issues phytosanitary certificates to tea exporters whose samples have no live pests and meet the importing countries’ requirements.

The PPD/DoA has operational testing facilities only in Yangon. Each state has its own food safety lab but apparently none of these are currently operational. The Yangon testing facilities were supported by a total loan of \$12.3m from the OPEC Fund for International Development (OFID) in 2006 to develop the edible oil sector in Myanmar. From 2017 onwards, these testing facilities have been used to test raw foodstuffs for pesticide residue, heavy metals, aflatoxin and other chemicals. The full list of these tests can be found in Annex B. The testing laboratory has 19 qualified technical staff.

A key challenge for the PPD is that there is no national diagnostic laboratory for pests and diseases. This means that while tests can be easily carried out on the safety of processed foods via the FDA, the root causes of these food safety issues – such as disease identification and proper utilisation of agrochemicals – are not being addressed. Other challenges include the limited testing capacity of the laboratory – they have registered to test over 300 chemicals, residues and heavy metals but currently can only test 32; the limited budget allocated to the maintenance of machinery; and the lack of technical capacity for calibration.

Government policies:

Government policies constraining the development of the tea value chain in Southern Shan State can be grouped into three broad areas.

First, considering the government’s approach to agricultural development broadly, it was clear from consultations that there is a **significant undersupply of quality public services**. This includes many important functions relating to agricultural development including research, extension services, rural infrastructure, testing, quality standards and trade promotion²⁰. A number of these services have already been discussed in greater detail above. One positive note from respondents was the marked improvement of the Ministry of Commerce and its Myanmar Trade Promotion Organization (Myantrade), which is working to help link producers and processors to export markets.

Looking specifically at tea, it seems that **the tea sector is not a priority for government** as there are few policies which encourage the development of tea farming and processing. Rice dominates the policy agenda.

20. World Bank. 2016. *Myanmar - Analysis of farm production economics*. Washington, D.C.: World Bank Group

For example, the Myanmar Agricultural Development Bank reportedly focuses almost wholly on the staple crop. Similarly, the Myanmar National Export Strategy 2015 designates rice as a priority sector, along with beans, pulses and oilseeds, but does not mention tea or any other agricultural products.

A final issue relates to **drugs and conflict**. Shan State has a highly complex political economy, with four self-administered zones (SAZs) and numerous ethnic armed organisations existing alongside the union government and the military²¹. Within the geographical scope of this research, the issue of conflict was most prevalent in Pinlaung. Referred to as a ‘brown area’, denoting its contested nature between central government and ethnic groups, Pinlaung is also engaged in poppy farming for opium production. Opium and tea are rival crops, which means that when the price of opium drops farmers substitute to tea and vice versa. Poppy cultivation can reportedly result in revenues of over \$1,000 per acre. However, demand for opium is now falling due to cheaper, chemical drugs from Thailand becoming more popular. The intertwined issues of drugs and conflict in Southern Shan State raise wider concerns for the development of the tea sector, including land rights, access and personal safety. If it does not improve, businesses are unlikely to want to invest in the region.

Collective organisation:

The Myanmar Tea Association (MTA), based in Mandalay, is a collective organisation of tea producers, processors and traders across Myanmar. At the local level, there are subsidiary ‘clusters’ in tea-producing townships, including Pindaya, Pinlaung and Ywangan. MTA membership is over 20,000, with around 70% of these being tea farmers. An annual membership fee of 5,000 MMK is levied for individuals while companies pay 50,000 MMK. The vision of the MTA is to improve the value of Myanmar tea. Their current area of focus is on fermented tea, which has been identified by the association as a unique product to Myanmar with potential for significant added value in international markets. The activities of the national association appear to be concentrated mostly on export-oriented, large-scale producers, despite the core membership being farmers. For instance, MTA has organised a number of trade fairs within the country, participated in the BIOFACH organic trade fair in Germany, and organised trainings for members on how to better market their products. Similarly, MTA leadership consists exclusively of tea traders and large-scale processors and the association is based in Mandalay, where tea traders are concentrated but little tea production occurs.

