



## Policy Brief: Enhancing food safety in Kaduna State

### Executive Summary:

Food safety is a critical public health concern in Nigeria. It affects the well-being of Nigerian citizens and the economic stability of its communities and states. Recent incidents of foodborne illnesses such as Cholera highlight this problem and the need for robust and proactive measures to ensure the food supply in the country is safe. This brief presents key research findings and policy recommendations to enhance food safety through improved regulation, inspection, education, and technological innovation. It draws on two related studies on food safety based on data collected in Nigeria between March 2023 and February 2024. This includes information about the size, infrastructure, and governance of fish, tomatoes, and green leafy vegetable (GLV) wholesale markets in 80 wholesale markets in Kaduna State. Table 1 describes the findings related to infrastructure and food safety in the markets in the study states.



State	Has a functional toilet (%)	No. of Traders per toilet	Access to pipe-borne water (%)	Treat water (%)	Main water source is a bore hole	Main water source is a well	Main water source (streams, jerricans, etc.)
Cross River	32	911	0	0	36	2	62
<b>Kaduna</b>	<b>39</b>	<b>510</b>	<b>5</b>	<b>9</b>	<b>29</b>	<b>46</b>	<b>19</b>
Ebonyi	26	722	13	0	57	8	30
Oyo	52	470	4	17	72	20	9
FCT	100	216	40	20	60	0	20
Plateau	17	1129	8	0	19	21	55
Borno	95	183	0	0	24	0	76
Kebbi	77	211	0	0	32	41	28

Source: RSM2SNF wholesale market study

## Key findings:

- **Inadequate toilets and clean water:**
  - Only 39% of wholesale markets for tomatoes or GLV in Kaduna State had a functional toilet with over 500 traders to a toilet, on average. As a result of insufficient functional toilets, people can resort to open defecation, or the use of buckets sometimes kept around their stalls in the market. These practices can lead to the contamination of food (sold in the market) as well as soil and water sources with fecal matter, which can harbor the *Vibrio cholerae* bacteria.
  - Only 5% of wholesale markets in Kaduna State have pipe-borne water. The major sources of water are wells (46%) with about 20% of markets getting water from streams or in jerricans from neighboring water sources.
  - Trader hygiene practices (washing hands after toilet use) and handling practices (washing vegetables with clean water that is changed frequently) are important for reducing consumer exposure to microbial contaminants such as *E.coli* (Martins et al., 2024). Without enough functional toilets and handwashing stations, many people will not wash their hands properly after defecation, increasing the spread of cholera bacteria through direct contact, food handling, and other means.
- **Lack of Public Awareness and Education:**
  - No markets in Kaduna State have (1) any posters promoting food safety practices, (2) any rules about food safety communicated to traders or (3) quality control checks for these perishable foods respectively. This shows that food safety and food safety regulations are not yet prioritized in these food markets.
  - In the study on vegetable traders in southwest Nigeria, less than 1% of traders had ever received training on food safety and only about half of them changed their wash water (for vegetable washing) correctly (Martins et al., 2024). This means there is significant scope to improve trader hygiene and food safety handling practices via training.

