

Vegetable farmers in urban Ghana don't worry much about food safety - but they should

By [Kabila Abass](#)

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The United Nations projects that by 2050, [70%](#) of the world's population will live in urban areas. Ensuring sustainable food supply in a rapidly growing city becomes a matter of concern. One solution could be to grow food closer to where people live - but rapid urban expansion poses a [threat](#) to urban agriculture in most African cities.



Urban farmers in Ghana need to take greater interest in the health of consumers. Wikimedia Commons

The availability of land is one issue. Another is water. In urban Ghana, access to safe or treated water for urban vegetable farming is limited. Consequently, farmers have been pushed into using wastewater and urban streams for their vegetable farming operations.

A number of [studies](#) have [shown](#) the potential health risks of unsafe vegetable farming practices in Ghana, but the farmers' perceptions of those risks has not received as much attention. It is important to know how farmers see the situation so as to encourage positive changes.

In our [study](#) we asked urban vegetable farmers in Kumasi, Ghana about their use of contaminated water, pesticides and manures to grow vegetables. We found that farming was largely unsafe as a result of over-reliance on contaminated wastewater, manure and pesticides, even though most of the farmers said their produce was safe for people to eat.

[Research](#) however has shown a link between urban agricultural practices and health problems like diarrhoea, typhoid and cholera.

Farmers' views of health risks

The study area is dotted with vegetable farming sites, cultivated throughout the year. Most of these farmers depend on polluted streams to [irrigate](#) their crops. Laboratory testing of sampled irrigation water and vegetables showed contamination beyond the acceptable level for human consumption.

The farmers in our study did not accept that the quality of water they used could potentially cause diseases such as diarrhoea and cholera. One of them had this to say:

“ There are no contaminants or germs in the water. We have been using this water for a long time without any problem ... Contaminated water can't produce healthy crops like these ones. ”

The study participants all agreed that wastewater for vegetable irrigation could compromise the quality of the crops and affect human health. Yet, the majority said they would water their crops with contaminated water if they had no other options. This response was not surprising. It was clear from what they said that they would do what they had to in order to survive. A respondent stated:

“ I have a wife and four children. My source of livelihood is this vegetable farming. This is all I do for a living. If dirty water is the only one available, I would have no option but to use it. ”

Another worrying aspect of their farming practices was the misapplication of pesticides and fertiliser. Respondents agreed that wrong application of agrochemicals can pose negative health consequences. But this knowledge did not match the actual practice in the field. A respondent put it this way:

“ Since I have been in this business for long, it is the experience that counts. We don't follow strictly any standard measure when applying chemical and manure to our crops. Yet, we produce good-looking vegetables. ”

Ideally, poultry droppings should be dried before they are applied to the vegetable beds as fertiliser. This was not always the case at the farms we studied. The application of fresh poultry droppings to vegetable beds, a practice we observed, could promote pathogenic [contamination](#) of vegetables. The use of top-dressing methods in the application of manures also exposes the vegetables to further contamination.

On the question of whether manures or fertilisers could have negative environmental and health effects, no respondent in the study could identify any specific effect. But the general perception was that excessive use could bring undesirable consequences.

The farmers justified their practices by saying that they themselves did not experience health problems relating to contaminated vegetables and had never received any negative feedback from the public. Besides, since consumers are expected to wash vegetables, they said, any potential on-farm contamination was unlikely to put the health of the consuming public at risk. A respondent said:

“ We have been doing this for several years and no one has ever complained about any illness. I eat the vegetables myself, you just have to wash it to remove the contaminants. If our vegetables were unsafe, we would have been the first victims. ”

Washing vegetables with ordinary water is unlikely, though, to solve the problem when vegetables have [absorbed chemicals](#).

The farmers' position that both the water they use and the vegetables are free from any contaminants may be interpreted as a defence against public disapproval of their unsafe methods of vegetable cultivation and, in particular, media campaigns against wastewater use. It is also true that ailments could be attributed to other causes, not just contaminated vegetables. Like most city dwellers, the farmers in our study are beset daily with many potentially health-affecting conditions. Unsanitary conditions and associated ailments are routine parts of their lives.

What to do about it

Vegetable farming practices in Kumasi are potential threats to public health. The continuous use of polluted water and incorrect application of agrochemicals and manures creates a worrying situation. But more worrying is farmers' limited knowledge of the risks their practices pose to their health and that of the public at large.

Legislative enforcement to ensure that farmers comply with food safety standards is key to protecting public health. The Environmental Health Department of Kumasi Metropolitan Assembly and the Ministry of Food and Agriculture should intensify their monitoring operations to ensure that vegetable farming is carried out in a safe manner.

Efforts are needed to make the public aware of the health risks of using contaminated water and the wrong use of pesticides and manures. This message could be conveyed through the mass media and agricultural extension services, targeting farmers, market sellers, food vendors and consumers.

Finally, the city must manage waste properly to improve environmental sanitation.

Abdul Wahid Arimiyaw of the Université Félix Houphouët-Boigny, Côte d'Ivoire contributed to writing this article.

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