

FAO's work on nutrition and food security:

Indicators that link food, food security and nutrition

Dietary diversity questionnaire: DDS
&

Household Food Insecurity Access Scale: HFIAS

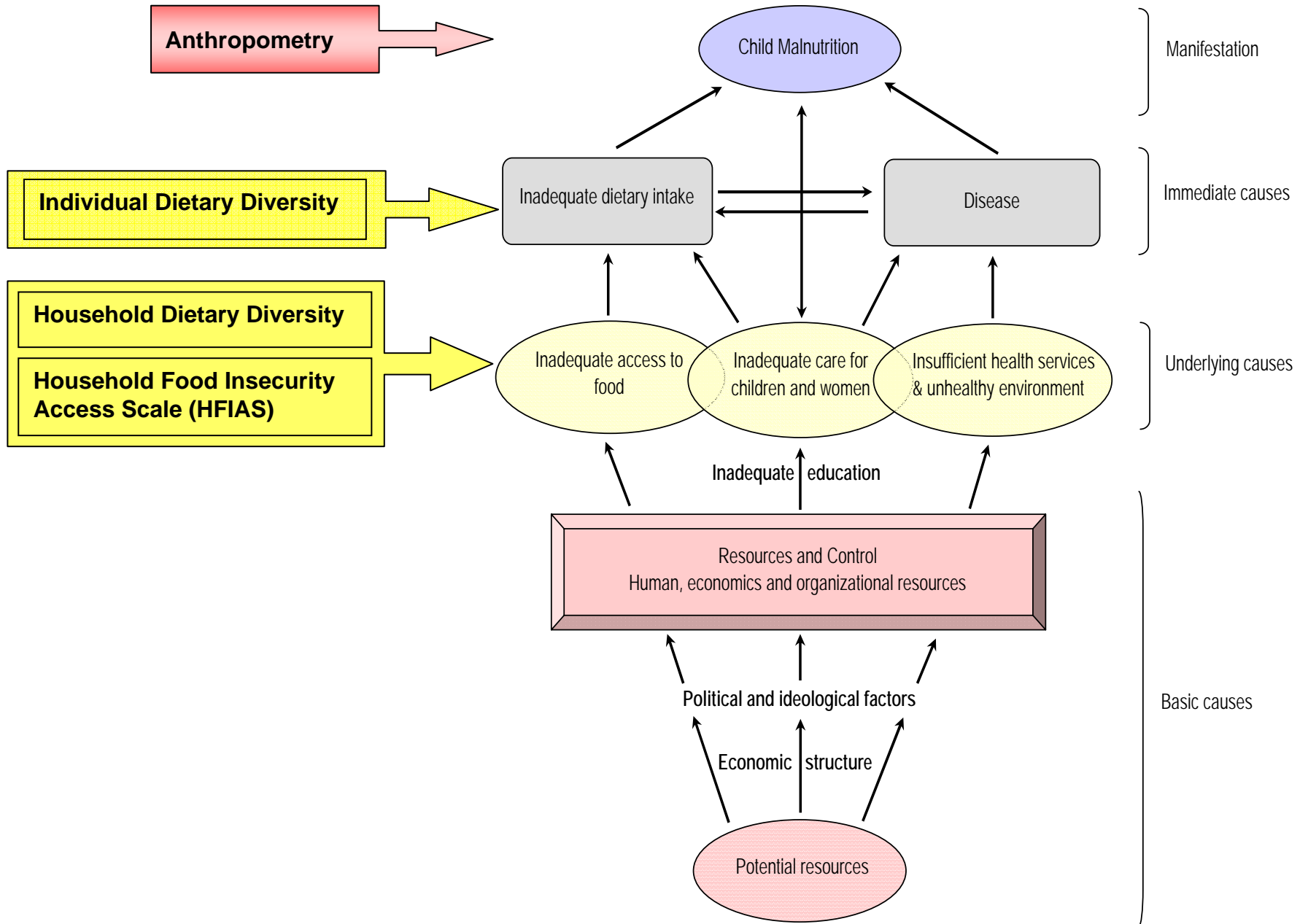


Nutrition and Consumer Protection Division
Dietary requirement and assessment and unit

Outline

1. Conceptual framework
2. FAO assessment tools: HFIAS and DD
3. Causal analysis

Conceptual framework



Indicators that link food, food security and nutrition

HFIAS & DD: tools that provide timely food security and nutrition information related to diet, particularly at decentralized level

Advantages to these tools:

Provide direct and timely information on what households eat and changes they make in diet in response to shocks and reduced access to food

