

The Role of Traditional Food Systems in Rapid Urbanization:

Improving the Maintenance of Indigenous Knowledge around the Significance of Consumption and Preparation of Traditional Fruit and Vegetables

Policy Briefing Note 3

February 2024

Summary

This Briefing Note is the third in a series of four. It discusses knowledge about the consumption and preparation of traditional fruit and vegetables (TFVs) and explores opportunities to retain and spread this knowledge and thereby increase consumption of nutritious food. This Briefing Note argues that existing knowledge on the preparation and storage of TFVs should be enhanced and widely disseminated, thereby increasing awareness and consumption of TFVs. Recommendations include that the City of Johannesburg (CoJ) municipality supports multi-stakeholder partnerships to: 1) Increase awareness of the health and nutritional benefits of TFVs; and 2) Enhance knowledge of TFVs amongst youth, who are less likely to consume TFVs in contrast to older residents.

Context

Food insecurity is high in the CoJ. The most recent data for 2021 shows that between 34-40% of households are food insecure.¹ Studies have shown that TFVs, especially green leafy vegetables, are highly nutritious.² Decent availability and access to TFVs, then, has the potential to reduce food and nutrition insecurity. One of the main obstacles to increasing the consumption of TFVs, besides affordability, is knowledge about the value, taste and how to prepare and store them. Our research tried to assess the extent of this knowledge in migrant communities in the CoJ. Alongside traditional foods from South Africa, such as amaranth, blackjack leaves, cowpea leaves, mutshaina (chomolia), sweet potato leaves, okra leaves and pumpkin leaves, stalls and shops in the CoJ also sell some TFVs from outside South Africa, including cocoyam, bitter kola cassava, and plantain.



Photo1: Plantains and cocoyams sold alongside tomatoes and cucumbers

The availability of TFVs from outside South Africa has increased in recent years as more and more immigrants from other African countries have moved to the CoJ. In 2022, 35.3% of the Gauteng Province population were migrants. Of these, the majority came from Limpopo followed by KwaZulu Natal. And about 22.9% of all migrants in Gauteng were born outside South Africa.³ In our sample (see Briefing Note 1), of which only one person was born in the CoJ, 60% were born in South African provinces outside of Gauteng, and 40% were born in other African countries (immigrants), including Cameroon, the Democratic Republic of Congo, Malawi,

Lesotho, Mozambique, and Zimbabwe. Zimbabweans comprised the single largest share at 17% of the sample, followed by Mozambicans at 8%. Figure 1 and 2 highlights immigrants to Johannesburg CBD and Soweto South respectively.

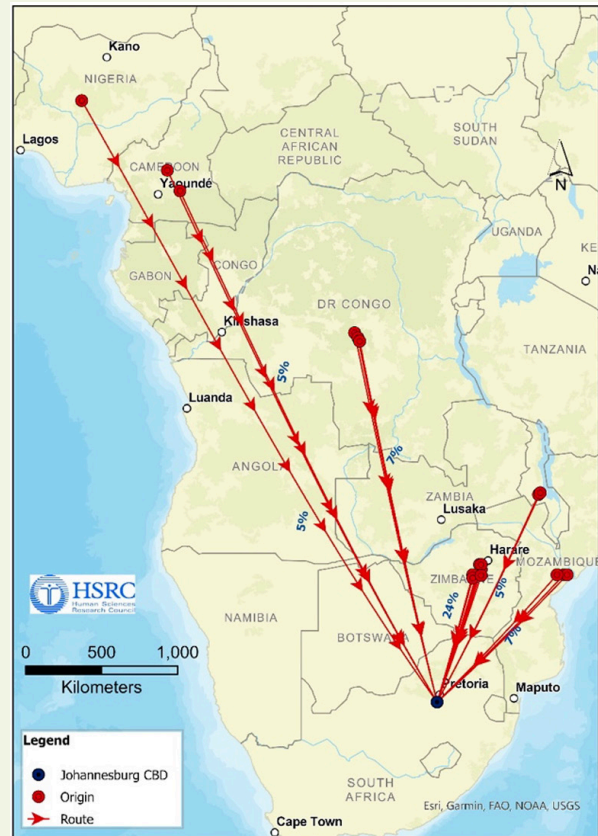


Figure 1: Cross-border migrants to Johannesburg CBD

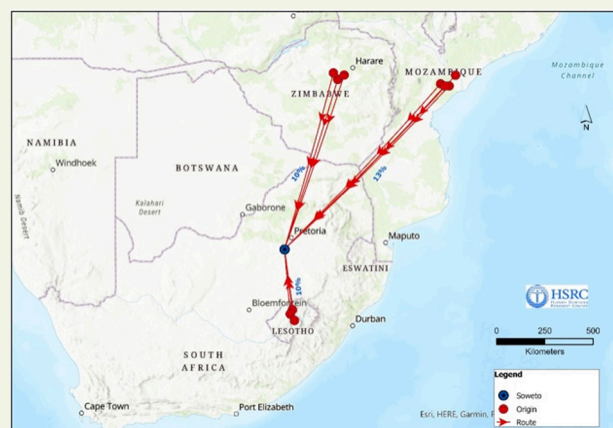


Figure 2: Cross-border migrants to Soweto South

1. Rudolph, M., Kroll, F., Muchesa, E., Paiker, M., and Fatti, P. (2021) Food security in urban cities: a case study conducted in Johannesburg, South Africa. *Journal of Food Security*, 9 (2), 46-55.

