

White Gold

Exploratory Case Study



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Background

AgriFI Kenya Challenge Fund (AgriFI) seeks to support productive and market-integrated smallholder agriculture through the provision of financial support to agri-enterprises. The aim is to contribute to improvements in the capacity of smallholder farmers/pastoralists to practise environmentally sustainable and climate-smart agriculture as a business in inclusive value chains. AgriFI’s objectives are aligned with the Government of Kenya’s aspirations for the agriculture sector as embodied in its *Vision 2030*, the *Big 4 Agenda*, and the *Agricultural Sector Transformation and Growth Strategy (ASTGS)*.

This is one of a series of 6 case studies commissioned to extend key lessons and recommendations from grantee level review and analysis. A previous research phase explored high priority impact areas including gender, youth, nutrition, and climate smart agriculture (CSA) with a view to supporting effective design, targeting and implementation of AgriFI. These case studies test some of the logic and understanding of that research, illustrating effective strategies, issues of concern, and areas with potential for increasing positive impacts.

The suite of case studies include two (of 8) Call 1 grantees, three (of 12) Call 2 grantees, and one non-grantee as a counterfactual. Grantees from the COVID-19 Response and Recovery Call and Call 3 have not been included due to insufficient progress with project implementation at the time of fieldwork. Grantees were selected for inclusion on the basis of VC (i.e. broadly representative of the wider portfolio), geography (i.e. reasonable geographic spread), and relevance to key impact areas (i.e. strong learning potential). Fieldwork was conducted in late June and early July 2021 in compliance with COVID-19 guidance and restrictions.

Kenya's Growing Camel Industry

Kenya's camel milk industry – with an estimated 3.3 million camels valued at \$500 million per year – is the second largest in the world, following Somalia. The country has a wide potential consumer base for camel milk: Kenya's per capita consumption of traditional cow's milk is the highest in Sub-Saharan Africa at 110 litres per year, and is projected to rise to 130 litres per year by 2030.¹ Many of these consumers may be incentivised – in pursuit of better health or environmental outcomes – to transition towards the consumption of camels milk as an alternative to traditional dairy. However, a myriad of factors including lack of government policy, under-regulation, and limited investment have rendered the industry relatively informal and markets difficult to access, dampening the growth potential for actors across the value chain. Still, camel milk has strong market value and demand has grown as its health and climatic benefits have become known to consumers, indicating significant scope for expansion and commercialisation.

Camel milk producers are especially well placed to benefit from the development of the value chain. Pastoralists operating under the climatic constraints of Kenya's arid and semi-arid lands (ASALs) – which cover over 80% of Kenya's land mass – are increasingly favouring camel milk production over the production of other ruminants' milks. With lower water inputs and higher resilience to drought, camels can have income-smoothing effects on ASAL households, providing stable income across the dry season when agricultural production is lean. Camel milk ownership is dominated by women and women's cooperatives, and creates important employment for rural youth as well; therefore, there is a strong case for intensifying production to increase income generation amongst these groups. In addition to increased production, the value chain also requires interventions to improve smallholders' hygiene and safety practices and increase access to profitable markets.

