SEED AND HABITAT

ENVIRONMENTAL AND FOOD SUSTAINABILITY INITIATIVE

RESEARCH AND INTERVENTION

ILEPO MARKET FRUIT LOSS ASSESSMENT

Postharvest Losses, Handling Practices and Intervention Priorities among Banana and Orange Sellers



BANANA AND ORANGE SELLERS | 30 COMPLETED INTERVIEWS

Ilepo Market, Agege, Lagos State, Nigeria

FIELDWORK: 23 OCTOBER – 5 NOVEMBER 2026 • PUBLICATION: NOVEMBER 2026

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Discarded and deteriorated banana and orange produce at Ilepo Market, Agege, Lagos.

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EXECUTIVE SUMMARY

Seed and Habitat Environmental and Food Sustainability Initiative carried out a market-based assessment of postharvest fruit losses among banana and orange sellers at Ilepo Market, Agege, Lagos State. The team completed 30 seller interviews, 15 with banana sellers and 15 with orange sellers, over three field visits on 23 October, 27 October and 5 November 2026. Sellers told us what damage they see on their fruit, how they buy and store it, where in the chain they lose the most, what those losses cost, what they do with fruit that spoils, and which solutions they would find useful.

Headline indicator	Study result
Completed interviews	30 (15 banana; 15 orange)
Women respondents	27 of 30 (90.0%)
Mean fruit-selling experience	18.4 years
Over-ripeness / softening	28 of 30 sellers (93.3%)
Rot / fungal decay	24 of 30 sellers (80.0%)
Transportation named as a damage stage	15 of 30 sellers (50.0%)
Unsold inventory named as a damage stage	12 of 30 sellers (40.0%)
Seller-estimated seven-day loss	₦3,972,500 across 29 valid estimates
Most selected intervention	Better transport padding: 18 of 27 valid responses (66.7%)

Sellers could name more than one damage stage, so the stage percentages do not add up to 100%.

Two pressure points stand out. First, deterioration is already widespread: almost every seller reported over-ripeness or softening, and four in five reported rot or fungal decay. Second, damage happens at more than one point in the chain. Half of the sellers named transportation, and 40.0% named unsold stock, which was the most common answer among banana sellers. Storage alone will not solve this. Fruit needs better protection on the road, and it also needs to move faster once it reaches the stall.

The two fruits behave differently. Orange sellers were more likely to buy straight from farms and to receive stock every day. Banana sellers relied on weekly or twice-weekly deliveries, and almost all of them displayed fruit on open-ground mats. Every banana seller reported rot and over-ripeness, and 14 of 15 reported sunburn or shrivelling. Among orange sellers, insect or pest damage was common (7 of 15), while no banana seller reported it.

Sellers estimated that they lost ₦3.97 million in the previous seven days (29 sellers). Orange sellers accounted for ₦2.72 million and banana sellers for ₦1.26 million. These are recalled estimates, not audited accounts. Physical quantities were reported in dozens, baskets and pieces, so they cannot be added together or converted to kilograms, and we have not calculated a percentage loss rate.

The clearest starting point is a small pilot built around four things: protective packing for transport, raised and ventilated display, simple stock rotation with faster turnover, and safe routes for fruit that can no longer be sold fresh. Seed and Habitat can use this study as a baseline, test low-cost versions of these measures with willing sellers, and measure again afterwards.



A Seed and Habitat researcher records a seller's responses during an interview in the banana trading area.

1. INTRODUCTION AND BACKGROUND

Fresh fruit matters in Nigeria's food markets. It adds variety to diets, supports household nutrition and gives many families an income. It is also highly perishable. Quality can slip through ripening, moisture loss, decay, insects and physical injury at any point from harvest, packing and loading to transport, unloading, storage and display. When fruit is damaged, or stays unsold for too long, sellers earn less and sometimes have to throw produce away.

The effects reach beyond the seller. Fruit that is lost before anyone eats it also wastes the land, water, labour, energy and transport that went into producing it. In city markets, spoilage reduces the fruit available to buyers and adds financial risk for small traders. The risk is greater where supply chains depend on ambient transport and storage, non-standard packaging and fast turnover.

Ilepo Market in Agege is an important trading point for fresh produce in Lagos. This assessment looks at one part of it: the banana- and orange-selling area. It records what sellers experience and points to practical openings for Seed and Habitat's research and intervention work. It is a market-level snapshot of the sellers who took part, not a census of the whole market.



Seed and Habitat research team members entering the market area during field engagement.

2. LITERATURE REVIEW

2.1 Postharvest loss as a supply-chain challenge

Postharvest loss is not limited to storage. It can arise at several stages between harvest and consumption, shaped by the biology of the fruit, handling, packaging, transport time, weather and market demand. In a study of orange marketers in Lagos metropolitan markets, Aminu, Balogun and Ojo (2021) pointed to perishability, distance, poor roads, transport costs and storage conditions as important factors behind losses. Their work shows why both logistics and market-side practices need attention.

2.2 Orange deterioration and marketing conditions

Obayelu, Dairo and Olowe (2022) studied orange producers and marketers across the Nigerian supply chain. Among marketers, education, smallholding marketing and the use of storage facilities were linked to a lower likelihood of postharvest loss. This fits what sellers at Ilepo told us about transport, storage and unsold stock: handling, storage and seller know-how all deserve attention.

