

# THE PUNJAB FOOD AUTHORITY

## A MODEL FOR GOVERNANCE TO IMPROVE FOOD SAFETY AND HYGIENE



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## SUMMARY

Foodborne illnesses contribute to the burden of diseases worldwide. Ensuring food safety is therefore essential to fight malnutrition in all its forms. In Pakistan, the Punjab Food Authority (PFA) was established in 2011 with the responsibility for ensuring the safety and quality of all food items and products in the province through raising awareness and enforcing food hygiene and quality standards. This working paper focuses on the PFA model as a governance mechanism, showing how it is bringing multiple benefits to the food system and ultimately to consumers through improved food safety and nutrition. It is therefore a useful example of why urban governance for nutrition<sup>1</sup> should be prioritised by governments to improve nutrition.

Since the PFA's establishment, greater compliance with standards at inspections and higher rates of food businesses being licensed imply likely improvements in food safety. Food labelling and safety issues are openly communicated to the public. The PFA also works to encourage food businesses to choose fortified products and check fortification quality, thereby helping support improved nutrition. Enabling factors for the PFA include the devolution of authority from national to provincial levels and supporting legislation, including the PFA Act, which establishes the provincial food authority and sets the foundation for the PFA's work. The existence of an independent scientific panel also ensures that all PFA outputs, including standards or messages to the public, are based on scientific evidence. The organisation has benefited from a solid and growing source of funding from the province, supplemented by improved licensing compliance by food businesses. Finally, effective communication has played a key role in obtaining support from the PFA's numerous stakeholders.

### KEY MESSAGES

- Having trained professionals in food safety inspection teams to ensure staff remain technically up to date is essential. The PFA has thus invested in training food safety teams and food technologists to ensure the rigour and effectiveness of its work.
- The PFA's structure, housing enforcement and standards within the same authority, facilitates working as a unified organisation whilst ensuring sufficient separation between managing licences and enforcement.
- Basic planning is critical. While the PFA had less scope for planning, it is recommended that other cities draft initial plans based on the PFA experience. Where possible, such plans should build upon existing food safety structures and an understanding of the social and cultural context.
- As new food safety standards and activities are developed and deployed, it is essential to keep the public informed and monitor public reactions and responses.

<sup>1</sup> GAIN's Urban Governance for Nutrition defines urban governance for nutrition as 'process of making and implementing decisions that shape food systems to deliver better nutrition for people in cities (1).'

## BACKGROUND AND OBJECTIVE

Punjab province is home to half of the population of Pakistan (110 million out of a total of 207.8 million in the country). It is Pakistan's second-largest province in terms of population, after Baluchistan, and the most densely populated. There is considerable rural-to-urban migration in the province, with 31% of the population living in urban areas (2, 3).

Malnutrition remains widespread in Punjab province, with child stunting rates of 26.0-34.3% and high levels of micronutrient deficiencies (Table 1). Malnutrition in early life has long-term adverse functional consequences for children, ranging from poor cognition and educational performance to low adult wages, lost productivity, and an increased risk of nutrition-related chronic diseases in adulthood (4). In addition to persistent undernutrition, Punjab province also reflects a national-level trend of an increased double burden of malnutrition: the national prevalence of overweight among children under five increased from 5% in 2011 to 9.5% in 2018 (5). Overweight and obesity are important risk factors for future development of noncommunicable diseases, such as diabetes (6).

Table 1. Selected nutrition indicators at national and provincial levels.

Indicator	National prevalence (%)	Punjab prevalence (%)
Stunting	Urban 34.8 Rural 43.2	Urban 26.0 Rural 34.3
Wasting	17.7	15.3
Underweight	28.9	23.5
Overweight	9.5	9.9
Anaemia (children under 5)	53.7	60.3
Iron-deficiency anaemia (children under 5)	28.6	48.6
Iron deficiency (women aged 15-49)	18.2	18.7
Vitamin A deficiency (children under 5)	Moderate 62.7 Severe 13.2	Moderate 19.1 Severe 31.9
Zinc deficiency (children under 5)	18.6	38.4
Consumption of drinking water with <i>E. Coli</i> in households	36.0	30.4
<b>Notes:</b> Stunting (children under 5) – height for age < -2 SD of the WHO Child Growth Standards median Wasting (children under 5) – weight for height < -2 SD of the WHO Child Growth Standards median Underweight (children under 5) – weight for age < -2 SD of the WHO Child Growth Standards median Overweight (children under 5) – weight for height > +2 SD of the WHO Child Growth Standards median		

Sources: (4, 7, 8)

One cause of malnutrition is foodborne illness (9). Foodborne illnesses contribute to the burden of disease and reduce the ability of people to absorb nutrients. Almost one in 10 people falls ill every year from eating contaminated food, and 420,000 die as a result. Furthermore, children under 5 years of age are at particularly high risk, with 125,000 children dying from foodborne diseases every year (10).

Estimating levels of foodborne illness in Pakistan, specifically, is difficult due to the absence of monitoring, surveillance, and infection control systems. However, many biological and chemical pathogens (e.g., cholera, campylobacteriosis, *E. coli* gastroenteritis, salmonellosis,



shigellosis, typhoid, brucellosis, *Giardia lamblia*, *Entamoeba histolytica* and *Cryptosporidium* spp., boric acid, formalin, hydrogen peroxide) are commonly found in Pakistan, from production to point of sale (11, 12). Poor post-harvest handling, processing, and storage of food products is a major cause of aflatoxin contamination<sup>2</sup> and mould proliferation (12). Many foods are also contaminated with heavy metals and pesticides. Food adulteration is widely practiced and facilitated by the fact that many foods such as beverages, oil, ghee, bakery products, spices, tea, sweets, bottled water, and milk are sold in bulk. This includes the blending of low-cost and inferior-quality ingredients such as hydrogen peroxide, carbonates, bicarbonates, caustic soda, and formalin, which are added to alter the food's texture or colour (12, 13).