Most tea farmers felt that **not enough was being done by the MTA and its clusters to help at the producer level**. Some clusters had been able to provide education to farmers on matters such as pruning and intercropping, and helped to facilitate linkages between tea producers and processors. However, this appears to have been largely donor-driven and concentrated only in some areas while others did not receive such assistance. Leadership at the cluster level is critical in this regard. Those farmers who are led by a motivated representative can have the opportunity to improve their livelihoods while those who are not are likely to see theirs stagnate. Some positive developments for tea farmers currently being facilitated by the MTA include the bulk import of tea-processing machinery from China which is planned to be offered cheaply to smallholders; and the development of digital extension services for members through the Greenway agri-mobile app.

21. Embassy of Switzerland in Myanmar. 2018. *Shan State Needs Assessment*.

The overarching challenge facing **the MTA and its clusters is that it remains a voluntary organisation**. It therefore suffers from limited resources, a lack of full-time staff and a seeming lack of coherence regarding its activities for tea farmers and processors. **Those who dedicate their time to the MTA are predominantly large-scale processors and traders**, most of whom are focused on improving their own opportunities in the market.

Cooperation is not systemic at any point along the tea value chain. Businesses are working together under the MTA but are competing for market share in domestic and international markets. Those with a competitive advantage are unlikely to provide assistance to others for fear of losing this. Moreover, MTA and its clusters do not facilitate cooperation among tea farmers, for example by encouraging them to sell their tea in bulk on more favourable terms. Donor-driven initiatives have demonstrated the potential benefits of cooperation, but there must be clear and significant incentives from the outset to generate uptake. For instance, GIZ facilitated the construction of a tea factory in Ywangan using a shareholder system, which led to shared ownership of production and greater collaboration among farmers. Similarly, Pindaya Tea Cluster is aiming to become a cooperative in 2019 so it can sell tea that its members produce directly to buyers rather than relying on intermediaries that take their share.

Despite the challenges associated with the MTA and its clusters, a number of respondents suggested continuing to work with the organisation in order to engage with tea farmers. Some motivated MTA members are already seeking to strengthen the position of tea producers within the association, while private companies are beginning to work directly with producers via the cluster system in order to build their capacity.



3.4 Constraints summary

The constraints flagged throughout the above sections have been summarised alongside their underlying causes and prevailing impacts on the tea sector in the following table:

Constraint	Underlying Causes	Impact on market
Core Market		
Value addition and market power	<ul style="list-style-type: none"> - Small scale production - Traditional methods of production - Reliance on brokers 	<p>Maintains status quo of low value accruing to tea farmers due to limited ownership over stages of the value chain.</p> <p>Allows intermediaries to capture added value, with producers and potentially also consumers losing out.</p>
Market for high quality tea	<ul style="list-style-type: none"> - Processors not paying premium for quality - Poor agricultural practices - Poor manufacturing practices - Limited access to high quality markets - Limited access to finance 	<p>Limits income improvement for farmers and quality improvement for consumers.</p> <p>Limits food safety standards.</p>
Supporting Functions		
Good agricultural practices	<ul style="list-style-type: none"> - Limited technical knowledge of farmers, herbicide use - Poorly resourced extension service providers - Costly certification, limited access to finance 	<p>Maintains low quality standards.</p> <p>Limits food safety for consumers.</p>
Good manufacturing practices	<ul style="list-style-type: none"> - Limited awareness of hygiene practices - Costly certification, limited access to finance 	<p>Maintains low quality standards.</p> <p>Limits food safety for consumers.</p>
Value-addition infrastructure	<ul style="list-style-type: none"> - Limited scale in majority of processing operations - Limited availability of affordable infrastructure - Lack of standardised processing procedures for fermented tea 	<p>Limits efficiency of tea processing.</p> <p>Prevents improvements in quality and value.</p> <p>Limits food safety for consumers.</p>
Certification	<ul style="list-style-type: none"> - High up-front cost - Limited access to finance - Limited awareness of certification and compliance procedures - Lack of guaranteed buyers, access to markets 	<p>Limits the level of quality standards that can be attained.</p> <p>Limits the market value of the products, and therefore income of producers and processors.</p>

