

# GUIDELINES FOR FOOD HYGIENE IN TRADITIONAL MARKETS

IMPROVING ACCESS TO SAFE, HEALTHY FOODS AND LIVELIHOODS



GAIN Discussion Paper n°17

FEBRUARY 2025

Caroline Smith DeWaal and Ann Trevenen-Jones



### **Recommended citation**

**DeWaal CS, and Trevenen-Jones A. Guidelines for food hygiene in traditional markets: improving access to safe, healthy foods and livelihoods. Global Alliance for Improved Nutrition (GAIN). Discussion Paper #17. Geneva, Switzerland, 2025. DOI: <https://doi.org/10.36072/dp.17>**

### **© The Global Alliance for Improved Nutrition (GAIN)**

This work is available under the Creative Commons Attribution-Non-Commercial-Share Alike 4.0 IGO licence (CC BY-NC-SA 4.0 IGO; <https://creativecommons.org/licenses/by-nc-sa/4.0/>). Under the terms of this licence, you may copy, redistribute and adapt the work for non-commercial purposes, provided the work is appropriately cited, as indicated below. In any use of this work, there should be no suggestion that GAIN endorses any specific organisation, products or services. The use of the GAIN logo is not permitted. If you adapt the work, then you must license your work under the same or equivalent Creative Commons license. The contribution of third parties do not necessarily represent the view or opinion of GAIN.

### **Acknowledgements**

The authors thank former and present GAIN colleagues G.M. Reza Sumon, Charles Opiyo, Maureen Muketha, Augustine Okoruwa, Ariel Garsow, Edrieno Sutarjadi, Elisabetta Lambertini, Steve Godfrey, and Saul Morris, whose support helped shape our successive inputs to the Codex Guidelines process. Their technical expertise and knowledge of traditional markets and food safety globally as well as in Bangladesh, Ethiopia, Indonesia, Kenya, Mozambique, and Nigeria strengthened draft guideline reviews. We appreciate Stella Nordhagen's review of this discussion paper. All photographs included in this document have been taken with consent for use in publications. The cover photograph shows the Codex guideline adoption process in Geneva (November 2024)

### SUMMARY

Many low-income, food insecure, and malnutrition-vulnerable communities in Africa, Asia, and Latin America rely on traditional markets to access nutritious fresh food like meat, poultry, seafood, fruit, and vegetables. However, contaminated fresh foods in markets put the well-being of consumers at risk by compromising their uptake of nutrients, needed for proper growth and health. Unsafe food also contributes to food waste and can raise food prices and lower market vendors' profits. Improving hygiene in traditional food markets is thus vital to improving nutritional outcomes for consumers in low- and middle-income countries and can positively contribute to market vendors' livelihoods and sustainable local food systems.

The Global Alliance for Improved Nutrition and its partners work to improve conditions in traditional markets in Africa and Asia through alliances with governments, market leaders, vendors, and consumers. Following formative research, including the review of regional guidelines on street-vended foods and lessons learned from programmatic endeavours, it was clear that practical food hygiene guidelines for traditional markets were needed. In 2022, GAIN initiated a process to champion global Guidelines for Food Hygiene Controls in Traditional Markets for Food through the Codex Alimentarius Commission (CAC), where GAIN is an observer organisation. Those Guidelines were adopted in November 2024. As a global standard, they offer national, sub-national, and local governments, as well as market authorities and vendors, a practical, universal, and evidence-informed tool to use towards the achievement of hygiene control improvements in traditional markets. GAIN and other organisations can use the Guidelines to advocate with governments for local adoption and implementation.

#### KEY MESSAGES

- Traditional markets are hubs where food is aggregated and distributed. They are especially critical for low-income, food insecure, and malnutrition-vulnerable communities.
- Improving food hygiene in traditional markets facilitates access to sufficient, safe, and nutritious foods, which benefits consumers' health and wellbeing and vendors' livelihoods, as well as reducing food waste.
- GAIN's research and advocacy efforts were both central to initiating and championing the process that led to the adoption of Guidelines for Food Hygiene Controls in Traditional Markets for Food in November 2024.
- These guidelines are a practical, science-based, and global standard designed to empower local stakeholders and facilitate increased food safety in traditional markets.

