



Inclusive and sustainable development of the pineapple value chain in Suriname

Background

The **Accelerator for Agriculture and Agroindustry Development and Innovation (3ADI+)** is a programme for promoting partnerships to achieve the sustainable development goals (SDGs), spearheaded by the Food and Agriculture Organization of the United Nations (FAO) and the United Nations Industrial Development Organization (UNIDO). The objective of this programme is that people in developing countries improve their livelihoods via sustainable agriculture and agroindustry, thereby contributing to the achievement of the SDGs. The programme began in 2018 in three pilot countries - Bangladesh, Suriname and Tanzania. In Suriname, the International Trade Centre (ITC) is a key partner.

The pineapple value chain is a priority sector for the Government of Suriname to drive the diversification of the economy, which has been largely dependent on the extractive industry, forward. The recent decreasing global demand for aluminum and sharp declines in the market prices for oil and gold have put pressure on the Government to rethink its economic model. To this purpose, agriculture and agribusiness have been identified as key areas for development, with pineapple being one of the commodities of focus.

Over the past year, in collaboration with the Ministry of Trade, Industry, and Tourism (HIT), the Ministry of Agriculture, Animal Husbandry and Fisheries (LVV), and the Ministry of Regional Development (RO) of the Government of Suriname, 3ADI+ has engaged with representatives of local institutions, service providers, and actors at all stages of the value chain to analyse its strengths and weaknesses. On the basis of the diagnostic findings, a 2030 vision for an upgraded value chain was proposed, which has gathered widespread buy-in. Further, business models for upgraded farming and processing operations, as well as an action and investment plan, were developed for the Surinamese pineapple value chain.

Value chain diagnostic findings

Suriname has **great potential to develop its pineapple sector into a promising source of income and employment**. Suriname has suitable agro-ecological conditions for pineapple cultivation and unique, largely unexplored pineapple varieties cultivated primarily by the indigenous populations. Although pineapple production in Suriname is still small, **the genetic diversity is extraordinary**. Further, the country possesses sufficient physical space for the expansion of production in areas not covered by primary forests.

At present, **Surinamese pineapples are mainly sold fresh on the domestic market by street and market vendors**. Since the size of the domestic market is limited, the identification of international market opportunities is a precondition for the development of the sector. On the one hand, the international market for fresh conventional pineapples is competitive, and given the lack of economies of scale, low productivity and high production costs,



it is unlikely that conventional Surinamese pineapples will be able to compete globally within the next few years. On the other hand, because **pineapples in Suriname are, to the largest part, cultivated in traditional production systems without the application of chemical inputs**, there are excellent opportunities for fulfilling the unmet demand for **sustainable pineapple products on niche markets**.



Nonetheless, **pineapple production in Suriname is in a rudimentary state**. Most producers practice shifting cultivation. Little farm management and good agronomic practices are applied and **farmers lack experience in modern commercial pineapple production**. Productivity and efficiency at the farm level remain low compared to other producing countries. In addition, **pineapple production in Suriname is seasonal**, another competitive disadvantage. However, a small number of farmers have started investing in pineapple farming as a business, and some are interested in forming cooperatives to obtain certifications and increase bargaining power.

Equally, **the processing segment is at an incipient stage of development and substantial upgrading and innovation are required to create value addition**. Only one candied pineapple company has emerged as the pioneer in industrial processing in the country, setting up outgrower contracts with a number of semi-commercial organic farmers. Yet, it is not fully operational and remains small-scale by international standards. Furthermore, due the seasonality of pineapple production in Suriname, year-round processing is not yet explored.

The infrastructure and support services to facilitate the development of the pineapple value chain are underdeveloped. There are no cooling facilities or storage and collection centres. Commercial nurseries are non-existent and little data is available on the organoleptic properties of the local pineapple cultivars. **Lack of cooperation between value chain stakeholders** presents another crucial challenge. Different ministries, knowledge institutes and non-profit organizations are engaged in the pineapple sector. However, knowledge created, analyses carried out, activities undertaken, and initiatives planned are not widely disseminated and coherently communicated. This represents a **missed opportunity to benefit from synergies and build a knowledge database, as well as to formulate a shared strategy to guide the development of the sector**.

Vision and upgrading strategy

Based on the diagnostic findings, **improved production and processing models** were developed for organic pineapples. It is proposed that, depending on the farm type (e.g. subsistence or semi-commercial), different upgrading levels be incrementally introduced. Productivity and quality, as well as the protection of natural resources, should be enhanced with the application of best agronomic practices. **Permanent production systems should gradually replace shifting cultivation, accompanied by irrigation and artificial flower induction to achieve year-round yields.** Such an increase in production and productivity must be strategically accompanied by an improvement in processing capacity. In order to respond to market demands, investments in modern technologies and innovation are needed. However, given the incipient stage of the processing segment, **low and medium investment options, such as dried pineapple and fresh cut pineapple, should be first and foremost explored.**

In February 2019, a vision and strategy to develop the Surinamese pineapple value chain were discussed at a stakeholder workshop that gathered representatives of farmers, processors, distributors, business associations, government officials and research institutes. Individual follow-up meetings with key actors were conducted in order to validate the interests. **The vision has received buy-in across the board.** The upgraded pineapple value chain will bring about benefits within and beyond. **At least 1,000 households are expected to obtain increased and sustainable incomes along the chain, and at least USD 10 million value added will be generated per year by 2030.**

“By 2030, Suriname will be an established exporter of processed pineapple products to high-quality markets through an inclusive and sustainable value chain.”