Proxy of the nutrient adequacy of the diet

- ✓ Quick to administer
- ✓ Simple to analyze
- ✓ Low cost

The **dietary diversity score** is:

- a simple count of food groups consumed over a determined period (usually 24h)
→ relatively simple to measure
- a good indicator of improvements in household food access, food consumption, and diet quality

<http://www.foodsecinfoaction.org/News/tr/nut/guidelines.pdf>

Dietary diversity at household and individual levels

Level of measurement

- **household** as a measure of economic access to food
- **individual** as a measure of micronutrient adequacy

Standard food groups

- Cereals
- Roots and tubers
- Vegetables
- Fruits
- Meat, poultry, offals
- Eggs
- Fish and seafood
- Pulses/Legumes/Nuts
- Milk and milk products
- Oil/Fats
- Sugar/Honey
- Miscellaneous

Dietary Diversity Questionnaire

Please describe the foods (meals and snacks) that you or any one else in the household ate yesterday during the day and night, starting with the first food eaten in the morning.

[note for enumerator: excluding foods purchased and eaten outside of the home]

Question number	Food group	Examples	YES=1 NO=0
1	CEREALS	bread, noodles, biscuits, cookies or any other foods made from millet, sorghum, maize, rice, wheat + <i>insert local foods e.g. ugali, nshima, porridge or pastes or other locally available grains</i>	
2	VITAMIN A RICH VEGETABLES AND TUBERS	pumpkin, carrots, squash, or sweet potatoes that are yellow or orange inside + <i>other locally available vitamin-A rich vegetables</i>	
3	WHITE TUBERS AND ROOTS	white potatoes, white yams, cassava, or foods made from roots.	
4	DARK GREEN LEAFY VEGETABLES	sweet pepper, dark green/leafy vegetables, including wild ones + <i>locally available vitamin-A rich leaves such as cassava leaves etc</i>	
5	OTHER VEGETABLES	other vegetables, including wild vegetables	
6	VITAMIN A RICH FRUITS	ripe mangoes, papayas, <i>other locally available vitamin A-rich fruits</i>	
7	OTHER FRUITS	other fruits, including wild fruits	
8	MEAT	beef, pork, lamb, goat, rabbit, wild game, chicken, duck, or other birds, liver, kidney, heart or other organ meats or blood-based foods	
9	EGGS		
10	FISH	fresh or dried fish or shellfish	
11	LEGUMES, NUTS AND SEEDS	beans, peas, lentils, nuts, seeds or foods made from these	
12	MILK AND MILK PRODUCTS	milk, cheese, yogurt or other milk products	
13	OILS AND FATS	oil, fats or butter added to food or used for cooking	
14	SWEETS	sugar, honey, sweetened soda or sugary foods such as chocolates, sweets or candies	
15	SPICES AND CAFFEINE OR ALCOHOLIC BEVERAGES	spices, coffee, tea, alcoholic beverages OR <i>local examples</i>	
			YES=1 NO=0
A.	Did you or anyone in your household eat anything (meal or snack) OUTSIDE of the home yesterday?		

- Household level
 - 12 groups counted in score
 - Indicator of access to food
-
- Individual level
 - 14 groups counted in score
 - Proxy of nutrient adequacy

Household Food Insecurity Access Scale (HFIAS)

This tool is a direct measure of food access at the household level.

9 questions about food-related experiences of households when facing inadequate access to food over the previous 30 days

The scale covers three main themes:

- 1) *experiencing anxiety and uncertainty about the household food supply;*
- 2) *altering quality of the diet;*
- 3) *reducing quantity of food consumed.*

Examples of questions and coding

“In the past 4 weeks, did you or any household member go to sleep at night hungry because there was not enough food?”

9 questions with 4 frequency responses referring to past month:

never (0), rarely (1)

sometimes (2), often (3)

“In the past 4 weeks, did you or any household member have to eat fewer meals in a day because there was not enough food?”