### Key Messages



-Kaduna State needs more functional toilets in food markets



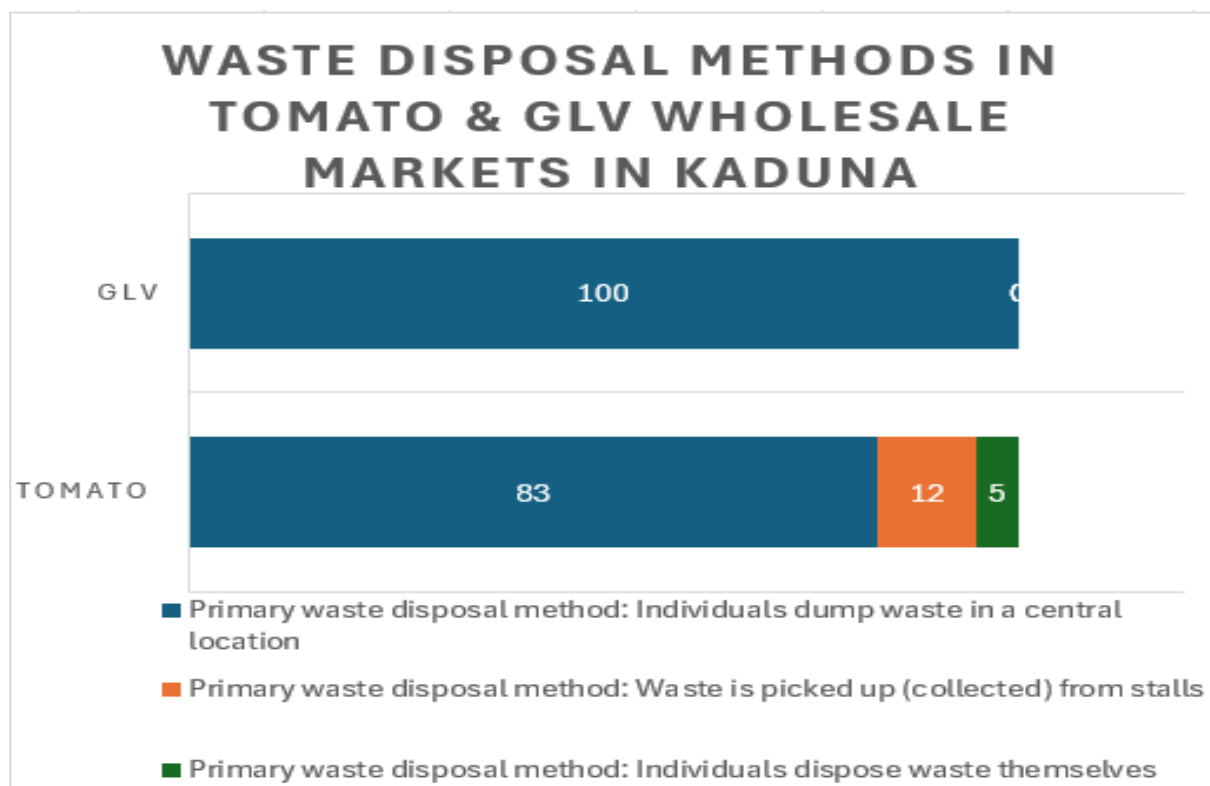
-Food markets in Kaduna State need access to potable water



-Food traders and consumers need adequate food safety training

## Improper Waste Disposal:

- The main way waste is disposed of in Kaduna state is where individual traders dropping their waste in a central location from which that waste is picked up daily, weekly, or less frequently. Having solid waste around markets that is not properly disposed of frequently is a potential source of pathogens such as *Salmonella spp.*, *Escherichia coli*, and *Vibrio cholerae* that cause diseases.



Source: RSM2SNF wholesale market study

## Policy Recommendations:

1. **Invest in the construction of more modern toilets** to reduce the trader-to-toilet ratios in the state.
2. Launch statewide **education and training for traders and consumers** to educate the public on safe food handling, storage, and preparation practices. This has been found to encourage adoption of good practices, particularly when the cost of adoption is low (Seaman and Eves 2010; WHO, 2015)
3. Integrate food safety education into school curricula to raise awareness among children and their families to improve food **safety demand and supply**
4. Employ more workers as Environmental Health Officers and train them on the Principles of Food Safety, Food Hygiene, and Personal Hygiene.
5. **Monitoring and control of hygiene in the markets:** The Environmental Health Officers should be empowered to regularly monitor the hygiene practices of the people in the markets and sanction them, if there is a need.





6. **Enhance collaboration via** Public Private Partnerships and improve interagency coordination between state and local government to streamline food safety efforts and ensure a unified response to incidents.
7. **Support research and innovation:** Increase funding for research on new methods and technologies to improve food safety and bring researchers, industry experts, and policymakers together to develop and implement cutting-edge food safety solutions.

## Conclusion:

Ensuring the safety of our food supply is a shared responsibility that requires concerted effort from all stakeholders. By implementing these policy recommendations, Kaduna State can significantly reduce the incidence of foodborne illnesses, protect public health, and enhance the economic vitality of the food sectors.

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This policy brief is intended to guide strategic actions and foster discussions on enhancing food safety in Kaduna State. For further information or to discuss these recommendations in more detail, please do not hesitate to contact the RSM2SNF project via Mrs. Amadi Grace (the Project Management Assistant) using 09162066036 or [grcraji@gmail.com](mailto:grcraji@gmail.com).

## References:

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