



Policy Brief: Measures to strengthen food safety in Cross River State

Executive Summary:

Food safety is a critical public health issue in Nigeria and affects the economic stability of all Nigerian states. Nigeria has seen recent incidents of foodborne illnesses such as cholera that highlight the need for a concerted effort to ensure food safety along food supply chains. This



policy brief highlights key research findings (and their policy implications) related to food safety in Cross River State. 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 July 2023 and February 2024, key information about the size, infrastructure, and governance of wholesale markets for tomatoes, fish and green leafy vegetables (GLVs) was collected in 7 Nigerian states, (including Cross River State)

and the Federal Capital Territory. Fifty (50) wholesale markets were identified for the study products. 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
Kaduna	39	510	5	9	29	46	19
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 32 % of wholesale markets for tomatoes, GLV, or fish in Cross River State had a functional toilet and there are over 900 traders to a toilet, on average. As a result of insufficient functional toilets, people can resort to unhygienic practices such as open defecation or the use of buckets or other containers sometimes kept around their stalls. 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.
 - No wholesale markets in Cross River State have pipe-borne water. The major single source of water are boreholes, 36%, and others being a collection of sources such as streams/rivers/lakes/ponds forming 62%. Wells accounts for 2%.
 - 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.
 - Without access to clean water, food can even get contaminated during washing with unclean water
- **Lack of Public Awareness and Education:**
 - Two percent (2 %) of markets in Cross River State have posters promoting food safety practices. None have rules about food safety communicated to traders or quality control checks for these perishable foods. 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



Cross River State needs more functional toilets in food markets



Food markets in Cross River State need access to potable water



Food traders and consumers need adequate food safety training

Improper Waste Disposal:

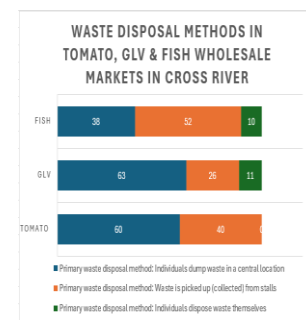
- The 2 main ways waste is disposed of in Cross River State are either with individual traders dropping their waste in a central location from which that waste is picked up daily, weekly, or less frequently or having their waste picked up from their stalls. Having solid waste around markets that is not properly disposed of frequently is a potential source of pathogens (that cause diseases) such as *Salmonella spp.*, *Escherichia coli*, and *Vibrio cholerae*.



Source: RSM2SNF wholesale market study

Policy Recommendations:

1. **Invest in the construction of more toilets** to reduce the trader-to-toilet ratios in the state.
2. **Provide markets with boreholes and/or wells** (to ensure water is available in close proximity) **with simple treatment of the water with chlorination** to prevent potential health hazards.
3. 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)
4. Integrate food safety education into school curricula to raise awareness among children and their families to improve food **safety demand and supply**
5. Employ more workers as Environmental Health Officers and train them on the Principles of Food Safety, Food Hygiene, and Personal Hygiene.



6. **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, when there is a need.



7. **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.
8. **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, Cross River 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 Cross River 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:

- Seaman, P., and Eves, A. (2010). Perceptions of food safety training and knowledge among food handlers. *Journal of Food Protection*, 73(7), 1238-1246.
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