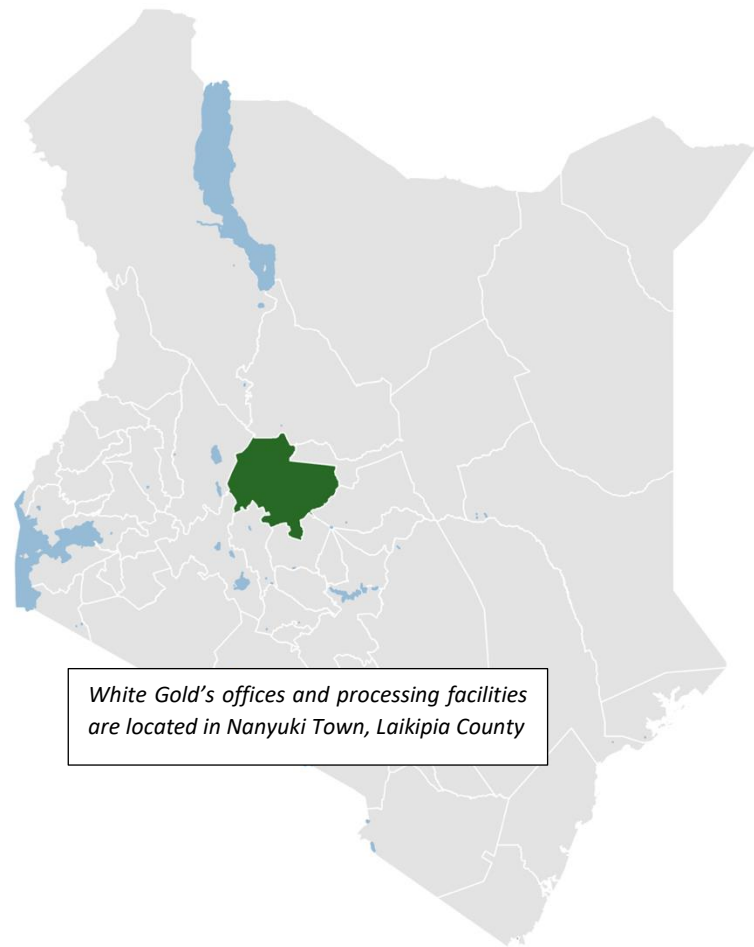
Camel milk processors also stand to benefit from the development and formalisation of the industry. Whilst the sector is currently largely informal, increased regulation and mechanisms for quality assurance have potential to unlock opportunities to export to high-value international markets. In turn, the targeted development of private-sector camel milk processing actors has high potential to increase smallholder integration.

White Gold is one processor operating, and engaging smallholders, within the country's growing camel milk industry.

White Gold Camel Milk

Whilst most camel milk producers are located in ASALs in Northern Kenya, White Gold – officially registered as Ngamia Milk Suppliers Limited – is situated in Nanyuki – a town in Laikipia County. **White Gold aggregates, processes, pasteurises, and packages flavoured and unflavoured camel milk and camel milk yoghurts for sale across Kenya.**

Zamzam Haji and Jama Warsame started the company in 2016, building upon Haji's Somali-Kenyan heritage and the importance of camel herding and camel milk products amongst the Somali population. The couple are driven by their connection to the camels – which are described as highly



¹ Kenya Ministry of Livestock Development (2010) Kenya National Dairy Master Plan Vol II: Action Plan and Implementation Strategy.

emotional creatures – and land, as well as their strong belief in and desire to share the medicinal and health benefits of camel’s milk.

White Gold is a mid-scale camel milk processor; the company currently produces 200 to 300 litres of milk per day, and has production capacity for more than 1,000 litres per day pending increased demand. Systemic developments to the camel milk industry – including increased market access and national-level policy implementation – will be required for White Gold to realise its full production capacity in future.

White Gold’s Engagement with Funding Mechanisms

White Gold is a strong candidate for catalytic funding from mechanisms similar to the AgriFI Challenge Fund, but was not eligible to apply at its current level of formalisation; as a developing small/medium-sized enterprise (SME) the company’s annual turnover and capacity to allocate internal matching funds fell below the threshold set by AgriFI, and the company does not yet have externally audited financial figures at its current scale.

White Gold also indicated that its geographical location in urban Nanyuki town has been a constraint, and that much of the international funding targeting the camel milk industry is disbursed in areas such as Isiolo and Garissa where camel milk producers have direct access to pastoralists, many of whom may be nomadic or semi-nomadic. Donors, understandably, want to ensure that these hard-to-reach ASAL populations share the benefits of sectoral growth. As White Gold continues to position itself and communicate its potential for both broad and deep impacts on smallholder producers, it will be important for the company to stress that although it is not operating in ASALs, it has well-established ASAL connections and learning potential.

