



Sustainable Food Systems for Food Security and Nutrition in Zimbabwe.

Build up to the World Food Day – 16 October
2013

Presentation by MAMID, FAO & WFP at the US
Embassy Discussion Forum, 8th October 2013.

The World Food Day

- The World Food Day is celebrated every year around the world on the **16th of October** in honour of the date of the **founding of the Food and Agriculture Organization of the United Nations in 1945**.
- The day is celebrated widely by many other organizations concerned with food security, including the World Food Programme.
- The World Food Day theme for 2013 is;

**“Sustainable Food Systems for
Food Security and Nutrition –
Healthy People depend on Healthy
Food Systems”**

Key Messages for the 2013 Theme;

1. Good nutrition depends on healthy diets.
2. Healthy diets require healthy food systems – along with education, health, sanitation and other factors.
3. Healthy Food Systems are made possible by appropriate policies, incentives and governance.

What is a “Food System”?

- The term "food system" is used frequently in discussions about nutrition, food, health, community economic development and agriculture.
- A food system includes all **processes** and **infrastructure** involved in **feeding a population: growing, harvesting, processing, packaging, transporting, marketing, consumption, and disposal of food and food-related items**. It also includes the **inputs** needed and **outputs** generated at each of these steps.
- A food system is made up of the environment, people, institutions and processes by which agricultural products are produced, processed and brought to consumers.



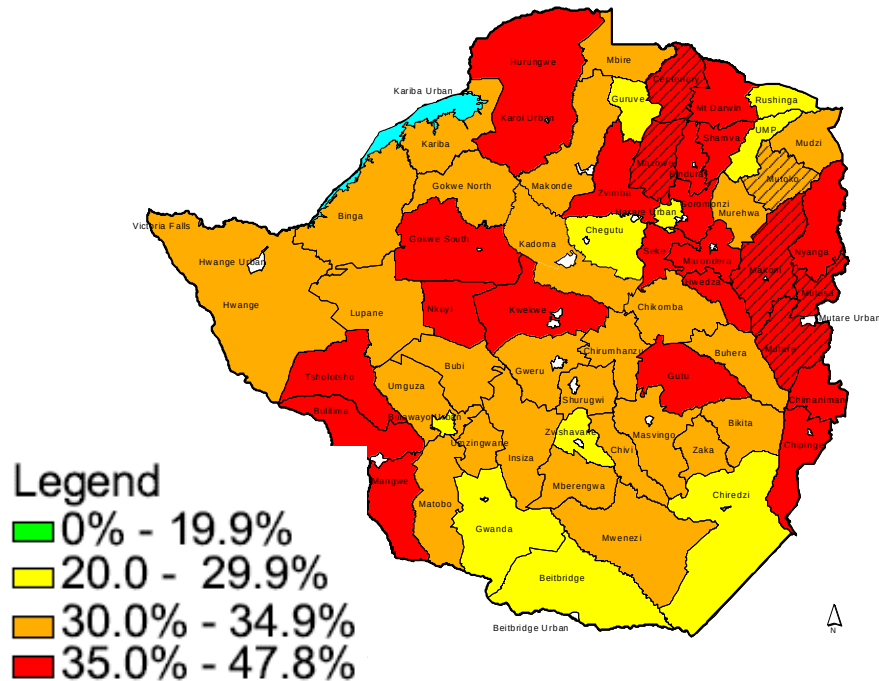
Key message 1:

Good nutrition depends on healthy diets.

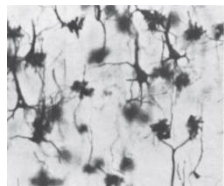
What is the current Nutrition Situation in Zimbabwe?

Zimbabwe's biggest nutrition challenge - A third of Zimbabwe's children between 6-59 months of age are stunted

Figure 1.1a Prevalence of stunting in children 6-59 months of age, by district (WHO)



- Increased risk of dying from infectious diseases (more than one-third)
- Associated with reduced school performance equivalent to 2-3 years of schooling
- Associated with reduced income earning capacity (22% average; up to 45% has been reported!)
- Increased risk of non-communicable diseases in adult life
- Stunted girl is more likely to give birth to undernourished baby
- Reduced GDP by 2-3%
- Stunting is irreversible!