### BACKGROUND AND OBJECTIVE

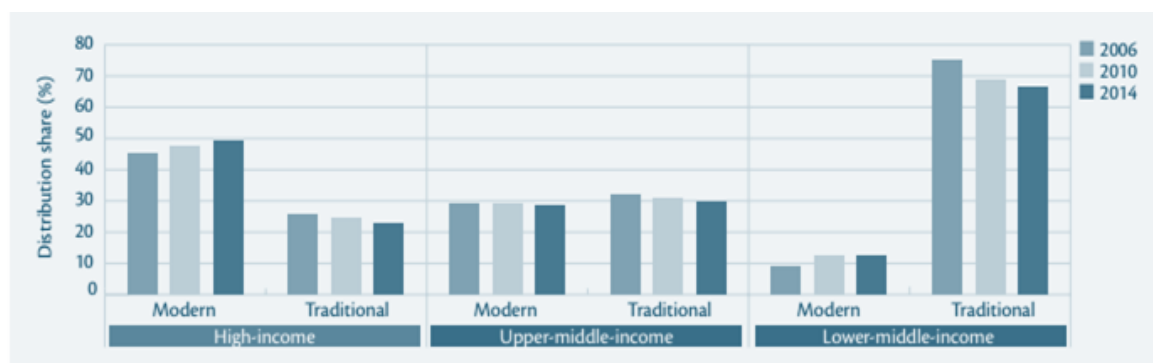
Consumers in many countries rely on traditional markets<sup>1</sup> to access fresh foods, but foods in these markets are also highly susceptible to carrying foodborne pathogens (1,2,3). Although proper food handling can prevent many illnesses, conditions in traditional markets can make it extremely challenging for vendors to practice proper food hygiene. For example, if markets lack roofing, foods have limited protection from the weather. Without covered ground surfaces and access to potable water and sanitation, vendors struggle to keep their hands and food clean. Without waste management, vermin and unhygienic conditions can prevail. All these conditions can lead to the presence and growth of pathogens on food.

Traditional markets are recognised as a key entry point for efforts targeting the reduction of the global burden of foodborne illness (1,2,3). Unsafe food carries microbial and/or chemical pathogenic contaminants, such as viruses, bacteria, toxins, and pesticide residues, which cause harm when food is prepared and/or eaten as per its intended use (4). Food hygiene covers 'all conditions and measures necessary to ensure the safety and suitability of food at all stages' of the food supply chain, from production to consumption (5). The World Health Organization estimates that each year, unsafe food causes illness in one in ten people and 420,000 deaths. One third of those deaths are of children under 5 years of age (4). While the African and Southeast Asian regions experience the greatest burden of foodborne disease, addressing the causes of foodborne illness in all countries and regions is important to address malnutrition and improve the uptake of nutrients that contributes to physical and intellectual health, especially for young children (4).

Improving the safety of food sold in traditional food markets is especially vital to improving the food security and nutritional outcomes for urban and peri-urban, low-income communities in low- and middle-income countries (LMICs), because these markets are the main, and often only, source of their food (1,3,6,7). Approximately three quarters of world's urban and peri-urban communities are moderately to severely food insecure, which has implications for their diet quality and wellbeing (6). Despite the growth of supermarkets and other types of modern retail in LMICs in sub-Saharan Africa and Asia, traditional markets continue to be the primary source of food for many communities, especially urban, low-income communities (2,3,6,7). Traditional retail markets captured almost 70% of fresh food distribution between 2006 and 2014 (Figure 1).

---

<sup>1</sup> See Annex 1 for description of traditional markets and governance



**Figure 1. Comparison of fresh foods distribution by type of retail market and country income groups, 2006-2014. Distribution share is expressed as a percentage of total volume. Reproduced from GloPlan 2016 (8). Permission not required.**

The Global Alliance for Improved Nutrition (GAIN) recognises the importance of traditional markets and is experienced in working with traditional market stakeholders and partners, investing in market infrastructure, facilitating nutrition and food safety capacity-building, and co-designing inclusive governance and market management tools in LMICs in sub-Saharan Africa and Asia. Between 2020-2022, GAIN’s Keeping Food Markets Working during COVID 19 programme spotlighted the significance of markets in ensuring access to food as well as for livelihoods and information sharing about food. The USAID Feed the Future EatSafe project (2020 -2024), implemented by a GAIN-led consortium, and Food Systems Governance programme (Resilient Markets, Urban Nutrition and Nourishing Food Pathways projects 2020+) continued, post pandemic, to build back better together with market stakeholders in several countries, including Mozambique, Tanzania, Kenya, Nigeria, Ethiopia, Bangladesh, Pakistan, India, and Indonesia (9-17).