Time for administration
is < 10 minutes

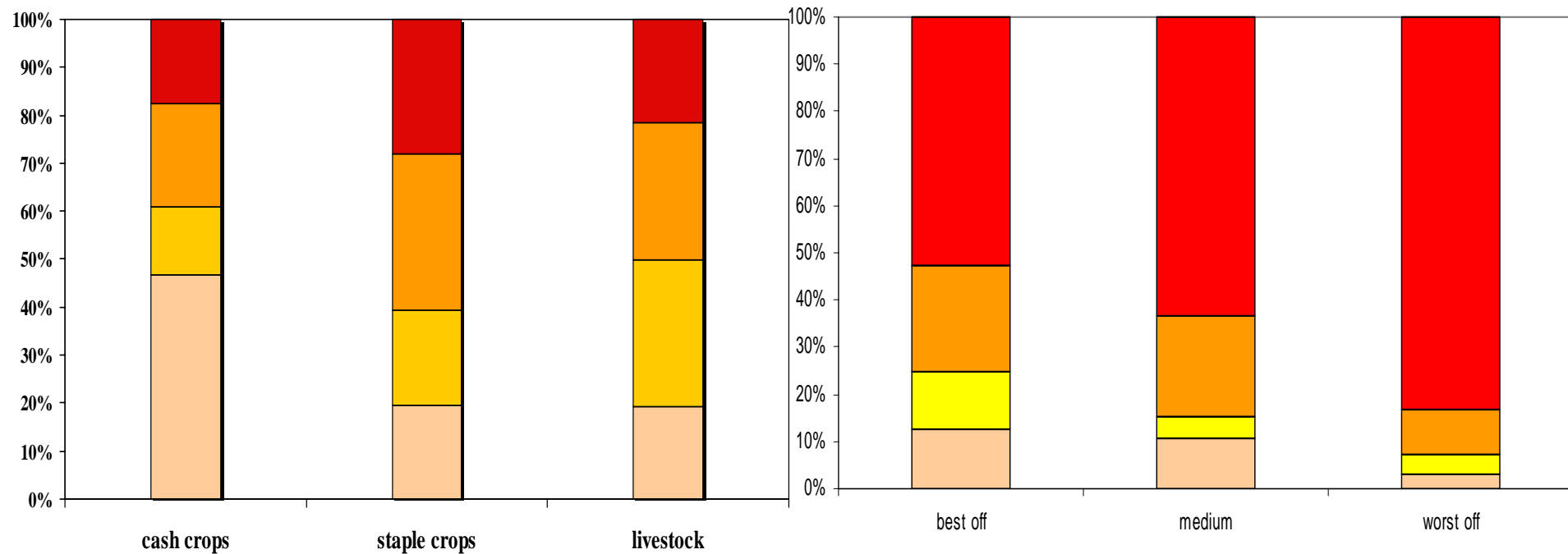
→ Food insecurity score: the higher the score, the more insecure

→ Classification of food insecurity

HFIAS classification by livelihood zone (BF) and by wealth group (MOZ)

Burkina Faso

Mozambique



Food Secure



Mildly FI



Moderately FI



Severely FI

In which contexts are the HFIAS and dietary diversity tools useful?

- situation and vulnerability assessments
- targeting communities for nutrition and food security interventions
- monitoring and evaluation of the impact of strategies and programmes, including at decentralized level

→ *together with other indicators (not stand alone tools)*

The tools are useful in programmes and initiatives where a primary or secondary objective is to **improve the diet of the beneficiary population**

- Agriculture, Fishery, Forestry programmes
 - Crop diversification/integration
 - Promotion of indigenous plant and animal foods

- Food security and nutrition programmes
 - Sustainable livelihood support and diversification
 - Programmes in HIV affected areas
 - Food-based nutrition programmes
 - Nutrition education

- Cross-cutting issues
 - Gender
 - HIV/AIDS
 - Right to Food

The cost of **adding** DD and HFIAS is marginal !

Precautions & recommendations

- ✓ Necessity of a nutritional intervention to measure properly impact
- ✓ At least 200 households to show significant differences
- ✓ Assuring accurate answers: adaptation and training are the keys

Customize phrases, definitions, and examples to the local context and in the survey language to ensure that the questions are understood appropriately, without changing their original meaning.

Done through:

key informant interviews
focus groups
interviewer training
household pre-test

- ✓ Assessment tools: complement with causal analysis before setting up intervention

What is a “causal analysis”?

- A tool to understand the major underlying causes of malnutrition in a community and their relations

→ Not only used in nutrition, useful everywhere causes are complex and inter-related

- A model built through participatory meeting

Extension agent
Association of women
Head of medical service
Village representatives
etc...

→ this model is hypothetical and consequently can evolve

- An indispensable step between assessment and intervention

Causal analysis

Throughout the participatory process 3 main steps:

1. brainstorming on the possible causes of malnutrition → list
2. hierarchy, causal links between the factors previously listed
3. Settlement of simple causal chains aggregated into a model

Advantages

Identification of relevant entry points for action

choice of indicators for monitoring-evaluation systems or surveillance

Participatory process → sensitization

Feasibility constraints

Availability of the data

Enough free time for all the different participants

Good animation

Example of Honduras,
SAPAN 1976

