



**>FEED
BACK**

FOOD WASTE IN KENYA

UNCOVERING FOOD WASTE IN THE
HORTICULTURAL EXPORT SUPPLY CHAIN



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EXECUTIVE SUMMARY

Feedback's research into Kenya's horticultural export supply chains has uncovered systemic issues related to imbalances of power and unfair trading practices throughout the agricultural supply chains resulting in significant impact on food waste levels, farmer livelihoods and food security.

Last minute alteration or cancellation of orders, **unnecessarily strict cosmetic specifications** and unpredictable fluctuations in demand and price from retail buyers often mean that farmers are left with large amounts of unsellable produce, as secondary markets are not responsive or lucrative enough to absorb this produce.

Not only do these issues result in high levels of **wasted resources such as land, waste, energy, agri-chemicals and fuel**; they also cause severe financial loss to exporters, farmers and farm workers. Financial risk is transferred down the supply chain to the weakest actors **forcing many into debt cycles and reduced living standards.**

As demand for luxury horticultural products is rapidly increasing, owing to the rise of middle class populations globally, other African countries are starting to focus their production towards servicing this market. As a result, the problems facing Kenya at the moment, which are endemic to the way international horticultural value chains function, could be rapidly magnified if the African horticultural market is to follow, and indeed in other export led economies across the global south.

In light of this, raising awareness of the trade practices causing this unnecessary waste among stakeholders and identifying the positive intervention points that will lead to systemic change becomes all the more important.

This report outlines critical areas of business practice that must be addressed to **put an end to unfair trading practices.** This will not only reduce the amount of food being wasted in fresh produce export supply chains, but will also improve the livelihoods of many farmers around the world.

To that end, the Feedback team carried out research to collect further data and interview farmers, exporters and other stakeholders.

“Farmers are left with large amounts of unsellable produce,,

TWO MAJOR CAUSES OF WASTE IN THE KENYAN HORTICULTURAL EXPORTS SECTOR

COSMETIC SPECIFICATIONS

Cosmetic specifications imposed on exporters and farmers in Kenya, predominantly by European retailers, have led to systemic waste within the sector.

UNFAIR TRADING PRACTICES

Farmers and exporters complained of frequent order cancellations and last minute forecast adjustments, a form of unfair trading practice, made by their clients, resulting more often than not in large amounts of unsellable food being dumped or at best fed to livestock.

SUMMARY OF KEY RESULTS

- All farmers and exporters experienced problems with **food being rejected on the grounds of cosmetic specifications.**
- **All farmers experienced financial loss** as a result of the rejections caused by cosmetic specifications.
- On average over **30% of food is being rejected** at farm-level.
- Exporters reported nearly **50% of produce is rejected before being exported**, inclusive of farm level waste.
- Farmers reported being **forced into cycles of debt** as a result of uncompensated order cancellations.
- 100% of the farmers and exporters interviewed believed that **rejections were the result of actions taken by European importers and retailers.**



INTRODUCTION

This report focuses on Kenya as a case study to explore the issue of food waste within the developing world, and is primarily concerned with the country's horticultural export supply chain.

Horticultural exports make up 23 per cent of Kenya's GDP, being the country's greatest foreign exchange earner¹. This industry directly employs 4.5 million people, whilst indirectly supporting a further 3.5 million through trade and related activities². **Fruit and vegetables are the second and third most important exports** in this subsector after flowers, with French beans being the main vegetable grown³.

FOOD WASTE AND FOOD LOSS

There is an evolving number of initiatives concerned with food losses in the global south. These initiatives generally refer to what are known as post-harvest losses (PHL), focusing on infrastructure issues, poor harvesting methods and inadequate storage of crops. **This report intends to extend this discussion further to better understand food waste in developing countries, as opposed to food losses.**

Food waste shall be understood by this report as any food intended for human consumption being discarded or left to spoil as a result of actions and decisions taken by stakeholders across the supply chain (farmers, brokers, exporters, importers, retailers, and consumers) and that relate to the way the market is structured. This is separate to **food loss** as defined above, which is not studied within the boundaries of this report.

The Copenhagen Consensus Center highlights the need for improved infrastructure and technology to reduce PHL in the global south, and estimates that the investment would be “complementary to investments in long-term productivity growth to achieve food security”⁴.

However, as this report will show, there is also a **great need for reducing food waste that occurs independently from improvements in PHL reduction**. Food waste reduction can be achieved with limited investment, compared to PHL reduction, instead requiring innovations in business practices to avoid unfair trading practices that force farmers to waste their produce. Recommendations have been made in light of these findings later in this report.

CAUSES OF FOOD WASTE

Two causes of food waste have been identified in this report.

The first is associated with cosmetic specifications. Such specifications detail the exact shape, size, and colour that produce should be, and are not related to the safety or nutritional quality of the product. These specifications are created by major European retailers and result in a large amount of fresh quality food being rejected.

The second cause of food waste identified relates to order cancellations and last-minute forecast adjustments. These trading practices originate at the top of the supply chain, either from retailers or importers.