From 2022 to 2024, GAIN worked to leverage this expertise and experience to advocate for the development and adoption of global Guidelines for Food Hygiene Controls in Traditional Markets for Food, working through the Codex Committee for Food Hygiene (Box 1). This paper discusses that process, illustrating how formative research, programmatic learning, and technical expertise can mutually reinforce efforts to advocate for tools that support the effective interpretation of policy into delivery. In closing, the authors present

**BOX 1. WHAT IS CODEX?**

Codex Alimentarius is a joint programme of the World Health Organization (WHO) and the Food and Agriculture Organization of the United Nations (FAO) with the mission to develop food standards that protect consumers’ health and ensure fair practices in food trade. It involves 188 member countries and the European Union and operates by consensus to develop food standards relevant to both domestic and exported foods. Drawing on scientific and technical advice from its member countries, Codex is the global ‘food code’ body. Like other international standard development processes, the Codex process is designed to give ample opportunity for countries to review proposed standards during an eight-step process for adoption - a process that usually takes several years. (18)

possible ways in how the adopted guidelines can be localised and operationalised by countries and those working together the government and market stakeholders.

### PROCESS: FROM IDENTIFYING A NEED TO ADOPTION OF CODEX GUIDELINES

#### RESEARCH AND ADVOCACY WORK TOGETHER TO BUILD BACK BETTER

As part of its emergency response programme during the pandemic, GAIN conducted consumer and vendor surveys to assess the impact of COVID-19 on food access in 10 traditional markets across 6 countries, Bangladesh, Ethiopia, Kenya, Mozambique, Nigeria, and Tanzania (12). GAIN also undertook mixed-method, rapid needs assessments that informed the design of policy option toolkits with local governments, market leaders, and vendors in six traditional markets in cities in Kenya, Mozambique and Pakistan (16,17). Working together with WHO, GAIN developed communication tools to encourage mask wearing, social distancing, and hand washing interventions that helped keep markets open during the pandemic. Interventions like hand washing and the provision of water tanks both supported human safety protocols and improved food hygiene in the markets during the pandemic.

In early 2022, GAIN teams consolidated lessons learned from the Keeping Food Markets Working During COVID-19 emergency response efforts. This informed a next phase: resilience-building programmes for markets. One focus area was to mainstream and scale rapid implementation tools, like market assessments and co-designed market policy option toolkits, to help communities develop or identify low-cost solutions. The most effective solutions were those that empowered key local stakeholders like government officials, market committees, and vendors, thereby increasing the likelihood for continued implementation and impact.

Other programmatic work on markets was conducted by the USAID Feed the Future EatSafe project, which was designed to test if consumer demand could help drive food safety improvements in traditional markets. During the initiation phase of EatSafe, formative research was conducted on several aspects of traditional food markets, including identifying existing international guidelines for food safety in traditional food markets to ensure consistent implementation of recommended food safety standards in local markets. EatSafe's advocacy with national and local governments was supported by the ability to reference reliable policy guides from influential sources, like WHO, FAO, and Codex. Those authoritative sources helped communities and governments understand the foundation for market improvements.

GAIN recognised that traditional market food safety programmes must be underpinned by pragmatic scientific hygiene practices that consider the local socio-ecological realities in LMICs. They must also be transferrable across different contexts. Developing market guidelines that could be localised and interpreted into routine checklist-type assessment tools was regarded as a key piece of the solution puzzle. Standardised guidelines were recognised as a tool to facilitate low-cost actions, essential for providing communities that rely on traditional food markets with enhanced access to sufficient, safe, and nutritious food for consumers, while sustaining vendor livelihoods and aiding in food waste reduction.



## **FORMATIVE RESEARCH: MAKING THE CASE FOR A FOOD HYGIENE POLICY INITIATIVE**

Formative research, conducted by GAIN, on traditional food markets helped inform advocacy for policies that addressed market improvements in several countries where GAIN operates programs. GAIN's Food Systems Governance market project design and lessons learned emphasise the value of local evidence and empowering government and market stakeholders using a multi-faceted, participatory framework that includes capacity-building in nutrition and food safety, investment in infrastructure, and promoting inclusive governance. These projects continue to demonstrate that locally led traditional markets are enabling environments where consumers can access and learn about safe, diverse and healthy food, and support vendors' livelihoods (19).