Constraint	Underlying Causes	Impact on market
Access to finance	<ul style="list-style-type: none"> - Cash market - High interest rates - Collateral requirements - Formalisation e.g. for SME loans - Few products oriented toward producer markets - Large firms are credit constrained 	Limits the potential to scale up investment in tea production and processing, particularly for those operating informally or at smaller scale.
Access to markets	<ul style="list-style-type: none"> - Limited marketing and promotion activities for export markets - Lack of direct access to processors/buyers - Lack of domestic market information for small-scale farmers 	<p>Limits the means through which tea traders can sell their products on high-value markets.</p> <p>Prevents farmers from receiving fairer prices for their tea.</p>
Rules and Regulations		
Quality infrastructure	<ul style="list-style-type: none"> - Limited standardisation - Limited testing capacities - Lack of government budget for machinery, qualified employees 	Increases the likelihood that products are not fit for consumption, especially on the domestic market.
Government policies	<ul style="list-style-type: none"> - Underfunded public services - Tea not a government priority - Prevalence of conflict and drugs 	Limits wider investment in the tea sector.
Collective organisation	<ul style="list-style-type: none"> - Lack of focus on the production side of the tea market - Most active members are large-scale producers who guide initiatives in line with their interests - Voluntary organisations, with limited funding and staff 	Limits ability to secure greater value for tea producers.





4

Opportunity

A market systems approach seeks to identify, address and remove system-level constraints inhibiting the growth of more inclusive markets. By nature, projects using the market systems approach pilot many different interventions, hoping that some gain traction and drive a larger systemic change benefitting the many while expecting that some never make it to a point where they can have significant impact (though do no harm). The reason for this is that lots of factors, many of which are often outside of programme control, determine the success or failure of a pilot intervention. Such factors include, for example, partner capacity and motivation, and market forces which affect prices and demand. Once pilots are tested and have been demonstrated as effective for improving the incomes of female and male farmers, workers and/or small and medium enterprises, the project could then try to see how these approaches can be upscaled to have further impact.

Finally, sustainability and scalability will be a central focus, ensuring that business and intervention models can be scaled up and replicated by market actors to further increase the long-term impacts.

4.1 Key market actors

For sustainability purposes, it is recommended that the project implement with existing market actors taking the lead in delivering interventions. To help ensure that the partners have the right incentives and abilities to take initiatives forward, the below table summarises perceived organisational motivation and human and financial resource capacity to drive change in such initiatives.

Table 2: Key Stakeholders in the Tea Sector, Southern Shan State

Organisation	Relevant Information	Motivation / Capacity ²²
Nara Green Tea	<ul style="list-style-type: none"> - Currently producing 30 MTs of organic green tea, including 44 acres in Southern Shan. - Supplies to international buyers in Germany and France, and domestically to supermarkets and hotels. - Designed its own machinery to suit harder tissue of Myanmar tea and sells this to other factories at a reasonable price. - Hires tea farms on a yearly basis from Pindaya farmers, provides technical training on pruning practices, and pays daily wages for plucking and weeding. - Constructing a new, GMP compliant factory in Pinlaung. - Addressing the challenge of poor agricultural practice by investing in a tea development research and training centre in Pinlaung, alongside Shan Shwe Taung and MTA. - Seeking to strengthen the role of producers within the Myanmar Tea Association (MTA). 	<p>Motivation: High</p> <p>Capacity: High</p>
Shan Shwe Taung	<ul style="list-style-type: none"> - Enjoys 75% domestic market share for fermented tea. - Currently selling over 1 million 20g packs of fermented tea each day in Myanmar, with estimated daily net profit of around \$10,000. - Also producing organic fermented tea, largely in Northern Shan, selling to premium domestic markets. - Aims to expand production of organic fermented tea into Southern Shan due to conflict and drug problems in the North. - Seeking to establish direct trade with small-scale producers in Ywangan, due to strong organic potential and relative proximity to processing/packaging factory in Mandalay. Setting up contract farming with tea farmers, paying 30% organic premium, setting up 4 factories clustered around 9 villages in Ywangan, providing finance for local farmers to achieve organic certification. - Setting up a model organic farm and training school in Pindaya. - Addressing the challenge of poor agricultural practice by investing in a tea development research and training centre in Pinlaung, alongside Nara and MTA. - Looking towards China as a promising market. 	<p>Motivation: High</p> <p>Capacity: High</p>
Maw Shan	<ul style="list-style-type: none"> - Led by a woman in partnership with her two brothers. - Produces green tea and fermented tea. - Works across 45 villages in Pindaya, whose farmers bring their fresh leaves to the factory. - Currently employ 234 organic producers in Pindaya through contract farming. - Makes the business case to tea farmers to sell fresh leaves directly to them rather than process the leaves using traditional methods, by paying them a premium over the market price for fresh leaves. - Supplying green tea to two German buyers, 2MTs and 20MTs respectively. - Exports 3MTs of fermented tea to UK and Ireland. - Starting to build farmer capacity and keen to develop contract farming model. - Act as the intermediary between GIZ Model Green Tea Factory and international buyers. Unclear if working in the interests of farmers and workers, allegations of non-payment of staff. - Looking towards China as a promising market. - Identifies fermented tea as a strong area for growth for the company. 	<p>Motivation: Medium</p> <p>Capacity: Medium</p>