In addition to strengthening – and clearly articulating – its benefits to ASAL producers, White Gold also has opportunity to position itself as a strong candidate for funding by entering into partnerships with other actors in the value chain. Partnerships – for example with more established players in the conventional dairy VC, or with actors providing complementary products and services in the camel VC – may not only enable White Gold to meet eligibility criteria, but may also be effective in amplifying and multiplying the company’s impacts on smallholders.





Growing Demand for Camel Milk

The growth of the Kenyan middle class, which has expendable income to dedicate towards health foods consumption and is willing to substitute higher-cost camel products for traditional dairy, is good for White Gold's business. As many as 80% of White Gold's customers are referred by health practitioners which recognise the health benefit the milk can have on consumers. At 30% lower fat content than cow's milk, camel milk offers a lighter alternative for those regulating their weight and fat intake. Camel's milk also has significantly lower levels of lactose than that of cows, making it a viable alternative for lactose-intolerant consumers.

In addition to its health benefits, camel milk is also more costly, and consumers' willingness to pay the price premium for camel milk is evidence of high demand. White Gold sells one litre of pasteurised camel milk for Ksh 300 (approximately 2.3 Euros), while the average price for cow's milk is around Ksh 35 (0.27 Euros) per litre dependent on the county and production system (whether cattle are grazed, semi-grazed, or entirely grazed). Aside from demand, these prices also indicate the high production costs and relative profitability of camel's milk: White Gold purchases one litre of raw milk for Ksh 100, and incurs approximately Ksh 65 in costs for transport, processing, and packaging, thus achieving a gross profit margin of 45% when sold at Ksh 300. Compared against traditional dairy production in Kenya – which incurs approximately Ksh 13 in direct costs per litre and achieves profit margins of around 63% at an average selling price of Ksh 35 per litre² – camel milk is seen to be less profitable. This reduced profitability at the firm level is evidence of the camel milk value chain's need for additional support. Specifically, interventions to reduce processor-level input and production costs by increasing access to affordable cold chain infrastructure, processing equipment, and other necessary inputs could increase profits and support business profitability and growth, ultimately allowing the company to source from greater numbers of smallholder suppliers.

Despite demonstrated demand and consumer willingness, there is still **a need to formally and scientifically capture the benefits of camel milk on health outcomes**; much of the evidence for camel milk's medicinal value is anecdotal. While this anecdotal evidence attracts consumers, particularly in a word-of-mouth based economy, White Gold's leadership reiterated the need for peer-reviewed studies and research to highlight the benefits camel products can have on ailments ranging from skin conditions to autoimmune diseases to drive the sector at large. Formalised research will be especially important in unlocking international export markets and demonstrating the milk's benefits to consumers outside of Kenya.

Demand is also driven by Somali communities in Kenya, for which camel milk consumption is a cultural practice. However, raw or smoked camel milk – rather than heat pasteurised – are preferred by these customers, and thus these informal markets are not a primary source of revenue for the company.

² Dairy costs and prices have been derived from the "Report on a Study on Cost of Milk Production in Kenya" published by the Kenya Dairy Board in May 2021. For the purpose of comparative calculations, cost figures for three production systems (zero grazing, semi-zero grazing, and open) and various main buyers (including direct consumers, traders, processors, hotels/institutions, etc.) have been averaged to provide an estimate for the country's diverse dairy sector at large.

Meeting demand: White Gold's product offerings

To meet the growing demands of consumers interested in camel milk, White Gold processes and bottles unflavoured camel milk, as well as flavoured varieties including vanilla, strawberry, and chocolate. White Gold also produces flavoured and unflavoured camel-milk yoghurts, delivered directly to consumers upon order.

