Rapid Assessment of the Dairy Sector in Kenya

Impact Area 1

Increase in cost of production and decrease in productivity of cows due to mobility restrictions

Impact Area 2

Disruption of transportation and in-person training owing to mobility restrictions

Impact Area 3

Disruption in availability of and access to dairy inputs caused by mobility restrictions

Impact Area 4

Decrease in income and employment, impacting affordability and consumption of milk

Impact Area 5

Judy Kithinji)

Weakening of governance and decrease in coordination of and participation in stakeholder platforms

Impact Area 1

Increase in cost of production and decrease in productivity of cows due to mobility restrictions

What is the impact?

- Farmers depending on feed and fodder from other counties have had to ration locally available feed, owing to restrictions in movement between counties that have impacted on the availability and cost of feed and fodder.
- The lockdowns in key business-partner counties have also been affecting the import of raw materials required for feed production, leading to an increase in the cost of feed and affecting their quality.
- Due to the reduced availability of dairy meal and other concentrates, some farmers have turned to using local and low-quality homemade rations, causing a decrease in the productivity of their animals.
- Due to restrictions in movement, many service providers have not been able to reach the farmers. This has resulted in increased incidences of diseases at farm level and, consequently, decreased milk production per cow.
- Many dairy farmers have been uncertain of the COVID-19 control measures that could be enforced and how these measures would affect the continuity of their farming enterprise. This uncertainty has led to a reduction in the vigour and activities of farmers on their dairy farms.
- Some farmers have not been able to afford to pay workers with the result that less care has been taken with dairy animals.
- Access to agricultural financing has been reduced, which has affected the cash flows needed to ensure the smooth running of dairy farms.
- An outbreak of foot-and-mouth disease (FMD) in some counties has worsened the situation, affecting the productivity of animals.
- Locust infestations at the start of the COVID 19 pandemic affected feed and fodder production in many counties.
- Fuel prices spiked, increasing production and transportation costs. As a result, profit margins have decreased and those with loans have not been able to service them as effectively as before.

Short term actions	 Use of local media and extension officers to build morale and assure dairy farmers of their survival despite COVID 19, for lessening the panic and increasing self-drive to participate in dairy activities. Extension service providers, farmer cooperatives and government to increase their efforts to continuously train farmers on fodder production, fodder conservation and the use of alternative feeds. Financial institutions to relax the credit terms and give more credit to farmers to finance their dairy operations based on anticipated future farm productivity and performance. Government to provide subsidized recovery kits for dairy farmers, especially in areas affected by desert locusts.
Mid-term and strategic actions	 Dairy stakeholders to use local media to train dairy farmers. Public-private partnerships to be set up between government, farmer cooperatives and investors, to enhance the availability and distribution of feed and fodder. Farmer cooperatives to increase their buffer stock of feeds to cushion their members during future pandemics.



Milk Quality Checks at Kieni Dairy Products Limited (Photo: Judy Kithinji)

Impact Area 2	Disruption of transportation and in-person training owing to mobility restrictions
What is the impact?	 The volume of milk collected from farms has decreased because many household members, including children, have been at home due to the closure of various institutions. This has led to an increase in household milk consumption and a decrease in the volume of milk available to sell. Combined with the reduced productivity of cows, transporters have had to cover longer distances to collect enough milk. Public service transport, mainly used by farmers to transport inputs to the farms and milk to the informal sector, has been disrupted within and between neighbouring counties in Kenya. Processors have not been able to get milk from other countries and have had to depend on local production, which has increased competition and farm-gate prices of raw milk. In-person training sessions have been halted due to lockdowns. Some banks offered training and model farm visits before advancing credit, but this has not been possible owing to the lockdowns. Financial institutions have offered alternative banking services, such as online payments and the use of mobile apps, which are not suitable for older and less literate farmers. Por infrastructure for information and communication technology (ICT), inadequate technical knowhow, and limited capacity have restricted farmers' access to online training services. Virtual meetings have not been very effective in the sector. Self-help groups were set up before the COVID-19 pandemic, but it has been difficult to bring them together for face-to-face meetings during COVID, which has impacted their effectiveness. Banks have reduced credit for many individual customers, such as farmers and input providers since they have had difficulties with repayments.
Short term actions	 Extension and training service providers to use other forms of training for farmers, such as virtual, radio and television to improve access to inputs and services. Dairy farmers to develop small milk collection points to minimize the cost of transportation. Transport workers to organize more bulk transportation to reduce costs. Government to provide storage facilities to processors in order to increase the amount of raw and processed milk products available. Government to facilitate branding and allow branded (labelled) dairy vehicles to easily pass roadblocks, reducing time wastage and minimizing transportation costs. Extension services and non-governmental organizations (NGOs) to organize training sessions for farmers on feed conservation, and encourage them to have
	 enough storage structures to aggregate inputs and cushion against unexpected future crises. TV and radio stations to broadcast more training sessions for farmers in local languages. Extension and training service providers to collaborate with ICT experts and other stakeholders to create online platforms that can teach farmers. These platforms will be able to help farmers with internet-enabled phones to access training sessions in English and Kiswahili.