When an order is cancelled, exporters and farmers are often left with no other markets for their produce. Some larger exporters are able to send cancelled orders to other customers at short notice, but **for the most part the produce is either dumped, or returned to the farmer.** Order cancellations can occur before or after the produce has been harvested, sometimes even hours before it is due to be exported after being graded and packed in Nairobi.

The horticultural sector is highly susceptible to retailer abuses of power due to the perishability of produce. **Unlike commodities like grain that can be stored, fresh produce must be sold with**

adequate shelf life. As Consumers International state, “the supplier has only a short period of time before the product becomes unsellable. Purchasers know this and can exploit it”⁵. Retailer abuses of power are exacerbated by the fragmentation of the supply chain, which leads to market risks being transferred via intermediaries down the supply chain to producers⁶.

These buying practices result in financial loss for exporters and farmers and in some cases lead to farmers and day labourers not being paid at all. Whilst some farmers are aware of order cancellations, many only experience what they believe to be product rejections based on quality. Produce is rejected for cosmetic or quality specifications without any formal evidence, yet many farmers have good reason to believe that their produce is being rejected simply because there is a discrepancy between the forecasted order and the actual demand for their product.

Food waste directly translates into further waste when the wider picture is taken into consideration.

Land, water, seeds, labour, agro-chemicals, and fuel are all wasted if food that has been grown for consumption never reaches the mouths of people.

“Food wastage goes beyond just the food components that has been thrown away...other resources and livelihoods are [also] being wasted,,

As one agricultural expert expressed during an interview

METHODOLOGY

This report is the product of a two-week research trip to Kenya conducted by Feedback. Primary data was gathered through informal semi-structured interviews held with farmers and exporters.

Each interview was guided by a set of 24 questions. In total 21 interviews were conducted, of which ten were with farmers, two were with day labourers and nine were with exporters.

Semi-structured informal interviews were chosen as a method of research to avoid restricting interviewees to answer questions within a strict format. Five of the interviews were conducted in Swahili and were translated in situ, while the rest were conducted in English.

Data and testimonials were taken from individuals with their prior consent. Feedback appreciates the personal and commercial sensitivity of the information included in this report and therefore the names of individuals and businesses have been omitted from this report to protect the identity of those involved.

The first week's interviews were recorded using a Dictaphone. The second week's interviews were conducted alongside a cameraman. Although the

presence of recording equipment may have caused interviewees to not act normally, the responses given by each of the participants in different settings were very similar showing a high level of validity. Interviews were conducted on farms and in export pack houses of various sizes to ensure a high level of representativeness.

The results of the interviews corresponded with results from a similar survey conducted previously by Feedback in Kenya, therefore demonstrating a high level of reliability.

Another difference in data collection that should be noted is the difference in produce handled by the farmers and exporters. The farmers interviewed for this report dealt primarily with French beans, sugar snaps and mangetout. The exporters interviewed dealt with a much wider variety of produce including peppers, baby corn, broccoli, baby carrots, chillies, avocados, mangos, and passion fruit as well as the above.

Secondary data was gathered via desktop research and communications with industry experts in Kenya before, during and after the research trip.



COSMETIC SPECIFICATIONS

Cosmetic specifications are a challenge for many farmers across the world.

Whilst specifications concerning food safety and quality are understandable, unnecessarily strict cosmetic specifications lead to food being graded upon its appearance rather than nutritional content. As such, these specifications generate a substantial amount of unnecessary and avoidable waste, as food deemed unsellable is largely wasted or alternatively fed to livestock.

Cosmetic specifications are a major problem for both exporters and farmers in Kenya. **Produce that does not meet these standards is simply rejected** from the supply chain resulting in financial loss for the businesses involved.

Every farmer and exporter interviewed expressed having regularly experienced produce being rejected on the grounds of cosmetic specifications. Yet, the majority of the exporters and farmers interviewed claimed that they did not understand the reason for these specifications.

Two individuals reported that they had been told that the cosmetic specifications related to the nutritional content of the produce. However, they had not received any evidence of this, nor could they see any logic in the statement.

Farmers reported having to reject produce on the farm and in their grading shed in order to meet the demands of the exporters. However, they also claimed that food was regularly rejected at the exporter's pack house after they had graded it themselves. In some cases, food rejected at the pack house was returned to the farm to either be used as cattle feed or compost.

Farmers and exporters are sometimes able to sell produce on the local market. However, produce that has been grown for the export market attracts a very low price on the local market, sometimes 7-15 per cent of the expected value. **For some businesses, it is not worth selling this**

produce considering the additional costs of transportation and marketing.

As the market is already saturated with products grown for the local market there is no major demand for produce intended for export. Furthermore, products like **mangetout, sugar snap peas, and French beans are not regarded as culturally appropriate food in Kenya**. These products are seen as foods grown solely for export and are not generally eaten by the local population due a difference in local palettes.

Exporters reported that different markets had different levels of tolerance when it came to cosmetic specifications. They explained that the Middle Eastern market was not as strict as the European market.

Of the European importers, the UK was identified as being the strictest when it came to horticultural produce, followed by France. This reputation had led two exporters that were interviewed to stop all business with the UK as they felt their clients were too fussy.

Rejects exist across the supply chain in Kenya from farm to pack house. The process of sorting 'exportable' produce from 'rejects', known as grading, occurs at three levels in Kenya: on the field, in farm grading sheds and in exporter pack houses.