GAIN's research on food safety standards was an important trigger for the Codex process. The EatSafe project identified existing international guidelines for food safety in traditional food markets, reviewed advisory documents for national and local governments published by WHO and FAO, and hosted of a consultative meeting with experts. Four separate regional Guidelines approved by regional Codex Committees over a twenty-year period were analysed as part of a systematic literature review. Those regional guidelines were designed to advise governments on methods to improve the safety of street-vended food. While they shared many similarities, they were structured quite differently, and as such provided uneven food safety protections across countries (20). While focused on street-vended foods, the regional guidelines also contained information and approaches relevant to traditional markets as places where many street vendors buy and sell their foods or ingredients (Box 2). Additionally, this research underscored the lack of uniform global guidance detailing how governments should regulate conditions and food safety in traditional markets.

These research and the programmatic insights provided important background to the scoping for the hygiene guidelines, and informed inputs for GAIN's subsequent reviews of the draft versions of the Codex hygiene guidelines for traditional food markets.

## **INITIATING THE CODEX PROCESS FOR GLOBAL GUIDANCE FOR FOOD HYGIENE CONTROLS IN TRADITIONAL FOOD MARKETS**

As a Codex observer organisation, GAIN was able to initiate a request to the Codex Committee for Food Hygiene (CCFH) to support the development of global food safety guidance or standards for traditional markets for food. CCFH is a subject matter committee within the Codex Alimentarius Commission (CAC). GAIN's request, in March 2022, formally initiated the Codex process (Box 2). The request was done through a 'conference room document' that described the importance of traditional markets for food across the world but especially in LMICs, further noting that challenges in these markets often undermine food safety. Five countries—Kenya, Indonesia, Peru, Bolivia, and Nigeria—indicated their interest and willingness to help develop a proposal for guidelines in collaboration with GAIN. A Discussion Draft Paper was then co-developed for consideration at the November 2022 CCFH meeting. This paper marked the first formal step towards developing the new Codex guideline or standard. At the meeting, the proposal was supported by 13 countries: Argentina, Bolivia, Dominican Republic, Cameroon, Ghana, India, Indonesia, Jamaica, Kenya, Mauritania, Morocco, Nigeria, the Philippines, and Trinidad and Tobago and three

## GAIN Discussion Paper n°17

Codex observers, the Consumer Goods Forum, International Frozen Foods Association, and GAIN. The Discussion Draft was approved by Codex in late 2022 and sent back to the CCFH to begin work on the text.

### BOX 2. EIGHT STEPS FOR CODEX APPROVAL AND ADOPTION (21)

**Step 1:** Commission decides to elaborate a worldwide Codex standard and assigns the work to a Codex subject matter committee under CAC (subsidiary body).

**Step 2:** Secretariat arranges for the preparation of a proposed draft standard.

**Step 3:** Proposed draft standard is sent to Members of the Commission and interested international organisations for comments.

**Step 4:** Comments received are sent to the subsidiary body, which has the power to amend the proposed draft standard.

**Step 5:** Proposed draft standard is submitted to the Executive Committee for critical review and to the Commission for adoption as a draft standard.\*\*

**Step 6:** Draft standard is sent to all Members and interested international organisations for further comments.

**Step 7:** Comments received are sent to the subsidiary body, which has the power to amend the draft standard.

**Step 8:** The draft standard is submitted to the Executive Committee for critical review and to the Commission for adoption as a Codex standard.

*\*\*Codex Committees can also use an accelerated process. This is when a proposed draft standard is submitted at Step 5 with the recommendation for the omission of Steps 6 and 7 (Step 5/8).*

### NEXT CODEX GUIDELINE STEPS

In 2023, the government of Kenya formed a Working Group and lead the guideline text development, with support from Bolivia and Nigeria as co-chairs. GAIN shared its research comparing the content of the four regional Guidelines for street-vended foods with the Work Group and participated actively during the drafting process. At least 12 countries provided comments during this process. GAIN shared recommendations on the two drafts of the guidelines (Box 3). These were informed by GAIN's internal working group, which critically evaluated the drafts, drawing on their expertise, research, and experience working in markets in different countries and regions. Based on the comments received by GAIN and participating governments, the Working Group revised the text three times before it was considered by the full Committee.