Nairobi and Kisumu are the company's largest markets: currently, White Gold supplies around 1,000 litres of camel milk to Nairobi each week, and another 500 litres to Kisumu every two weeks. To reach a variety of customers, these bottled milks are sold in major retailers such as Chandaranda Foodplus supermarket, as well as smaller roadside shops.

White Gold also receives significant orders from schools, which recognise the nutritional value the milk can have for school-aged children.



Engaging Smallholder Camel Herders

White Gold, like many camel milk processors in the country, sources its camel milk from a variety of producers. The company's founders have a personal herd of approximately 70 camels, kept on the Mpala Research Centre's ranch located approximately 40 kilometres from White Gold's production site, and source a portion of milk from that herd. The Mpala Ranch also has its own herd, which provides milk to White Gold.

In addition to ranch-kept camels, White Gold also sources a portion of its camel milk from smallholder camel herders – roughly defined as individuals with independently-owned herds of up to approximately 20 camels. While White Gold's smallholder suppliers are technically pastoralists, the company sources from predominantly female “urban herders” like themselves, who live in Nanyuki town and keep their herds – usually overseen by hired employees – in peri-urban areas outside of town, or at ranches. This source is very different from the semi-nomadic and nomadic pastoralists keeping camels in Northern Kenya whom White Gold do not engage with presently.

Profitability varies for smallholders. White Gold reports that if a smallholder herder keeps 20 camels (the largest number of camels held by White Gold's independent suppliers), approximately 4 to 8 of those camels would be producing milk at any given time (as calves, pregnant camels, and male camels do not produce milk) and would produce 3 to 4 litres per day. Thus, smallholders may produce and sell anywhere from 360 to 960 litres per month, resulting in revenues of Ksh 36,000 to Ksh 96,000 (280 to 748 Euros) when sold to White Gold at Ksh 100 per litre. In Nanyuki, the two highest cost inputs for smallholders are grazing fees and labour, which cost smallholders an average of Ksh 5,000 and Ksh 10,000 respectively each month. After deducting these input costs, smallholder profits may be as high as Ksh 81,000 (630 Euros) per month – suggesting that incorporating more smallholders into the supply chain can have important income implications for pastoralist households. In fact, White Gold shared that industry evaluations have likely *underestimated* the impacts of camel products on predominantly female smallholders' abilities to support their families.

While sourcing from smallholder urban herders is an excellent way to secure additional income for smallholding families, engaging less-established, smaller-scale producers entails certain challenges. Three of the most prominent barriers White Gold faces when working with smallholder herders are **1) hygiene and traceability, 2) payment terms, and 3) reduced yields.**

