



# Overview of the Tanzania Mainland Food-Based Dietary Guidelines

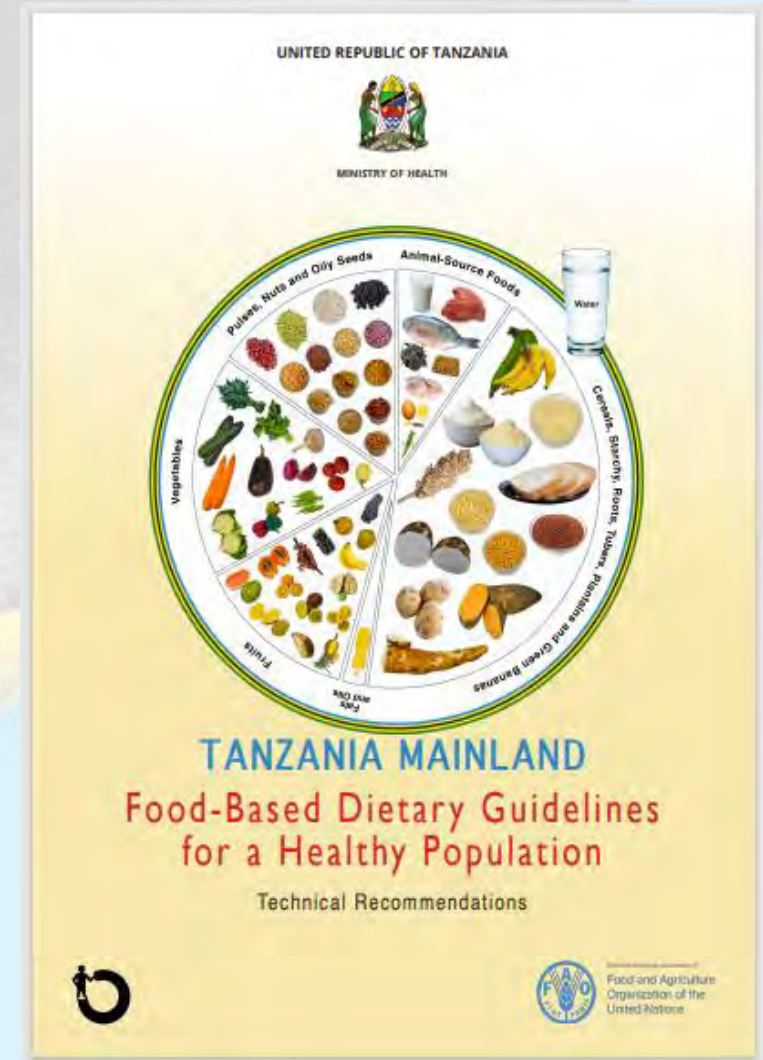
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## OUTLINE

- Introduction
- Contents of the guidelines
- Conclusion





# TANZANIA FOOD AND NUTRITION CENTRE



## INTRODUCTION

### •FBDGs: WHAT ARE THEY AND WHAT ARE THEY FOR?



tool for:

**Promotion** - Desirable consumption patterns leading to nutritional well-being

**Prevention** - Malnutrition and diet-related diseases, unsustainable food systems, etc

**Guidance** - education, plans, policies and programs related to food

•FBDGs are a set of evidence-based, easily understood, behavior-focused messages for the general public

•FBDGs take into account a country's food availability, diet patterns and food culture and nutrition-related issues.



## **SECTION 1** About the Food-Based Dietary Guidelines for Tanzania Mainland

### **SECTION 1: 1.1 Dietary and lifestyle practices affects nutrition and health status**

- Nutrition indicators in TZ,
- Obesity and NCDs in TZ,
- The cost of malnutrition and NCDs,
- Dietary patterns and practice,
- Physical inactivity, alcohol intake and smoking.

### **1.2 Background to the FBDGs development process**

- Genesis of the FBDGs globally,
- Rationale for the TZ mainland FBDGs,
- Objectives of the FBDGs,
- Target population,
- Intended users,
- Guiding principles,
- Alignment with policy frameworks and environment,
- Steps of developing FBDGs.