The CCFH reviewed and adopted the draft Guidelines for Food Hygiene Control Measures in Traditional Markets for Food at a meeting in March 2024. The draft guidelines were strongly supported and passed – moving the draft from Step 4 to Step 5/8, which is a recommendation for an accelerated review and approval in the Codex process. Adoption at



Step 5/8 was essential to positioning the draft guidelines for final adoption at the next Codex Commission meeting. GAIN and the World Food Programme supported the rapid passage for the Guidelines, given their utility and public health importance.

In the next and final step, the Guidelines for Food Hygiene Control Measures in Traditional Markets for Food were officially adopted by the Codex Alimentarius Commission in Geneva in November 2024. There was widespread enthusiasm for the Guidelines. The African Union spoke in support of the final adoption, as did many countries, including Argentina, Benin, Cameroon, Cabo Verde, China, Côte d'Ivoire, Cuba, Dominican Republic, Ecuador, Egypt, Fiji, Gambia, Ghana, Honduras, India, Indonesia, Malaysia, Mexico, Nigeria, Thailand, Vanuatu, and Zambia. Countries stressed the critical importance of traditional markets in ensuring access to sufficient, safe, and nutritious food for consumers and protecting livelihoods for low-income vendors. They noted the practicality of the Guidelines, their applicability across regions, and recognised the roles that can be played by various stakeholders, elements viewed as key to successful implementation. Many countries stressed the need to invest in food hygiene training by food business operators, market authorities and regulators and the need for infrastructure investment. The Commission noted that post adoption, momentum needs to be sustained to support the implementation of the Guidelines by countries and other interested parties.

The Guidelines for Food Hygiene Controls for Traditional Markets for Food took only two and a half years from GAIN's initial request to final adoption. This unusually swift adoption suggests that countries across the world recognise the need for a pragmatic, universal and scientifically informed tool to address food hygiene in traditional markets. Countries from Africa, Asia, and Latin America enthusiastically supported the proposal whenever it was brought forward for review.

### **BOX 3. SELECTION OF RECOMMENDATIONS BY GAIN, ADOPTED INTO THE FINAL GUIDELINES**

- Recognition of the role of different stakeholder groups, such as market authorities, in managing hygiene controls in the market.
- Formation of a stakeholder committee for the markets to advise on cleaning, repairs, and critical services.
- Inclusion of training for extension and community health workers to help train vendors/food handlers and promote food safety in the markets.
- Addition of a Monitoring and Evaluation section.
- Reference to zoonotic risks and utilisation of traditional markets for surveillance of foodborne illnesses.

## **THE FINAL ADOPTED GUIDELINES**

The final Guidelines are available on the Codex website (22). They advise governments on the appropriate food hygiene control measures to institute in traditional food markets with the goal of significantly reducing consumers' exposure to food safety risks. Traditional

## GAIN Discussion Paper n°17

markets are defined as street food markets, local markets, open-air markets, and wet or farmers markets, among other types. The Guidelines:

*provide a tool for governments and other market stakeholders to evaluate existing conditions and prioritise areas for improvement; aim to empower market stakeholders with specific guidance on better food handling practices and market management; and recognise the important role that local governments, market authorities, and associations of food vendors can play in improving hygiene conditions and practices in markets. (22)*

Advice to national and local governments regards policies and regulations is covered in the guidelines alongside advice on market infrastructure, licensing and registration of vendors/food business operators, and pest and zoonotic foodborne agents' control. Food Business Operators (FBOs) and consumers are viewed as pivotal to the successful implementation of the Guidelines. FBO responsibilities encompass the health status of food handlers, including personal hygiene and behaviour, as well as for verifying process controls, record keeping, and traceability of foods and ingredients. The establishment of FBO associations to strengthen implementation capacity and serve as focal points for relevant authorities, is encouraged. Consumers are advised to be compliant in their hygiene behaviour in markets and proactive in their awareness and knowledge of food hygiene. General sections of the Guidelines address market location, design, layout, and structures (22).

## CONCLUSION AND NEXT STEPS

Food security and nutrition endeavours involving traditional markets need to be underpinned by pragmatic and scientific food hygiene practices that are attentive to local socio-ecological realities, especially those in LMICs, in ways that enable locally relevant delivery and transferability. Developing market guidelines that could be localised and interpreted into routine checklist-type assessment tools was regarded as a key piece of the food safety puzzle. With their adoption by Codex, the Guidelines for Food Hygiene Control Measures in Traditional Markets offer an expert-driven set of global standards to improve food safety conditions in traditional markets. The Guidelines have the potential to be low cost and practical in application as well as scalable and sustainable.