2. Uusiku, N. P.; Oelofse, A. A.; Duodu, K. G.; Bester, M. J.; Faber, M. (2010) Nutritional Value of Leafy Vegetables of sub-Saharan Africa and Their Potential Contribution to Human Health: A Review. *Journal of Food Composition and Analysis*, 23, 499-509.

3. Götz, G., Ballard, R., Hassen, E.K., Hamann, C., Mahamuza, P., Maree, G., Miles-Timotheus, S., Modiba, M. Murahwa, B. Mushongera, D., Naidoo, L., Naidoo, Y., Ndagurwa, P. (2023). Statistical surprises: Key results from Census 2022 for Gauteng. GCRO Rapid Research Paper. Johannesburg: Gauteng City-Region Observatory <https://doi.org/10.36634/PTPX7414>

Research Findings

Consumption patterns

Our respondents believed that the consumption of TFVs has **declined** in recent years. When asked how much and what type of TFVs they consumed, we observed some notable differences. We found that **older migrants** and those who had lived for a long time in the CoJ were most likely to consume TFVs. Younger migrants and second-generation migrants generally preferred other types of food.

"The children, however, prefer modern food, especially meat. The children are choosy when it comes to food consumption, and they do not enjoy the taste of traditional vegetables". (female migrant from Zimbabwe).

Some younger migrants also indicated that they did not eat many TFVs because it takes a lot of time to purchase and cook them or because they lacked knowledge on how to prepare them. **Gender** also affected the degree to which migrants consumed TFVs. Male migrants who had come to the CoJ on their own were less likely to consume them than female migrants.

"I do not eat amaranthus. I have never eaten okra this side, but I have eaten it in Zimbabwe maybe once. I do not know how to cook it and it's scarce this side. In Zimbabwe my mother cooks it". (male migrant from Zimbabwe).

Furthermore, our research revealed that many migrants from outside South Africa, particularly women, made much effort to obtain TFVs from home, often travelling some distance across the city taking taxis and buses.

Motivations for eating TFVs.

Migrants who regularly consumed TFVs mentioned that they ate them largely because it was part of their **culture** – they had grown up eating these foods, which were often grown at home, and liked them. For migrants from outside South Africa, eating TFVs was also largely about constructing a place of belonging, especially for those who could not regularly travel home. But many

migrants added that they ate less TFVs than at home because they are not widely available and are often more expensive than other vegetables. Some also mentioned that they ate less TFVs because there was a greater emphasis on meat than on vegetables and convenience and fast food in the CoJ compared to their places of origin. And in the case of rural migrants, some were reluctant to buy or take back certain TFVs from home because they were deemed 'poor people's food'.

Many migrants also stressed the **health benefits** of TFVs. They argued that TFVs were healthier and tasted better than other foods because they were mostly organic. Some also said that they were healthy because they had been told so by their parents and that they in turn had told their children.

"Traditional fruits and vegetables are bought from home every time I go to visit back home. This is because the produce from home is healthier compared to the ones produced and sold here in Johannesburg which is full of pesticides and chemicals". (female migrant from Zimbabwe).

Several respondents claimed that eating TFVs helped boost their **immune system**. And some also mentioned perceived health benefits of specific TFVs. For example, baobab fruit was deemed to be good for people with high blood pressure and okra for people with diabetes. Migrants do not differ in this regard from other consumers of TFVs. Existing studies on perceptions of TFVs in South Africa have equally found that most consumers believe that they have health benefits for numerous diseases.⁴



Photo 2: Baobab fruit

4. See, for instance, Nengovhela, Rudzani & Amon, Taruvinga. (2015). Consumers' Perceptions and Consumption Dynamics of African Leafy Vegetables (ALVs): Evidence from Feni Communal Area, Eastern Cape Province, South Africa; Mncwango NC, Mavengahama S, Ntuli NR, van Jaarsveld CM. 2020. Diversity, consumption dynamics and ethnomedical claims of traditional leafy vegetables consumed by a rural community in the KwaMbonambi area, northern KwaZulu-Natal, South Africa. *Biodiversitas* 21: 1196-1202..

Preparation

Both fresh and dried TFVs were consumed by our respondents. The most common method used to prepare them was to mix them with **tomatoes and onion**. Respondents either added washed TFVs to some fried onion and tomatoes, or they boiled TFVs with onion and tomatoes. Some migrants added spices, crushed peanuts, coconut, or maize meal to this vegetable mix, depending on where they came from. TFVs were mostly eaten with pap, rice or another starch, and also often with meat.