22. Motivation indicates the perceived organisational motivation to drive change in the sector. Capacity is related to human resource capacity to drive change in the sector. Both of these were gauged by the team based on the semi-structured interviews which took place during the field research.

Organisation	Relevant Information	Motivation / Capacity ²²
Taung Tan Ni	<ul style="list-style-type: none"> - Founded and led by a woman. - Produces 16MTs of green tea per year. - Financed factory in Pindaya through own funds and innovative farmer shareholder system. - Factory buys fresh leaves from farmers, paying a high premium. - Exporting 10MTs to German buyer, with the remaining 6MTs distributed across Myanmar. - Making very low profits after manufacturing costs. - 250 organic tea farmers under inspection. - Relatively small scale factory compared to others, difficulties in scaling up. - Starting to build farmer capacity and keen to develop contract farming model. - A local from the region, clearly cares for and is trusted by tea farmers. 	Motivation: Medium/High Capacity: Medium/Low
Myanmar Tea Association	<ul style="list-style-type: none"> - Over 20,000 members across Myanmar - Comprised of tea farmers, processors and traders - Organising activities including trade fairs, trainings on pruning, intercropping, marketing, access to finance and access to market information and extension services. - Seeking to boost the value of fermented tea. - Has driven some change in the sector, but appears that majority of this is donor driven. - Voluntary association, with limited funds and staff. Cannot dedicate significant resources to tasks alone, will need assistance. 	Motivation: Medium/High Capacity: Medium/Low
Pindaya Tea Cluster	<ul style="list-style-type: none"> - Oversees roughly 500 members, 400 of which are tea farmers. - Significant support to farmers through GIZ projects and now Helvetas is supporting tea companies there. - Improved agricultural practices for yield already in place. Now introducing organic farming. - Financial support post-GIZ a key constraint. 	Motivation: Medium Capacity: Medium
Ywangan Tea Cluster	<ul style="list-style-type: none"> - More than 10,000 acres of tea cultivated by farmers across 64 villages. - Historically seen as a coffee-producing township despite significant tea production. - Under YTC leadership, farmers have developed knowledge of Internal Control Systems for organic certification. - Organic land, ready to be certified, but costs constitute limiting factor. - Cluster chair has facilitated direct trade with Mandalay companies for black tea and fermented tea, circumventing brokers from Pindaya who would take their cut before selling to Mandalay. Currently searching for buyers of green tea. - Developed new channels to market including selling directly to retailers for 1.5-2x higher price - Focusing on developing supply for domestic markets first. - Finance as the key constraint to further activity. 	Motivation: Medium/High Capacity: Medium
Pinlaung Tea Cluster	<ul style="list-style-type: none"> - No members, despite establishment in 2017. - Very low selling prices for both green and fermented tea. - Cluster chair is focused on growing his own business, cannot dedicate sufficient time to members. - Issue of opium and conflict areas. - Very poor farmers with limited knowledge of good agricultural/manufacturing practices. - Recent investment from Nara and Shan Shwe Taung to convert DoA research farm into a tea training centre, with support from MTA. 	Motivation: Low Capacity: Low
Department of Agriculture Extension Service	<ul style="list-style-type: none"> - Extremely knowledgeable, with good background from Yezin Agricultural University. - Valued and trusted by farmers. - Severely limited by resources. - Only ten technical staff for 60,000 farmers in Pindaya. - Have to use own phone, laptop, motorbike, etc. - Have the expertise to promote good agricultural practices for tea farmers, but lack the resources. 	Motivation: High Capacity: Low
Myanmar Trade Promotion Organization (Myantrade), Ministry of Commerce	<ul style="list-style-type: none"> - Collect market information on commodities to share with traders. - Help companies link to export markets. - Facilitate commodity exhibitions, including tea. - Worked with BIOFACH to facilitate trade of organic tea - Appear highly knowledgeable about local production and trade. - Have staff in Taunggyi, Southern Shan State. - Benefit from access to the Myanmar – EU Trade Helpdesk, a useful tool for market information. 	Motivation: Medium Capacity: Medium/Low