At their final adoption at Codex in November 2024, the African Union provided a statement that encapsulates the importance of the Guidelines and next steps:

*'[The Guidelines are] a critical milestone to address challenges in traditional markets...central to food security, livelihoods and economic activity across Africa. Traditional markets play a vital role in the daily lives of millions of Africans by providing access to affordable and culturally relevant foods. Within Africa 60 – 70% of people source their food from traditional markets. These Guidelines are particularly important for the continent...[the] Guidelines provide a very robust framework to enhance food hygiene in traditional markets, protect public health, foster consumer trust whilst supporting traditional food market operators. In*

*conclusion, we look forward to further strategic partnerships in the implementation of these particular Guidelines.'*

It is recognised that one of the next steps following the publication of the final guidelines is to coherently bridge the guidelines with existing market governance and national food safety policies as well as regional guidelines, like those related to street food vending.

As part of its advocacy with governments at the national and local levels, GAIN and other non-governmental organisations can utilise the Guidelines to help deliver impact with and for vulnerable communities. For example, the Guidelines provide an important resource for designing programmes and as a tool to facilitate effective scaling and locally led, sustainable impact. They are particularly relevant to food systems and nutrition-oriented programmes that direct safe food handling components to educate, skill, and empower food market vendors, market authorities, and local governments.

GAIN has already developed training and food systems empowerment programmes for market vendors and/or market authorities covering nutrition, food handling and safety, and food waste, which have been implemented in Nigeria, Ethiopia, Kenya, Tanzania, Mozambique, Bangladesh, and Indonesia. Related tools developed by GAIN include rapid assessments for markets (both overarching and specific to food safety), a ONE Nutrition systemic capacitation tool of which food hygiene/safety is a part, and food safety training materials for market vendors (23,24).

Furthermore, GAIN and other organisations can advocate with governments for local adoption and implementation of the Guidelines or the principles therein. Examples of GAIN's work to date include:

***Nigeria:*** In 2023, Nigeria recognised local food markets in their newly revised national food policy, approved by the government (25). The Codex Guidelines can complement this by assisting national governments in partnering with local governments on the types of market controls that can best protect public health.

***Kenya:*** GAIN's Resilient Markets project in Kenya works with national and county government officials to improve conditions in local markets. GAIN has helped local and market authorities in five counties (Machakos, Kiambu, Nairobi, Nakuru, and Mombasa) to install cold rooms; build vendor capacities around nutrition, food handling and safety, and food waste reduction; and co-design and support implementation of routine, inclusive processes that strengthen local governance and management of traditional markets for food.

***Bangladesh:*** Through the EatSafe/Keeping Food Markets Working project, GAIN supported food safety improvements in several markets in Dhaka, in collaboration with the city government. The working group established to lead the project is now led by the city government; in consultation with GAIN, other government departments, and development partners, it aims to raise awareness and support use of the Guidelines via its own activities and those of the Urban Visionary Working Group.

***India:*** After the Government of India initiated a programme to upgrade existing street food hubs across major cities of India, GAIN collaborated with FSSAI (Food Safety Standards Authority of India) to support state governments in implementing the initiative by developing the Healthy and Hygienic Food Safety (HHFS) toolkit and a Monitoring and Evaluation framework. GAIN routinely visits HHFS market locations to assess the conditions before and after the programme

## GAIN Discussion Paper n°17

*interventions. As a result of the successful implementation of HHFS programme, India's finance minister announced the launch of 100 accredited food safety laboratories across the country and committed to setting up an additional 100 HHFS locations in select cities across India.*

Food safety in traditional markets is the consequence of numerous factors: the knowledge, attitudes, and practices of market stakeholders alongside an enabling environment of governance, infrastructure, and basic services. EatSafe's work on consumer demand and improved food safety behaviour demonstrated that the enabling environment is vital if behaviour change interventions targeting market vendors and consumers are to have a lasting impact. GAIN's food systems governance and resilient markets projects further highlighted the importance of inclusive market governance and co-designed tools that routinely connect government, market authorities, food group leaders and associations, and vendors in efforts to improve conditions in local markets. Improving food safety requires a community effort at many levels and engaging a wide range of stakeholders, such as those in charge of water, sanitation, and hygiene facilities and services that are needed to keep markets clean and waste removal functioning. Having clear global guidelines, such as those recently approved by Codex, will help GAIN and local stakeholders advocate with governments to focus on traditional markets and guide and prioritise improvements.