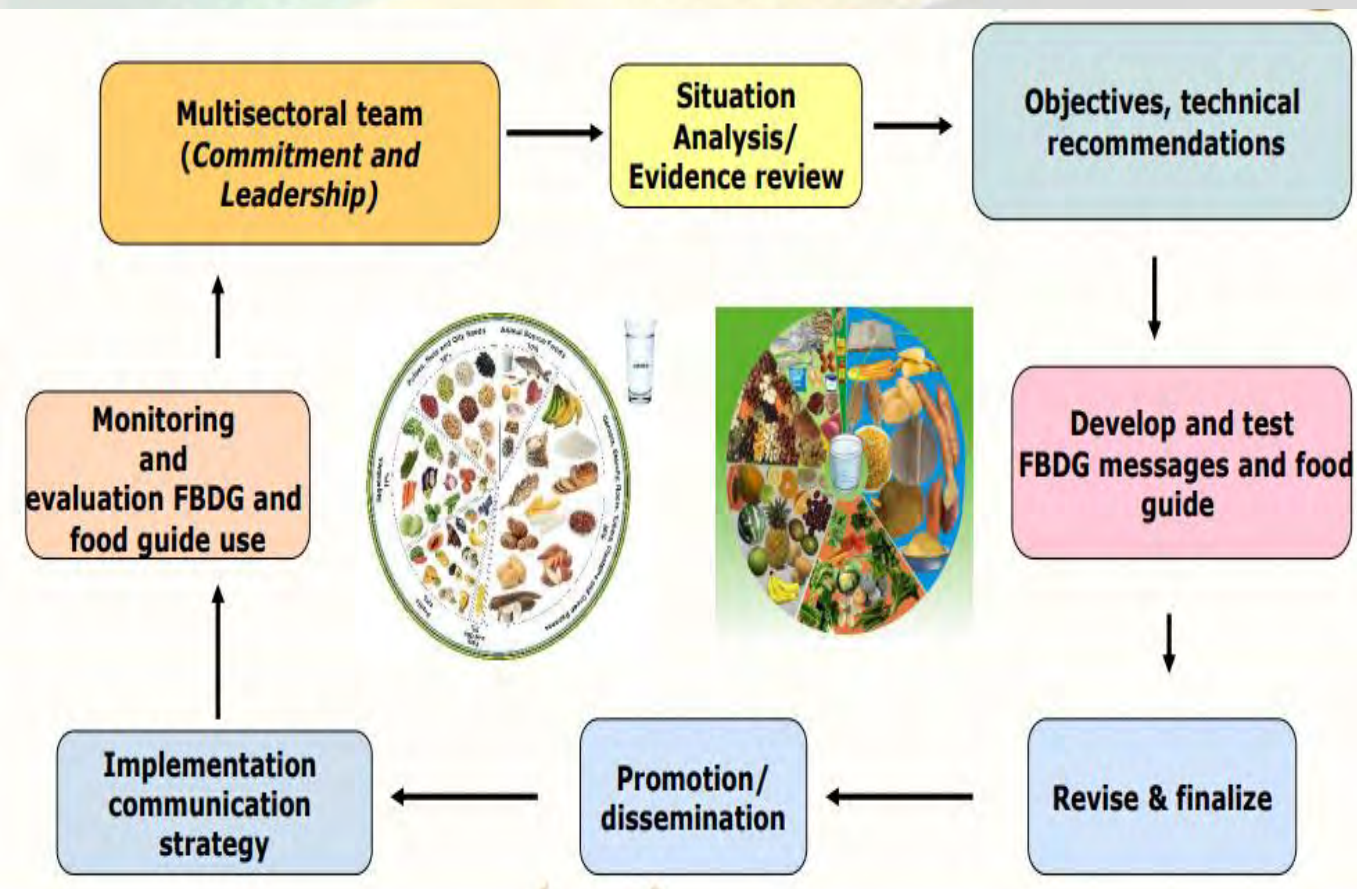


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## Step of developing the FBDGs