“I understand that mangetout means ‘eat everything’, but now I’m wondering: why don’t you eat everything as the name means?,,
Kenyan farmer



“ Every week I harvest between 300 and 500kg depending on how much I've planted. Out of this harvest I end up losing about 200kg. I feel very bad because I'm losing...I have people working in the farm. I pay each of them 300 shillings per day. This is wasted, that is money that is lost and I feel so bad because I am losing money. ”

Kenyan French Bean Farmer

100%

All farmers and exporters experienced problems with **food being rejected on the grounds of cosmetic specifications.**

30% of French beans wasted by exporters through the practice of 'topping and tailing' for cosmetic specifications.

Farmers and exporters were able to identify trends in levels of rejects throughout the year, relating to seasonality and market demand.



100% of the farmers interviewed had experienced **financial loss as a result of the rejections caused by cosmetic specifications.**

100%

of the farmers and exporters interviewed believed that **rejections were the result of actions taken by European importers and retailers.**

33%

Average amount of food rejected at farm-level reported by farmers

44.5%

Average amount of food rejected at farm and pack house level reported by exporters

FIELD REJECTIONS

Farm workers are trained to only pick sellable produce from the farm. Produce that does not meet specifications is left on the plants or the ground.

The average amount of food being wasted at this level reported by farmers interviewed by Feedback was 14 per cent. This food would typically be left in the field and ploughed back into the earth.

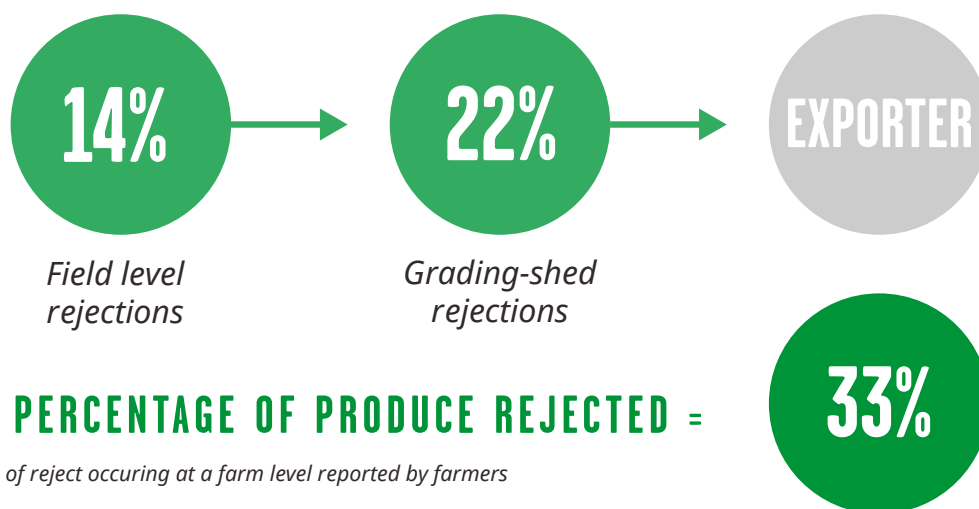
GRADING-SHED REJECTIONS

As workers are paid for either the time they spend harvesting or the quantity of produce they pick, the level of on-farm grading is not effective and therefore further sorting is required separately from the field.

This produce is taken to grading sheds, either on farm or to a local facility owned by a farming cooperative. A team of trained workers then sort through the harvested produce to ensure only Grade 1 produce is sent to the exporter.

The average amount of waste generated at this level reported by farmers was 22 per cent. This food would either be fed to livestock, or instead used for compost due to the sheer quantity available. One farmer reported how he regularly dumped his produce because there was too much even for his cattle to eat.

COMBINING GRADING-SHED REJECTIONS WITH THE FARM LEVEL REJECTS SHOWS AN AVERAGE 32.92% OF CROPS GROWN FOR EXPORT WERE REPORTED TO HAVE BEEN REJECTED BEFORE BEING SENT TO THE PACK HOUSE BECAUSE OF COSMETIC SPECIFICATIONS.





Baby corn rejected for being (l-r) too long; too thick; too small; too thick; too long; too long



“ I feel very bad because I’ve put in all my energy to grow this food. We’ve put in the labour, we end up harvesting and taking it to the grading shed. Then we discover that there is a lot that can’t go to the company. What is more important is the losses we incur, because we did not grow this food for eating, we grew it to make money out of it. ”

A farmer growing snow peas for the export market described how he felt when he had to reject his own produce after it had been harvested

PACK HOUSE REJECTIONS

An additional level of grading is required once the produce has arrived at the exporter's pack house to ensure against produce being rejected on arrival in the country it is destined for.

Some pack houses operate using standard packability percentages (SPP) to provide estimates of how much produce they need to procure in order to meet their client's orders. These SPPs inform the minimum amount of exportable produce that must be delivered per consignment from the farm. One exporter visited by Feedback had an SPP of 50 per cent for baby carrots – a figure that meant **the exporter expected to waste 50 per cent of the carrots delivered due to cosmetic standards.**

At one pack house visited by Feedback, farmers were required to deliver French beans that on first inspection are at least 65 per cent packable. An SPP of 65 per cent, at this particular exporter meant that the farmer would be paid in full for their produce.

