

IIAP Guest Policy Brief: The Orange Industry in Ghana

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Summary

Processing fruits into juices is an opportunity for developing countries to accommodate higher value-adding economic activities within their agricultural value chain. The orange juice industry is the world's most important juice industry by volume. Even though Ghana has not built up a comparably large orange industry like the world market leaders Brazil, Mexico or the United States, Ghana's orange output is one of the largest in Africa. This circumstance makes Ghana an interesting case study for understanding the challenges of breaking into the global orange juice value chain. The findings on Ghana's orange industry show that despite early unsuccessful attempts, the country's industry has expanded considerably in the last 30 years and it benefitted from a number of policy initiatives. With the support of federal institutions, Ghana's orange farmers were able to grow disease resistant orange varieties since the late 1980s. Particularly state-owned tree nurseries have contributed with their research to significant productivity gains in Ghana's orange industry. Ghana's orange yields have rapidly increased in the last 15 years and are nowadays one of the highest worldwide. Due to the fact that Ghana's orange industry developed comparably later than, for example, the market-leading country Brazil, Ghana's orange processors have faced an extremely competitive market environment right from their start in the 1990s. Although there have been direct investment programmes from the Ghanaian federal government to incentivise the foundation of juice producing firms, such as the One District, One Factory (1D1F) policy or the Ghana Investment Project Centre, there are only two large orange juice exporters in the country.

Ghana's Orange Juice Industry

Historical Context

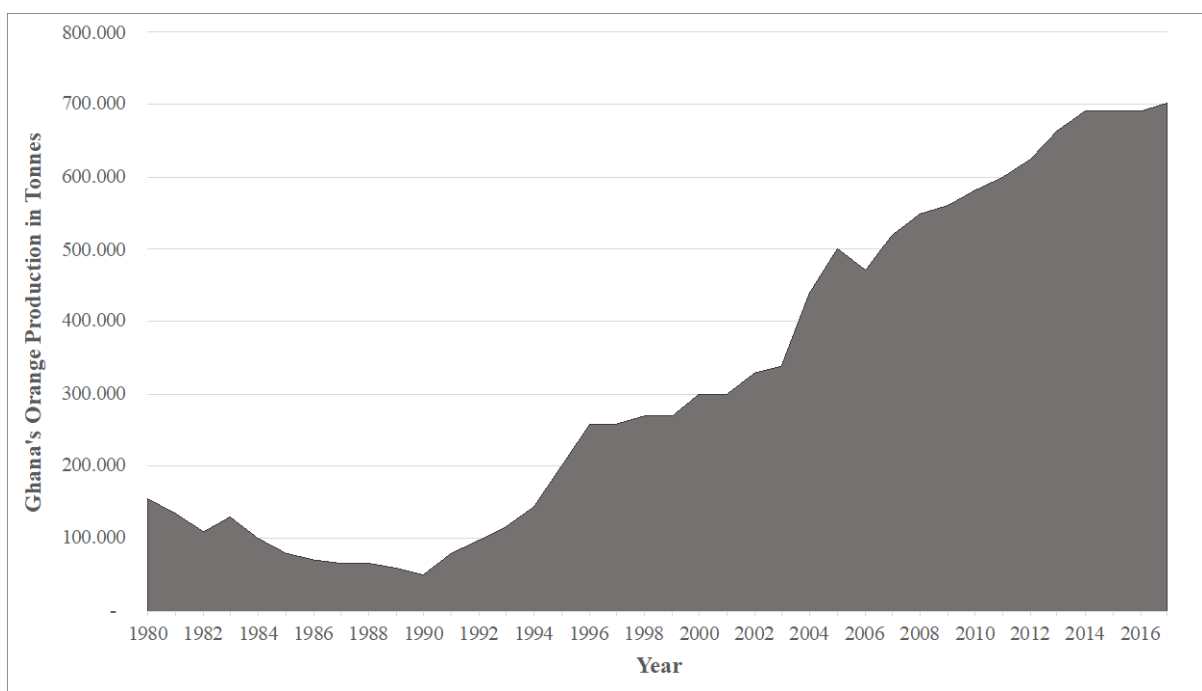
Generally, Ghana's forest zone in the south-west of the country provides ideal natural conditions for citrus growing. When Ghana was still under British rule, first attempts of private investors to implement a lime industry in the early 20th century failed as there was a lack of the central government to support the professionalisation of citrus growing. From Ghana's independence in 1957 until the late 20th century, the country experienced periods of economic growth combined with even longer periods of political and economic instability. Under Ghana's first and democratically elected president, Kwame Nkrumah, it followed the approach of rapid industrialisation by heavily investing in the country's infrastructure and industrial sector (Killick, 2010). This plan of economic development also led to the creation of Ghana's first Agricultural Research Centre (ARC) in Kade which later conducted research, among other things, on the fundamentals of citrus growing in Ghana.