The Punjab Food Authority (PFA) was established in 2011 to help address these issues. Initially put in place at the provincial level, the PFA has expanded to all 36 districts within the province, in both urban and rural areas. This working paper examines how the PFA has been working in Punjab province to ensure the safety and quality of all food products, with a specific focus on the governance processes that make this feasible. The paper's objective is to outline the governance mechanisms used, the factors that enabled establishing and developing the work of the PFA, the lessons learned through this experience, and the initial benefits. These are then discussed within the context of urban governance for nutrition more broadly.

## METHODOLOGY

This paper is structured around a qualitative case study of the PFA. Data was collected via interviews with PFA key informants from the Resources and Licensing, Operations, and Public Relations departments as well as with the Head of Programmes of the Global Alliance for Improved Nutrition (GAIN) Pakistan office. A total of five interviews were carried out over the course of six months, between April and September 2019. Respondents were proposed by the Head of Programmes GAIN Pakistan based on knowledge of the PFA and of the departments that would be most relevant for the case study. Interview data was collected using a semi-structured interview tool with variations in questions depending on the role and responsibilities of the person interviewed, and detailed notes were taken during the course of the interview. Email follow-up for clarifications and additional questions was carried out with each interviewee several times after the initial interview.

As background for the case study, a limited review of the relevant English-language scientific and non-scientific literature (e.g., project reports, presentations, legislation, websites) was carried out on the topic of food safety and nutrition globally and for Pakistan. This was done using internet search engines as well as databases such as PubMed, PLOS, and ResearchGate. Approximately 65 documents were reviewed. All information collected from interviews, the literature review, and web searches was then collated and inserted into a standardised template capturing information on the initiative, such as background and context; triggers for the initiative; the programme's aims and objectives; stakeholders involved; local government buy-in; funding; enabling factors; challenges; food environment

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<sup>2</sup> Aflatoxins are certain fungi that are found on agricultural crops such as maize (corn), peanuts, cottonseed, and tree nuts and are associated with an increased risk of liver cancer.

impact; current state; next steps; key messages; and recommendations. The information in this template was then extracted to develop this paper.

## DESCRIPTION OF THE INITIATIVE

### HISTORIC ESTABLISHMENT OF THE PFA

The Punjab Pure Food Ordinance was established in 1960 by the Governor of West Pakistan to consolidate and amend the law relating to rules on food safety and quality in Punjab province (14). Since then, these ordinances, known as the Punjab Pure Food Rules, have evolved over time based on input from academia, industry, governing panel members, and field inspections teams, with new versions passed in 2011, 2014, 2017, and 2018 (15, 16). In 1996, the Government of Pakistan established the Pakistan Standards and Quality Control Authority (PSQCA) to provide a single authority for standardisation and conformity assessment of all products entering and exiting the country. Until 2010, the PSQCA was one of the key regulatory authorities looking after food safety in Pakistan, thus enforcing the Punjab Pure Food Ordinance (17).

Presently, Pakistan's food imports are regulated by the federal government whereas food safety standards are regulated by provincial governments. Prior to the establishment of the PFA in 2011, food safety monitoring at the provincial level was carried out by a deputy commissioner under the provincial Health Department. The Health Department was responsible for food quality and safety, and food safety inspections were carried out by health inspectors (not food safety experts). As the mandate of the Health Department was very broad, it became a challenge to look after both health *and* food-related issues. Furthermore, food was not always monitored by the same authorities; for example, salt fell under different authorities from other foods. This made it challenging to monitor safety and quality of food items and products.

In 2010, the central Government of Pakistan devolved power to the provinces, and the Health Department was split, delegating decisions on food and health to their respective departments (see Figure 1A, in the Annex). Hence after 2011, the provinces were able to autonomously decide on issues regarding food and health. Today, the Punjab Department of Food (provincial level) has an oversight function with a Minister (political) and a Secretary of Food (civil servant). This department leads two sections: the Food Secretariat and the Food Authority (the PFA) (18).

The development and passing by the provincial government of the Punjab Food Authority Act 2011 (18) (PFA Act) was a key turning point since it entrusted the PFA with full responsibility for enforcing food hygiene, food quality, and implementation of standards in the province. (See A2 in the Annex for more details on the PFA Act). Whereas the PSQCA would continue to regulate food imported from abroad, the PFA would now regulate food in Punjab to ensure its food safety and quality.

In 2014, Lahore became the first district in Punjab that came under the operational jurisdiction of the PFA, eventually followed by the whole of the province. The PFA is now recognised as the most important entity working on safety and quality of food items and products in Punjab province. It has also been a model for other provinces. At present, there

are three other provinces with a similar authority in place, and two other Pakistan-administered areas are working to establish similar authorities (18).

### THE STRUCTURE OF PFA<sup>3</sup>

The PFA is the first organisation of its kind in Pakistan that regulates the food market and revisits rules and regulations on food safety and hygiene in the province (15, 20). Under the PFA Act, the definition of food is very broad, including water along with other food products (19).<sup>4</sup> The standards laid down in the most recent version of the Punjab Pure Food Rules (2018) focus on food safety, quality, and nutritional aspects of various product categories (21). For example, fortification is mandatory for vegetable oil and ghee but not flour and salt. Poor food safety is the primary cause of a food business being immediately penalised. Regarding quality and nutritional aspects, food businesses are guided by routine inspections to align products to required standards.