<p>Hygiene and traceability</p>	<p>Smallholder herders typically have less access to capital, and therefore less capacity to invest in technologies and improvements to ensure best hygiene practices. It’s not impossible for smallholders to produce and supply high-quality, sanitary camel products – and in fact, ranchers have suggested that smallholders are incredibly attentive to their herds’ needs and highly willing to invest time and energy into improving health and hygiene when the necessary resources are available – but it’s more difficult.</p> <p>It’s also more challenging to ensure traceability when sourcing from smallholders; whilst ranchers or larger scale producers are more likely to keep accurate records and label their outputs, smallholders do not always have the same resources to follow these best practices. For example, metal containers are the most temperature-controlled and hygienic option for transporting milk to White Gold’s processing facility; however, plastic jerrycans are cheaper and lighter, which is appealing to resource constrained herders who travel by <i>bodaboda</i> (motorbike) to reach the facility.</p> <p>White Gold overcomes these challenges by being selective in which smallholders it sources camel milk from. The company also provides advice and training to its network of smallholders to produce clean and safe milk, sensitising herders on the importance of basic hygiene such as hand washing, ensuring that correct storage and transportation methods are used, and facilitating access to veterinary care.</p> 
<p>Payment terms</p>	<p>The primary barrier to sourcing from smallholder herders is the payment expectations these producers have; most expect to be paid in cash upon delivery of the milk, as these funds are necessary to offset the investments they’ve made in production and to continue their operations. However, White Gold supplies to grocers and retailers on credit – receiving payment once the bottled milk is sold to consumers. White Gold’s revenue model – whereby profits are earned when the product reaches consumers, which may be several weeks after smallholders’ milk is processed and packaged – poses challenges to sourcing from smallholder producers who prefer upfront payment. In contrast, ranches with diversified revenue streams are able to supply milk to White Gold with payment terms that align with the company’s timelines for revenue generation.</p> <p>White Gold is better placed to purchase milk from smallholders for consumer-direct orders, rather than stocking grocery stores and retailers, as these private customers pay upon receipt of the bottled milk and profits can then be shared with smallholders more immediately. For financial sustainability and increased smallholder integration, White Gold is moving towards having more direct orders. Some products, like the company’s camel milk yoghurts, are only available upon direct order.</p>
<p>Reduced yields</p>	<p>White Gold reports that its smallholder suppliers often experience lower yields than ranches, which is mainly attributable to having less – and more arid – grazing land available. The rapid urbanisation and reduction of public lands in Nanyuki has contributed to land constraints and subsequent reductions in milk yields for smallholders who previously grazed camels in the area.</p> <p>Access to veterinary care also impacts smallholder yields, and White Gold specifically works with smallholders who can access essential medications and preventative health measures for their camels. White Gold connects camel herders to government offices for veterinary care, but has observed that these offices are under resourced.</p>

The most restrictive barrier smallholders face to overcoming these challenges is a **lack of access to finance**. Even White Gold, as a larger processor with own-capital to invest in its start-up operations, had difficulty accessing a bank loan. Many banks lack formalised mechanisms for valuing livestock, and particularly lesser known livestock such as camels, for use as collateral against a loan.

White Gold hopes that fostering community between smallholder herders will help to mitigate some of these challenges. The company has established an informal WhatsApp group for camel herders in and around Nanyuki, sharing tips and best practices for producing high quality milk. This effort is mutually beneficial to smallholders, who can produce more and higher quality milk to realise higher incomes, and the company, which can guarantee the consistent availability of milk for processing.

A degree of community support also exists naturally amongst Nanyuki's camel herders. To prevent inbreeding and to genetically diversify their herds, smallholders often 'swap' male camels. This practice establishes communication channels between geographically adjacent smallholders, creating opportunity for transfer of knowledge.



Camel Milk's Current and Scalable Impacts

White Gold and the camel milk industry at large provide valuable learnings around AgriFI's four impact areas: **climate smart agriculture (CSA), nutrition, gender, and youth**. The company's specific impacts in these four areas have potential to be scaled up either through expanding the company, or replicating its model through franchising.

Climate Smart Agriculture

The camel milk industry is inextricably linked to climate change and sustainable – or further, restorative or regenerative – food production practices. Historically, the herders who have kept camels have been pastoralist and semi-nomadic populations which are on the forefront of the fight against climate change, and which feel its impacts most intensely. **As ASALs expand and arable land shrinks, climate-resilient food production is critical.** Camel milk provides a useful alternative to other dairy because it has less demanding land and water inputs; as AgriFI's previous research on CSA highlights, initiatives and alternative agricultural production techniques focusing on water conservation are particularly important given the country's key climatic concerns of drought, flooding, and erratic rainfall.

Camels are crucial to climate resilience and readiness, especially in Kenya's ASALs where traditional cattle farming is becoming increasingly challenging and may eventually become unfeasible for smallholders. While the dry climactic season results in lower milk yields, camels can still survive and continue to produce milk through drought, going without water for up to two weeks (compared to cows, which need water every two to three days) and can persevere through up to three dry seasons before suffering from significant health/yield implications.

