**SUPPLEMENTARY MATERIAL TO:** Wyma et al. S Afr J Sci. 2025;121(7/8), Art. #18967

**HOW TO CITE:**
Wyma N, Klapp A-L, Nhlapo P, Ubanwa M, Niesing C. Food-based dietary guidelines in Africa and their inclusivity of plant-based dietary patterns [supplementary material]. S Afr J Sci. 2025;121(7/8), Art. #18967. https://doi.org/10.17159/sajs.2025/18967/suppl

---

This supplementary material provides a review of the updated Balanced Food Choice Index (BFCI) scores of the food-based dietary guidelines (FBDGs) of African countries between 2022 and 2024. The number of African guidelines has increased by five: Ethiopia[1], Gabon[2], Ghana[3], Tanzania[4] and Zambia[5]. Unlike in the review of Klapp et al.[6], Algeria was excluded from the review of African documents as it forms part of the regional Arab Food Dome guidelines and our paper includes only country-level documents.

Our analysis updates the scores from Klapp et al.[6] for three countries: the score for Nigeria[7] decreased (-32) based on exclusive food groups in the food graphics; the score for Sierra Leone[8] increased (+5) for mentioning nitrogen-fixing properties of legumes; and the score for Kenya[9] increased (+3) after examining menu attachments to the FBDG document. Changes were driven by having more resources available to examine all components of the FBDG documents and their supplementary material.

BFCI scores are anticipated to be dynamic; changes to BFCI scores over time should be explained to promote understanding of the tool and provide practical examples of how to improve scores.

**Supplementary table 1**: Summative table of Balanced Food Choice Index (BFCI) indicator scores per country

| Country | 1 Meat, fish and/or eggs not a single food group | 2 Dairy not a single food group | 3 PFS of protein | 4 PFS of iron | 5 PFS of calcium | 6 PFS of zinc | 7 PFS of n-3 fatty acids | 8 Rec on how to obtain vit B12 without animal-based foods | 9 PBA to meat in text | 10 PBA to milk in text | 11 PBA to dairy in text | 12 PBA to meat in graphics | 13 PBA to milk in graphics | 14 PBA to dairy in graphics | 15 Rec on vegetarian diets | 16 Mention health benefits of vegetarian diets | 17 Mention sustainability benefits of vegetarian diets and/or plant-based foods | Total BFCI score |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **South Africa** | 0 | 0 | 3 | 3 | 3 | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 0 | 0 | 12 | 9 | 0 | 53 |
| **Namibia** | 18 | 18 | 3 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 45 |
| **Benin** | 18 | 0 | 3 | 3 | 0 | 0 | 0 | 0 | 3 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 33 |
| **Gabon** | 18 | 0 | 3 | 3 | 3 | 0 | 0 | 0 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 33 |
| **Zambia** | 0 | 0 | 3 | 3 | 3 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 0 | 5 | 32 |
| **Tanzania** | 0 | 0 | 3 | 3 | 3 | 3 | 3 | 0 | 0 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 21 |
| **Kenya** | 0 | 0 | 3 | 3 | 3 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 |
| **Ethiopia** | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 13 |
| **Sierra Leone** | 0 | 0 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 11 |
| **Ghana** | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| **Nigeria** | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| **Seychelles** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

*PFS, plant food sources; Rec, recommendations; PBA, plant-based alternatives*

***Scoring:*** *1 – inclusive food group = 18, exclusive food groups = 0; 2 – inclusive food group = 18, exclusive food groups = 0; 3–7 – yes=3, no=0; 8 – yes=5, no=0; 9–14 – yes=3, no=0; 15 – yes=12, no=0; 16 – yes=9, no=0; 17 – yes=5, no=0*

## References


1. Federal Government of Ethiopia, Ministry of Health, Ethiopian Public Health Institute. Ethiopia: Food-based dietary guidelines – 2022 [document on the Internet]. Addis Ababa: Federal Government of Ethiopia, Ministry of Health, Ethiopian Public Health Institute; 2022. Available from: https://ephi.gov.et/wp-content/uploads/2021/02/FBDG_MotherDocument_WebVersion.pdf

2. Government of Gabon. Guide et recommandations alimentaires nationales pour des régimes sains – Gabon [National dietary guidelines and recommendations for healthy diets – Gabon]. Rome: FAO; 2021. French. Available from: https://faolex.fao.org/docs/pdf/gab208778.pdf

3. Ministry of Food and Agriculture, University of Ghana School of Public Health. Ghana: National food-based dietary guidelines – 2023. Accra: Ministry of Food and Agriculture and University of Ghana School of Public Health; 2023. Available from: https://drive.google.com/file/d/1eZcCt0dhkNjDOUA13-BiGAfs23uOpkVl/view?usp=sharing

4. Ministry of Health of the United Republic of Tanzania. Tanzania mainland food-based dietary guidelines for a healthy population: Technical recommendations. Dodoma: Ministry of Health; 2023. Available from: https://www.moh.go.tz/storage/app/uploads/public/658/295/d4b/658295d4bbcba467264195.pdf

5. Zambian Ministry of Agriculture. Zambia food-based dietary guidelines: Technical recommendations. Lusaka; Ministry of Agriculture; 2021. Available from: https://nfnc.org.zm/download/zambia-food-based-dietary-guidelines-technical-recommendations-2021-produced-by-the-ministry-of-agriculture/

6. Klapp AL, Feil N, Risius A. A global analysis of national dietary guidelines on plant-based diets and substitutions for animal-based foods. Curr Dev Nutr. 2022;6(11):144. https://doi.org/10.1093/cdn/nzac144

7. Nigerian Federal Ministry of Health, Nutrition Division. Food-based dietary guideline for Nigeria: A guide to healthy eating [webpage on the Internet]. Abuja: Federal Ministry of Health; 2006. Available from: https://openknowledge.fao.org/server/api/core/bitstreams/53d6c163-3ffe-426f-a6b3-ff3357e96754/content

8. Sierra Leonean Ministries of Agriculture. Sierra Leone: Food-based dietary guidelines for healthy eating [document on the Internet]. c2016 [cited 2024 Jun 24]. Available from: https://openknowledge.fao.org/server/api/core/bitstreams/22cb889f-b539-4ef9-8572-2afcc3bcfa39/content

9. Kenyan Ministry of Health. National guidelines for healthy diets and physical activity. Nairobi: Government of Kenya; 2017. Available from: http://www.nutritionhealth.or.ke/wp-content/uploads/Downloads/National%20Guidelines%20for%20Healthy%20Diets%20and%20Physical%20Activity%202017.pdf