In 2016, PFA offices were opened in five or more districts, and by 2017 the PFA had expanded to all 36 districts in Punjab province. Each of the 36 districts in the province has a PFA office with a Deputy Director and a Director of Operations. Under Operations, a team of Food Safety Officers (FSOs) and Assistant Food Safety Officers (AFSOs) is responsible for maintaining all food safety and hygiene matters at the district level.

The PFA structure houses enforcement and standards under the same roof, which allows the organisation to work in a unified way (Figure 1). The fact that it is also autonomous means that it does not rely on the local government for decisions. Instead, it can present issues to an independent scientific panel that provides recommendations, which are sent to the board for approval and to the local government; the decision is then printed in the local government gazette. All proposals are discussed at length by the panel and, if agreed by the majority, a recommendation is made to the PFA to make the changes in question.

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<sup>3</sup> Due to the food safety and operational focus of this case study, we focus on the PFA Operations; Resource and Licensing; and Public Relations departments. However, the other PFA departments are also necessary for the functioning of the organisation.

<sup>4</sup> The definition of food products as laid down in the Punjab Food Authority Act, 2011 is as follows: "Food" means anything used as food or drink for human consumption other than drugs, and includes (i) any substance which is intended for use in the preparation of food; (ii) any flavouring agent or condiment; (iii) any colouring matter intended for use in food; (iv) chewing gum, confectionary and other products of like nature; (v) water in any form including ice, intended for human consumption or for use in the composition or preparation of food; and (vi) any other thing prescribed as food.'

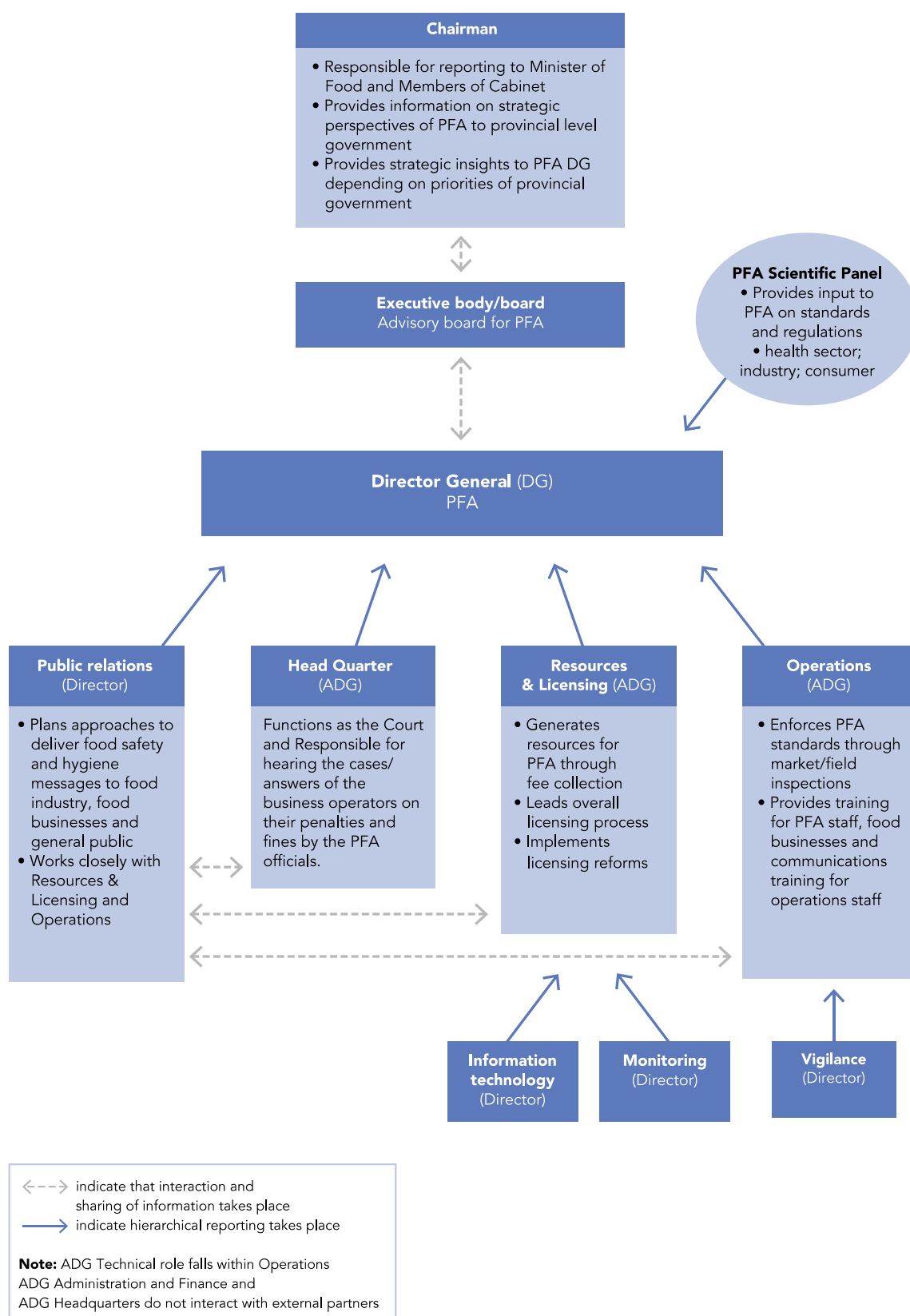


Figure 1. Punjab Food Authority (PFA) organizational structure, roles and interaction among departments



## THE RESOURCES AND LICENSING DEPARTMENT

Within the PFA, the Resources and Licensing Department leads the overall process of licensing food manufacturers and handlers in the province (see A3 in the Annex for further details). The licensing function involves checking if food businesses have a licence and, if not, helping them acquire a licence; renewing and cancelling licences; and collecting fees. Licences provide an assurance of quality to the public.