2.3 Banana handling, ripening and physical injury

Banana is a climacteric fruit, which means ripening speeds up after harvest. Temperature, ventilation, packaging and careful handling all influence how fast it ripens and how defects develop. The University of California, Davis Postharvest Research and Extension Center lists impact bruising, skin abrasion and fungal disorders as key quality concerns, and recommends minimising bruising, keeping storage conditions suitable and maintaining sanitation. Al-Dairi et al. (2023) review how packaging, storage and transport technologies help keep banana quality along the supply chain.

2.4 Packaging and transport protection

Nigerian research suggests packaging design can affect physical damage. Onuorah and Awolola (2011) compared commonly used transport containers with reusable wooden packages for oranges and bananas, and saw less damage in the experimental wooden packaging. The design and scale of that experiment mean it cannot predict results at Ilepo, but it gives a local reason to test protective, reusable and well-ventilated transport containers.

2.5 Relevance to this assessment

Taken together, the literature shows that postharvest losses come from biological, physical and commercial factors working together. This assessment adds a focused, market-level view that compares the experiences banana and orange sellers report, and records what sellers themselves find useful. Its findings are descriptive. They should be read alongside, not in place of, direct measurement of fruit weights, quality grades and stock flows.

3. AIM, OBJECTIVES AND RESEARCH QUESTIONS

Aim: to assess the nature, reported extent, perceived causes and management of postharvest fruit losses among banana and orange sellers at Ilepo Market, Agege, Lagos State, and to identify practical options for reducing avoidable losses.

Specific objectives:

- Describe the participating sellers and their supply and storage practices.
- Identify the main visible forms of deterioration reported over the preceding seven days.
- Examine the stages at which sellers most often experience damage.
- Summarise seller-reported quantities and estimated monetary values of fruit losses.
- Document how sellers manage deteriorating, damaged and unsold fruit.
- Compare the experiences of banana and orange sellers.
- Identify the interventions sellers consider useful and turn the findings into a practical programme framework.

Research questions: What forms of deterioration are most common? At what stages do sellers experience damage? How do banana and orange sellers differ in supply, storage and loss patterns? What do sellers estimate they lose, how do they manage deteriorating fruit, and which interventions do they prioritise?

4. METHODOLOGY

4.1 Study design and setting

This was a descriptive, cross-sectional assessment of fruit sellers at Ilepo Market, Agege, Lagos State. The team completed 30 structured interviews, 15 with banana sellers and 15 with orange sellers. Fieldwork took place over three visits on 23 October, 27 October and 5 November 2026.

4.2 Selecting sellers

Researchers approached sellers at their stalls in the banana and orange trading areas and interviewed those who agreed to take part, until 15 sellers of each fruit had been reached. Sellers were not chosen at random, so the sample is a convenience sample. It gives a useful picture of the sellers who took part, but it cannot be treated as statistically representative of the whole market.

4.3 Data collection

Seed and Habitat researchers, wearing project identification vests, interviewed sellers in person at their stalls using a structured questionnaire. It covered seller characteristics, years of trading experience, main supply source, supply frequency, typical batch size, storage and display methods, visible forms of damage, the stage at which damage was most problematic, recalled quantities and monetary losses over the previous seven days, what sellers do with deteriorating fruit, preferred interventions and any additional comments.



A researcher administers the interview questionnaire while a fruit seller provides information.



Seller engagement and questionnaire administration at Ilepo Market, including the Seed and Habitat information poster.

4.4 Data handling and analysis

The final 30-record workbook was the source for all analysis. Entries were checked before analysis, and a small number of data-entry problems were corrected, including a misplaced digit in one monetary value and a blank entry for one seller's years of experience. Where a seller did not answer a question, that record was left out of the calculation for that question, which is why the number of valid responses is below 30 in some tables.

We calculated frequencies, percentages, means, medians and ranges from valid responses, and compared banana and orange sellers where their trading units or practices differ. Some questions allowed more than one answer. These are reported option by option, so percentages can add up to more than 100%.

Physical quantities appear in the units sellers used. Banana loss quantities were recorded in dozens, and orange loss quantities in baskets or pieces. A basket has no standard size and these units are not comparable, so we have not converted or added them. No percentage loss rate is calculated, because we do not have a matching quantity of stock received in the same unit and period. Monetary values are sellers' estimates for the previous seven days, shown in Nigerian naira, and are not audited accounts.

Open-ended comments were read and grouped by theme to capture recurring seller views, including heat and transport exposure, delayed movement, low sales and storage constraints. The themes were not counted. We report them as seller perceptions, not as verified causes.

4.5 Ethics and consent

Researchers explained the purpose of the study and asked for each seller's agreement before starting the interview. Taking part was voluntary, and sellers could skip any question. Photographs were taken with sellers' knowledge. This report presents combined results only, and no seller is named. Section 13 sets out what the findings can and cannot be used for.

5. PROFILE OF PARTICIPATING SELLERS

Indicator	Result
Total interviews	30
Banana sellers	15 (50.0%)
Orange sellers	15 (50.0%)
Women	27 (90.0%)
Men	3 (10.0%)
Mean years selling fruit	18.4 years
Median years selling fruit	17.5 years
Experience range	1–40 years

The sellers we spoke to are mostly women with a lot of trading experience. The average seller has sold fruit for 18.4 years, and the median is 17.5. That depth of experience is valuable. These traders have seen the seasons change and know the pressures of the market, so they are well placed to tell us what will and will not work in practice.