Dried TFVs were mostly from outside South Africa and were put in boiling water and softened before adding tomatoes and onions. Some migrants added a pinch of bicarbonate of soda to dried vegetables to retain their colour when cooking.

"The night before if I realize that tomorrow I want to cook say dried Nkaka (African cucumber), I take some out of the bucket, put it in a small container, pour water and close so that it becomes wet. In the morning I take it out of that water, then I first boil my peanuts, then take out the vegetables from the water it was soaking in and put it inside the boiling peanuts and let it cook". (female migrant from Maputo).

Most female migrants who regularly consumed TFVs had gained knowledge on how to prepare and store the traditional vegetables from their **mothers and grandmothers**.

"Our grandmothers used to make it like this. I didn't change my elders' recipe". (female migrant from Limpopo).



Photo 3: Dried traditional fruit and vegetables on sale in the CBD



Photo 4: African cucumber (*Cucumis metuliferus*).

Our research found that migrants had to make **adjustments** to the preparation of TFVs, when for instance the vegetable was only available in the CoJ in dried form or if the cooking oils or spices used back home were not available. We also noticed that migrants from outside South Africa substituted some TFVs from back home with TFVs that were more easily available, such as mutshaina (Chinese cabbage). And we also observed some degree of **hybridisation** as migrants experimented with TFVs from other parts of Africa, such as rural migrants eating chomolia from Zimbabwe, and migrants from Zimbabwe eating coco yam from Nigeria. And it was also not uncommon for migrants to mix TFVs with 'modern' vegetables such as cabbage, peppers and carrots, or to use traditional methods of vegetable preparation for 'modern' vegetables, such as adding tomatoes and onion to cabbage or maize meal to spinach.

Storage

While most migrants preferred to eat fresh TFVs, they were not always available fresh, especially those from outside South Africa. Various respondents, particularly older migrant women, mentioned that they dried fresh TFVs if they knew that they would not be on sale in the CoJ in the winter. And many also dried vegetables that they had taken from visits home. As in the case of the preparation of TFVs, knowledge about drying had often passed through the generations.

"Cook [cowpea leaves] until soft and homogenous mixture. Let this cool down, then form small balls, sun-dry this on an iron sheet for 3 months. Once completely dry, make portions and store in plastic bags or any other container available". (female migrant from Limpopo).

While **drying** TFVs was the most common method of storing TFVs, migrants who had a freezer tended to **freeze** TFVs to see them through the winter. The downside of both methods, particularly the dried method, is the loss of

taste of vegetables that are meant to be eaten fresh such as mutshaina and more importantly, the **loss of some the nutritional benefits** as briefing note 4 explains in greater detail.⁵

Conclusions and Policy recommendations

Our research has revealed that there is **considerable knowledge** about the preparation and storage of TFVs in the two migrant communities, especially amongst older female migrants, who had gained this knowledge from their mothers and grandmothers and provided us with a range of recipes. When asked how this knowledge could be extended and the consumption of TFVs increased, other than making them more easily accessible and cheaper, our respondents proposed campaigns to raise awareness about the health benefits of TFVs and educate people on how they can grow them in their backyards. Some also suggested that Heritage Day on 24 September

could be used to offer demonstrations on how to cook tasty meals with TFVs. And our respondents also stressed the need to educate the young about TFVs.

There are, then, two major opportunities to increase the consumption of TFVs in migrant communities in the CoJ: 1) via the close connection between TFVs and migrant culture and 2) via the perceived health benefits of TFVs. This along with the suggestions that our respondents made to increase the uptake of TFVs lead to the following policy recommendations:

1. Increase awareness of the benefits of TFVs

It is recommended for the CoJ to run concerted campaigns using TV, radio, and social media to increase the exposure of TFVs and increase knowledge about the nutritional benefits of eating TFVs. Campaigns could create awareness across all age groups and socio-economic classes about the importance for health of consuming TLVs. Alongside such campaigns, events could be organised within communities particularly around Heritage Day highlighting the importance of TFVs and associated knowledge on their production and use.

2. Enhance knowledge of TFVs amongst youth.

It is recommended that the CoJ work closely with primary schools in migrant communities to increase knowledge of TFVs among young children. Teaching packs should be developed that list the main TFVs and highlight their nutritional properties and health benefits. In addition, schools should be encouraged to grow TFVs and use them for the children's lunches. Social media is the best means to increase awareness of TFVs amongst secondary-school-aged children. The CoJ should consider using a well-known migrant artist, sports star or influencer to spread knowledge about TFVs on TikTok and Instagram.

5. Moyo, S.M., Mavumengwana V. and Kayitesi, E. 2018 Effects of cooking and drying on phenolic compounds and antioxidant activity of African green leafy vegetables, *Food Reviews International*, 34(3), 248-264.

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