## THE OPERATIONS DEPARTMENT

The Operations department oversees the food safety functions of all food businesses on the ground. This is made possible by inspections, about 40,000 of which are carried out per month (22). The department also trains its own staff as well as food businesses' staff. The PFA Operations Department has three food-testing laboratories in the province, primarily used for testing products sampled by field teams. The PFA's comprehensive inspection campaigns also take samples of specific foods. In a water sampling campaign, for example, over 1,200 samples are collected from local commercial water filtration plants (23, 24). Please refer to A4 in the Annex for further details on the Operations department.

## THE PUBLIC RELATIONS DEPARTMENT

The PFA's Public Relations (PR) Department is responsible for engaging the PFA's numerous stakeholders as well as projecting the PFA's image to the outside world, including the media, to help bring attention to food safety issues. The PR team also works closely with the Operations Department to understand relevant issues (e.g., how many markets are following PFA standards) and then reports this information to the public. In-depth information is also provided on hygiene issues related to a food item or a food business, including implications of the findings. The PR department also carries out case-by-case or theme-based campaigns (Box 1).

The PR Department works closely with the Resources and Licensing Department. In collaboration with GAIN, the PR Department has developed a communication strategy for delivering food safety and hygiene messages to the food industry, food business operators, and the general public. The communications strategy also gives guidance on communicating about food safety reforms and the new PFA regime (25). Other mechanisms used by the PR Department to communicate with stakeholders and receive input are provision of information to food operators; person-to-person information; communications training of food operators (in collaboration with the Operations Department); and on-line platforms (e.g., WhatsApp, Facebook) to solicit public input.

## THE PFA'S SCIENTIFIC PANEL

The PFA's Scientific Panel is an autonomous body and multi-sectoral forum to facilitate decision-making within the organisation. The panel is advisory, providing recommendations on issues to be addressed by the PFA. It works on standards and other related regulations based on internal discussions. Technical decisions (e.g., spice packaging, banning the use of hydrogenated oil) are also considered by the scientific panel. Once the panel reviews the scientific and public health aspects of an issue, it makes a recommendation to the PFA board to consider in their decision making. The panel can also be approached by industry

members with grievances or issues related to the regulations. Currently, the Scientific Panel comprises approximately 54 representatives appointed by the PFA Director General from academia, consumers, industry, and the health sector.<sup>5</sup>

## STAKEHOLDERS

The PFA has a range of stakeholders, each with unique characteristic and power to raise issues related to the PFA's implementation of its food safety mandate. PFA's main

### BOX 1. HOW THE PFA ENACTED MANDATORY PACKING OF SPICES

The Indian subcontinent is known for its spices. Many consumers believe that loose spices are superior and that packaged ones are of inferior quality or even altered in some way; they want to touch and smell their spices to purchasing. Unfortunately, market surveillance has found that loosely sold spices are often adulterated or bacterially contaminated (26).

In July 2017, the PFA thus worked with its scientific panel to pass a law on the mandatory packaging of spices. Businesses were given a one-and-a-half year adjustment period to make this change (i.e., acquire and install packaging machinery). A market survey found that consumers were in favour of the spice packaging law but feared the taste would change and that there were economic interests between the PFA and the packaging industry. The PFA designed messages explaining the advantages of packaged over loose spices to address these reservations. Statistics on spice adulteration were released, including information on the number of adulterations occurring with loose spices as opposed to packaged spices. The public was further informed that the chances of bacterial contamination are higher with loose spices and that packaging would allow for tracing spices' origins in case of adulteration. Industry was reluctant to change for fear that packaging would increase the taxes levied on spices, so the PFA worked with them closely to help them understand that selling packaged spices would help their business. Pamphlets with easy-to-understand language were developed for this purpose (26). The result of these intensive efforts was that, within a three-month period, 30-40% of industry actors began to comply and the public became more convinced of the value of packaging spices (27). These results convinced the remaining industry actors to become compliant.

stakeholders include:

- **Food operators** encompass a broad group, from farmers to retailers. Their level of knowledge related to food safety and standards is usually limited.

<sup>5</sup> PFA staff are not eligible to be members of the Scientific Panel. The Scientific Panel meets once a month or more as needed, and panel members all hold voluntary positions. There are no time limits for scientific panel membership.

- **Politicians** are key stakeholders with decision-making power. They receive input from the general public. Parliamentarians are often invited to sessions organised by the PFA to help raise awareness of the organisation's role.
- **Individual stakeholders** include the general public as the primary consumers of food products and with power to file food safety complaints.<sup>6</sup> The PFA regularly provides the public with information to inform their decisions regarding food safety.
- **Trade unions** and associations are engaged with by the PFA to understand their concerns.
- **Local community leaders** are key stakeholders, as they can influence community acceptance of new food standards and products.

## FUNDING

The PFA is an autonomous body, and its budget comes from the Punjab government. The provincial government has given the PFA a considerable amount of funding, indicating that this is a priority area of work. Whereas the budget of the Food Secretariat is stable, the PFA's budget has been increasing due to its geographic expansion. The PFA also generates revenue from the licensing process (i.e., licensing fees, training schools, and laboratories).

## ACHIEVEMENTS

The PFA has scaled up considerably since its birth in 2012. During this seven-year period it has spread from one to 36 districts within Punjab province. Moreover, the PFA has become a model for Pakistan, with similar authorities in Khyber Pakhtunkhwa, Sindh, and Baluchistan provinces. Other provinces are following the PFA's lead. Besides the PFA's main achievements since its establishment in 2012 (Table 2), inspections have improved the quality and/or safety of various food commodities.