## Multi-sectoral team involved

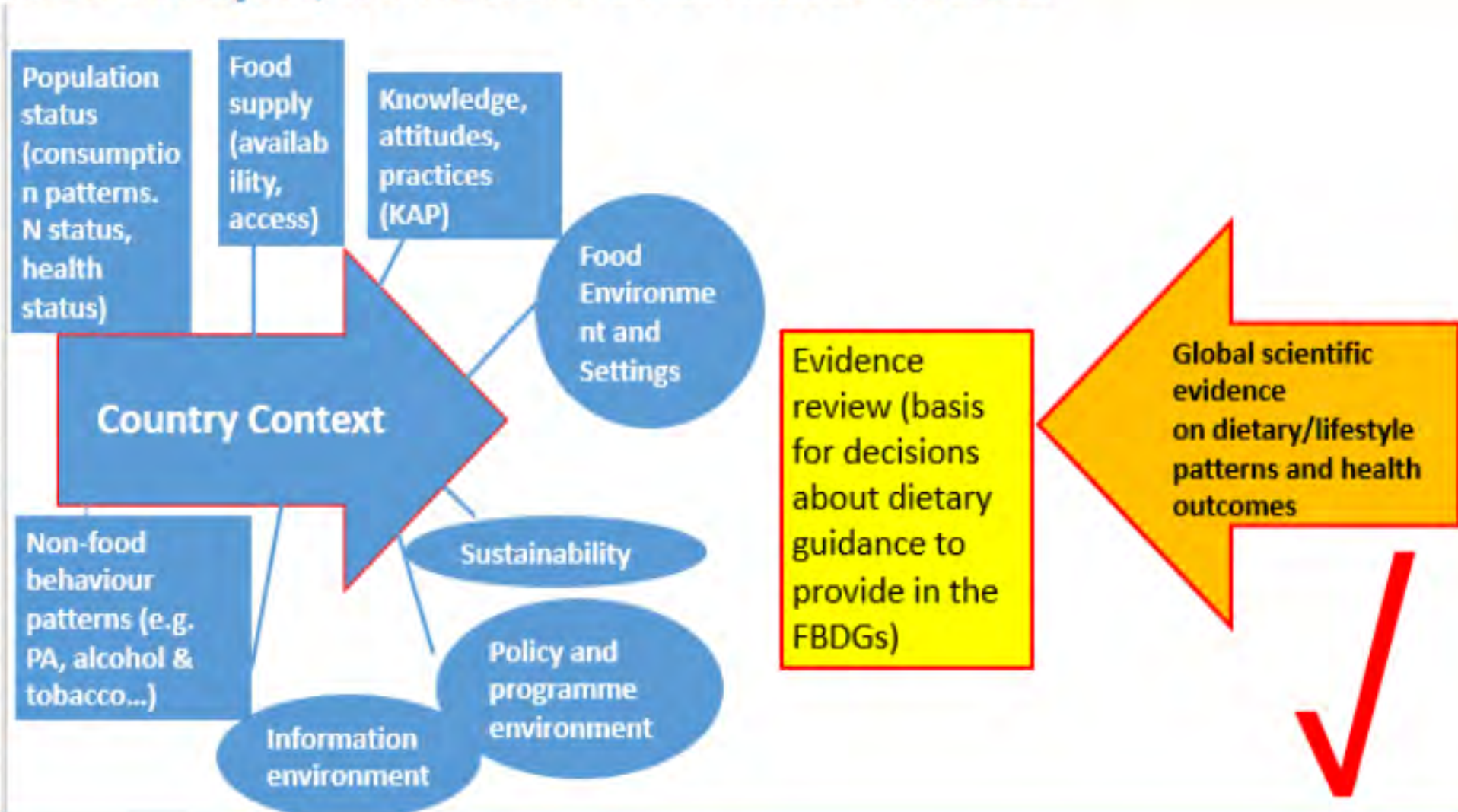




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## Situation Analysis/framework of Evidence Review