6. SUPPLY, PROCUREMENT AND STORAGE PRACTICES

6.1 Supply sources

Primary source	Banana sellers (n=15)	Orange sellers (n=15)	All sellers
Farm gate (direct)	7 (46.7%)	11 (73.3%)	18 (60.0%)
Rural assembly market	8 (53.3%)	4 (26.7%)	12 (40.0%)

Buying at the farm gate was the most common route, reported by 18 sellers (60.0%). Nearly three-quarters of orange sellers bought directly from farms, compared with 46.7% of banana sellers, who more often bought through rural assembly markets. This may affect how many times fruit is handled and moved before it is sold, although the study did not measure the number of middlemen or the conditions of the journey.

6.2 Supply frequency

Supply frequency	Banana (n=15)	Orange (n=15)
Daily	0 (0.0%)	10 (66.7%)
Twice weekly	6 (40.0%)	2 (13.3%)
Weekly	8 (53.3%)	3 (20.0%)
Other	1 (6.7%)	0 (0.0%)

Delivery patterns were very different. Two-thirds of orange sellers get fresh stock daily, while banana sellers mostly receive it weekly (53.3%) or twice weekly (40.0%). A longer gap between deliveries probably makes stock rotation, sales planning and protection of fruit held for several days more important. This is a sensible reading of the pattern, not something we measured.

6.3 Batch size and stock handling

Fruit and reported unit	Valid sellers	Mean batch per seller	Median	Range
Banana, dozens	13	42 dozens	30 dozens	5–150 dozens
Orange, baskets	11	234.5 baskets	50 baskets	5–960 baskets
Orange, pieces	4	176.3 pieces	200 pieces	105–200 pieces

Batch sizes are shown only within the unit each seller used. The wide spread in orange basket batches shows how much the scale of supply varies between sellers. These figures describe the size of one delivery. They are not weekly throughput, and they should not be compared directly with banana dozens or orange pieces.

6.4 Storage and display

Primary storage / display method	Sellers	Share
Open ground mat	20	66.7%
Raised wooden bench	8	26.7%
Wooden crates	1	3.3%
Plastic baskets	1	3.3%

Two-thirds of sellers mainly displayed or stored fruit on open-ground mats. This was especially true of banana sellers, 14 of 15 of whom (93.3%) used mats. Orange sellers were more mixed: raised wooden benches were the most common choice (7 of 15; 46.7%), followed by mats (6 of 15; 40.0%). Only two sellers used crates or plastic baskets.

Ground-level display is a practical opening for improvement. Raised, cleanable and ventilated surfaces keep produce away from floor moisture, dirt and accidental contact. Any change should be tested with sellers and designed around cost, available stall space, airflow and easy access to stock.

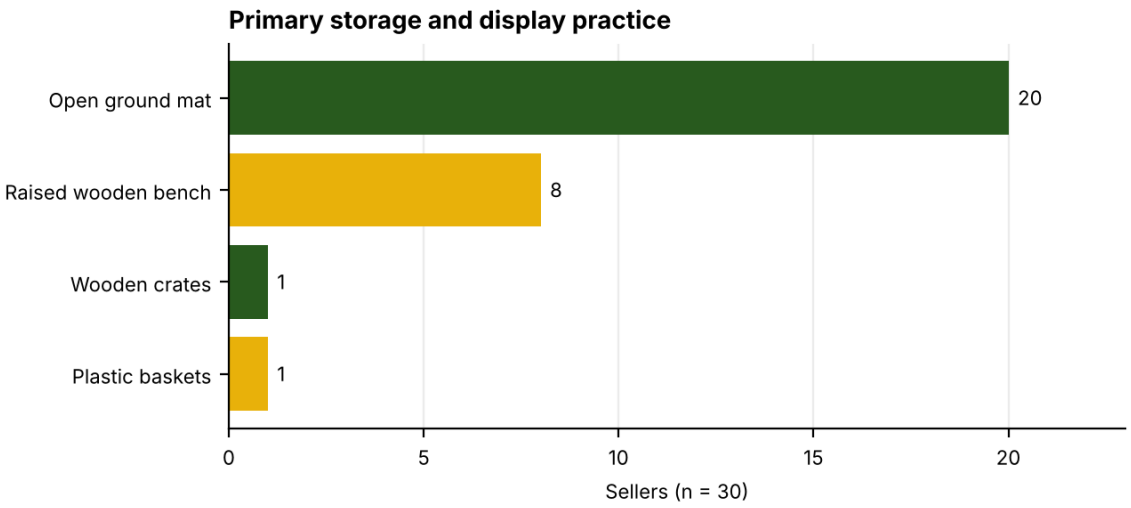


Figure 1. Primary storage and display practices among the 30 participating sellers.



Banana stock displayed in bulk at Ilepo Market. Open-ground mat display was common among banana sellers.



A researcher records information from a banana seller during fieldwork.