Impaired
brain and
cognitive
development



SCHOOL

Poor school
performance



Impaired
productivity
and earnings

The Nutrition Situation in Zimbabwe

According to ZDHS 2010-11;

- 56% of children 6 – 59 months old are anaemic.
- 28% of women & 14% of men are anaemic.
- 1 in 3 women are overweight
- 11% of women are obese

According to the NNS 2010;

- Less than 10% of Zimbabwean children under the age of 2 receive the recommended minimum acceptable diet - eggs, meat, milk products, and legumes are rarely included in the diets of young children.

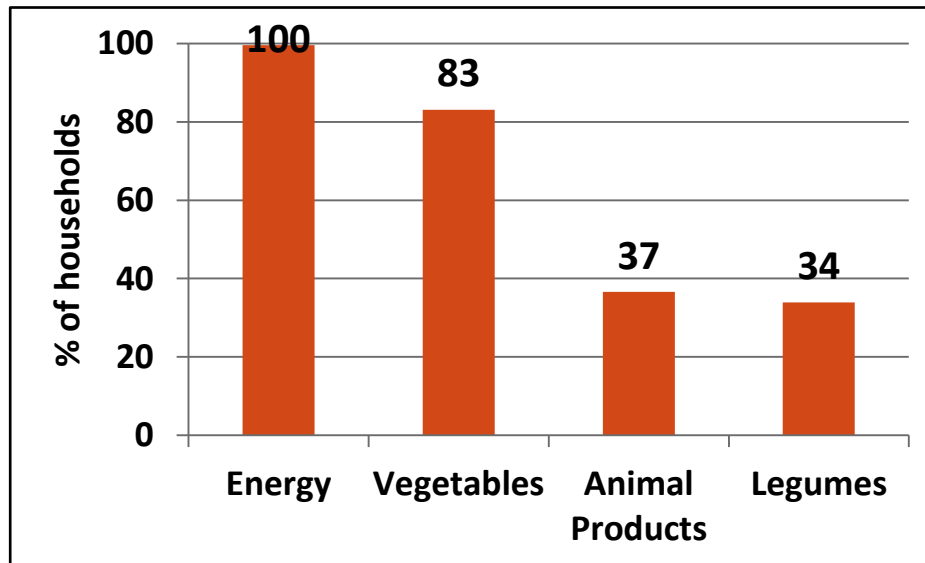
The Right to Adequate Nutrition

Millennium Development Goals

- MDG 1: Eradicate Extreme Poverty and Hunger
 - Halve between 2002 and 2015, the proportion of people who suffer from hunger
 - **Reduce by two thirds, between 2002 and 2015, the proportion of under- five children who are undernourished**
 - **Zimbabwe is currently at 10% (ZDHS 2010-11), against a target of 7%**
- MDG 4: Reduce Child Mortality
 - Reduce by two thirds, between 2000 and 2015, the under-five mortality rate
 - Zimbabwe is currently at 84 (ZDHS 2010-11) against a target of 34

Consumption of Healthy Food

- Healthy Diets are balanced in quality and quantity.



