



## Project facts

### Key words

Ethiopia, Fruits, Vegetables, Quality

### Behavioral themes

Salience and availability heuristics, Loss aversion, Framing, Incentives and Social norms

### Research design

**Mixed methods:** Qualitative IDIs (in-depth interviews), Quantitative methods- surveys and multiple price list experiments (MPLs)—and experimental design to test prototypes

### Scope

**Start date:** March 2023

**End date:** December 2023

**Sample size:** n=1071

### Location

**Ethiopia:** Addis Ababa, Sidama, Oromia, and the SNNP (Southern Nations, Nationalities, and Peoples' Region)

### Partner

Technoserve

### Ethics approval

A letter of support from the regional offices of the Trade and Industry Bureau

# What would make Ethiopians consume more fruits and vegetables?

**Fruit and vegetable consumption in Ethiopia is critically low.** Most Ethiopians eat too few fruits and vegetables, despite high production. Behavioral interventions on price, quality, and awareness showed that larger discounts and higher-quality produce significantly increase consumption, while awareness campaigns work best in rural areas.

## Background: Addressing low produce intake in Ethiopia

Consumption of fruits and vegetables in Ethiopia is very low with only 2.4% of the population meeting WHO recommendations. When compared to other countries in Africa, it ranks last among 187 countries within the same economic classification (Adame et al., 2022). Furthermore, while 780,000 metric tons of fruits and vegetables are produced in Ethiopia per year, only 1.5% of it is consumed. Thus emphasizing that, mere availability doesn't correlate to consumption (Yazew & Daba, 2020).

The study tackles the persistent challenges in nutritional diversity within Ethiopian diets, despite commendable efforts to reduce malnutrition. This research uncovers and addresses barriers influencing consumers' purchasing and consumption behaviors of fruits and vegetables using behavioral science and human centered approaches. We also tested our proposed interventions for rigor and effectiveness.

## Conducting the research

The study used a mixed-methods approach to understand fruit and vegetable (FV) purchasing and consumption behaviour. A quantitative survey with 600 households and 60 vendors measured purchasing patterns, consumption behaviour, and demographic correlates. In-depth interviews with 60 households and 11 vendors explored barriers and perceptions influencing FV consumption. A mystery shopper exercise in open-air markets, kiosks, juice houses, and small restaurants in Addis Ababa examined purchasing environments. A Multiple Price List experiment with 41 consumers assessed willingness to pay for FV attributes. Finally, randomized controlled trials tested price reductions, quality signalling, and awareness interventions.

- » **Price based intervention:** The study indicates a notable difference in quantity purchased based on the magnitude of price discounts offered. Consumers bought more when the discount was bigger. On average, they purchased 1.6 kg at the regular market price, 2.0 kg with a 17% discount, and 2.6 kg with a 42% discount. These differences are understood to be statistically significant.
- » **Quality signaling intervention:** The analysis shows a strong link between product quality and buying decisions. Higher tomato purchases are consistently connected to better quality, specifically tomatoes that are firm and free from ribs, bruises, cracks, and skin defects.
- » **Outcome based awareness intervention:** Consumers in semi-urban and rural areas bought more on average in response to posters that were displayed. Little to no difference was observed in urban areas.

## Implications

### For policymakers and government institutions:

Price plays a key role in shaping consumers' buying decisions for fruits and vegetables, and substantial discounts can effectively increase consumption.

The quantity purchased is strongly linked to produce quality, with higher quality leading to larger purchases.

Awareness has only a small overall effect, though it is relatively stronger in rural areas, suggesting that strategies need to be better targeted.

## Recommendations for future research

**Supply-side dynamics:** This study focused primarily on demand-side factors. Future research should examine how changes in supply, particularly increased availability and improved quality, affect fruit and vegetable consumption patterns.

**Behavioral interventions on the supply-side:** While the proposed interventions targeted consumer behavior, subsequent studies could explore behavioral solutions aimed at enhancing the availability, accessibility, and quality of fruits and vegetables within markets.

Due to financial constraints, the pricing intervention was limited to three price points, which may have restricted the ability to capture more nuanced consumer price responsiveness.

## Further reading

Maru, D. T. (2025). *The effect of discount pricing on consumer fruit purchase decisions: Insights from randomized controlled trials in Ethiopia*. Busara Center for Behavioral Economics. <https://busara.global/wp-content/uploads/2025/01/GW-19-RA.pdf>

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## Study team

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