7. NATURE AND PATTERN OF FRUIT DETERIORATION

Sellers could report more than one visible form of deterioration for the previous seven days. Over-ripeness or softening was the most widespread problem, reported by 28 of 30 sellers (93.3%). Rot or fungal decay followed with 24 sellers (80.0%), and sunburn or shrivelling with 14 (46.7%). Bruising or crushing and insect or pest damage were each reported by seven sellers (23.3%). One seller (3.3%) reported cuts or punctures.

Visible damage type	All sellers (n=30)	Banana (n=15)	Orange (n=15)
Over-ripeness / softening	28 (93.3%)	15 (100.0%)	13 (86.7%)

Visible damage type	All sellers (n=30)	Banana (n=15)	Orange (n=15)
Rot / fungal decay	24 (80.0%)	15 (100.0%)	9 (60.0%)
Sunburn / shrivelling	14 (46.7%)	14 (93.3%)	0 (0.0%)
Bruising / crushing	7 (23.3%)	5 (33.3%)	2 (13.3%)
Insect / pest damage	7 (23.3%)	0 (0.0%)	7 (46.7%)
Cuts / punctures	1 (3.3%)	0 (0.0%)	1 (6.7%)

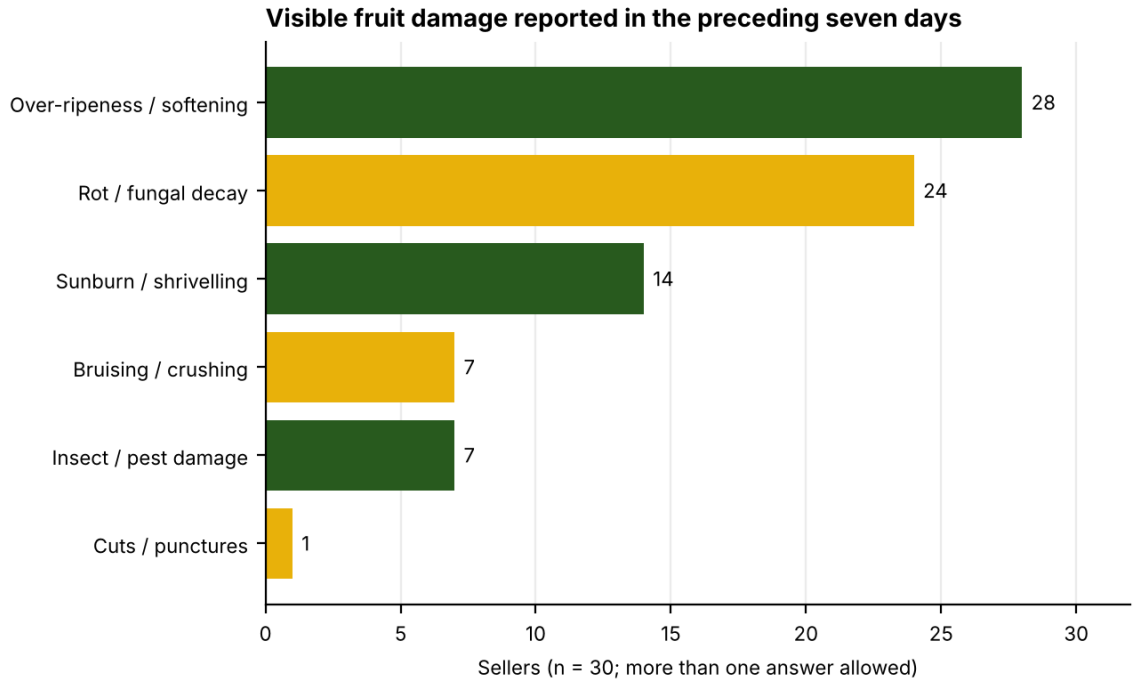


Figure 2. Visible forms of fruit deterioration reported by sellers in the preceding seven days.

The banana results are striking. Every banana seller reported both over-ripeness and rot or fungal decay, and 14 of 15 reported sunburn or shrivelling. For bananas, this points to ripeness on arrival, exposure to heat and sun, careful stacking and stock turnover as the areas to watch.

The orange picture is different. Over-ripeness was still widespread, but 46.7% of orange sellers reported insect or pest damage, and no banana seller did.

Because the two fruits differ this much, one single intervention will not suit both. Banana sellers may gain most from measures that cut heat exposure, physical pressure and the time ripe stock stays unsold. Orange sellers may need transport protection, better storage and a closer look at pest damage, including whether it starts before harvest or during handling in the market.

8. POINTS OF GREATEST DAMAGE ALONG THE MARKET CHAIN

Sellers were asked at which stages fruit suffers the most damage, and they could name more than one. The counts below therefore add up to more than 30.