4.2 Potential areas for intervention

The below potential interventions have been identified alongside potential implementing partners to serve as a starting point for the project. It should be noted that some of these interventions may never get off the ground as buy-in from driving actors may be minimal, while others will change quite significantly as the lead partner may see a better way to implement in line with their core interests. Some interventions may be relatively quick to execute with more limited impact while others may take a year or two to push through with efforts yielding higher outcomes.

4.2.1 Core Value Chain

While initiatives in the core value chain were explored, ultimately the underlying constraint to both value addition/market power and the market for high quality tea are associated with constraints in the supporting functions. For example, a core constraint to the market for high quality tea is poor agricultural practices in production. As such, interventions directed at enhancing the market for high quality tea look to address the underlying cause to good agriculture practices and have been identified in that section of the supporting functions.

4.2.2 Supporting Functions

Good agricultural practices

1. **Enhance the link for private sector partners to improve technical capacity of farmers for quality domestic production.** Myanmar's middle class is growing at more than 8% per year and is estimated to comprise 15% of the population by 2020²³. This presents a significant opportunity for tea producers and processors to tap into a growing market for high-quality produce at home. However, as technical capacity is the single largest constraint for farmers to achieve this quality, some work is needed here. The project should look to the private sector to fill this function as companies are already active in this area and could potentially scale up with assistance from the project. *Nara* and *Shan Shwe Taung* are addressing the challenges of poor agricultural practices by investing in a tea development research and training centre in Pinlaung. Other companies such as *Taung Tan Ni* and *Maw Shan* are also beginning to invest in developing farmer capacity in Pindaya. These companies are acutely aware of better agricultural practices and thus if the commercial case can be made for them to engage farmers, capacitate them and secure reliable supply, they can fill the training void.

In this regard the project could support this function in three steps: i.) conduct market research on the growing market and preferences which can be a value adding service for members; ii.) disseminate that information to processors and buyers with a commercial case around training costs and commercial benefits to meet that market, and iii.) link these processors to producers that are already producing a reasonable standard of tea – perhaps through the local tea cluster.

2. **Set up a skills development function on good agricultural practices.** Complementing intervention 1, this could be an alternative model for developing farmer capacity in good agriculture practices. This could focus on two methods for achieving this: i.) providing technical capacity to a local tea cluster through a training of trainers (ToT) approach such that they can train farmers as a value-add service to members; or ii.) enhancing and

23. The Boston Consulting Group. 2013. *Vietnam and Myanmar: Southeast Asia's New Growth Frontiers*.

leveraging existing technology such as the **Greenway** mobile application for digital extension services or an informal Viber (or other suitable digital platform) farmer group to deliver solid technical advice. The technical advice could first start on simple messaging that focuses on quick wins for improved yield, such as pruning techniques, which would quickly demonstrate the value of the project and generate buy-in from tea farmers. Through such an intervention, the project can therefore support technical capacity building at the association level while also contributing to the delivery of training for farmers in the initial phase. If this seems to generate entrance, the project could then look at enhancing this function, perhaps into a fee paying service, that provides advice on practices which may take longer to reap benefits, including manual weeding, intercropping, record-keeping, and organic awareness.