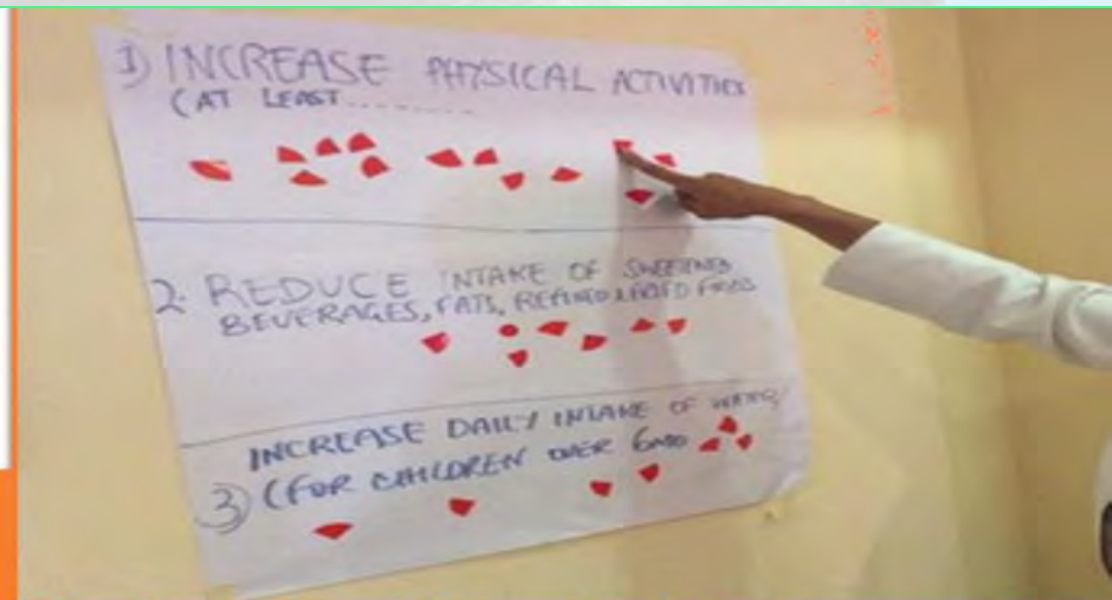


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## Ranking of the identified key priority problems

**Priority  
problems  
for FBDGs**



The 6 priority problems includes

1. undernutrition;
2. inadequate infant and young child feeding
3. Low consumption of fruits and vegetables;
4. low consumption of animal source foods;
5. poor food safety and quality;
6. poor sanitation and hygiene;
7. DRNCDS
8. Sedentary lifestyle;
9. Alcohol consumption; and tobacco use.



## Formulation of technical recommendations

**24**

technical  
recommendations  
to solve the  
problems were  
developed.



Each recommendation was framed as a message

Similar recommendations were combined, rephrased and ranked to select **eight** draft technical recommendations to guide formulation of messages



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## Diet modeling

The Linear Programming (LP) and Integer Programming (IP) are used to develop and solve the menu planning model problem ( with 100 variables).

## Food Guide graphic



Nutrients	Lower Bound (LB)	Upper Bound (UB)
Energy (kcal)	2121	2440
Fat (g)	45	70.7
Carbohydrate (g)	180	291.6
Protein (g)	79.5	-
Calcium (g)	800	2000
Vitamin A (mg)	600	2800
Vitamin B1 (mg)	1.2	-
Vitamin B2 (mg)	1.3	-
Vitamin C (mg)	70	1800
Niacin (mg)	16	30
Iron (mg)	14	45

$$Y = a + bX + \epsilon$$

$$\{3X_1 + X_2 \leq 8, 4X_1 + 3X_2 \leq 19, X_1 + 3X_2 \leq 7, X_1 \geq 0, X_2 \geq 0\}$$

Optimization-Modeling Process



## SECTION 2 Guidelines and recommendations

The food groups for a healthy diet →

### TANZANIA MAINLAND SIX FOOD GROUPS

1. Cereals, starchy roots, tubers, plantains and green bananas;
2. vegetables;
3. fruits;
4. pulses (legumes), nuts and oily seeds;
5. animal source foods;
6. healthy fats and oils.