Impact Area 3	Disruption in availability of and access to dairy inputs caused by mobility restrictions
What is the impact?	 Off-takers and aggregators, who play a critical role in purchasing milk from farmers in inaccessible locations and distributing it to processing plants and consumers, have had reduced access to credit. Since they have not been able to get adequate credit to finance their operations, the volume of milk traded has decreased. The aggregate agricultural production loan book has grown compared to other sectors during COVID-19, with loans being offered to select cooperatives that had good collateral. The lockdowns hindered service provision (inability to meet and travel), but the situation has been further exacerbated by other non-COVID-related factors. There has been a decrease in the export and import of milk and dairy products, partly due to reduced mobility but mainly because of other factors not related to COVID-19. Prior to the onset of the pandemic, the importation of milk from Uganda was restricted by regulatory bodies, which led to a further decrease in milk available
Short term actions	 for consumption. Financial service providers to create a credit line where farmers do not need to depend on future production but on current production for loan appraisals. Financial service providers to lower interest rates on loans for stakeholders in the value chain during pandemics. Tripartite agreements to be put in place between input providers, farmer cooperatives and farmers, to increase access to inputs and enhance repayments. Government to increase the provision of subsidies on inputs for dairy products, targeting smallholder farmers. Farmers to store more fodder in the rainy season so that they can use it during crisis situations.
	 Government to give advance notice of a lockdown to allow stakeholders to make adequate preparations. Various stakeholders, service providers, and government to sensitize communities and support them in developing tailored responses to the COVID-19 situation.
Mid-term and strategic actions	 Dairy stakeholders to boost milk volumes within the country so as not to depend on other countries. Dairy stakeholders to aim to make Kenya self-sufficient (autonomous) in feed production.

Impact Area 4	Decrease in income and employment, impacting affordability and consumption of milk
What is the impact?	 When profit margins decreased, businesses had to adapt by cutting the salaries of their essential staff and laying off non-essential staff. Due to reduced milk intake, processors had to lay off employees or force them to take compulsory unpaid leave. Most people who lost their jobs or have been temporarily out of work, e.g., teachers, have returned home, hence there has been more family labour available, which in turn has led to laying off hired workers on their farms. Reduced mobility due to lockdown has also affected many jobs, especially those requiring travel between counties. Some milk consumers have prioritized the purchase of other foods, reducing demand for milk. In 2020, the government reduced taxation for employed workers, increasing their disposable income, though it reverted back to previous levels in 2021. Due to uncertainties surrounding the containment of COVID-19, many people have tried to save financial resources, reducing the amounts available for expenditure. There has not been much variation in demand for liquid milk, but the sale of value-added products has decreased. There has been a noticeable shift in demand from pasteurised to long-life milk by consumers. Demand for milk has increased in urban centres since children have been off school and people have been working from home. The consumer price for milk at local shops and supermarkets has not been affected.
Short term actions	 Milk processors to consider packaging milk in smaller volumes, such as 250 ml, to make it more affordable. Milk processors to look at increasing value-added and diversified products with a longer shelf life, including powdered milk. Dairy stakeholders to organize campaigns and mass public education on alternative ways of consuming milk. Government to ensure that lockdown measures don't affect milk distribution. Government to lower taxes for workers and companies during pandemics.
Mid-term and strategic actions	 Dairy sector actors to diversify their income sources. Development organizations and governments to train young staff in various skills-based self-employment and aspects of money management. Government to consider providing agricultural subsidies to farmers and removing VAT for added-value products, and to review the taxation of milk processing inputs.