As in the early post-independence years Ghana saw itself as a socialist country most of the investments during that time went into public enterprises. Instead of promoting economic growth and job creation, Ghana soon suffered economic stagnation and a worsening of its macroeconomics in the 1960s. Investments in the

agricultural industry were often highly inefficient with the exception of the country's cocoa sector (Ackah et al, 2010). Ghanaian farms were generally not very productive during that time and consequently hindered the formation of profitable food processing activities. In the 1970s and 1980s Ghana's politics were dominated by military regimes which pursued the development of further non-traditional agricultural export commodities, next to cocoa. The governments' aim was to overcome an ongoing economic crisis and to generate much-needed foreign exchange earnings with the help of exportable agricultural goods. A constantly increasing international demand for fresh oranges in the second half of the 20th century intensified Ghana's ambitions of building up a citrus industry. After decades of research and trials, in 1987 the ARC Kade in cooperation with private farmers successfully started the implementation of the off-season orange variety, Late-Valencia (Osei, 2013).

With the promulgation of the Fourth Republican Constitution in 1992, Ghana increasingly abandoned its neoliberal development agenda which was originally put in place in the late 1980s to overcome the country's stagnating economy and instead started massive federal investment programmes. An example of these investments were several citrus growing extension programmes from the 1990s and early 2000s.

Figure 1: Ghana's Orange Production in Tonnes (1980-2017)



Source: Own illustration based on Tilasto (2020)