Foods not included in the six food groups

- Free sugars, sugar-based sweeteners, salty foods and ultra processed foods.

The new food group system compared to the old system

- Pulses and ASFs separated.
- Sugars and honey removed.
- Nuts (ground-, cashew- & co) and oily seeds moved to pulses.
- Coconut milk is in pulses, nuts and oily seeds group.

**NOTE:** Pulses, nuts and oily seeds are key in reducing NCDs.



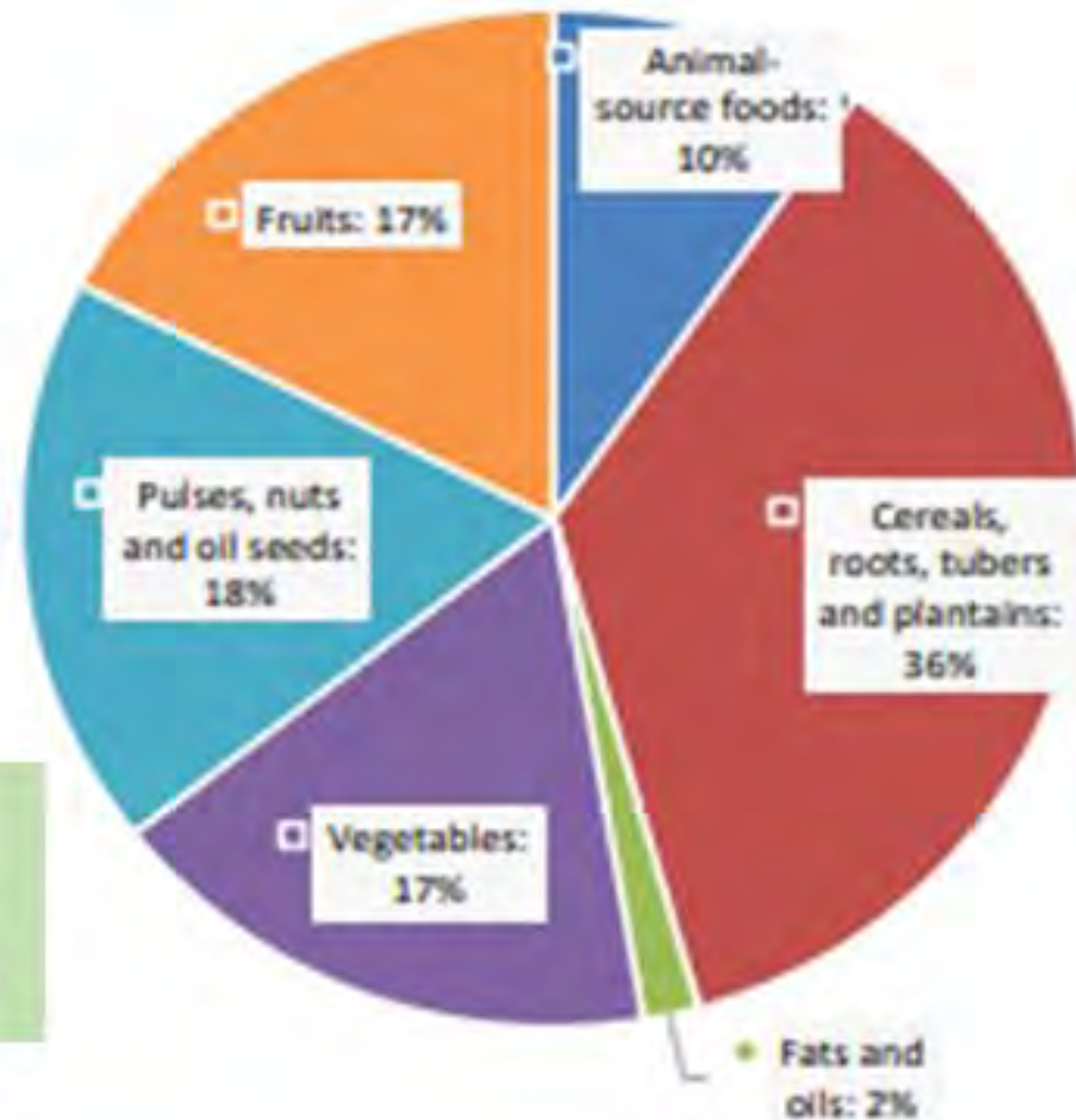
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The food guide graphic