Good manufacturing practices

3. **Enhance awareness and enhance capacity of tea processors around good manufacturing practices and hygiene.** Improving hygiene can be seen as a quick win: with little investment of time or resources and high return. Providing awareness on *how* to improve hygiene is necessary, particularly for small-scale processors, including those operating at the household level, as this is a key constraint. This could be piloted in coordination with the Ywangan tea cluster, a relatively active cluster which can mobilise processors that are more likely to take on board capacity development. Here the project could support the technical capacity development of the tea cluster such that they can deliver trainings to processors as a membership service or at small cost as a side business venture. Having the cluster take a central role could improve sustainability and empower cluster leadership. This should be piloted first and, if it works, rolled out through other clusters.
4. **Facilitate linkages between small-scale tea farmers and local community processors.** For those households unable to improve their hygiene practices, the project could work with local **tea clusters** to identify larger processors with significant demand for fresh leaves and encourage farmers to sell to them before processing instead – which is likely to be in both parties' interests.

Value-addition infrastructure

5. **Explore potential for shared ownership of small-scale processing factories.** Identify motivated farmer groups through **tea clusters** and help to facilitate group ownership of factories, clustered around villages with large tea production and strong organic potential. Explore collaboration with **Myanmar Tea Association** or **Nara** for the procurement of processing machinery. Aim to establish minimum guaranteed level of demand, most likely from large domestic buyers such as **Nara** in Pinlaung or **Shan Shwe Taung** in Ywangan. Explore possibility of co-financing from such buyers in return for assurances of quality supply. This reinforces a key lesson learned from the GIZ project where the shared ownership system in Ywangan significantly increased motivation and commercial awareness by farmers, while making them less dependent on potentially exploitative brokers or larger companies.

Certification

6. **Promote group certification among farmers in villages with strong organic potential.** Certification is a costly process which is unlikely to be attained by individuals or small processing companies. Group certification can spread the costs among many farmers, and could be a promising alternative. This activity can be combined with the previous one, whereby the **shared owners of small-scale processing factories** can jointly invest in certification,

renewed each year through the reinvestment of profits before dividends are paid out. To address the challenge of high up-front costs, the project could work through the **tea clusters** to either: i.) find farmers' groups that have sufficient capital to make the up-front investment or ii.) initiate some form of group savings scheme to get them to save the required amount to invest in certification. Once that happens, the project can work through the tea cluster to raise awareness on the process. It should also be noted however that the benefits of certification depend on the markets accessible to producers. Thus, where markets for such certified products exist, the project could facilitate preparation for this process.

Access to finance

7. **Facilitate access to finance for processors.** This will first need to entail a feasibility assessment in terms of accessibility and suitability of i.) collateral-free loans from **Myanmar Central Bank**; ii.) two-step **SME loans** through JICA and KfW; and iii.) favourable loans from regular **local banks** including Yoma Bank, A-Bank, CB Bank and KBZ Bank. If there is sufficient potential, the project will first need to engage with the financial service provider to demonstrate the commercial opportunities of lending to tea processors. If there is appetite, the project could work with MTA or a local tea cluster to identify processors who: i.) need to upscale or commence processing operations; and ii.) meet basic lending requirements. The project can then work with the processor to develop a bankable business model and account history which can be presented to the financial service provider.

Access to markets

8. **Explore opportunities to boost international demand and trade for Myanmar tea.** This could be facilitated through **Myantrade**: leveraging their knowledge and experience across different products and utilising the market research tools available to them. If those tools are not sufficient the project should work with **Myantrade** to compile existing market research to identify one or two key markets where Myanmar tea has considerable potential. Based on research which will identify the market demand and accessibility to potential buyers, the project could work in two ways: i.) build on existing partnerships with international buyers to strengthen and enhance existing links; or ii.) support incoming buyer missions or participate at national trade fairs to stimulate demand. Some efforts for market expansion could be aimed at understanding how to promote fermented tea as a health food in Western markets, similar to recent trends regarding kimchi, sauerkraut, kombucha, etc. Looking east, interviewees indicated that Chinese consumers are well-informed about quality tea and willing to pay accordingly and that could thus be a market to further develop.
9. **Facilitate enhanced marketing channels for tea farmers.** This could include i.) better access to domestic market information for tea producers and processors, and ii.) greater opportunities for direct trade between them. The first intervention could include a digital solution given the high level of smartphone use in the country. The project could support the existing collaboration between the **Myanmar Tea Association** and **Greenway** in this regard, or explore alternative mechanisms through which information can be shared. The second intervention should be conducted through the **MTA**, given that it comprises both tea farmers and tea processing companies – with additional support from its subsidiary regional **tea clusters**. The project could support developing a clear business case that highlights the incentives for both sides to engage in direct trade: direct links assure a consistent tea supply from trusted sources and can also provide a higher and more consistent income for farmers. Thus, direct trade can be framed as a win-win: with the surplus previously accruing to brokers being shared between producers and buyers.

