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Health Risks Associated with Waste Water Irrigation in Urban Vegetables Production in Ghana

BEATRICE ASENSO BARNIEH

Ghana Education Service, Ghana

Abstract

Urbanisation has consequently led to an overhaul of restaurants, hotels and fast food vendors in Ghana, These hotels, restaurants and fast food vendors serve vegetable salad as part of their menu thereby serving as a ready market for vegetables production. Therefore, fresh vegetables consumption has increased in Ghana and it has been found to be one of the food contamination pathways. Retailers of vegetables demand vegetables that are accessible at the farm gates and are not too far from the markets where most of them are consumed. This is due to the high cost of transporting the vegetables from the rural farm areas and the limited storage facilities in the country. As a result, urban and peri-urban vegetable production is on the increased. Meanwhile, with the increasing urbanisation and the population growth, there has been pressure on fresh water supply and hence fresh water is unavailable for vegetable irrigation. Waste and polluted water are therefore used for vegetable irrigation since more waste water is generated which exceeds the country's capacity to treat, and also most of the available fresh water sources are polluted with domestic and industrial waste materials as a result of poor sanitation and improper waste management in the country. The polluted and waste water, when used by the urban vegetables farmers for irrigation contaminates the vegetables with pathogens. Many diseases particularly water related diseases have been linked to the contact of the waste water by the farmers and the consumption of the contaminated vegetables. However, the practice is known to have many benefits when used with safety safeguards such as initial treatment of the waste and polluted water before use. Over the years, fragmented efforts have been made to address this issue in Ghana by placing a ban on waste water irrigation in the country. This approach has failed in the context of Ghana. This paper uses qualitative research method to identify the health risks involved in waste water irrigation, the benefits, stakeholders perceptions and how the country can minimise risks whilst maintaining the benefits of the waste water irrigation in Ghana.

Keywords: Ghana, health risks, irrigation, urban, vegetables, waste water