Farmers delivering between 50 and 65 per cent SPP would receive the gross payment minus 10 per cent. Any consignments delivered with an SPP below 50 per cent are subject to market demand. If there is demand for the product then the farmer will be paid according to packability.

This is not the case for all pack houses however and **many exporters will only pay for what they are able to export.** The rest of the food is rejected, in turn being sent back to the farm to be fed to livestock and composted; sold in small quantities on the local market; or dumped.

In this situation the farmer, having lost their source of income, is unable to pay their workers in full.

To avoid creating animosity between the farm and its labourers, **many farmers resort to taking out loans or selling their livestock in order to pay their workers.**

One farmer interviewed said the following about food being rejected once it had arrived at the pack house:

“Sometimes you have taken some loans from the bank, sometimes we are financed by the bank, because it is very hard to start a project with no money, so you go tell the bank give me money.

But when they reject what you farm, you have taken to them the produce. The bank don't know that, so the bank will now come for the securities you have given, maybe your household goods are gone, something else you have not planned for, but all the money that you had been given by the bank went to the shamba⁷, to the garden or to the farm, but the company's not interested.

So they don't care where you get the money. So in the long run, the farmer has double losses, one from the farm, the other for the security, is gone to the bank, so they become desperate, they become even more poor.”

Exporters interviewed by Feedback reported rejecting an average of 25 per cent of their produce during grading in the export pack house.

The same exporters noted that on average their farms would waste 26 per cent of their crops as a result of on-farm grading prior to delivery to the pack house.

This figure is lower than that given above by the farmers interviewed, however it is important to note the exporters and farmers interviewed were not part of the same supply chain.

EXPORTERS REPORTED THAT AN AVERAGE OF 44.5% OF PRODUCE WAS REJECTED BETWEEN THE FARMS AND PACK HOUSES BEFORE EXPORTING AS A RESULT OF COSMETIC SPECIFICATIONS. THIS FIGURES RELATES TO A WIDER VARIETY OF PRODUCE THAN THE FIGURE GIVEN BY THE FARMERS.



CASE STUDY: TOPPING AND TAILING

The practice of topping and tailing French beans, in order for them to fit uniformly into the packaging used by retailers, results in an average wastage of 30-40 per cent (this level of waste is separate to the previous figures given for pack house level rejections).

To ensure that the beans will fit into the packaging once they have been trimmed the farmer must grow a variety that produces extra long beans. The longer the bean is, the more that is wasted by topping and tailing. The trimmed ends are not suitable for the local market so are routinely fed to cattle or dumped.

One exporter interviewed by Feedback described this practice as 'totally ridiculous' and wished that it would be ended. The exporter welcomed the idea of selling misshapen beans, alongside selling more high care products which would reduce the amount of waste generated by rejects.

Feedback previously challenged Tesco to stop the practice of topping and tailing French beans. As a result Tesco changed their buying policy, instead opting for just topped beans.

In the process of researching for this report, an exporter was interviewed who supplies Tesco and therefore had become a beneficiary of this change in purchasing policy. She said:

"When we were doing the top and tail we were basing our yield calculations on 67 per cent. This means that out of what was delivered here... we would provide for 33 per cent waste just from top and tailing... When our customer made the switch from cutting both sides of the bean...the yield is 77 per cent."

The exporter, now only having to trim one end of the bean, had reduced their waste by a third. This reduction led to annual savings of seven million shillings (approximately £50,000).

This saving also had a knock-on effect for farmers. As the exporter paid their farmer per packability, the farmer could expect a higher price as more of their produce was being exported. Since this initial challenge, at least three major retailers are now only trimming one end of their French Beans rather than both.

Feedback is calling for all European supermarkets to go one step further and purchase whole beans only to stop this gratuitous waste⁸.

Another exporter was asked how a relaxation in cosmetic specifications would affect his business. He said:

"...that would increase the pack out - we would not lose as much. We would be able to ship more and lose less, which could mean we could have better prices. That would mean more to us and to the farmers. We could even grow less."

There are therefore two outcomes to reducing, or abolishing, cosmetic specifications. Firstly the exporter and the farmer will be able to sell more food, therefore wasting less. Secondly however, and more importantly, it means that farmers' costs would be reduced as they would not need to grow excessive quantities of produce to insure against produce not meeting the specifications.

Growing less produce also means using less land, water and agrochemicals, therefore reducing the amount of strain placed upon natural resources as well as farmers' budgets.

30-40%
AVERAGE WASTAGE CAUSED BY
'TOPPING AND TAILING'



UNFAIR TRADING PRACTICES

ORDER CANCELLATIONS AND FORECAST AMENDMENTS

Whereas cosmetic specifications generate relatively regular patterns of waste in Kenya's export supply chain, order cancellations and last minute forecast adjustments result in unpredictable levels of waste, **leaving farmers and exporters more vulnerable to income volatility**. The severity of these losses range from slight reductions in forecast orders to entire order cancellations.