### REFERENCES

1. WHO. WHO global strategy for food safety 2022-2030:towards stronger food safety systems and global cooperation. Geneva, Switzerland: World Health Organization, 86; 2020.
2. Cook B, Trevenen-Jones A, Sivasubramanian B. Nutritional, economic, social, and governance implications of traditional food markets for vulnerable populations in sub-Saharan Africa: a systematic narrative review. *Frontiers in Sustainable Food Systems*. 2024 June 8. <https://doi.org/10.3389/fsufs.2024.1382383>.
3. Hofman, M, Trevenen-Jones, A. Wet markets in Southeast Asia and access to healthy diets. *Frontiers in Sustainability*. 2024 June 5. <https://doi.org/10.3389/frsus.2024.1320959>
4. Havelaar AH, Kirk MD, Torgerson PR, Gibb HJ, Hald T, Lake RJ, et al. World Health Organization Global Estimates and Regional Comparisons of the Burden of Foodborne Disease in 2010. *PLOS Medicine*. 2015; 12(12). <https://doi.org/10.1371/journal.pmed.1001923>
5. Food hygiene Basic texts Fourth edition [Internet]. Available from: <https://www.fao.org/4/a1552e/a1552e00.pdf>
6. HLPE. Strengthening urban and peri-urban food systems to achieve food security and nutrition, in the context of urbanization and rural transformation. Rome: CFS HLPE-FSN; 2024.
7. Hannah C, Davies J, Green R, Zimmer A, Anderson P, Battersby J, et al. Persistence of open-air markets in the food systems of Africa's secondary cities. *Cities*. 2022; 124, 103608. <https://doi.org/10.1016/j.cities.2022.10360>
8. International Food Policy Research Institute. Global Nutrition Report 2016: From promise to impact. Ending malnutrition by 2030. 2016. Washington, DC.
9. Monterrosa E, Dalley J, Moran P, Muthike W, Okoruwa A, Yalch T, et al. Innovating for Safer Foods: EatSafe in Nigeria's Approach to Designing Consumer Interventions in Traditional Markets. 2022 Nov 15.
10. Nordhagen S, Garsow A, Swartz H, Alhassan MM, Ibrahim Isyaku. Bringing Food Safety to the Shoppers. 2024 Jun 18;
11. Leveraging Consumer Demand to Drive Food Safety Improvements in Traditional Markets: FTF EatSafe's Research and Implementation Results. GAIN. 2019. Available from: <https://www.gainhealth.org/resources/reports-and-publications/leveraging-consumer-demand-drive-food-safety-improvements>
12. Global Alliance for Improved Nutrition. Multi-Country Market Report: Vendor and Consumer Perspectives on the COVID-19 Crisis Quarter 3: April – June 2021. A USAID EatSafe Project Report. [Internet]. 2022 [cited 2025 Jan 31]. Available from: <https://www.gainhealth.org/resources/reports-and-publications/multi-country-market-reports-vendor-and-consumer-perspectives>
13. Global Alliance for Improved Nutrition. Policy Options Toolkit: Machakos, Kenya. 2021.
14. Global Alliance for Improved Nutrition. Policy Options Toolkit: Peshawar, Pakistan. 2021.
15. Global Alliance for Improved Nutrition. Policy Options Toolkit: Beira, Mozambique. 2021.
16. Global Alliance for Improved Nutrition. COVID-19 Qualitative Rapid Assessment Factsheet. Rawalpindi and Peshawar, Pakistan. 2021.
17. Global Alliance for Improved Nutrition. COVID-19 Vendor Survey Factsheet. Beira, Mozambique. 2021.
18. FAO. CODEX ALIMENTARIUS FAO-WHO [Internet]. www.fao.org. 2023. Available from: <https://www.fao.org/fao-who-codexalimentarius/en/>
19. Demmler KM, van der Steen S, Trevenen-Jones A, de Kanter E. Food Environments and Diet Quality Among Vendors and Consumers in Five Traditional Urban Markets in Kenya. *Nutrients*. 2024; 17(1). <https://doi.org/10.3390/nu17010116>
20. DeWaal CS, Okoruwa A, Yalch T, McClafferty B. Regional Codex guidelines and their potential to impact food safety in traditional food markets. *J Food Prot*. 2022; 85(8):1148-1156. <https://doi.org/10.4315/JFP-22-052>
21. Codex Alimentarius Commission Procedural Manual. FAO; WHO; eBooks. 2024. <https://doi.org/10.4060/cd2280en>
22. Codex Alimentarius. Guidelines For Food Hygiene Control Measures In Traditional Markets For Food CXG 103-2024 Adopted in 2024 [Internet]. [cited 2025 Feb 2]. Available from: <https://www.fao.org/fao-who-codexalimentarius/sh->