Stage named by sellers	All sellers (n=30)	Banana (n=15)	Orange (n=15)
Transportation to market	15 (50.0%)	6 (40.0%)	9 (60.0%)
Unsold inventory	12 (40.0%)	8 (53.3%)	4 (26.7%)
Ambient market storage	5 (16.7%)	2 (13.3%)	3 (20.0%)
Pre-harvest / on-tree	1 (3.3%)	0 (0.0%)	1 (6.7%)
Unloading / display handling	0 (0.0%)	0 (0.0%)	0 (0.0%)

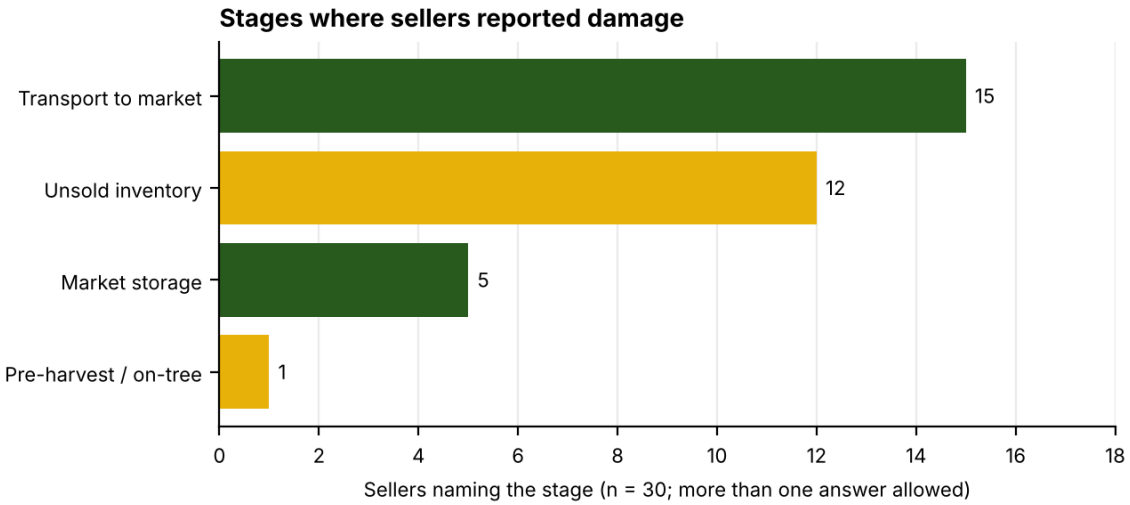


Figure 3. Stages at which sellers reported fruit damage (more than one answer allowed).

Transportation was named most often, by half of the sellers, and by 60.0% of orange sellers. Their comments mentioned heat, long hours on the road, delays and road conditions. This matches earlier Lagos research that identified distance, road conditions and transport-related factors as major concerns for orange marketers (Aminu et al., 2021).

Unsold inventory came second overall and was the leading answer among banana sellers, where 8 of 15 (53.3%) named it. Sellers linked slow sales to economic conditions, seasonal swings and how much fruit was on the market. The lesson is that losses are not only a logistics problem. Even fruit that arrives in good condition can spoil if it sells more slowly than its remaining shelf life.

Ambient market storage was named by five sellers (16.7%). Fewer sellers picked it, but the widespread use of ground-level display and the deterioration patterns suggest market storage and display are still worth working on. No seller named unloading or display handling. That tells us about the answers given, not that these activities never cause damage.

9. PHYSICAL AND FINANCIAL DIMENSIONS OF REPORTED LOSSES

9.1 Physical quantities reported

Fruit and unit	Valid sellers	Total reported (7 days)	Mean per seller	Median	Range
Banana, dozens	14	78 dozens	5.6 dozens	4 dozens	1–12 dozens
Orange, baskets	11	278 baskets	25.3 baskets	10 baskets	1–135 baskets
Orange, pieces	4	180 pieces	45 pieces	45 pieces	20–70 pieces

Fourteen banana sellers reported a combined 78 dozens lost or discarded in the previous seven days. Eleven orange sellers who reported in baskets gave a total of 278 baskets, and four who reported in pieces gave 180 pieces. A few large reports pull the orange basket average up: two sellers account for 185 of the 278 baskets. That is why the median is a better guide to the typical seller.

The three rows stay separate on purpose. A dozen, a basket and a piece are different units, and baskets are not a standard size, so we have not combined them into a total number of fruits or converted them to kilograms. A future study should weigh a defined sample of incoming stock and of fruit downgraded or discarded, using the same basis for both.

9.2 Seller-estimated monetary value

Statistic	All sellers (n=29)	Banana sellers (n=14)	Orange sellers (n=15)
Total seven-day estimate	₦3,972,500	₦1,255,000	₦2,717,500
Mean per seller	₦136,983	₦89,643	₦181,167
Median per seller	₦80,000	₦80,000	₦75,000
Minimum–maximum	₦2,000–₦750,000	₦20,000–₦200,000	₦2,000–₦750,000

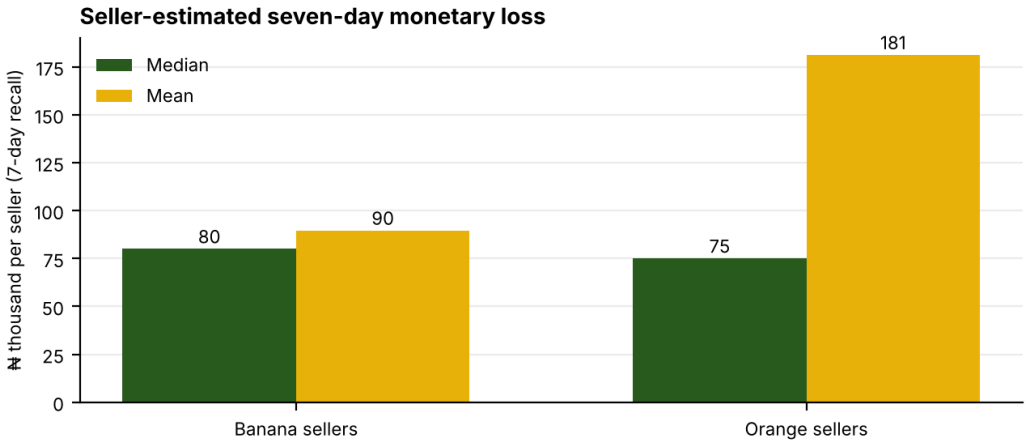


Figure 4. Mean and median seller-estimated monetary losses by fruit group.