10. Develop the case for buying Ywangan tea and supply it to Mandalay buyers.

Here, the project could conduct simple market research on the commercial benefits resulting from sourcing Ywangan tea and later supply that research to Mandalay buyers short of quality supply. This ideally would provide the buyers with market information on a tea producing area that is cheaper and lesser known in the commercial buyer space as well as a potential pool of suppliers to buy future supply. The market research should highlight Ywangan's competitive advantage for future sourcing and in particular, its high quality, organic potential, close proximity to Mandalay, reduced transport costs, relative strength of tea cluster and the region's stability relative to other tea producing regions. This recommendation is not exclusionary: it does not seek to limit developing markets in other tea-growing regions. Rather, given the budget constraint, it seeks to prioritise the region which appears to have the greatest potential for growth in the tea sector among those visited during the research.

4.2.3 Rules and Regulations**Quality Infrastructure**

The underlying constraints related to quality infrastructure appear systemic in nature. It is therefore unclear how to address these in a sustainable way. Capacity building on testing and calibration in order to achieve ISO17025 could be helpful, but without greater investment by government in staff, instruments and chemicals for testing, any progress made in this regard is unlikely to be sustained in the medium to long term.

Collective organisation of producers

- 11. Strengthen the Myanmar Tea Association, and the role of tea farmers within it.** Channel project interventions through the **MTA** and its local **tea clusters** to demonstrate value of membership. Focus on building capacity of MTA to provide more services specifically for tea producers, including extension services – such as good agricultural practices and cultivation techniques – and access to markets. Support MTA to eventually become a fully-fledged producer organisation, with permanent offices and staff to avoid reliance on volunteers from companies, with seemingly self-serving interests.

4.2.4 Link to Tourism

- 12. Support the development of a tea tourism brand for Pindaya** to drive tea-oriented tourism to Pindaya and enhance sales of produced and packaged teas as well as strengthen the brand value of Pindaya tea. Pindaya is the most renowned location for tea within Southern Shan State and this can help strengthen the tourism offer here. In this regard the project could link the local tea cluster and local tourism coordination body – to be supported in the tourism component of the project – to define the brand identity and support the development of new, or enhancement of existing, activities associated with tea tastings, tea plantation and factory tours, agritourism. The branding could also enhance the value of tea souvenirs and or other tea-related products to cater to the tourist market in Southern Shan.

The twelve interventions can be summarised into an intervention strategy, based on four key areas:

1. Set up and support skills development opportunities to address the challenges related to poor agricultural and manufacturing practices:

- Enhance the link for private sector partners to improve technical capacity of farmers for quality domestic production.
- Set up a skills development function on good agricultural practices.
- Enhance awareness and enhance capacity of tea processors around good manufacturing practices and hygiene.

2. Enhance market linkages between tea producers, tea processors and buyers of tea – both domestic and international:

- Facilitate linkages between small-scale tea farmers and local community processors.
- Facilitate access to finance for processors.
- Explore opportunities to boost international demand and trade for Myanmar tea.
- Facilitate enhanced marketing channels for tea farmers.
- Develop the case for buying Ywangan tea and supply it to Mandalay buyers.

3. Develop greater cooperation among different market actors in the sector, with a primary focus on tea farmers:

- Explore potential for shared ownership of small-scale processing factories.
- Promote group certification among farmers in villages with strong organic potential.
- Strengthen the Myanmar Tea Association, and the role of tea farmers within it.

4. Develop the link between tea and tourism:

- Support the development of a tea tourism brand for Pindaya.