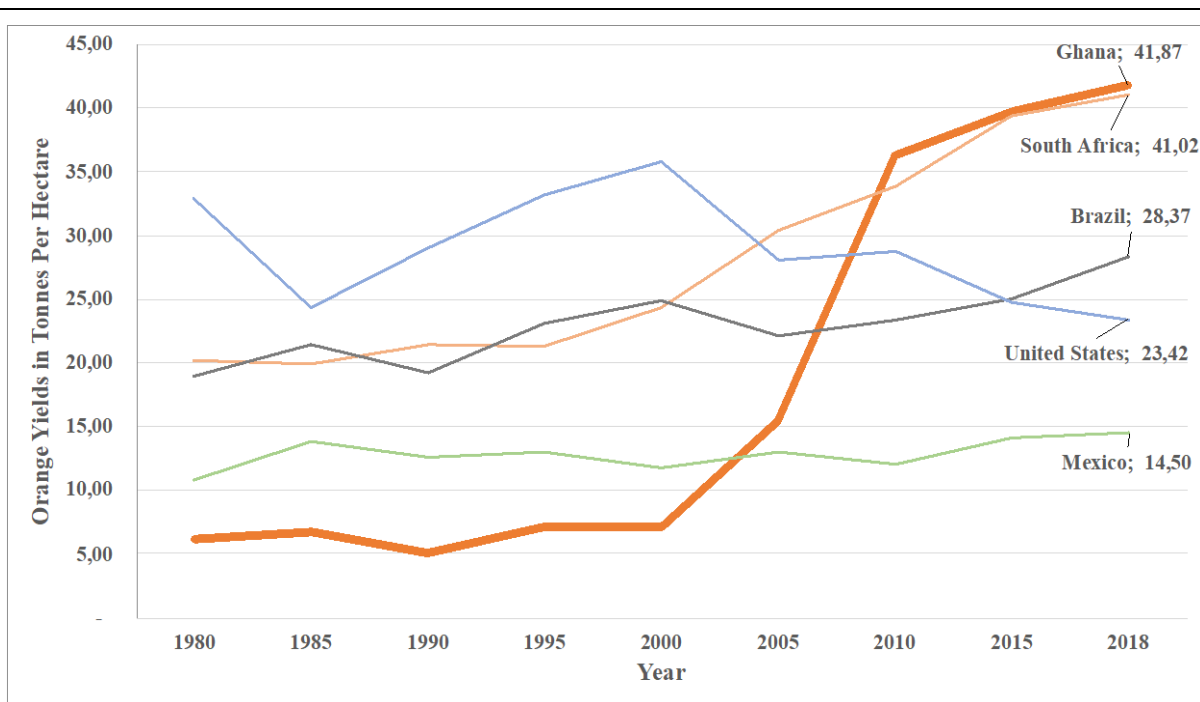
Citrus extension programmes resulted in a rapid growth of orange output in Ghana, increasing from 65,000 tonnes in 1987 to approximately 700,000 tonnes by 2017 (Figure 1). At the same time, privately-owned orange juice producers more or less successfully began their operations. The majority of these processors produces on a small scale, meaning less than two tonnes of fresh fruit per day, exclusively for the domestic market (Asante-Dartey, n.d.). Domestic demand for orange juice has increased in the last years due to rising urban incomes and led to a shift of consumption patterns towards healthier juices, such as orange juice. There are only two large processors with installed capacities over 100 tonnes of fruit per day which primarily focus on the export market.

State-Business Relations

To better understand the development of Ghana's orange juice industry it is important to present its state-business relations which have significantly shaped the industry's development especially since the late 1980s.

Private Sector: Ghana's private orange sector can be divided into orange growers and orange processors. Starting with the orange growers, Ghana has experienced significant growth in orange output in the last 30 years. Although the total planted area and the number of farmers engaged in orange growing have both decreased by almost 50 per cent between 2005 and 2014, orange output levels steadily grew (Asante-Dartey, n.d.).

Figure 3: Development of Orange Yields in Selected Countries (1980-2018)



Source: Own illustration based on Our World in Data (2020)

This development can be mainly explained by the farmers' better orange growing techniques and more productive orange trees which have catapulted Ghana to one of the countries with the highest yield of tonnes of fruit per hectare in the world (Figure 3).