It is important to understand the processes that give rise to these unfair trading practices, and to recognize the relative power holders whose actions result in waste and financial loss. Our research has revealed that the role of middlemen that sit between UK and European retailers and their suppliers in Kenya is unclear when it comes to their responsibility in creating the patterns of waste described above. This suggests that more research needs to be done to understand the complexities of overseas supply chains.

Farmers work to growing programs given to them by exporters who in turn receive them from their clients, i.e. importers and retailers. At the beginning of the growing program farmers predict the amount of produce that they must harvest to meet the orders forecasted by the client.

Farmers use forecast orders to calculate the inputs and labour they will require for production, giving them a guideline of costs for the growing program.

Once the growing program has been initiated the overseas client will issue weekly or monthly order programs to the exporters stating the exact quantity of produce that they wish to be consigned.

The quantity of produce listed on order programs is invariably different from the expected quantities forecasted in the growing program.

On receipt of the order programs the exporter is able to tell the farmer how much to harvest so that

they are able to amend their predicted labour costs before. The farmers' costs may however increase as a result of having initially overplanted to meet the expected orders suggested in the growing program.

Order cancellations and adjustments arise after the final order program has been issued. In many cases the amendments occur during the harvest or indeed after the produce has been harvested, graded and transported to the packing house in Nairobi. A farmer growing mangetout spoke of how these late amendments affected him and his family financially:

“We, as farmers, have gone through this challenge before where the exporter comes to us and tells us that the market across has cancelled the orders.

By that time you have harvested, and what happens therefore is that we have much of our produce left behind and yet we have already had losses in terms of operational costs.

When an order is cancelled we have a problem as a family. I have children in school who are depending on this money, who are being sent home for fees.

They come here crying and by that time I'm helpless because the order has been cancelled, my produce is with me, I have casual labour, I have people in the family, and other obligations.

Once in a while I borrow money from financial institutions - they are also on my neck... I'm subjected to all of this just because of an order cancellation that is not my fault.”

Each of the farmers interviewed who had experienced order cancellations or last minute adjustments claimed to have had to seek financial assistance either through loan companies and banks or informally through other members of the

community. **One farmer growing French beans reported losses of 30,000 Kenyan shillings when orders were cancelled**, resulting in him not being able to service his loans on time and pushing him into a cycle of debt.

Every farmer interviewed claimed to prioritise paying their workers over taking money themselves to ensure that people would work for them in the future. As a result farmers and their families suffered and in some cases were unable to send their children to school or put food on their tables. Some farmers reported having to sell their livestock and other assets when orders were cancelled.

Where farms and exporters were vertically integrated with European importers, as was the case with one major exporter interviewed, order cancellations did not arise due to the nature of effective communications within the business supply chain.

Two independent farmers claimed to have never experienced order cancellations. However they believed that high levels of rejections were often a cover up for order cancellations further up the supply chain.

COSMETIC SPECIFICATIONS

Whilst most of the interviewees highlighted concrete experiences of order cancellations arising from European importers, a number of exporters and farmers claimed that order rejections, made on the grounds of quality or cosmetic specifications, were used to cover up order cancellations.

Two farmers reported that although the contract they had with their exporters meant all of their harvested produce would be collected, they would regularly have large quantities of their produce dumped back at their farm or simply rejected in the pack house for not meeting arbitrary specifications. These farmers prided themselves on their grading practices and aimed to supply only beans that would meet specifications to the exporters. However, large quantities, sometimes up to 50 per cent, were rejected from each farms' delivery. These farmers complained that arbitrary reasons were given for rejections of their produce when in fact there was nothing wrong with it. As one farmer explained,

"If there was rust on a specific block, it would completely destroy that block.

You would need in fact to remove it so that you don't affect your other blocks... [yet] within a matter of a few days, same field and they would take only 10kg rejects, and the other one was 70kg.

[The reason on the first was] pest damage, and on [the second reject sheet] there was no pest damage, there was wind scarring... if there was pest damage on [the first] there should be pest damage [on the second] because it's the same block."

On this particular farm a pile of rejected French beans were observed that had been contaminated with tender stem broccoli – a product the farmer has never grown. In his words,

"...some of this produce cannot be ours, purely because you get all sorts of weird stuff in it that we do not grow."

The same two farmers reported an inverse correlation between the quality of their produce and the levels of rejections they received from their exporters at different times of the year. When the farmers expected to have high levels of rejects, due to bad weather, they experienced very low levels of rejections from the exporters. **When conditions were good, rejects were much higher.**

The farmers speculated that the rejections that occurred during their peak season (a similar season to Europe's peak season) related to an increase in global supply and therefore a reduction in demand for Kenyan produce. Where an order was reduced or cancelled by an importer, the exporter would transfer the financial risk down to the farm under the pretense of cosmetic and quality control.

Despite these injustices farmers are **"suffering in silence"** as one agricultural expert interviewed by Feedback described, choosing to avoid confrontation with exporters over the issues causing waste for fear of losing business.

Rather than engaging with exporters or taking legal action to pursue compensation, many farmers preferred to put up with the issues despite experiencing reduced living standards. A similar comment was made by exporters who feared losing business with importers and retailers in Europe. Instead they preferred to shoulder the financial costs incurred, with many transferring this risk down the supply chain to farmers and farm workers.