5

Conclusion

The project has a considerable opportunity to transform the tea sector in Southern Shan State in a way that generates increased income for farmers, workers and SMEs and eventually reduces poverty for these individuals and their families. **The analysis in this study provides the project with a starting point** to engage with, and drive change in, the sector and through it, 14 potential intervention avenues have been identified (see Section 4.2). These interventions aim at enhancing the ability of tea producers and processors to access higher-value domestic and international markets – which can **improve livelihoods for farmers** and create **growth opportunities for small and medium processing businesses**.

One of the most promising areas for implementation is in the setting up and supporting of **skills development opportunities**. Here, the project should look to raise awareness of and improve agricultural and manufacturing practices, with a focus on institutionalising the knowledge generated through local associations.

Simultaneously, the project should aim to **enhance market linkages** between tea producers, tea processors and buyers of tea. This could include working with relevant market actors to conduct detailed market research, marketing and promotion on the one hand, while linking tea farmers directly to processors and/or buyers hence shortening the supply chain.

Underpinning both of these is the need to **develop greater cooperation** among different actors in the tea sector, and particularly among tea farmers. This includes strengthening the role of the Myanmar Tea Association and the representation of farmers within it, and exploring shared ownership models for small-scale tea processing as a means to secure greater value of tea accruing to relatively poor farmers.

Finally, it should be noted that although this analysis is considered comprehensive, the project should strive to revisit, update and build upon it as the project team gathers more insights in the sector, its constraints and the market actors. This will help the project more aptly adapt and deliver in a rapidly changing sector.

Annex A

Semi-structured Interviews

1. AgriRS, Yangon
2. Aungban market traders, Aungban
3. Control Union, Yangon
4. Department of Agriculture, Taunggyi
5. Edible Oil Quality Control Laboratory, Department of Agriculture, Yangon
6. Extension Education, Department of Agriculture, Pindaya
7. Food and Drug Administration, Pinlaung
8. Food and Drug Administration, Yangon
9. GIZ Green Tea Factory, Sikya Inn, Pindaya
10. GIZ Green Tea Factory, Hta Min Paung, Ywangan
11. Green Eastern Agri, Yangon
12. Helvetas, Yangon
13. Lal Kine Organic Village, Ywangan
14. Maw Shan Tea Company, Pindaya
15. Maw Shan Tea Company, Yangon
16. Myanmar Fruit, Flower and Vegetable Producer and Exporter Association, S. Shan State
17. Myanmar Fruit, Flower and Vegetable Producer and Exporter Association, Yangon
18. Myanmar Tea Association, Mandalay
19. Myantrade, Ministry of Commerce, Taunggyi
20. Nara Green Tea, Yangon
21. Pindaya Tea Cluster, Pindaya
22. Pindaya Tea Culture Horizon Development Network, Pindaya
23. Pinlaung Tea Cluster, Pindaya
24. Plant Protection Division, Department of Agriculture, Yangon
25. Shan Shwe Taung Tea Company, Pindaya
26. Smallholder tea farmers, Palan Myaung, Lawksawk
27. Taung Tan Ni Tea Company, Pindaya
28. Tea Training and Research Farm, Department of Agriculture, Pinlaung
29. Three Stars Solar Drying Company, Mandalay
30. U Kar Ka Tea Company, Mandalay
31. Winrock, Taunggyi
32. Ywangan Tea Cluster, Ywangan

Annex B

*List of available food safety tests,
Agricultural Produce Testing Laboratory (DoA), Yangon*

1. Alpha BHC
2. Beta BHC
3. Gamma BHC
4. Delta BHC
5. Heptachlor
6. Aldrin
7. Heptachlor epoxide
8. Gamma Chlordane
9. Alpha Chlordane
10. 4,4 DDE
11. Endosulfan 1
12. Dieldrin
13. Endrin
14. 4,4 DDT
15. Endosulfan 2
16. 4,4 DDD
17. Endrin Aldehyde
18. Methoxychlor
19. Endosulfan Sulfate
20. Endrin Ketone
21. Dichlorvos
22. Ethoprophos
23. Disulfoton
24. P-Methyl
25. Fenchlorphos
26. Chlorpyrifos
27. Prothiofos
28. Guthion
29. Diazon
30. Dimethoate
31. Fenitrothion
32. Fipronil







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