## IMPACT ON THE FOOD SYSTEM

**Food safety improvements are in place.** PFA's achievement in operations, licensing, implementing bans, and raising awareness can be seen in food safety improvements in Punjab province. As of January 2019, fail rates for water sampling have dropped from 60% (Dec. 2017) to 15% (28); measured safety of oil and ghee also improved from 2018 to 2019, with safety now being adequate (23). In addition, over 1,000 units for fortifying salt with iodine have been inspected and started working (29). Furthermore, compulsory inspections have increased: 27 industries are regularly checked a minimum number of times by field teams (27). For example, dairy processing units are checked at least three times a year (28) and oil/ghee and honey production units are inspected at least twice a year (22).

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<sup>6</sup> There are two ways in which the public can submit their complaints; walk-in reporting or through a portal such as Facebook or WhatsApp. Complaints are generally about food safety and quality issues in restaurants and sometimes related to processed products.

Table 2. PFA Achievements since 2012

Unit / issue	Impact	Scale	Sustainability
Operations	<ul style="list-style-type: none"> <li>• 40,000-45,000 inspections per month (27).</li> </ul>	<ul style="list-style-type: none"> <li>• Since 2017, about 140 operations staff have received training.</li> <li>• PFA has about 300 operations staff in 110 teams working throughout the province (28).</li> </ul>	<ul style="list-style-type: none"> <li>• Food operators receiving food safety training pay 25% of the training fee, and the PFA pays for the remaining 75% (28).</li> </ul>
Licensing	<ul style="list-style-type: none"> <li>• Food business owners' awareness of licensing has increased (30).</li> <li>• The licensing process tracks the i) sources of food, ii) businesses that produce it, and iii) details of production including raw materials and production volume.</li> </ul>	<ul style="list-style-type: none"> <li>• Almost 80% of food providers have been licensed.</li> <li>• Over 220,000 food handlers are presently licensed under the PFA (30).</li> <li>• 100 PFA staff work on licensing (30).</li> <li>• An IT-based system for licensing is available.</li> </ul>	<ul style="list-style-type: none"> <li>• The licensing process brings in fees, hence contributes to the PFA's financial sustainability.</li> </ul>
Bans and labelling issues	<ul style="list-style-type: none"> <li>• PFA has banned some food packaging practices and sales of bulk products selling loose spices or oil and ghee or selling sugar-sweetened drinks in schools. A law has been recently passed to ban bulk milk, to take effect in 2022 (26).</li> <li>• PFA changed wording of "energy" drinks to "stimulant" drinks (26) in order to raise consumer awareness that "stimulant" drinks do not provide nutritional energy (26).</li> </ul>	<ul style="list-style-type: none"> <li>• In early 2019, 30-40% of industry actors began to comply with the spice packaging law.</li> <li>• From Jan. - Sept. 2019, 6,673 spice premises were compliant with labelling rules and 848 emergency prohibition orders were removed from previously non-compliant spice units (31).</li> </ul>	
Raising awareness	<ul style="list-style-type: none"> <li>• PFA is moving towards milk pasteurisation, and work has been underway to increase public awareness of raw milk consumption.</li> <li>• PFA has organised awareness-raising events and developed messages for the public on fortified foods.</li> </ul>	<ul style="list-style-type: none"> <li>• Initiative will start in major towns of the province (e.g., Lahore, Faisalabad) and further expand to other areas in 2021-2023 (26).</li> <li>• Within one month, the PFA organised 6-8 events in different locations (26).</li> </ul>	

**The PFA has contributed to improved food safety through inspections and higher licence uptake in the province.** While no formal assessment or impact studies have been carried out, as no comparison data exist, the PFA's quarterly performance reports show improvements in food safety and compliance with licensing. In 2017, there were 19,677 licences for businesses selling margarine, Banaspati, fat spreads, animal fat, ghee, and other similar products; by the end of 2019, this had risen to 90,625. Similar increases have been seen for other food categories, such as dairy products and food manufacturing units, with three- to fourfold increases in the number of licences (32).

**Food labelling and safety issues are openly communicated to the public.** The PFA has successfully addressed several mislabelling issues (Box 2). Sharing these improvements, as well as those mentioned above on water testing, with the public has helped build trust in the PFA's mandate of ensuring food safety in the province.

**The PFA supports fortified foods.** In Punjab province, laws for fortified products still fall

#### BOX 2. PFA WORK ON FOOD LABELLING ISSUES

In 2018/2019, the PFA was instrumental in changing the wording on drinks previously sold as "energy" drinks to "stimulant" drinks, arguing that the "energy" label was misleading. An additional warning label was added on this product, stating it was not to be consumed by pregnant women or children under 12 years of age (26). This is an example of PFA's work helping industry improve its labelling and nomenclature instead of damaging business through bans or negative messaging.

Another PFA achievement was to raise public awareness that tea whiteners do not contain milk. As some consumers understood tea whitener to be the same as milk, whiteners were often given to children. The PFA thus implemented a tea whitener label specifying that the product does not contain milk and, if consumed as milk, would not deliver the same nutrients as milk (26).

under multiple acts and different authorities. From 2017 onwards, fortification is compulsory for oil, ghee, and salt staples (falling under the PFA's mandate) but not for flour, which falls under the authority of the Punjab food secretariat. For the former industries, producers have been made aware of the need to fortify, sampling has started, and those that do not comply are fined. Industries that allow for the fortification of salt with iodine have been inspected (over 1,000 units inspected) and have started fortifying (29). For now, the PFA does not inspect flour, but PFA legislation provides the legal backing making fortification mandatory (26). The PFA is spreading the message to the public about the importance of fortified foods and the reasons for fortification. Addressing misperceptions and fears about taste issues with fortification, the PFA has organised awareness-raising events and developed messages for the public on fortified foods. In the average month, the PFA organises 6-8 events in different



locations (26). The PFA's nutrition staff set up stalls and provide information about the burden of malnutrition in Pakistan and how fortification can help address the issue.