Exporters aired an additional concern reporting that importers would regularly reject produce a



“

Just imagine you have been waiting for pay for about 50 days... imagine when the order is cancelled at the last moment. As a human being, how do you feel?

You feel so discouraged; you have debt from other people who have been working for you... after all that, I tell them I don't have money to pay them. So you are going to create, I don't know what to call it - enmity between your workers, loss of confidence - you cannot tell them to work anymore, you see?

You are also going to have financial loss, heavy ones, and mental torture. Psychologically, you feel somebody has done something bad to you, and yet you cannot reach to him, you cannot even use a lawyer because you have nothing to claim here.

”

Kenyan French bean farmer

number of days after it had arrived in the country of destination. Importers would reject partial or entire consignments on the grounds of damage or poor cosmetic standard without giving adequate evidence.

As the produce had been waiting with the importer for a number of days the exporters believed that what was being rejected was actually the result of a slump in demand leading to wasted food in the hands of the importer.

In some cases the exporter would have already paid their farmers so they would incur a loss, whilst in other situations the exporter would transfer the financial risk to their farmers by cancelling payment.

In situations such as those described, cosmetic specifications are used as a front to cover up order cancellations and fluctuations in market demand.

Where supply is lower than demand, specifications are relaxed. Conversely when supply is higher than demand, specifications are enforced and tightened allowing less food to make its way to European markets.

Cosmetic specifications are in effect a means by which European buyers (retailers and importers) are able to maintain a disproportionate amount of power in the food system, transferring financial risk from the market to those further down the supply chain.

Cosmetic specifications should therefore be understood as a form of unfair trading practise when proposing policy and legislation to tackle this issue.

Farmers who had experienced order cancellations and amendments reported losses of up to

100%

2-3 MONTHLY CANCELLATIONS

Farmers claimed that order rejections, based on the grounds of quality and cosmetic specifications, were used by exporters and importers to hide order cancellations and amendments.

One farmer interviewed expressed having orders cancelled two to three times a month.



*Farmers, having suffered losses due to order cancellations, routinely resorted to loans in order to cover their costs entering them into **cycles of debt.***

100%

of farmers interviewed would not take legal action against their buyers for fear of losing business.



LOCAL MARKET CHALLENGES

Some exporters and farmers are able to sell food rejected from the export market at local markets.

However, both farmers and exporters expressed a number of challenges currently reducing the amount they could sell or indeed stopping them from selling surplus produce to local markets all together.

PRICE

The price available for produce to be sold at the local market is significantly lower than what an exporter or farmer might expect to gain from the export supply chain.

In some cases, where exporters might usually sell their produce at 70 shillings per kilo, they can only expect between 5 – 15 shillings per kilo at the local market. Such prices soon become unviable when additional costs are considered for sorting, transporting and selling this food locally.

Instead, it sometimes proves easier to dump the food, have it collected for cattle feed, or alternatively have it returned to the farm.

Some farmers claimed that they sometimes find brokers who will take rejected or unsold produce for throw-away prices:

“The people who come here are brokers...[they] come and tell us, ‘do you want us to help you? Sell to us these beans at 10 shillings per kilo.’ 10 shillings per kilo - you cannot even have a picker who will get 10 shillings to pick that.

But because they have already been picked, you just give it to them at a very throwaway price, so that you can pay the pickers because you don't have any other money to pay.”

SCALE

Farmers regularly reported that they found it very difficult to sell rejected produce on the local market because of the sheer quantities of single crops they were producing for the export market.

DEMAND

A final challenge with the local market is related to cultural perceptions of particular foods. For example, French beans, sugar snaps and snow peas are all generally considered ‘European food’. Each of the farmers and exporters we interviewed told us that this food was ‘not Kenyan’ so there was no local market available.

These challenges do present opportunities, primarily in creating awareness of how to prepare produce that is not usually eaten by Kenyans and also by fostering a local demand for such products.

In a country where 1.5 million people were expected to need food assistance in the early part of 2015⁹ the redistribution of food that is currently being wasted should be a major priority in Kenya.

However, this should not be seen as a solution to the problem of waste from produce grown for the export market. Rather responsibility needs to be taken by those that have created this problem, namely European supermarkets and importers.

Retailers need to take responsibility for waste in their overseas supply chains. This has already begun to happen as a result of Feedback’s campaigning efforts. For example, Tesco have committed to guaranteeing whole crop purchasing from their banana suppliers at a target of 96 per cent.

This removes the incentive for retailers to offload the financial risk of waste onto their suppliers and instead incentivises them to forecast more accurately to avoid overproduction.

Importers should be held responsible for fraudulent behaviour relating to false rejection claims and order cancellations.

Increased transparency throughout the supply chain would incentivise accurate forecasting on behalf of these businesses, and would ensure that importers were not able to cancel orders at the last minute in favour of cheaper produce from suppliers in other regions of the world.



CONCLUSION AND RECOMMENDATIONS

Through ongoing research into Kenya's horticultural export supply chains, Feedback has uncovered systemic issues related to imbalances of power and unfair trading practices in agricultural supply chains that have a significant impact on food waste levels, as well as farmer livelihoods and by extension food security.

This report has shown clear examples where actions taken by stakeholders within export supply chains lead to high levels of waste – in some cases up to 50 per cent of the produce grown for the export market.