Proportional contribution to  
total intake of each food group





## **2.2.1 Guidelines**

- The Tanzania FBDGs are structured around six guidelines:



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- **Guideline 1:** Increase dietary diversity through consumption of six food groups daily, focusing on varieties within the food groups to prevent malnutrition and reduce the risk of NCDs.

This guideline highlights on:

- Diversified diet and its benefits,
- Food groups and recommended quantities per day in TZ versus global guidance and recommendations,
- Mycotoxins in grains and cereals, and
- Serving size for each food group.





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■ **Guideline 2:** Attain optimal nutrition for pregnant and lactating mothers, infant and children to ensure the mother's well being and the child's healthy growth and development.

Contents of this guideline include:

- Benefits of adequate nutrient intake,
- Nutrient intake and recommendation during pregnancy and lactation,
- Foods and habits to avoid during pregnancy and lactation,
- IYCF and complementary feeding,
- Importance of varieties of foods to ages 2–5, 6-9, 10-18 (adolescents) and their dietary needs,
- The importance of breakfast and lunch to school children.





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## ■ **Guideline 3:** Limit intake of deep-fried foods, saturated and trans fats, sugar and salt.

This guideline is about:

- Why fried foods are unhealthy,
- How to recognize ultra processed foods,
- Limiting consumption of ultra processed foods,
- Unhealthy fats,
- How much sugar is too much!, and
- Salt and salty foods and examples of foods high in salt.





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- **Guideline 4:** Ensure a clean home environment, safe food and water.

Contents of this guideline include:

- What is food safety,
- The situation in the Tanzania, and
- Keys to safer foods.





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## ■ **Guideline 5:** Keep an active lifestyle for optimal health and weight.



This guideline promotes an active lifestyle for healthy weight for all age groups with emphasis on:

- What are physical activity and exercise,
- The benefits,
- What is sedentary behavior and its effects, and
- Recommendations for physical activities for different age groups.





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■ **Guideline 6:** Avoid risky behaviors such as using tobacco and drinking alcohol to reduce the risk of diseases.

- Alcohol is the leading risk factor for premature mortality and disability
- Alcohol consumption is carcinogenic (leads to colorectum, female breast, larynx, liver, oesophagus, oral cavity, and pharynx cancers )
- Consuming more than two alcoholic drinks (one drink contains about 30 ml of ethanol) has a higher risk for hypertension and stroke.
- Smoking causes cancer, heart disease, stroke, lung diseases, diabetes, and chronic obstructive pulmonary disease.





## **2.2.2 Recommendations**

- **Recommendations in quantity per day and serving size of each food group,**
- **Key messages; and**
- **Tips to guide practice.**



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## RECOMMENDATION FOR FRUITS



- A total of 280gm per day = 160kcal
- One serving is approximately 140gm = 80 kcal
- Recommendation = **only** 2 servings per day
- One large orange = 1 serving = 185 gm
- One medium-sized banana = 1 serving = 120gm
- Half of a small avocado = 1 serving = approx.138gm
- Two small fruits (eg. guavas) = 1 serving = 110gm
- One cup diced watermelon = 1 serving = 153gm

*Ref. = 250ml cup.*



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## RECOMMENDATION FOR VEGETABLES