Nutrition

Camel milk has a variety of direct and indirect linkages to nutrition outcomes for camel herders and milk consumers alike.

Consuming camel milk can directly aid in decreasing hunger by supplementing caloric deficiencies in diets, and can also address micronutrient deficiencies which are prevalent amongst income-constrained people, particularly children, in some areas of rural Kenya and its ASALs. Preliminary research demonstrates that compared to milks from other ruminants, camel milk is richer in nutrients – including sodium, potassium, iron, copper, zinc, magnesium, and Vitamin C – and lower in fat and cholesterol.³ The



³ Ahrhaley, A., & Leta, S. (2018). Medicinal value of camel milk and meat. *Journal of applied animal research*, 46(1), 552-558.

milk has a longer shelf life than the milks of other ruminants, reducing the risk of contracting food borne illnesses or bacteria.

Indirectly, the increased incomes – and seasonal income stability – camels secure for herders lead to higher disposable income and increased spending on food in terms of quality and quantity. With the smallholder camel herders White Gold sources from being predominantly female, there is the potential for compounding effects between nutrition and gender: as AgriFI's previous research on nutrition highlights, women tend to allocate more funds towards nutrition and education when they retain control over household spending and income. If increased incomes lead to increased female decision making on household spending, income is likely to have a particularly positive indirect impact on nutrition.

Projecting into the future, **as climatic conditions become more restrictive, camel milk may have increasingly important impacts on access to food and nutrition.** If/when other ruminants are unable to provide sufficient milk yields due to conditions, camel milk may be substituted to fill caloric and nutrient deficits.

Most of White Gold's nutrition impacts are localised to its main market counties of Nairobi and Kisumu. In order to expand to different counties – with broader geographical coverage – the company will require increased investment in its cold chain and transportation infrastructure.



Gender and Youth



Nanyuki's smallholder camel owners – including those supplying to White Gold – are predominantly female.

White Gold's full time staff (currently three employees) for its Nanyuki processing facility and headquarters is intentionally all-female, and the company has plans to ensure that female employees are equally considered and prioritised for up-skilling and promotion as the company grows and additional staff members are engaged.

While women typically own camels, they often employ youth – typically young men and often of Somali backgrounds – to graze and care for camels. White Gold's urban suppliers are particularly reliant on this system, as they are often urban-residing and therefore not physically present to oversee operations. This model creates important employment for a subset of youth which may otherwise experience high rates of unemployment.

Opportunities for Growth

With growing consumer demand for camel products, White Gold has explored opportunities for the business to grow, ultimately increasing its impact for both smallholder producers and consumers. In the future, White Gold may have the capacity and reach to franchise underperforming camel milk factories/producers across the country, sharing its knowledge on best practices in the business and increasing its supply and production capacity. This possibility is especially relevant as strategically expanding into and establishing linkages with producers in ASAL areas may unlock additional funding and support opportunities. Access to higher quantities of milk and additional processing machinery would also enable the company to trial new camel milk products at various price points and for a range of markets, such as powdered camel milk.

The company has explored the possibility of producing camel milk powder for export, noting the important nutrition benefits camel milk has when concentrated. While raw or processed camel milk are difficult to export due to refrigeration requirements, camel milk powder – which can be rehydrated for liquid milk consumption, or used as an input in products such as baby formula, cosmetics including lotions and face creams, or packaged ice cream products – is stable at room-temperature and suitable for transportation. However, camel milk powder would require large and consistent quantities of camel milk, as the volume is greatly reduced when dried.

Long-life, ultra-heat pasteurised (UHT) camel milk may also be pursued in the future, again overcoming the refrigeration barrier to export, and allowing access into new and geographically distant markets.