The 29 valid estimates add up to ₦3,972,500 for the previous seven days. Banana sellers reported ₦1,255,000 in total, with a mean of about ₦89,643 and a median of ₦80,000. Orange sellers reported ₦2,717,500, with a mean of about ₦181,167 and a median of ₦75,000. The orange mean is much higher than its median because a few large estimates lift the average, so the median gives a steadier picture of the typical orange seller.

These are indicative seller estimates, not audited losses or verified costs for the whole market. Differences in units, trading scale and how each seller values stock also mean they should not be read as a per-kilogram loss. Even so, the combined figure shows how heavy the financial burden feels to the sellers who took part.

10. MANAGEMENT AND DISPOSITION OF DETERIORATING FRUIT

The questionnaire asked what sellers do with fruit as it deteriorates. The difference between selling and discarding matters. Fruit sold at full or reduced price may have lost quality or value, but it has not been thrown away. The table shows how many sellers recorded a quantity for each route.

Disposition pathway	Banana sellers (n=15)	Orange sellers (n=15)
Sold at full price	14 (93.3%)	11 (73.3%)
Sold at discounted price	7 (46.7%)	0 recorded
Processed into juice / cuts	0 recorded	0 recorded
Household consumption	0 recorded	0 recorded
Donated / given free	0 recorded	0 recorded
Animal feed	0 recorded	1 (6.7%)
Completely discarded	13 (86.7%)	10 (66.7%)

Thirteen banana sellers and ten orange sellers reported fruit that was completely discarded. Seven banana sellers recorded discounted sales, but no orange seller did. One orange seller sent a quantity to animal feed. Nobody recorded fruit going to processing, home use or donation. This points to a real opening to explore safe, commercially workable ways to recover fruit that is no longer attractive for fresh sale but is still suitable for processing or other approved uses.

Any recovery route needs basic food-safety screening. Fruit with mould, active decay, contamination or other unsafe deterioration should not go into human food products. Seed and Habitat can work with local processors and food-safety advisers to agree acceptance criteria and practical collection arrangements.



Seller interviews give context on how deteriorating fruit is managed at the point of sale.

11. SELLER PERSPECTIVES AND PRIORITIES FOR LOSS REDUCTION

11.1 What sellers told us

Beyond the structured questions, sellers shared comments that help explain the numbers. We grouped them by theme. We did not count them, so we cannot say how many sellers raised each point.

- **Heat and the journey.** Sellers described long hours on the road, exposure to heat, transport delays and poor road conditions as reasons fruit arrives already weakened.
- **Slow sales.** Sellers tied unsold stock to economic conditions, seasonal swings and the amount of fruit on the market at the time.
- **Limited storage.** Sellers pointed to storage constraints, which fits with how many display fruit on the ground.
- **Farm chemicals.** Some sellers wondered whether agricultural chemicals used on farms make fruit spoil faster. This is their own impression. We did not test fruit for residues or look at farm practices, so it should not be treated as an established cause.

11.2 Interventions sellers selected

Intervention selected	Sellers selecting option	Share of valid responses (n=27)
Better transport padding	18	66.7%
Credit for faster stock turnover	13	48.1%
Cold storage facility	8	29.6%
Plastic ventilated crates	1	3.7%
Improved shade / tarpaulins	0	0.0%