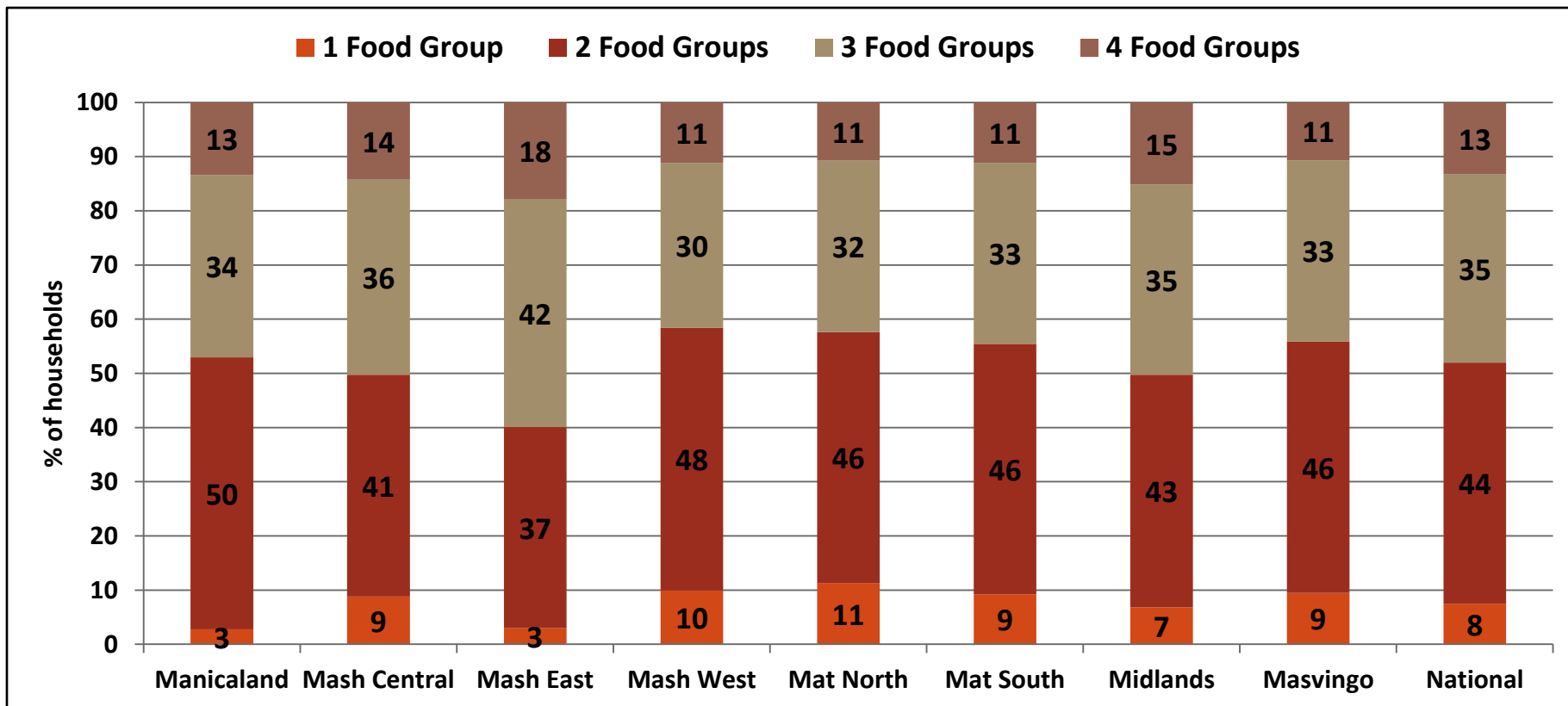
- Almost all households were consuming energy rich foods whilst less than 40% were consuming protein rich foods.

Source: Rural ZIMVAC 2013

- Zimbabwean diets are generally monotonous, lacking diversity both in terms of the type of food eaten and the sources of various nutrients required by the body.
- Food security is often defined in terms of cereal adequacy.
- In cases where farmers grow a variety of foods, they often don't consume all the food they eat.