Policy Landscape and Implications

Regulating the Camel Milk Sector

As an emerging sector, legislation and regulation are particularly relevant for camel milk producers and processors. At present, there is a lack of policy around camel milk production, processing, and marketing in the country, leaving the sector without coherence or strategy for growth. This lack of direction impacts smallholders and larger scale processors alike. For smallholders, **lack of policy has resulted in a lack of financial options/offers, difficulty proving creditworthiness and being deemed eligible for financial borrowing, and general lack of investment in the value chain which would bring downstream positive impacts to producers.**

For larger processors, such as White Gold, a lack of well-informed policy serves as a barrier to exporting products; although White Gold has a number of certifications and affiliations with regulatory bodies, and has registered high demand in neighbouring countries including Rwanda and Uganda, **its potential to export camel milk is hindered by the lack of a specific government entity to**

certify and ensure quality of camel products. Whilst the Kenya Bureau of Standards has released guidelines as an initial measure, greater recognition and representation of the sector by both Government and the private sector would help to ensure a supportive policy environment conducive to growth. The ‘seal of approval’ of a national-level, camel-specific quality assurance body would legitimise individual companies’ outputs, and would also signal – on the national level – the country’s investment in the value chain.

The camel milk sector does have several similarities in inputs, processes, and needs to the traditional dairy sector, and there is potential for the policies and regulatory framework which guide the dairy industry to be applied directly to the camel industry. There is also potential for the Dairy Industry Act, which currently only recognises cattle milk, to be revised to include camel milk. **Industry players have differing opinions on the impact either of these pathways to regulation may have on the sector.** Whilst some prioritise putting policy in place urgently and believe that dairy policy could be adapted to fit the camel milk sector, others have expressed that the dairy industry does not offer a strong blueprint for future camel policy due to the deep entrenchment of certain firms and actors in that pre-existing system. Rather, some actors believe that to create a policy framework and regulatory system which provides equal opportunities to all firms and producers, a new policy landscape independent of dairy would need to be established.

Land protection policies

In addition to processing and export policy, there is also an **urgent need to intensify land-protection policy to benefit camel herders**. White Gold is a prime example of the threats of urbanisation and deforestation on pastoralists and other actors of the camel milk value chain: until recent years, the company was able to graze its camels on public lands surrounding Nanyuki town, providing its herd with the nutrients necessary without disrupting individuals' plots of land. However, **public lands suitable for grazing have shrunken rapidly**, especially in light of expanded military facilities around Nanyuki as the land has been reallocated to the armed forces.

Without grazing land, White Gold now keeps its herd at the Mpala Ranch, located approximately 40 kilometres from the processing facility. Whilst the company experiences several positive benefits from its partnership with Mpala – including increased security, nutrient grazing lands, and opportunities for knowledge exchange with the ranch – there are inherent cost implications for the ranch to graze and house the camels, which cut into the company's profit margins.



Key Learnings

Whilst White Gold is still undergoing growth and is not yet eligible for support from AgriFI, it offers crucial insights into the huge scope for expansion, and inhibiting limitations, the sector faces. The company's remarkable market potential and capacity to create impact serve as justifications for future investments in the sector. At the same time, **White Gold's key challenges are useful in prioritising areas where support is required, and establishing a roadmap for most urgently needed interventions.**

Policy Landscape

Whilst an underdeveloped policy landscape creates very tangible challenges for small, medium, and well established producers and processors, there are opportunities for mechanisms such as AgriFI to provide pivotal support across the sector. This might include, for example:

- **Capacitating government officials and policy makers** to ensure that key decision makers – particularly those involved with the dairy industry and in regulatory roles – are aware of and equipped to respond to the specific needs of the camel sector.
- **Resourcing apex organisations** with direct resources and/or support to develop financially sustainable service delivery models can help apex organisations (e.g. Kenya Camel Association) to play an active role in addressing gaps constraining the development of the value chain. Services might include:
 - Veterinary care in partnership with county agricultural extension officers, universities, etc.;
 - Provision of quality inputs procured, in bulk, at affordable rates and distributed through producer groups;