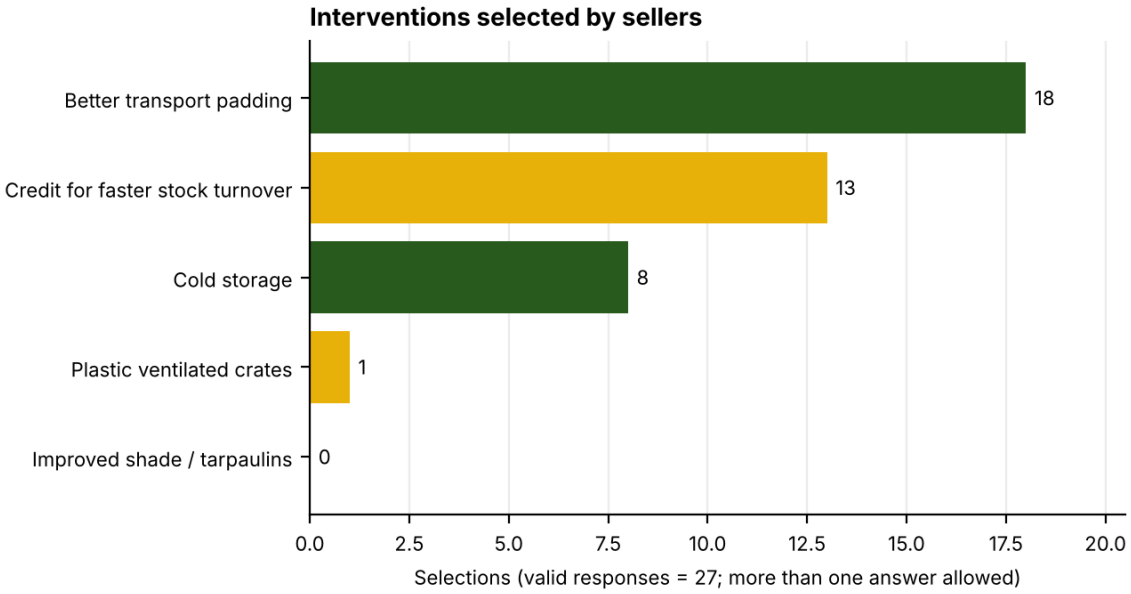


Figure 5. Interventions sellers considered useful for reducing fruit losses (more than one answer allowed).

Better transport padding was the first choice, picked by two-thirds of the 27 sellers who answered. Almost half (48.1%) chose credit to help stock move faster, and 29.6% chose cold storage. These choices are useful for programme design because they show what sellers see as relevant to their day-to-day problems. They do not show that an option works, or that sellers would pay for it.

The low numbers for crates and shade should not be read as proof that they do not matter. Sellers may simply be unfamiliar with them, or worried about cost or access, or they may have understood the options differently. A co-design process should let sellers compare practical demonstrations of affordable options, rather than relying on stated preferences alone.

12. DISCUSSION OF FINDINGS

12.1 Two routes to loss: transport damage and slow turnover

The overall pattern comes from two things working together: exposure along the supply chain and how fast the market absorbs stock. Half of the sellers named transportation as a damage stage, and 40.0% named unsold inventory. Better transport protection can cut physical injury and heat exposure before fruit reaches the market, but it cannot stop spoilage if stock sits unsold too long. Equally, faster turnover cannot undo damage already suffered during loading and travel. A combined approach makes more sense than a single technology.

12.2 Different risks for different fruits

Banana sellers reported particularly high levels of rot, over-ripeness and sun-related shrivelling. That agrees with established postharvest knowledge: bananas are sensitive to ripening conditions, bruising and abrasion. Given the heavy use of open-ground display and the weight sellers gave to unsold stock, a banana-focused pilot could combine careful stacking, shade, raised display, ripeness grading and faster rotation.

Orange sellers more often named transport as the worst stage and more often reported insect or pest damage. Their strong direct-from-farm buying and daily deliveries suggest that transport performance and supply coordination matter a great deal. Concerns about agricultural chemicals came from sellers' own impressions. This assessment did not test fruit residues, fertiliser use or farm practices, so it cannot link any of them to early

spoilage.

12.3 Financial exposure and the value of prevention

The seven-day estimate is large, but the gap between means and medians shows why a single average can mislead. In the orange group the mean is more than twice the median, which means a few high estimates dominate. For planning, Seed and Habitat should track both the typical seller's experience and the larger losses of high-volume traders. A pilot should also separate quality downgrading, discounted sales and complete disposal, so the value of each can be understood.

12.4 Fit with existing evidence

The Ilepo findings agree with Lagos research that highlights transport distance, road conditions, storage and perishability as loss-related factors for oranges (Aminu et al., 2021). They also sit alongside Nigerian evidence that storage facilities and better marketing conditions are linked to a lower likelihood of orange losses (Obayelu et al., 2022), and research on fruit packaging that supports testing protective, reusable transport containers (Onuorah and Awolola, 2011). What this study adds is a practical contrast: banana sellers more often pointed to unsold inventory, while orange sellers more often pointed to transportation.

12.5 What this means for Seed and Habitat

Seed and Habitat is well placed to turn this evidence into a small, participatory pilot. The organisation can bring sellers, transporters and local processors together to identify affordable protective materials, improve display and stock rotation, and test safe recovery of surplus fruit. Measuring again after the pilot would let the organisation move from seller-reported estimates to observed changes in physical damage, downgraded stock, discarded quantities and value recovered.

13. STUDY SCOPE AND LIMITATIONS

Readers should keep the following in mind when using these findings.

- The study covers 30 sellers in one market during one fieldwork period (three visits). They were not selected at random, so the results are not statistically representative of all traders at Ilepo Market or of other markets.
- Sellers described the previous seven days from memory, and money estimates were not checked against records.
- Quantities were recorded in local trading units that are not standardised, so a comparable percentage loss rate could not be calculated.
- Several questions allowed more than one answer, and valid response numbers differ between questions.
- Open-ended comments were grouped by theme but not counted, and they reflect seller perceptions, not verified causes.
- The assessment shows reported patterns and priorities. It does not establish cause and effect, and seller preferences do not prove an intervention works or that sellers would pay for it.

A future measurement exercise should weigh a defined sample of incoming, sold, downgraded and discarded fruit, and repeat the observations across different seasons.

14. CONCLUSIONS

Fruit deterioration is a regular part of life for the 30 banana and orange sellers we interviewed at Ilepo Market. Over-ripeness or softening was reported by 93.3% of sellers and rot or fungal decay by 80.0%. Transportation was the stage sellers named most often as a point of damage, and unsold inventory stood out among banana sellers. The two fruit groups also differ in how they are supplied, how they are displayed and what kinds of damage they suffer.