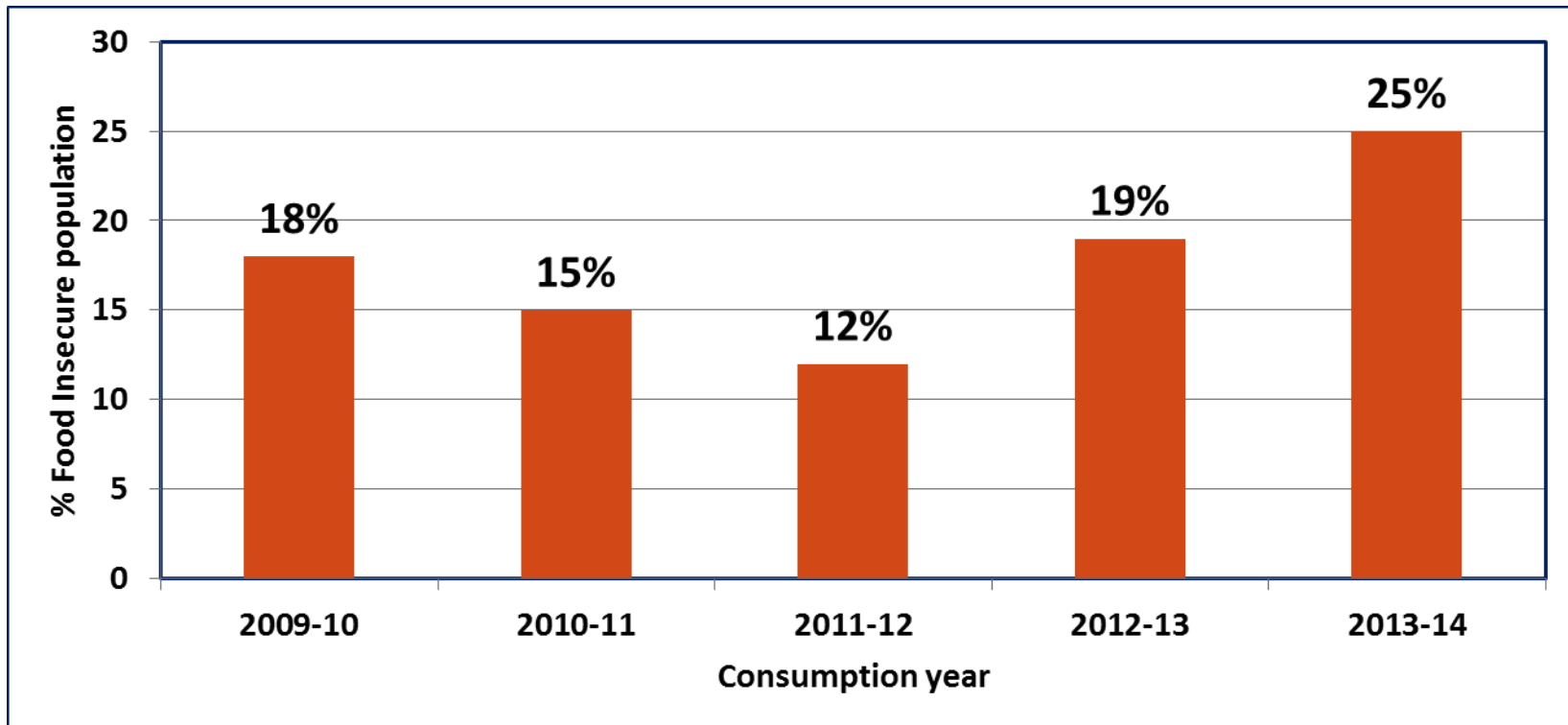
Household Dietary Diversity

Number of Food Types Consumed



- The majority of households were consuming two food groups, followed by three food groups. Less than 20% of the households consumed four food groups. The recommended number of food groups is four to give the nutrient and calorie requirements per day

Rural Food Insecurity Trends



Source: ZIMVAC, 2013

Addressing food insecurity

- In order to address food security in a comprehensive manner, the following challenges were identified:
 - High food prices
 - Lack of holistic planning
 - Small farmers switching to cash crops such as tobacco
 - Lack of market/value addition
 - Lack of robust extension services
 - Watershed management
 - Lack of credit facilities
 - Cost of labour
 - High cost of farming inputs such as lime, seeds, fertilizers, etc.
 - Limited irrigation development/rehabilitation
 - Post-harvest losses



Key Message 2:

**Healthy diets require healthy food systems –
along with education, health, sanitation and
other factors.**

**How healthy is the Zimbabwean Food
System?**

Current and potential production of Selected Crops

Crop	Area (Ha)	Production (MT)	Potential (MT)
Maize	1 442 845	798 596	1.950000
Small Grains	422 552	111 369	400 000
Wheat	9 727	33 655	200 000
Groundnuts	262 869	86 747	
Soyabean	59 179	76 933	
Sugarbeans	38 934	15 184	
Banana	4 643	232 150	
Citrus	6 172	216 020	