Impact Area 5	Weakening of governance and decrease in coordination of and participation in stakeholder platforms
What is the impact?	 Due to weak governance, despite the consideration of the dairy sector as an essential service (allowing the movement of milk and dairy products), the sector has been affected by restricted movement during the COVID 19 crisis. There have been no/very limited stakeholders' meetings, no annual general meetings or smaller group meetings due to COVID 19 restrictions, which has affected the governance of the dairy sector. Cooperative boards and farmers' groups have been very much affected; board meetings have been rarely held, if at all, slowing down decision-making. Government set a minimum milk price at the farm gate, but its implementation has not been effective. There has been decreased participation in and coordination of stakeholder platforms due to the decline in face-to-face communication among stakeholders. Those who could, have shifted from physical to virtual meetings and have had less frequent in-person meetings. Before the COVID 19 pandemic, farmers could meet in large groups and organize field days. This changed after the onset of COVID as stakeholders have required more time to meet farmers in smaller groups in order to respect social distancing.
Short term actions	 Dairy stakeholders to use online services for training sessions and meetings, and be further supported through sensitization on using digital communication. Government to oversee the enforcement of a minimum price where it is not being implemented. Government, extension service providers, and farmer cooperatives to consider using bulk SMS services to communicate and reach out to many farmers. Government to ensure that there are sufficient well-trained extension officers in each location.
Mid-term and strategic actions	 Government and investors to collaborate on providing good telecommunication network infrastructure. Government, regulatory bodies, and dairy sector stakeholders to establish forums with all stakeholder representatives to help prevent duplication of activities. Dairy stakeholders to build networks for information sharing.

Dashboard

Level of impact of the COVID-19 pandemic and related restrictions and measures -Outcomes of a survey conducted in May 2021 Survey questions were rooted in the integrated food system and sector framework, which also provides the structure of this dashboard.

	Socio-	economic drivers		Socio-economic ou
larketing and purchase of life animals				Income from dairy
				Total on-farm income
				Off-farm income
Enforcement of policy and regulation	Coordination betwee	n sector stakeholders	Investment opportunities	Employment
Government support	Communication betw	een sector stakeholders	Investment attractiviness	Remuneration of employe
	Stakeholder participa	ition in platforms		Total household income f male, female and youth f
	Stakeho	older organization		
Services of cooperatives and dairy producer orga	nisations	Services of other dairy	stakeholders (non production related)	
	Ser	vice provision		Food & nutrition sec comes
Access to credit	Access to feed and fo	odder	Access to equipments, processing and packaging inputs	Price of milk at farm gate
Access to vet and artificial insemination	Access to seed and c	ron inputo		Price of milk at processor
services		rop inputs	Access to trainings and R&D	
•		rop inputs		Price of milk at informal
Production			Value chain development	Volume milk and dairy pr
Production				Volume milk and dairy pr imported Volume milk and dairy pr
Production Dairy herd size		The volume of milk and Transportation of milk	Value chain development d dairy products marketed from farmers and cooperatives to processors	Volume milk and dairy pr imported Volume milk and dairy pr exported
Production Dairy herd size Cost of milk production		The volume of milk and Transportation of milk	Value chain development d dairy products marketed	Volume milk and dairy pr imported Volume milk and dairy pr exported Consumer price in rural a
Production Dairy herd size Cost of milk production Milk productivity		The volume of milk and Transportation of milk	Value chain development d dairy products marketed from farmers and cooperatives to processors from farmers and cooperatives to street vendors	Volume milk and dairy pr imported Volume milk and dairy pr exported
services Production Dairy herd size Cost of milk production Milk productivity Calving interval Using of agro-chemicals		The volume of milk and Transportation of milk (informal) Transportation from pr	Value chain development d dairy products marketed from farmers and cooperatives to processors from farmers and cooperatives to street vendors	Volume milk and dairy pr imported Volume milk and dairy pr exported Consumer price in rural a