- A total of 280gm per day = 60 kcal
- One serving is approximately 140gm
- It is recommended to have **at least** 2 servings per day
- 2 cups vegetables salad/4 serving spoons = 1 serving = 148gm
- 1cup/2 serving spoon cooked amaranth = 1 serving = 132gm
- 1 cup raw/cooked okra = 1 serving = 160gm

*Ref. = 250ml cup.*





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## RECOMMENDATION FOR STAPLES - CEREALS, STARCHY ROOTS, TUBERS, PLANTAINS/GREEN BANANAS

- A total of 580gm per day = 822kcal
- One serving is approximately 145gm
- 3/4 cup ugali = 1 serving = 161gm
- 1 cup rice = 1 serving = 160gm
- 3 pcs Bread (thick slice) = 1 serving = 90gm

*Ref. = 250ml cup.*





## RECOMMENDATION FOR PULSES

- A total of 290gm per day = 160kcal
- One serving is approximately 97gm = 120 kcal
- Recommendation = 3 servings per day
- 3 tablespoons peanuts/cashew/almond = 1 serving = 27 - 30gm
- 3 tablespoon pumpkin seeds = 1 serving = 25 - 30gm
- Half a cup cooked beans = 1 serving = approx.80 - 90gm

*Ref. = 250ml cup.*

*Ref. = 15ml tablespoon*





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## RECOMMENDATION FOR ANIMAL SOURCE FOODS (ASFs)



- A total of 60 – 100gm per day = 135kcal
- Recommendation = 2 servings per day
- One serving is approximately 30 – 50gm = 68 kcal
- 2 eggs = 1 serving = ~95 g and= 135kcal
- 2 matchbox sized pieces of **red meat & liver** = 1 serving; limit intake to less than 160 g per week.
- 3 matchboxes sized pieces fish (size of a palm), poultry or rabbit = 1 serving = ~90gm = ~130 to ~135 kcal.
- 1 serving spoon cooked sardines = 1 serving = 68 gm = 121 kcal.
- 1 cup fresh/sour milk = 1 serving = 245 g = ~123 Kcal.
- 1/3 cup shredded cheese = 1 serving = 40gm = 161 kcal.
- 4 dice-sized pieces of cheese = 1 serving = 30gm = ~135 kcal.
- ½ cup dried senene/kumbikumbi = 1 serving = 50 = 100gm = 135 - 220 kcal



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## RECOMMENDATION FOR HEALTHY FATS AND OILS

- A total of 28gm per day = 2 tablespoons
- Recommendation = 2 servings per day
- 1 serving = 1 tbsp = 14 gm (15mls spoon)
- 1 serving vegetable oil = 14gm = 126kcal
- 1 serving Butter = 14gm = 100kcal
- 1 serving margarine (fortified ) = 14gm = 102kcal
- Intake of saturated fats such as ghee, palm oil, or coconut oil should be limited to about 1 teaspoon (5 g).



sunflower oil



olive oil



Ground nut oil



Butter



Palm oil



coconut oil



Margarine



Mayonaise



whip cream



## SECTION 3 Implementing the FBDGs

### 3. Implementing FBDGs

- 3.1 Coordination structure
  - 3.1.2 Key actors for implementation with specific responsibilities,
- 3.2 The framework for the implementation plan.



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## Conclusion:

- These guidelines provide a roadmap for making informed food choices, however, the journey doesn't end with the guidelines themselves but involve a wide spread education and awareness campaigns to ensure communities and families have access to the right information they need to make healthier food choices.
- The presence of the guideline can influence and guide formulation of policies and strategies to address fruits and vegetables environment in the aspects of demand, supply to stimulate consumption.
- Its implementation necessitates multi-sectoral collaborations to create conducive environment for the guidelines to be functional.



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**THANK YOU**

**Link for the FBDGs: 1. <https://search.app/jvrEUe4BKCm4Tovp7>  
2. [tfnc.go.tz/publications/3](https://tfnc.go.tz/publications/3)**