Current and Potential Livestock Production

Livestock	Current	Potential
Cattle	5 300 000	6 000 000
Goats and sheep	3 500 000	4 500 000
Pigs	407 000	500 000

Crop diversification

Practicing intercropping in farming systems (maize & cowpeas)

Introducing cover crops in the farming systems



Crop rotations

Sole Groundnuts (legume)



Sole Sorghum (Cereal)



Introducing new crops



Provitamin A Maize



**Provitamin A Sweet
Potato**



Iron (Zinc) Beans

- **Biofortification is a promising technology**
- **It has great potential for public health control of micronutrient deficiencies and can complement well micro-nutrient supplementation and industrial fortification initiatives.**

Conservation Agriculture (CA)

CA Principles;

- Minimum mechanical soil disturbance
- Permanent soil cover
- Crop rotations/interactions

CA Benefits;

- CA builds soil structure and organic matter
- Reduces soil erosion
- Reverses land degradation
- Increase water infiltration
- Intensification and increase in production
- Reduction in production costs

**Promotes sustainable,
diversified agriculture
production!**

Post Harvest Processing and Preparation of Food

- Grain losses due to pest infestation are up to 30%. Government is currently promoting metal silos to reduce the losses.
- Government supporting post harvest processing of fruits and vegetables and value addition.
- Current infrastructure challenges e.g. solar dryers, post harvest processing equipment.

Control of Aflatoxin



What is aflatoxin?

- Aflatoxin is a poison produced by a fungus, called *Aspergillus flavus*.
- Aflatoxin cannot be seen—it is a colorless chemical, laboratory tests are needed to determine contamination levels
- This fungus resides in soil and dead/decaying matter in the field.
- Aflatoxin contaminates maize and groundnuts mostly but can also affect other crops.
- It is very dangerous to humans and animals
- In humans aflatoxin causes liver cancer, suppresses the immune system and retards the growth of children.
- Aflasafe is a promising bio-control methodology.

Safety of Food (Agriculture produce) available on the market.

A joint assessment between FAO and Bulawayo City Health Department revealed the following;

- Vegetables had undesirable levels of heavy metals
- Undesirable pathogens were present in poultry.
- Factors likely to affect food safety on farms included;
 - Lack of sanitary facilities
 - Lack of pesticide spray records
 - Use of untreated sewer and industrial effluent
 - Use of unregistered abattoirs
 - Use of un-chlorinated water.
- Factors likely to affect food safety on the market included;
 - Lack of food hygiene management systems
 - Illegal poultry vending
 - Use of unauthorized vending premises.
 - Unpaved stalls.



Key Message 3:

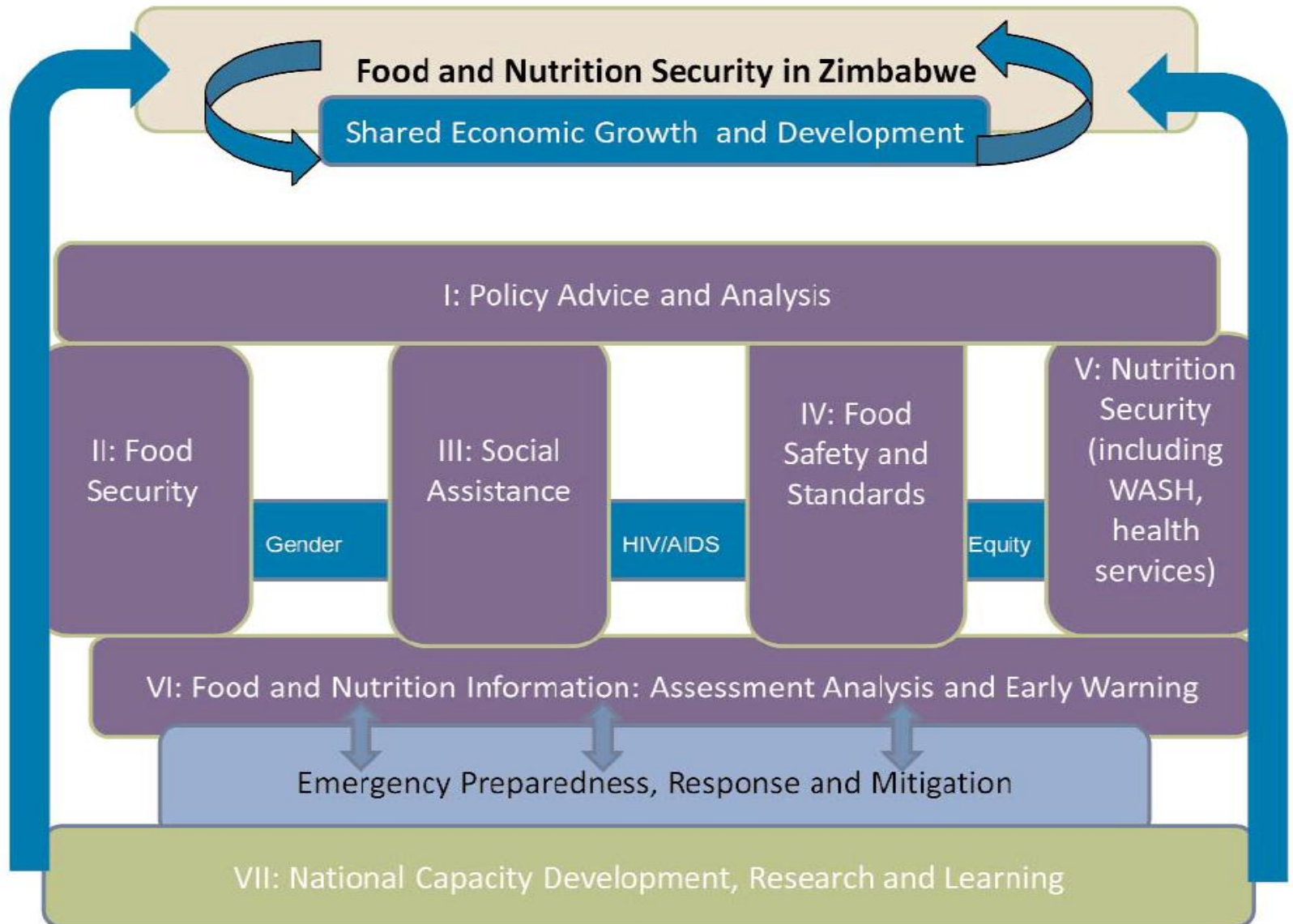
Healthy Food Systems are made possible by appropriate policies, incentives and governance.

Does the Zimbabwean Policy Environment promote and support Healthy Food Systems?

The Food and Nutrition Security Policy for Zimbabwe

- Provides an overarching framework for intersectoral collaboration for improved food security and nutrition outcomes.
- Commits government to improving food and nutrition security situation.
- Promotes Healthy Food Systems for a Healthy, Well Nourished Zimbabwean population.

Policy Commitments



Other supporting policies and strategies

- **Comprehensive African Agriculture Development Programme (CAADP)**
- **Medium Term Plan**
- **The draft Zimbabwe Comprehensive Agriculture Policy Framework (ZCAP), 2012 – 2032**
- **Zimbabwe Agriculture Investment Plan (ZAIP)**
- **Comprehensive Gender Sensitive Agricultural Policy Framework**
- **Productive Community Works policy framework**
- **National Social Transfers Policy Framework**

In conclusion

How can we improve the consumption of healthy food?

- Address knowledge gaps on the importance of healthy, balanced diets.
- Promote diversified agriculture production – increase legume and horticulture production.
- Produce animal source foods (small livestock, fish / aquaculture)
- Address food security in its entirety (as provided by the food security definition).
- Harness the potential of nutritious, underutilized crops (indigenous crops)
- Invest in biofortification as a complement to other approaches.

Thank You!