Sellers estimated ₦3,972,500 in losses over the previous seven days, across 29 valid responses. Physical quantities came in different local units and cannot be combined into one figure or turned into weight. When asked what would help, sellers chose better transport padding first, then credit to support faster stock turnover, then cold storage.

The main conclusion is that reducing fruit loss at Ilepo needs a joined-up package covering transport protection, market storage and display, stock turnover and safe recovery of surplus fruit. This study gives Seed and Habitat a baseline for designing and testing those measures with sellers. Measured follow-up will be needed to show whether they work.

15. RECOMMENDATIONS AND NEXT STEPS

The recommendations below follow the order of what sellers and the data point to most strongly. Each is meant to be tested in a small pilot with willing sellers before anything is scaled up.

Priority	Recommended action	What the study found	Who leads
1. Protect fruit in transit	Test padded, ventilated, reusable transport containers and careful stacking during loading, travel and unloading.	Transport was named by 50.0% of sellers (60.0% of orange sellers). Better padding was the top choice (66.7%).	Seed and Habitat, with sellers and transporters
2. Move stock faster	Pilot stock rotation, ripeness grading and buying quantities that match sales. Explore small credit support that helps sellers turn stock over quicker.	Unsold stock was named by 40.0% (53.3% of banana sellers). Credit for faster turnover was chosen by 48.1%.	Seed and Habitat, with sellers and a credit partner
3. Raise and ventilate display	Try raised, cleanable, shaded and ventilated stands in place of ground mats, starting with banana sellers.	Mats were the main display for 66.7% of sellers (93.3% of banana sellers). 14 of 15 banana sellers reported sunburn or shrivelling.	Seed and Habitat, with sellers
4. Recover surplus safely	Pilot collection of fruit that is not fit for fresh sale but is safe for processing, with clear food-safety screening.	23 of 30 sellers reported fruit completely discarded. No seller recorded processing or donation.	Seed and Habitat, with local processors and food-safety advisers
5. Build seller skills	Run short practical sessions on handling, sorting, ripeness, hygiene and simple stock records.	Sellers average 18.4 years of experience, so peer learning is a strong route. Research links handling and storage practice to lower losses.	Seed and Habitat, with experienced sellers

Priority	Recommended action	What the study found	Who leads
6. Measure and investigate	Weigh defined samples of incoming, sold, downgraded and discarded fruit, and repeat across seasons. Look into where orange pest damage starts.	Units were not standardised, so no loss rate could be calculated. 46.7% of orange sellers reported pest damage.	Seed and Habitat research team

How we will know it is working

- Less fruit downgraded or discarded in pilot stalls, measured by weight against comparable stalls.
- Lower rates of the damage sellers reported most: over-ripeness, rot, and sunburn or shrivelling.
- More fruit sold at full or discounted price, and more surplus recovered through safe routes.
- Sellers’ own view of what was practical, affordable and worth keeping.

FIELDWORK PHOTOGRAPHIC RECORD



Plate 1. *Two Seed and Habitat researchers interviewing banana and orange sellers in the market.*



Plate 2. *Researcher interviewing a banana seller and recording responses.*



Plate 3. *A researcher interviewing an orange seller beside basins of fresh oranges.*



Plate 4. *A researcher engaging a trader during a seller interview at the market.*



Plate 5. *Banana and orange stock displayed on the ground along a busy market lane.*



Plate 6. *Bunches of bananas on their stalks piled in bulk at the market.*



Plate 7. *A fruit seller at her citrus stall during the field engagement.*

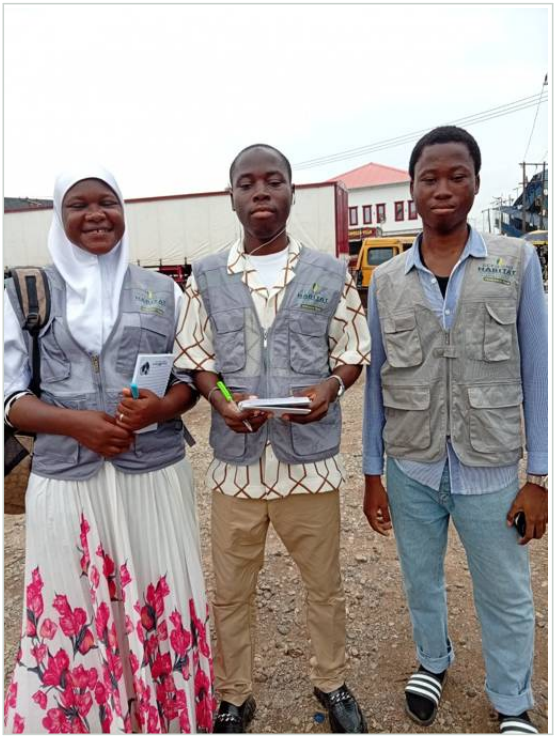


Plate 8. *Seed and Habitat field team members wearing project identification vests.*



Plate 9. *A researcher speaking with a seller during an interview at the market.*



Plate 10. *A researcher engaging a seller in the produce section of Ilepo Market.*

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