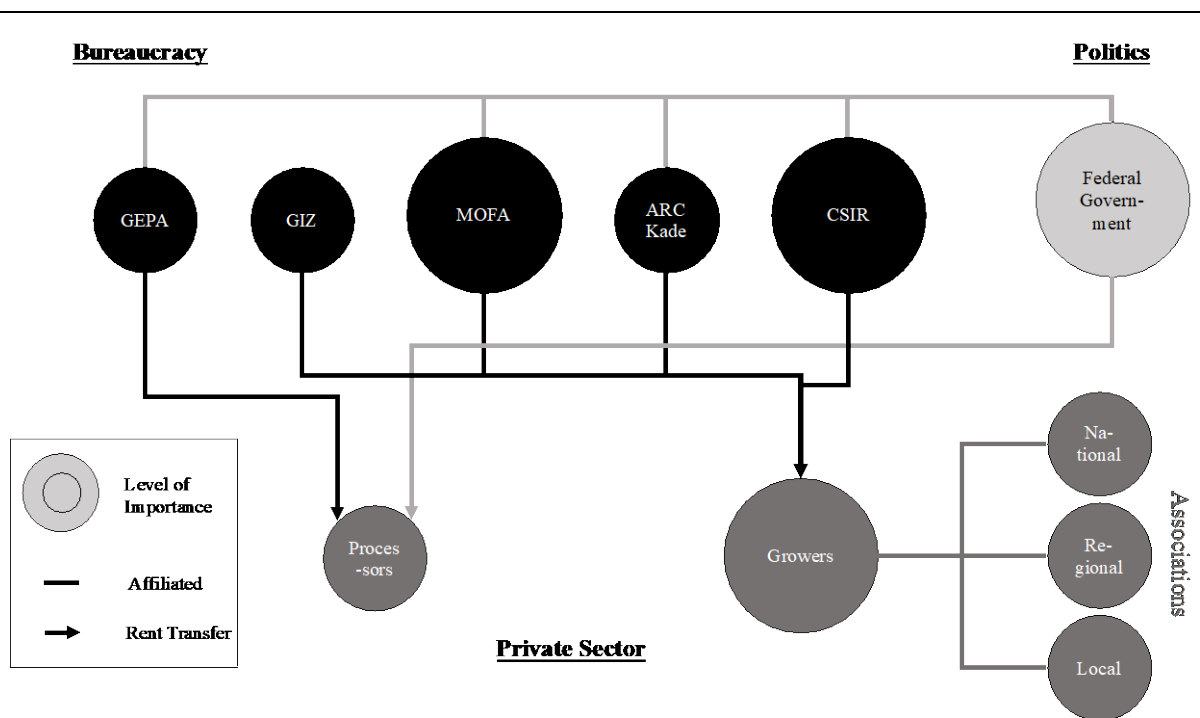
Since Ghanaian growers hardly use any non-organic fertilisers and pesticides around 70 per cent of the country's oranges are of organic quality. Approximately 90 per cent of the remaining 11,000 citrus growers in the country are smallholder farmers who own farms of less than 2 hectares. Only one per cent of the Ghanaian citrus farmers possesses orange groves larger than eight hectares. Ghanaian oranges stay entirely green until harvesting and are generally not suitable for sizeable fresh fruit export markets (Interviewee 3). Therefore, 40 per cent of the annual output is sold at the domestic fresh fruit market, whereas 25 per cent is used for small domestic orange juice producers. Another 10 per cent are sent to large juice processors and other agrobusinesses which results in total post-harvest losses of around 25 per cent. Regarding business associations in the Ghanaian orange industry, there are local, regional, and national associations for orange growers with the

industry's national apex body Citrus Growers Association of Ghana at its top (Asante-Dartey, n.d.).

On the orange processing side, Ghana's orange juice producing industry is currently less competitive and developed than the country's orange growers. Two of the central reasons for the slow development of Ghana's orange processing sector are the extremely competitive Brazilian industry which has dominated the entire world market since the 1970s and a decreasing global demand for orange juice since 2000. Due to that, there are only two large orange juice exporters in Ghana, namely Fruittiland and Pinora, besides many small-scale orange processors (Interviewee 3). Due to the fact that Fruittiland had not been operating for the last years, the foreign-owned Pinora is currently the country's only large-size orange juice producer with an installed capacity of around 400 tonnes of fruit per day. Nevertheless, there are new projects planned which will increase the amount of larger-size orange producers soon. Instead of solely focusing on the production of orange juice for export markets, these new projects increasingly target final domestic customers and consequently add bottling services to the traditional production of semi-finished orange juice production. As the number of orange juice producers appears to be relatively low, the orange processors do not have any form of business association.

Public Sector: Before its independence in 1957, Ghana's public sector was insufficiently developed to provide the necessary support to the private sector. This incapacity of federal departments and agencies can be explained by the United Kingdom's primary interest in the development of the profitable export commodities cocoa and gold and the resulting neglect of other domestic industries (Ackah et al, 2010). Furthermore, production and trade were monopolised, which made intense relationships between the state and private businesses redundant.

