

*Supporting Sustainable Development through Research and Capacity Building*

## Promoting Purple Tea to Enhance Diversification in Kenya's Tea Industry

*John Nyangena, Hannah Wang'ombe and Augustus Muluvi, Policy Analysts, KIPRA*

**T**he discovery of purple tea by the Tea Research Institute in 2011 provided an opportunity for diversification and increased competitiveness of Kenyan tea. Purple tea has higher yields, is more adaptive to drought, and can fetch up to ten times more than processed green tea at the international market. To harness the full benefits of purple tea, more effort is needed to reduce the cost of setting up specialized factories, developing the necessary technical capacity for processing, and address current market barriers.

### Introduction

In 2016, tea accounted for 40% of the marketed agricultural production and contributed 25% of total export earnings amounting to US\$ 1.25 billion. In addition, the tea sector provides livelihoods to over 600,000 smallholders who contribute approximately 60% of total tea production. However, the industry suffers from low earnings and low diversification. Over 95% of Kenya tea is black tea produced using traditional methods of cut-tear-curl (CTC) teas which gives it a robust taste. The product is mainly used for blending lower quality teas from other countries, and only 14% of tea exported is value added; the remaining is sold in bulk form. Global market for black CTC is saturated, competition is stiff, and auction prices are highly volatile, leading to declining earnings.

The discovery of clone TRFK 306/1 of purple tea was in line with the aspirations of Vision 2030 that Kenya needs to diversify its tea products and add value to enhance productivity and boost economic growth in the agricultural sector. While development of Kenya's purple tea is still at the infancy, it is projected that its production has the potential to create new markets and generate up to US\$ 60 million over the next 3-5 years and comprise up to 5% of Kenya's tea export market. The production of a unique specialty product such as purple tea offers great promise in transforming Kenya's tea industry and boosting the sub-sector's competitiveness as well as earnings to farmers and the country at large.

### Benefits of Purple Tea

Purple tea derives its name from its distinctive, purple-reddish leaves associated with high levels of

anthocyanins, the same antioxidants that give color to foods such as blueberries, cranberries, grapes, and even red cabbage or eggplants. The clone thrives on highlands 1500-2500 meters above sea level on rich volcanic soils.

Currently, Kenya exports approximately 60 tonnes of purple tea to Japan, China, North America and Europe. While the prices for ordinary tea have been falling in the international market, prices for purple tea have been rising. Locally, a kilogramme of purple tea can fetch up to Ksh 2,600, which is 10 times more than processed green tea which fetches Ksh 200 per kilogramme. A well established bush can yield up to 2.5 kilogrammes of leaves in a year as opposed to 1.5 kilogrammes for green tea. In addition, purple tea is known to withstand adverse weather conditions such as drought and frost as well as disease and pests.

Besides economic gains, its rich flavour in oxidized form enables purple tea to have multiple health benefits. For example, drinking purple tea helps in anti-obesity through the inhibition of lipase, the enzyme that breaks down fats in the body, and providing anti-aging benefits to the skin. In addition, it has low caffeine content, is highly refreshing and has a unique thirst-quenching flavour, and has no additives or no known allergens.

Research has shown that the anthocyanins and catechins contained in purple tea are useful in breaking down free radicals in the body and in reducing inflammation in the body cells. Further, anthocyanins are essential health-boosting antioxidants which help fight free radicals in the body, therefore reducing the risk of hypertension and cardiac arrests. Anthocyanin extractives are further used as drug supplements, preservatives and in the

production of fast-moving consumer goods such as healthcare products, foods and confectionaries.

### Challenges Facing Purple Tea

A recent study by KIPPRA identified capacity gaps in the tea value chain in general and specifically for the speciality teas. The gaps include insufficient numbers of tea specialists, statisticians, market researchers and policy experts. The gaps exist in institutions mandated to promote tea production, processing, marketing and research, among others. At the national level, the country does not have an operational tea policy while at the counties there is lack of a clear legal and regulatory framework to effectively support the tea sector.

The current production of purple tea in the country is low. Only a small proportion of farmers are engaged in its production. The majority of farmers are reluctant to adopt purple tea mainly due to expected income loss if they were to replace their black tea bushes. Although the time it takes before the plant is fully established is much less than in the case of black tea (3 compared to 5 years), the loss of income during the waiting period discourages them, since they have no other sources of income to support their livelihoods.

Processing purple tea requires specialized plant, equipment and technical know-how. Most of the factory capacities in the country consist of wilting, bruising, oxidation, rolling and drying processes needed to produce black CTC tea. The processing of purple tea requires additional processes, specifically for fixation, yellowing and curing which requires dedicated lines for production. Currently, of all the 66 Kenya Tea Development Authority (KTDA) tea factories, only Kangaita tea factory in Kirinyaga County has a production line that can process purple tea.

Marketing of purple tea is a challenge both locally and internationally. Domestically, the annual per capita consumption of black tea is estimated at 0.47 kilogrammes. The consumption of purple tea is even much less due to inadequate knowledge about the variety. Internationally, Japan is the main market for purple tea. Other markets include USA, China and

Germany. However, entry into these markets faces market barriers, including international standards especially on quality, and food safety requirements. Other challenges facing the tea sector in general identified by the study include high cost of labour and energy, limited incentive for production of other types of tea, small size of land and hence low productivity among small scale farmers, and lack of a clear programme targeting tea promotion, among others.

### Scaling Up Purple Tea Production

Kenya would gain immensely from purple tea by adopting the following key measures:

1. The Tea Directorate should enhance cottage factories to raise the productive capacity in the country. There is need to reduce the acreage for licensing speciality tea factories from 250 hectares to cater for small scale production. The small scale farmers also need to be encouraged, through incentives, to replace their existing black tea bushes.
2. The Tea Directorate should partner with technical institutions to build the capacity for skill development on tea extracts to fully benefit from the diverse products. The processing capacity of the various factories should be enhanced to maximize on the benefits. This will contribute to the overall growth of value addition in the tea industry.
3. Purple tea requires aggressive marketing strategies through investments in promotion and market intelligence. There is need for international negotiations to rationalize the standards in the existing markets for tea. This will include creation of a Kenyan tea brand in the international market with geographical indications to enhance competitiveness. To promote the marketing of purple tea, the East African Tea Trade Association (EATTA) is considering expanding its auction to purple, green and other teas. EATTA has commenced a feasibility study to this initiative. Further, the Purple and Specialty Tea Association of Kenya recently committed to supporting and promoting the interests of producers, buyers, exporters and other participants along the value chain.

#### About KIPPRA Policy Briefs

KIPPRA Policy Briefs are aimed at a wide dissemination of the Institute's policy research findings. The findings are expected to stimulate discussion and also build capacity in the public policy making process in Kenya.

KIPPRA acknowledges generous support from the Government of Kenya, the African Capacity Building Foundation (ACBF), and the Think Tank Initiative of IDRC, who have continued to support the Institute's activities over the years.

#### For More Information Contact:

Kenya Institute for Public Policy Research and Analysis  
Bishops Road, Bishops Garden Towers  
P.O. Box 56445-00200, Nairobi  
Tel: 2719933/4  
Cell: 0736712724, 0724256078  
Email: admin@kippra.or.ke  
Website: <http://www.kippra.org>  
Twitter: @kipprakenya