- Food safety training akin to AgriFI’s work through the Agricultural Technical and Vocational Education and Training [AT-VET] model;
- Fostering market linkages to play an intermediary role in bringing producer groups together with processors and other value chain players; and/or
- Streamlining certifications/verifications by facilitating and potentially subsidising training and applications.
- **Working with financial service providers to facilitate access to finance** for smallholders/pastoralists, with particular focus on treatment of biological assets e.g. to enable camels (and other livestock and production materials) to be used as collateral to access funding, and tailoring products (e.g. insurance) towards smallholder producers.
- **Advocating for policy level support to facilitate access to regional trade opportunities**, tapping into the significant demand for camel milk across EAC countries including Uganda and Rwanda. This could be leveraged for the growth and development of the sector if enabling policy is put in place.
- **Lobbying for land protection/reform in support of pastoralist livelihoods**. There is a particular need to address challenges around communal land registration and acquisition of title deeds, in addition to broader issues relating to security of land tenure.

These possible interventions have potential – particularly if applied in combination – to have positive impacts on the camel industry and its various actors, improving the enabling environment for growth and productivity.



Smallholder Production and Engagement

Integrating smallholders into the camel milk value chain provides pastoralist and urban herding families with tangible monetary and social impacts, but these herders require further support to operate with the same productivity and quality as ranches. White Gold’s three most significant barriers faced when engaging smallholders – hygiene and traceability, demand for immediate payment, and reduced yields – offer insight as to where smallholder support is needed.

Actors interested in supporting camel milk producers might use these learnings to direct resources towards smallholder herder training (with focus on best practices and systems for traceability), potentially establishing knowledge-sharing and capacity building between smallholders and ranchers. A company like White Gold – with its institutional knowledge and keen understanding of both the history and future direction of the camel sector and its producers – would be well placed to design such a programme with support from a funding partner.

To reconcile the tension between processors and producers' income streams – allowing smallholders to receive more immediate payment without placing financial strain on the company – catalytic funding could be useful in supporting businesses to establish/develop alternative product lines with more ideal payment mechanisms; for White Gold, intensifying production of consumer-direct products, such as its yoghurts which are produced by order rather than stocked in retailers, could be effective.

Similarly, funding to support camel milk producers in diversifying into high-value processed products, such as milk powder or baby formula, has the potential to unlock new markets – if and only if complemented by policy-level intervention to facilitate export.

White Gold dedicates what resources it can to increase smallholder production capacity, but is relatively constrained in the support it can offer without external resources. To this end, **the company illustrates the case for AgriFI and similar funds supporting smaller SMEs and more niche businesses – which are often less formalised and may require adaptive and flexible eligibility criteria.** Targeted funding windows to catalyse growth amongst emerging industries, with lesser requirements for match funding, reduced turnover benchmarks, and additional technical support for internal capacity building and formalisation, may be effective in engaging developing SMEs.

Expanding the provision of services to support SMEs on the brink of engagement may also reduce barriers to participation. For example, there is potential to provide targeted support to applicants during proposal development, and to subsidise certain application expenses for promising firms/SMEs after initial screening. Increasing support to applicant firms would not only enhance the Fund's ability to reach smaller SMEs with high potential for impact, but also contribute to SMEs' capacity to position themselves for future opportunities.

Despite the industry-level limitations and need for expanded policy and investment, producers such as White Gold ultimately reiterate the business case for climate smart agriculture and livestock practices, which underscores the importance of the interventions highlighted above. As climatic conditions worsen and rainfall patterns become less predictable, camels offer a climate-resilient alternative to ruminants. It's important that the sector is pre-emptively developed and market linkages are established to ensure that smallholders and processors alike can diversify into and profit from the industry. Challenge funds and mechanisms similar to AgriFI have opportunity to engage with the value chain's development from various angles – as outlined – and may be powerful tools for promoting climate readiness amongst smallholders, processors, and other value chain actors in this promising industry.