## **LESSONS LEARNT**

### **ENABLING FACTORS**

Several enabling factors made it possible for the PFA to carry out its mandate of improving food safety and quality in the province. The 2010 devolution of authority from the central government level to the provinces made the timing right for establishment of the PFA, and the passing of the PFA Act (2011) and the Pure Food Rules (2011) (15, 19) provided a clear path for working on food safety and quality in the province. Moreover, country-wide gaps in food sector legislation and implementation made the time right for establishing an organisation such as the PFA. While the public's general level of education on food safety and hygiene was relatively low, the PFA was able to engage the public in learning about food safety and to raise awareness of the issue. One reason this was possible was because food and its safety concern everyone, and legislation encourages the public to help monitor the food sector.

Moreover, the PFA's hierarchy and workstyle is not like that of typical government agencies. The response time on each and every matter, both within and outside of the organisation, is quick, making work flow in a timely manner. The PFA also has a solid source of funding. Despite the PFA's financial support from the provincial government, the expansion to more cities generates higher revenues. Effective, well-planned communications activities have played a key role in raising awareness and obtaining buy-in from the PFA's numerous stakeholders. The PFA has also used sound scientific data to develop its communications messages and standards, increasing their credibility. Finally, the PFA has facilitated the scaling up of the approach by providing assistance to other provinces in Pakistan to ensure the provision of healthy and safe food.

### **CHALLENGES**

Since 2016, the PFA has expanded to the entire province, so logistics, recruitment, and training have intensified. This has raised challenges linked to human resource capacity to carry out the PFA's work, relations with industry and compliance, and managing and addressing the public's fears regarding food safety.

One major challenge for the PFA is insufficiently trained staff in both operations and licensing. At present there are over 200,000 food handlers licensed under the PFA (30). As the number continues to expand, there might not be enough PFA staff to meet the organisation's needs in terms of licensing and operations inspections.

In addition, the PFA initially faced resistance from food operators. To address this, every area visited by inspectors receives 2-3 months of general awareness training (29). After the training, businesses are given a chance to implement changes and undergo further inspection. Only in severe cases of food safety issues or food adulteration will a business be closed immediately; otherwise improvement notices or fines are used. While this has helped, the PFA still faces the need to build a sense of social responsibility among food industry actors to achieve better compliance. The concept of social responsibility is relatively new in

Pakistan; within the food sector there are often compromises in food quality, consistency of content, and accuracy of labelling. Improving food quality and consistency has required commitment and has incurred costs for industry.

Today the relationship between the PFA and industry is gradually improving. Industry members increasingly understand the importance of working closely with the PFA, and the PFA is aware of the need to take a positive approach with industry and to provide feedback on what has been achieved and areas for improvement. PFA-curated lists for the public, noting companies that are PFA-approved, have also motivated industry to improve compliance. Nonetheless, major industries do lobby to try to change laws and alter the PFA's mandate. At present (early 2020), there is ongoing debate in the Provincial Assembly as well as the Council of Common Interest to determine whether the province or the federal government should be setting and enforcing standards.

The PFA has also had to establish its credibility with the public. When the PFA initially started operating, the biggest communication challenge was to inform the public on food safety and quality issues. To do this, the PFA communicated to the public with printed information, door-to-door outreach, and activities with GAIN. The PFA also received information on public concerns through different mediums such as its helpline and online complaints and feedback. One example of gaining public trust came in 2015. Certain restaurants were found to be selling Haram<sup>7</sup> meat, forbidden in Islam. This resulted in public concern and loss of customer trust in these establishments. This issue was overcome through a campaign showcasing PFA-approved restaurants. Over a two-year period, the PFA managed to regain trust while improvements were made within the industry (25).

## CONCLUSION

*"Thanks to the work of the PFA the public now knows that if something is bad today, it can be good tomorrow. At same time they now also know that if something is good today it can be bad tomorrow but nevertheless, there are always chances for improvement. "*

- Qaiser Abbas, Director of Public Relations at the PFA

This working paper used a case study of the Pakistan Food Authority to show how a food-related governance mechanism can be comprehensive and effective. The PFA case illustrates the value of prioritising governance to create better food systems and improve nutrition. Despite the context-specificity of this case study, it offers useful insights about enabling factors and barriers to improving urban governance for nutrition in other geographies. These include, for instance, creating a formalised governance mechanism, basing decisions on a scientific evidence base, and ensuring a solid source of funding. The PFA houses its Operations and Resources and Licensing functions under one roof and has a scientific panel for input and advice. These governance-related choices contribute to its effectiveness, since all issues, policies, and practices can be addressed in a coordinated and evidence-based manner.

Since the PFA's establishment in 2012, improvements in food safety are apparent. This can be seen in individual food product performance reports, on-the-ground inspections, and

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<sup>7</sup> In Islam, food can be Halal (meaning 'permissible' in terms of way of slaughtering) or Haram ('forbidden').

higher licence uptake in the province. It is now commonplace that food labelling and safety issues are openly communicated to the public. The PFA also plans to encourage food businesses to use fortified products, where relevant. Presently, the PFA is active in all 36 districts of Punjab province and has motivated three other provinces in Pakistan to set up similar authorities. The PFA is an assurance to the people of Punjab province that food safety can be monitored and obtained—and a model to other cities and regions for how they can do likewise.