## GAIN Discussion Paper n°17

[proxy/en/?lnk=1&url=https%253A%252F%252Fworkspace.fao.org%252Fsites%252Fcodex%252FStandards%252FCXG%2B103-2024%252FCXG\\_103e.pdf](https://www.gainhealth.org/sites/codex/Standards/FCXG%2B103-2024/FCXG_103e.pdf)

23. Global Alliance for Improved Nutrition. Market Assessment Tools for Traditional Markets [Internet]. 2024 [cited 2025 Jan 31]. Available from: <https://www.gainhealth.org/resources/reports-and-publications/market-assessment-tools-traditional-markets>
24. Global Alliance for Improved Nutrition. Food Safety Training Manual for Vendors in a Traditional Vegetable Market [Internet]. 2024 [cited 2025 Jan 31]. Available from: <https://www.gainhealth.org/resources/reports-and-publications/food-safety-training-manual-vendors-traditional-vegetable-market>
25. Okoruwa A, Tehinse J, Onuigbo-Chatta N, Elere S. Overview of Nigerian food safety legislation. Adv in Nutri and Food Sci. 2022. <https://doi.org/10.37722/ANAFS.2022303>



## **ANNEX I: DESCRIBING TRADITIONAL FOOD MARKETS**

The Guidelines for Food Hygiene Control in Traditional Markets for Food include local, wet and open-air markets within their definition of 'traditional', but a shared definition of local and/or traditional markets is elusive. Traditional markets range from clusters of stalls to more expansive and structured places; from those that are officially recognised by governments and those that are not. There are markets that only sell specific foods like fish or fruits and vegetables, for example, Pakistan's *spaz mandis*; markets that sell a variety of fresh, cooked and processed foods, and markets that sell food alongside other goods, like clothing and household materials. Traditional markets can be roof-covered or open-air with varying forms of infrastructure. Traditional markets that typically sell fresh food, staples, and/or wildlife and/or seafood are referred to as 'wet markets' in Asia because of the use of water to clean and place certain fresh foods on ice (3).

Traditional markets are widely recognised as key aggregating and distribution food hubs in food systems, both formal and informal. They are important to resilience, particularly for those vulnerable to climate change, conflict, food insecurity, and malnutrition, like women, children, and low-income communities. Typically linked to other markets, kiosks, and street food vendors, traditional markets also connect rural and urban communities across territories and borders. Markets are dynamic places, infused with culture, where food and food systems policy, governance, market leaders, wholesale and retail vendors, and consumers intersect (2,6).

Public traditional markets fall under the mandate and are managed, directly or by proxy, by sub-national or local government. Local government departments linked to trade often have the primary responsibility to manage and provide basic services to officially recognised markets. Other departments, like agriculture and health, also have mandates linked to public traditional markets.



## ABOUT GAIN

The Global Alliance for Improved Nutrition (GAIN) is a Swiss-based foundation launched at the UN in 2002 to tackle the human suffering caused by malnutrition. Working with governments, businesses and civil society, we aim to transform food systems so that they deliver more nutritious food for all people, especially the most vulnerable.

## ABOUT THE GAIN DISCUSSION PAPER SERIES

The GAIN Discussion Paper series is designed to spark discussion and debate and to inform action on topics of relevance to improving the consumption of nutritious, safe foods for all, especially the most vulnerable. The full series may be accessed at <https://bit.ly/gainpub>

## The Global Alliance for Improved Nutrition

Rue de Varembé 7 1202 | Geneva | Switzerland | [info@gainhealth.org](mailto:info@gainhealth.org)

 [www.gainhealth.org](http://www.gainhealth.org)

 GAINAlliance

 GAINAlliance

 Gainadm

 GAINAlliance

 Global Alliance for Improved Nutrition