



RSM2SNF

Research Supporting African MSMEs
To Provide Safe and Nutritious Food

Policy Brief: Enhancing food safety in Oyo State

Executive Summary:

Food safety is a critical public health issue that affects the well-being of our citizens and the economic stability of the state. Recent incidents of foodborne illnesses e.g. Cholera highlight the need for a robust and proactive approach to ensure the safety of our food supply. This brief outlines 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 conducted by the Bill and Melinda Gates-funded project RSM2SNF (Research supporting African MSMEs to deliver affordable, safe, and nutritious foods).

Between March and October 2023, 509 samples of fresh vegetables and key information about handling and hygiene practices were collected from 166 vegetable traders across 9 food markets in Southwest, Nigeria. Similarly, between July 2023 and February 2024, key information about the size, infrastructure, and governance of fish, tomatoes, and green leafy vegetable (GLV) wholesale markets were collected in 8 Nigerian states, including Oyo State where forty-six wholesale markets were identified for these products. Table 1 describes the findings related to infrastructure and food safety in the markets in the study states.

State	Has a functional toilet (%)	Number of traders per toilet	Access to pipe-borne water (%)	Treat water (%)	Share of markets whose main water source is a bore hole	Share of markets whose main water source is a well
Cross River	32	911	0	0	36	2
Kaduna	39	510	5	9	29	46
Ebonyi	26	722	13	0	57	8
Oyo	52	470	4	17	72	20
FCT	100	216	40	20	60	0
Plateau	17	1129	8	0	19	21
Borno	95	183	0	0	24	0
Kebbi	77	211	0	0	32	41

Source: *RSM2SNF wholesale market study*

Key findings:

- Inadequate Toilets and clean water:**
 - Only 52% of wholesale markets for tomatoes, GLV, or fish in Oyo State had a functional toilet and the trader/toilet ratio was found to be over 400 traders to a toilet, on average. As a result of insufficient functional toilets, people 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 4% of wholesale markets in Oyo State have pipe-borne water. The major sources of water are boreholes & wells; 72% and 20% respectively.
 - 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 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:**
 - Only 17% of markets in Oyo State have any posters promoting food safety practices while 2 and 6 markets have any rules about food safety communicated to traders or 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

Key Messages



-Oyo State needs more functional toilets in food markets



-Food markets in Oyo state need access to potable water

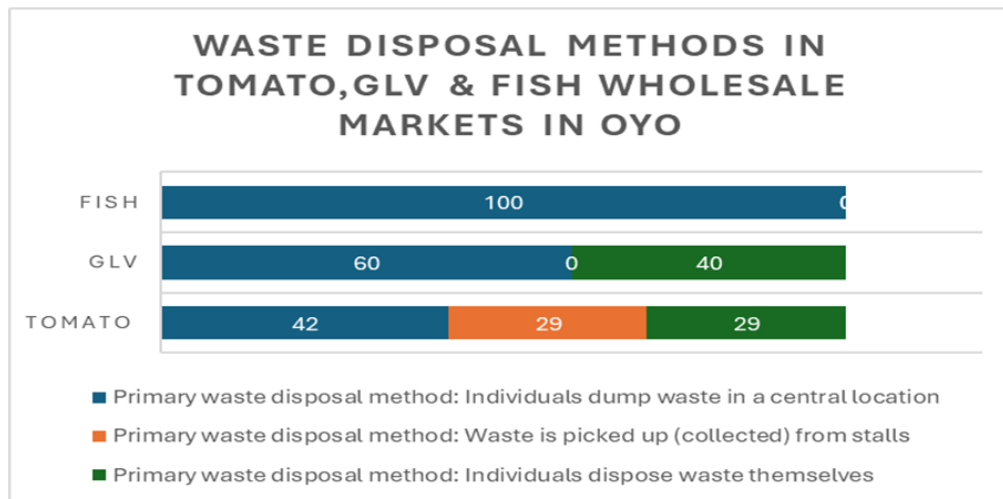


-Food traders and consumers need adequate food safety training

(Martins et al., 2024). This means there is significant scope to improve trader hygiene and food safety handling practices via training.

Improper Waste Disposal:

- The main way waste is disposed of in Oyo State is with 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 modern toilets** in the markets that currently don't have functional toilets and increase the number of toilets in the urban areas (to reduce the trader-to-toilet ratios). This is particularly important for tomato wholesale markets to reduce the possible incidents of the spread of contamination.
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, Oyo State can significantly reduce the incidence of foodborne illnesses, protect public health, and enhance the economic vitality of the food sectors. Your leadership and support in advancing these initiatives are crucial to safeguarding the health and well-being of the citizens.

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Date: July 13, 2024

This policy brief is intended to guide strategic actions and foster discussions on enhancing food safety in Oyo 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.

References:

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