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## ANNEX. ADDITIONAL DETAILS ON THE PFA

The Annex provides additional details on the PFA and the organisation's history, functions, and responsibilities and the departments discussed within the paper.

### A1. INSTITUTIONAL FRAMEWORK HOUSING THE PUNJAB FOOD AUTHORITY

Figure 1A shows where the Punjab Food Authority falls within the government of Pakistan.

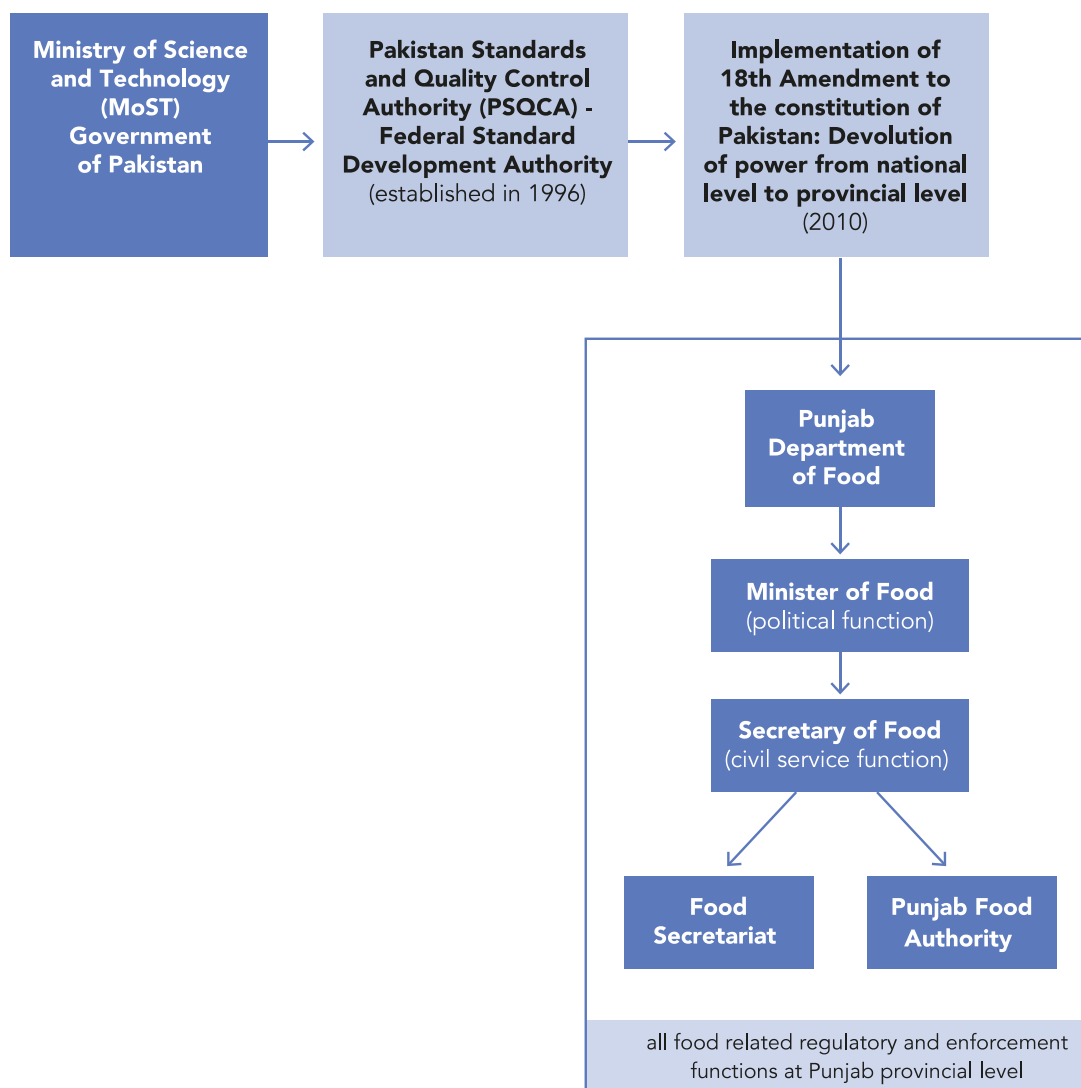


Figure 1A. Institutional Framework housing the Punjab Food Authority (PFA)

## A2. FUNCTIONS AND RESPONSIBILITIES OF THE PFA

The PFA Act (2011) entrusts the following functions and responsibilities to the Punjab Food Authority:

1. Regulate and monitor food businesses<sup>8</sup> in order to ensure compliance of farmers, manufacturers, distributors, importers, and other stakeholders in order to provide safe food.
2. Formulate standards, procedures, processes, and guidelines in relation to every aspect of food, including food businesses, food labelling, and food additives, and specify appropriate enforcement systems.
3. Enforce food safety and quality standards.
4. Specify procedures and guidelines for setting up and upgrading food safety laboratories.
5. Specify details on licensing, prohibition orders, recall procedures, improvement notices, and legal prosecution.
6. Provide scientific advice and technical support to the government in matters relating to food safety.
7. Establish food safety laboratories.
8. Organise training programmes in food safety and standards.
9. Promote general awareness regarding food safety and standards.
10. Certify food products/items for export.
11. Ensure forward and backward traceability of food items.
12. Undertake surveillance, including collection, integration, analysis, interpretation, and dissemination of data related to food and nutrient intakes (20).

## A3. RESOURCES AND LICENSING

### ACQUISITION OF LICENCES AND LICENCE CATEGORIES

Licences are divided into general categories based on the nature of the food business, with approximately 100 people working across the province to provide licenses. Food business operators can apply for licences themselves in person, online, or when they are visited by an inspector.