Two causes of waste have been identified by our research: unnecessarily strict cosmetic specifications and last minute alterations or cancellations of orders. Not only do these practices have substantial negative impacts on the local environment and food security of rural communities but they also result in significant financial losses for exporters, farmers and in some cases farm day labourers.

This level of financial loss often forces farmers into cycles of debt and prevents them from covering basic needs like purchasing food and paying for school fees. This has a direct negative impact on the wellbeing of local communities.

There is ample opportunity for further research to be conducted in the international horticultural supply chains in a number of countries both in Africa and beyond. Findings from such research should be shared with government, policy makers and the industry to engage these actors in order to address unfair trading practices that lead to food waste.

TO CONCLUDE, FEEDBACK RECOMMENDS TACKLING THE ISSUE OF SUPPLY CHAIN FOOD WASTE FROM TWO DIRECTIONS: FOOD WASTE REDUCTION POLICIES AND FOOD REDISTRIBUTION INITIATIVES.

FOOD WASTE REDUCTION

Measures to avoid food waste are imperative to any intervention or wider strategy aiming to tackle the problem.

This report has identified that food waste in the Kenyan horticultural export sector is being caused to a large extent by systemic issues related to patterns of behavior and actions of stakeholders in these supply chains.

Policies to address food waste should aim to address these root causes. The systemic issues and patterns of behavior highlighted in this report in the Kenyan context primarily originate from the top of the supply chain, i.e. European retailers and importers, and are an expression of the imbalances of power that characterize these supply chains.

It is therefore at this level that most of the opportunities for interventions lie. The recommendations highlighted below can achieve significant and measurable reductions in food waste, strengthen the livelihoods of local farmers and improve access to food where it is needed most.

A. CHANGES IN RETAILER BUYING PRACTICES AND BEHAVIOR TO REDUCE FOOD WASTE IN THE SUPPLY CHAIN

European retailers have a great deal of leverage and control over their supply chains and therefore are uniquely placed to adopt a proactive role in changing wasteful patterns of behavior in their relationships with direct and indirect suppliers. This report concludes with the following two recommendations with regards to retailer policies:

Relaxation of cosmetic specifications

Retailers should relax unnecessarily strict cosmetic specifications with the aim of gradually abolishing these standards in due course, to allow farmers to sell a larger percentage of the produce grown for export markets.

This would reduce the need to systematically overproduce in order to ensure there is a sufficient buffer to meet order quantities.

The example given of Tesco changing its French bean trimming policy demonstrates the relative ease in which small changes in the buying policies of such retailers can have huge impacts on farmers and exporters.

Cosmetically imperfect produce can be sold as grade two produce, or used in added value and processed food production lines.

Improving forecasting accuracy and spreading the risks of demand fluctuations

It is important for retailers to work directly with their suppliers to ensure that farmers are not disproportionately affected by fluctuations in demand for certain products. This could be ensured for example by:

- improving forecasting methods and models to increase accuracy with the direct input of their suppliers
- changing the structure of their supply chains, for example by creating a more direct relationship with primary farmers
- guaranteeing the purchase of a certain percentage of their suppliers crop or fully compensating their suppliers for last minute order adjustments
- helping their farmers access local or secondary markets for their excess produce either by relationship brokering or by investing in relatively low cost initiatives that can extend the shelf life and add value to the rejected produce by repurposing it

There are examples of existing initiatives by UK retailers who have already taken positive steps to this direction, as demonstrated by the Tesco banana example.

Such interventions are easily replicable and should be encouraged as immediate and significant gains in terms of food waste reduction and improving the efficiency and fairness of retail supply chains can be realised.

B. LEGISLATIVE TOOLS TO PREVENT UNFAIR TRADING PRACTICES THAT LEAD TO FOOD WASTE

British law states that UK supermarkets should compensate direct suppliers in cases of order forecast amendments or cancellations (Groceries Supply Code of Practice; Section 10)¹⁰.

The practice of uncompensated order cancellations and amendments are therefore illegal under British law and the British government should be investing time and resources into investigating potential breaches of this legislation.

As the Groceries Supply Code of Practice (GSCOP) does not currently protect indirect suppliers, more research should be considered into the relationships between supermarkets and their direct suppliers, in particular importers of food from other countries.

Feedback also recommend the extension of the Groceries Code Adjudicator's (GCA) remit to allow investigations to be launched based on evidence and complaints from indirect suppliers or supermarket unfair trading practices.

When interviewing farmers and exporters, Feedback found that not a single person had heard of the GSCOP or its regulator the GCA. Information about this regulatory body should be shared with the various stakeholders in Kenya's horticultural industry to increase awareness of this office.

GSCOP is a landmark piece of legislation that provides great potential for reducing unfair trading practices and therefore food waste. Whilst there are a number of similar laws and enforcing authorities around Europe, none are as strong as GCSOP and its adjudicator, including the pan-European voluntary Supply Chain Initiative framework.