The strategy to realize the overall vision is **an integrated approach to simultaneously tackle the binding constraints.** It is based on **four strategic interventions**, as presented in the figure below. Firstly, a **multi-stakeholder platform** will facilitate public-private dialogue on policy and general issues affecting the value chain, as well as foster information exchange and trust between value chain actors that leads to more effective coordination. Secondly, a **Pineapple Innovation Hub** will be established to consolidate sector-wide knowledge and efficiently link value chain actors to support services. The hub is destined as a one-stop shop to generate and centralize knowledge about pineapple production, processing, and trade in Suriname, as well as a research and training centre for agri-entrepreneurs and farmers.



Thirdly, the **aggregation of smallholders and strengthened value chain governance** will be supported through different mechanisms, such as farmer associations and contract farming. The organization of smallholders to facilitate better access to inputs, services, and markets is crucial to the implementation of improved business models in both production and processing. Finally, the **development of differentiation marketing strategies** will be supported to establish branded Surinamese pineapple products in high-value niche markets.

The following table presents **key concrete actions** that need to be taken in order to address the systemic constraints and boost the economic, social and environmental viability of the sector.

Output 1	Pineapple production quantity and quality increased in a sustainable manner, through the application of best practices and modern packages while preserving traditional knowledge
Activity 1.1	Validate and adjust improved production models at the Pineapple Innovation Hub
Activity 1.2	Identify and support farmers in improving production and productivity
Activity 1.3	Assist farmers in entering high-value markets through sustainability certifications
Activity 1.4	Catalogue pineapple varieties and develop a nursery as part of the Pineapple Innovation Hub
Activity 1.5	Develop plans and criteria for sustainable expansion of production areas
Activity 1.6	Support farmers in diversifying their incomes by developing farm diversification strategies
Output 2	Small-scale and medium-scale pineapple processing plants established, with enhanced capacities and upgraded technologies
Activity 2.1	Promote private sector investment in the establishment and upgrading of processing facilities
Activity 2.2	Support the installation of small processing plants, owned or co-owned by groups of farmers
Activity 2.3	Support processing facilities to access funding
Activity 2.4	Assist processing companies in the application of protocols, standards and good processing practices, adoption of innovative technologies, and business management.
Output 3	Pineapple products effectively commercialized in local and international markets
Activity 3.1	Promote the consumption of pineapples as part of a healthy diet in the domestic market
Activity 3.2	Build linkages between Surinamese value chain actors with the regional and global markets
Activity 3.3	Foster the development of an export consortium and train national promoters
Activity 3.4	Establish a common brand for the differentiation of Surinamese pineapple products
Output 4	Linkages between value chain actors and collaboration between stakeholders fostered
Activity 4.1	Facilitate the initiation and operation of a multi-stakeholder platform that represents the common interest of the pineapple sector
Activity 4.2	Strengthen horizontal and vertical linkages through contract farming or farmer associations
Output 5	Capacity of support services improved to foster efficient value chain operation, and the enabling environment more conducive to the development of the pineapple sector
Activity 5.1	Support the creation, consolidation and sharing of knowledge and information in the pineapple sector through the establishment of a Pineapple Innovation Hub
Activity 5.2	Assist the setting up of private businesses that provide inputs and other services
Activity 5.3	Improve access to finance, especially for smallholders and SMEs
Activity 5.4	Enhance the public sector capacity for food safety and quality control
Activity 5.5	Facilitate investment in infrastructure for export competitiveness

The main facilitation activities will be carried out through the Pineapple Innovation Hub in coordination with actors along all nodes of the value chain, as well as different ministries and local partners through the multi-stakeholder platform. While different actors might be more closely involved in certain areas, every activity is a collaborative effort. They cannot be carried out separately but will require close coordination, with the overall goals of improving value chain linkages, promoting investment, and influencing policy changes.

Estimated investments

Investments	Private Sector	Development grants	Development bank loans	Totals
Pineapple Innovation Hub		1,350,000		1,350,000
Medium-scale processing plants (2)	800,000	200,000	200,000	1,200,000
Small-scale processing plants (3)	700,000	300,000	300,000	1,300,000
Semi-commercial smallholders (100 farmers, 300 ha)	2,000,000	1,000,000	1,000,000	4,000,000
Subsistence smallholders (300 farmers, < 20 ha)		300,000		300,000
Development of farmer organizations	50,000	150,000		200,000
Facilitation (analysis, design, coordination)		500,000		500,000
TOTAL (USD)	3,550,000	3,800,000	1,500,000	8,850,000

The figure above outlines the **estimated investments from different funding streams** that are needed in order to carry out the upgrading interventions. All are necessary and complementary, contributing to uplifting different segments of the value chain, the services that support the chain's operation, and the broader enabling environment, **altogether constituting the holistic approach of a 3ADI+ development project.** While large investment to upscale the pineapple sector is needed, activities need to be carefully planned and monitored, so as to avoid adverse effects on the environment, as observed in other pineapple producing countries, and to ensure the inclusion of disadvantaged groups, especially female farmers.

It is expected that substantial 3ADI+ support through development organizations such as FAO, UNIDO and ITC will be provided for a period of **five years** to take the initiative off the ground, after which point **the value chain will continue on a sustainable development path, driven by the private sector and facilitated by the public sector and non-governmental stakeholders.**

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