Consumption of packaged milk vs fresh milk

Quantity of milk consumed per household

member



Proportion of total farm land used for dairy sector

Proportion of milk sold directly to consumers by farmers and cooperatives

Rapid Assessment of the dairy sector in Kenya

Amidst the worldwide COVID-19 crisis we currently face, and the socio-economic effects of coping measures, specific attention and action are needed to secure agricultural production for income, employment, and food security and nutrition, i.e., to safeguard the continued functioning of the food system. For the near and mid-term future, it is important to ensure the production and marketing of agricultural commodities will continue in the best way possible under the prevailing circumstances. This requires assessing how the COVID-19 containment measures and other indirect results of the pandemic affect individual agricultural sectors, and take action to minimize negative impacts on the functioning of agricultural sectors within the larger food system.

Through a collaborative effort, involving a broad range of sector stakeholders, a rapid assessment of the dairy sector in Kenya was conducted to propose adequate responses to the challenges that were identified by dairy sector stakeholders. The rapid assessment contributes to developing short-, mid-term and strategic actions and interventions that will enhance the sector's resilience and support the continuity of activities within the sector, taking into account the unpredictability of the crisis. More details on the methodology and steps used in the rapid assessment and development of the current document can be accessed through this link.

Purpose

The rapid assessment aims to assess the impact of the COVID-19 crisis on the functioning of the dairy sector in Kenya. Further details on the rapid assessment project can be accessed through this link.

Rapid assessments in other sectors

Working with a similar model of rapid assessment in various sectors and countries over a time series allows for interpretation and synthesis of the impact of the COVID-19 crisis on food systems at national, regional, and global levels. It identifies coping strategies, and immediate and practical actions required to address emerging challenges. Furthermore, it provides insights into the use of sector transformation as a diagnostic tool supporting strategic development, planning and identification, and monitoring interventions that aim to enhance the functioning and resilience of agricultural sectors and food systems.

Partnership

The rapid assessment was facilitated by WCDI and conducted in close collaboration with Wageningen Livestock Research, and Policy and Market Operations (Nairobi). They are further joined by Kenya Dairy Board in the implementation of the assessment.

Contributing organizations

The rapid assessment of the dairy sector in Kenya involved representatives of the following organizations in the survey and focus group discussions: (a) milk processors - New Kenya Cooperative Creameries (New KCC), Countryside Dairy, Meru Dairy Farmers Cooperative Union, Bio Foods; (b) producer organizations/cooperatives - Kieni Dairy Products Limited, Dairy Farmers Cooperatives - Ndumberi, Uruku, Naari, Mweiga and Karongoni, Dairy Traders Association; (c) financial institutions - Savings and Credit Cooperative Organizations (SACCOs) - Taifa, Capital and Yetu, Kenya Commercial Bank; (d) public sector - Kenya Dairy Board, State Department for Livestock - in Embu, Machakos, Kirinyaga and Nyandarua counties, Dairy Training Institute; e) development partners - Agriterra, SNV Netherlands Development Organisation, AVSI Foundation, SPARD Africa, Research Triangle Institute (RTI), Kenya Crops and Dairy Market Systems (KCDMS) Activity, Kenya Climate Smart Agriculture Project, Tharaka Nithi County; f) service/extension providers - Farming Solutions Africa, Agrovet services - Kairo, Gatarakwa, Malewa and Pillar, Reliable AI Services, African Breeders Services; g) research/learning institutions - Kenya Agricultural and Livestock Research Organization (KALRO), International Livestock Research Institute (ILRI), University of Nairobi, Jomo Kenyatta University of Agriculture and Technology.



Farmer from Mulatha Farmers Cooperative cleaning his cowbarn (Photo: Judy Kithinji)

This rapid assessment is published within a series of rapid assessments in multiple (sub)sectors and countries, and is part of WCDI Sector Transformation publications.

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