The resourcing part of this department manages funds obtained from the licensing process. These funds are invested and contribute to the PFA's long-term sustainability. Licensing fees vary depending on the type of business, with higher fees for larger businesses and smaller fees for smaller businesses. There are around 17 categories for licensing, according to business type, and the cost ranges from 5 to 500 USD per year depending on the volume, location, type of business, and opening hours. Presently, five licensing teams go to the field

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<sup>8</sup> Under the PFA Act (2011) a food business is defined as, '...any undertaking, whether or not for profit, carrying out any of the activities related to any stage of manufacturing, processing, packaging, storage, transportation, distribution of food, import, export and includes food services, catering services, sale of food or food ingredients...'.

on a regular basis and check for licences; special visits are carried out for pending licences (29).

Prior to 2017, the entire licensing process was carried out manually: all paperwork and data entry were manual, making it subject to error and inefficiency. Under the PFA Act (2011), every food operator is required to obtain a licence, which must be renewed on a yearly basis. In 2017, the Resources and Licensing Department introduced a platform for data entry and licensing using a downloadable application available online. With this app, food business operators can download a licence form and fill in the relevant data. After submitting the application, an operations team visits the food business to verify the volume of food produced and the nature and classification of the business. Once this is verified, the food business operator pays the application fee and receives a licence. As of 2019, over 220,000 food business operators have licences and are registered in the new electronic system; as result, data are available for each food business, including the location, type of food business, and food volume produced (29).

The PFA has outlined a set of actions to be taken if food operators are found without a licence or fail to quality for renewal. Food operators are provided with information on getting a licence and on its benefits. They are also informed of the legal repercussions that result from not having a licence, including business closure.

## A4. OPERATIONS

### STAFF AND ROLES

The PFA has district offices that support Operations. Operations staff include Food Safety Officers and Assistant Food Safety Officers and work in teams of three (one Food Safety Officer, two Assistant Food Safety Officers). Presently, the Operations Department has 300 staff, which is 25% of what they require to complete their work (15). Staff is divided into 110 teams for the entire province. On normal days they operate in two shifts (8-15h and 15-24h) and try to keep people on the ground at night, when considerable food adulteration takes place. In major cities there are more teams than in rural areas, where there are fewer businesses that close earlier. Operations teams inspect and engage food businesses in sessions in which they can learn about laws pertinent to their business; they aim to engage association members (opinion leaders among food operators), and allow time for the food businesses to apply their learning to implement changes (31).

### TESTING FOR FOOD SAFETY

The District Food Labs test for microbial loads in different food products, including tests for *E. coli* and total coliform. Pesticide minimum residual limits are provided in the Punjab Pure Food Regulations (2018) (23), but pesticide residues are not routinely tested for; they are only analysed when there are suspected pesticide issues or as part of a campaign on pesticides. For example, residue analysis was done for vegetables available in markets through a small random sampling exercise in Lahore. Results were within limits for all except for one sample; the source of that was then identified, and the Agriculture Department was informed (24).

### FOOD SAFETY FIELD INSPECTIONS

Food Safety Officers take samples during inspections or during a specific campaign. Routine inspections are conducted on a daily basis by field teams. These inspections are planned by the field team based on the mapping of the area under their jurisdiction. Campaign sampling is done in the open market by Food Safety Officers in the presence of the representative of the food business and sent to the accredited laboratory requested by the food business. All other samples are tested in the PFA laboratory, at the cost of the PFA.

A separate inspection schedule is approved every year, which identifies certain industries for a certain number of compulsory inspections. For 2019, there were 27 such high-priority industries (e.g., dairy, oil, ghee, and honey). Compulsory inspections are based on several factors, including general consumption levels, fluctuation in quality and safety of product, increased complaints over time, and specific target areas as per policy. Apart from this, the PFA addresses consumer complaints, with a redress time of 24 hrs to 5 days, depending on the severity of the complaint (23).

Initially, recording of inspection data was not adequate, but since the introduction of a comprehensive software system, all inspections can be logged. There are different kinds of inspections depending on business category (e.g., shops, production units, small-scale businesses, cold stores). A generic form is first compiled, then the Food Safety Officer can



add on their observations as well as photographs, if needed. All documentation is logged in real time.

## TRAINING

The Operations Department is also responsible for organising training of PFA officials and for food businesses. Prior to 2016, the PFA was only working in one city (Lahore) with a minimal workforce, so training was not a strong part of its work. After 2016, given the increase in the PFA workforce and expected expansion, it was felt that training should be made a necessary component to keep the Operations workforce up to date and carry out inspections in the field.

District heads are trained in Lead Audit to enable them to guide field staff and teams properly on the ground; Food Safety Officers (FSO) and Assistant Food Safety Officers (AFSO) are trained on Food Safety Levels 4 and 3, respectively. The PFA aims to train all food safety officers in these courses by 2020. Newly recruited PFA Operations staff have minimal experience in the field before joining the PFA. For this reason, the initial focus has been on technical training, and over 300 officers have been trained on Food Safety Levels 3 and 4 and Lead Audit courses. Officers are also sent on occasional area-specific training abroad (24). Operations staff are also trained in financial management, negotiation skills, administration, IT skills, and communications, including teamwork, conflict resolution, and problem solving.

A PFA school, with support of international certification companies, carries out Hazard Analysis and Critical Control Points (HACCP) Level 3 and 4 training for food businesses to update them on new regulations (31). Basic training on hygiene and basic control points is also offered to street food vendors. The Operations department also carries out training on NetCode, a WHO programme on breastfeeding and its regulatory framework (31).