Efforts should be made therefore to establish robust and effective authorities bodies to adjudicate supermarket behavior toward their suppliers. In order to reduce UTPs effectively and to prevent a climate of fear amongst suppliers, such authorities should guarantee the following principles:

- Enforcers should be able to initiate investigations ex officio and set up anonymous complaints procedures thereby recognizing the climate of fear for suppliers who complain publicly
- Enforcement should be coordinated across the EU to discourage offenders moving their purchasing department to low-enforcement countries to continue with UTPs
- The scope of enforcement should be extended to the entire supply chain both inside Europe and overseas, from the sourcing of raw materials, to intermediate goods and the assembling of the final products and retailing. Access to complaint procedures must be made fully available to overseas suppliers, both indirect and direct
- Enforcers should be equipped with financial sanctions to be used in the case of UTPs. Income generated from these sanctions should be ring-fenced to provide compensation to claimants for the financial losses incurred as result of the UTP

C. DEVELOPMENT OF LOCAL MARKETS

Two further recommendations regarding food waste reduction relate to the development of local markets for products currently grown solely for the export market:

Development of local market for non traditional export products

There is scope to increase local demand in Kenya for products that currently grown for the export market only. Farmers and exporters interviewed for this report both expressed a desire to be able to sell their rejected yet good quality produce to both the export and local markets.

However, they identified a lack of demand in both of these markets as a challenge to selling their food outside of the conventional export supply chains.

Development of domestic value addition processing industry

There are a number of produce types that form part of the typical Kenyan diet that are currently rejected with no secondary market to be sold to.

Feedback's research trip identified a range of different initiatives that not only add value to such produce but also extend the shelf life of otherwise quickly perishable foodstuffs. These included mango and banana drying units to make biscuits and crisps.

Processing produce not only reduces waste but also generates greater incomes for people involved in the industry, without the need for significant financial investment.

REDISTRIBUTION

In a country where millions of people are without adequate food and nutrition, infrastructure should be put in place to ensure surplus food is redistributed to those who need it.

Small quantities of food are currently given to schools, children's homes, street children centres and medical centres around Nairobi from the export industry.

However, there are infrastructure challenges blocking a) more food being redistributed and b) food being redistributed outside of Nairobi in rural areas of Kenya. Farmers and exporters claimed that it was generally not economically viable for them to redistribute food themselves due to the cost of labour and transportation.

Centralised collection or redistribution points may provide a solution for this problem, streamlining the process of delivering large quantities of produce to numerous social organisations. Exporters interviewed by Feedback showed enthusiasm towards the idea of an independent redistribution system if it could overcome the aforementioned challenges.

The majority of the exporters are based around the airport, either in private warehouses; in government-run pack houses such as the Horticultural Crop Development Authority (HCDA); or within export processing zones (EPZs).

Establishing a redistribution network within this export area would provide a centralised location for surplus food to be collected at low cost.

A conversation exploring the idea of establishing a national food redistribution scheme has begun between various international organisations (including the FAO, WFP and UNEP) in Kenya as a result of Disco Soupe Nairobi, a grassroots food waste event held in December 2014 and supported by Feedback.

Feedback recommends that this discussion should be facilitated in Nairobi in order to bring together the various stakeholders such a system would involve (exporters, recipients, NGOs and relevant international organisations). Further research should be conducted in this field to understand how such a scheme could operate without affecting local markets.

Logistics present a further challenge to such a scheme, especially as the produce in question is highly perishable and may not survive long distance journeys if not refrigerated.

It is important to note that, in line with the food waste pyramid, avoidance and reduction should be the principle goal of any initiative addressing food waste. There is no doubt that the redistribution of surplus food has a number of substantial yet short term social benefits.



Ultimately, the overproduction of food leading to high levels of food waste must be stemmed in order to provide longer-term social, environmental and economic development globally.



FOOTNOTES

- 1) FPEAK, 2014. Fresh Producer Exporters Association of Kenya. [online] Accessed on 24th December 2014. Available from: www.fpeak.org
- 2) FPEAK, n.d.. Kenya Horticultural Council. [online] Accessed on 30th December. 2014. Available from: www.fpeak.org
- 3) Export Promotion Council Kenya. N.d. Horticulture. [online] Accessed on 30th December 2014. Available from: www.epckkenya.org
- 4) Rosegrant, M et al, 2015. Food Security and Nutrition Assessment Paper: returns to investment in reducing postharvest food losses and increasing agricultural productivity growth. Copenhagen Consensus Center
- 5) Consumers International, 2012. The relationship between supermarkets and suppliers: What are the implications for consumers? P.7 [online] Accessed on 1st July 2015. Available from: <http://www.consumersinternational.org/media/1035301/consumer%20detriment%20briefing%20paper%20sept2012.pdf>

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- 6) [ibid.]
- 7) *Shamba* is Swahili for farm.
- 8) It is important to note that the practice of removing the stalk before transportation would reduce weight and therefore transportation costs. Removing the stalk, something that is not consumed, should not be considered food waste.
- 9) World Food Programme, 2015. Kenya: Overview. [online] (Accessed on 18th February 2015. Available from: <https://www.wfp.org/countries/kenya/overview>
- 10) GOV.UK, 2015. Groceries Supply Code of Practice. [online] Accessed on 18th February 2015. Available from: www.gov.uk/government/publications/groceries-supply-code-of-practice/groceries-supply-code-of-practice

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