Figure 2: Illustration of State-Business Relations in Ghana's Orange Industry



Source: Own illustration

After independence, Ghana's ambitions to develop public sector capabilities have almost entirely focused on federal institutions (Figure 2). The ARC Kade, funded by the federal state and put under the supervision of the University of Ghana, has been one of the dominant institutions in Ghana for orange research concerning the choice of orange varieties, planting techniques, and pest control measures. During the 1970s and 1980s, this institution was the responsible actor for developing and introducing, what is currently, the most popular orange variety, Late-Valencia, in Ghana. Further essential institutions researching citrus are the Crop Research Institute of the Council for Scientific and Industrial Research (CSIR), headquartered in Kumasi in the Ashanti Region, and research stations of the Ministry of Food and Agriculture (MOFA). Besides researching the orange cultivation, both institutions and their integrated nursery stations supply approximately 70 per cent of all orange tree seedlings to Ghanaian orange growers (Asante-Dartey, n.d.). Further, the Ministry of Trade and Industry is an important institution for the orange industry, mainly through its sub-agency Ghana Export Promotion Authority (GEPA). The GEPA was founded in 1969 and consults private businesses with non-traditional export commodities, such as oranges, in export and trade-related matters.

Next to important federal institutions, the Ghanaian federal government and especially Ghana's president have also directly intervened in the orange juice industry. Since 1994, when the federal government decided on the Ghana Investment Promotion Centre Act, they have offered various business-facilitating incentives to the agricultural and agro-processing sector. Among other things, this Act granted tax incentives, insurances for non-business model related risks, and subsidised the purchase of agricultural inputs and technological equipment needed in the orange industry. In combination with the Ghana Investment Project Centre Act, the recently started One District, One Factory (1D1F) industrial policy tries to accelerate the growth of the Ghanaian orange processing industry. The 1D1F policy has been directly made by the President and mainly aims at supporting manufacturing throughout the entire country (Dzansi et al, 2018). A significant share of 1D1F engagements are in the agri-business industry, including the orange processing industry. Besides identifying business opportunities for individual districts based on their respective abundance of unprocessed fresh fruits, 1D1F also creates specific business plans for entrepreneurs, finances projects, and even takes over ownership of plants, if needed. At the moment, 1D1F is the largest public sector initiative together with private actors to set up new orange juice processing plants. There are orange juice producing factories under construction, with the aim to supplying both the international and domestic market in the next years (Manu, 2020).

Although the federal government controls the majority of public sector institutions relevant for the Ghanaian orange industry, a few foreign institutions have contributed to the industry as well, mainly through aid payments or knowledge transfers. In the 1990s, USAID funded an orange forestry project, initiated by the US non-governmental organisation Adventist Development and Relief Agency (ADRA) which was responsible for a considerable amount of new tree plantings around the 2000s (Alexander, 2011; Osei, 2013). Currently, the most active foreign public agency is the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) with its several training projects for Ghanaian citrus farmers (GIZ, 2015).

Practical Implications

The following practical implications for policy emerge from the discussion above:

- Similar to the development of other countries' orange industries, the backbone of a sustainable and productive industry is the existence of unitary tree nursery schemes. In the case of Ghana, state institutions adopted the late-season orange variety Late-Valencia to the local needs and protected the health of orange orchards through nationalising large parts of the tree nursery landscape.
- Ghana's orange growers are often small- to medium-size farmers and have greatly benefitted from national and international support programmes. Next to federal Ghanaian institutions, particularly USAID and ADRA have contributed with their tree extension programmes to the spread of orange orchards among smaller farmers. In combination with farming assistance services, offered for example by GIZ, even small farmers have achieved astonishing orange yields, also in an international comparison.
- Although Ghana's output of oranges has increased over the last 30 years, the country still has not found its position in the international markets. The orange fresh fruit as well as orange juice market is dominated by other countries such as South Africa in the case of fresh oranges or Brazil in the case of orange juice. Due to the fact that Ghana is geographically close to the world's largest orange juice-importing continent Europe and enjoys a duty-free market access, the country has great export potentials. Especially the abundance of organic oranges in Ghana might be a market opportunity for local orange growers and processors.

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