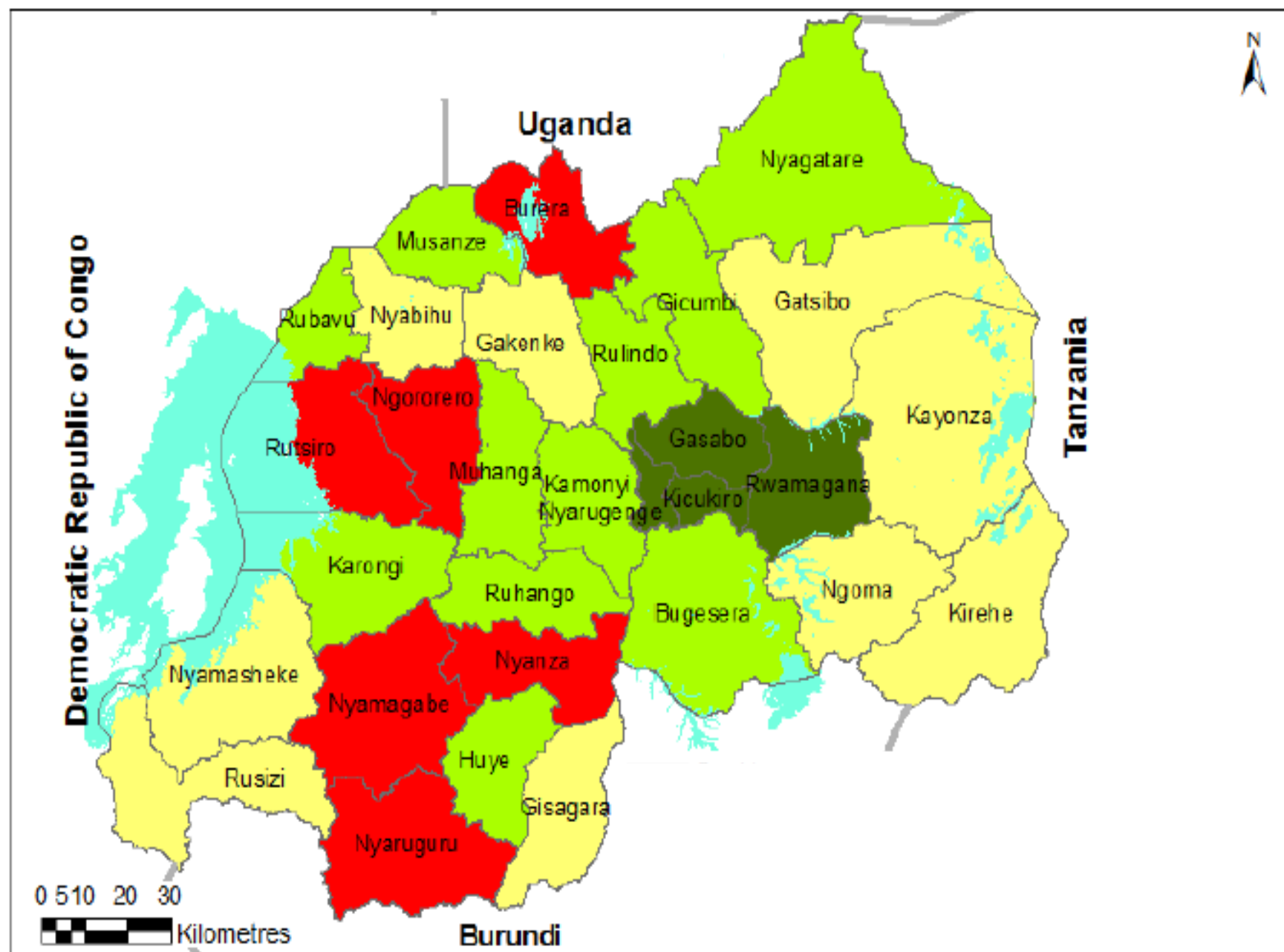


TASK FORCE- RWANDA

May 27, 2016




TRAINING WORKSHOP ON QA/ QC FOR FLOUR FORTIFICATION





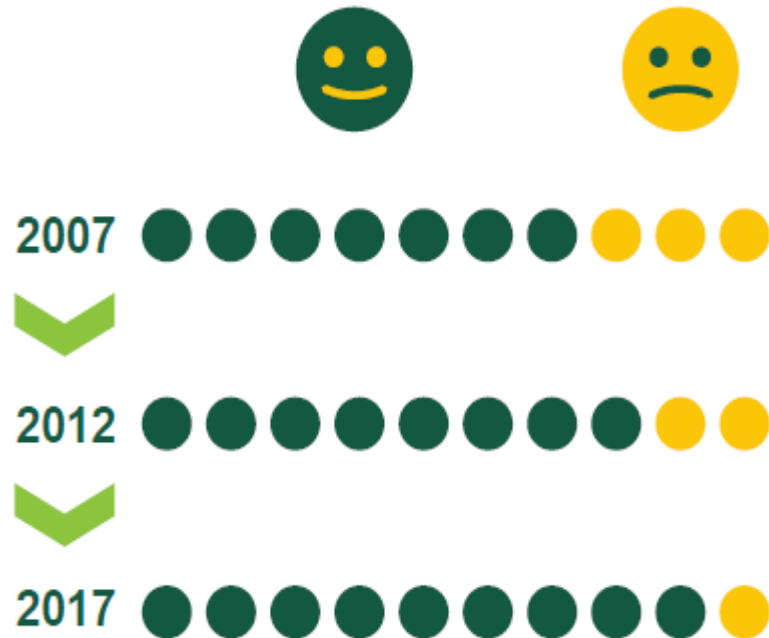
Guidelines on nutritional status

NUTRITIONAL DEFICIENCIES CAUSE ANEMIA, STUNTING AND IMMUNE SYSTEM WEAKNESS

	Anemia	Stunting	Immune System Weakness
Nutritional deficiency	<ul style="list-style-type: none">• Iron• Folic Acid (Vitamin B-9)• Vitamin B12 	<ul style="list-style-type: none">• Carbohydrates• Proteins• Fat <hr/> <ul style="list-style-type: none">• Vitamins A• Vitamins D, E and C• Iron• Zinc• Calcium• Magnesium• Potassium 	<ul style="list-style-type: none">• Vitamin A• Vitamin C• Vitamin D• Pyridoxine (Vitamin B-6)• Folic Acid (Vitamin B-9)• Vitamin B12• Zinc• Iron• Copper 
When to address	<ul style="list-style-type: none">• Children: 6 -59 months• Women: priority when pregnant and lactating		

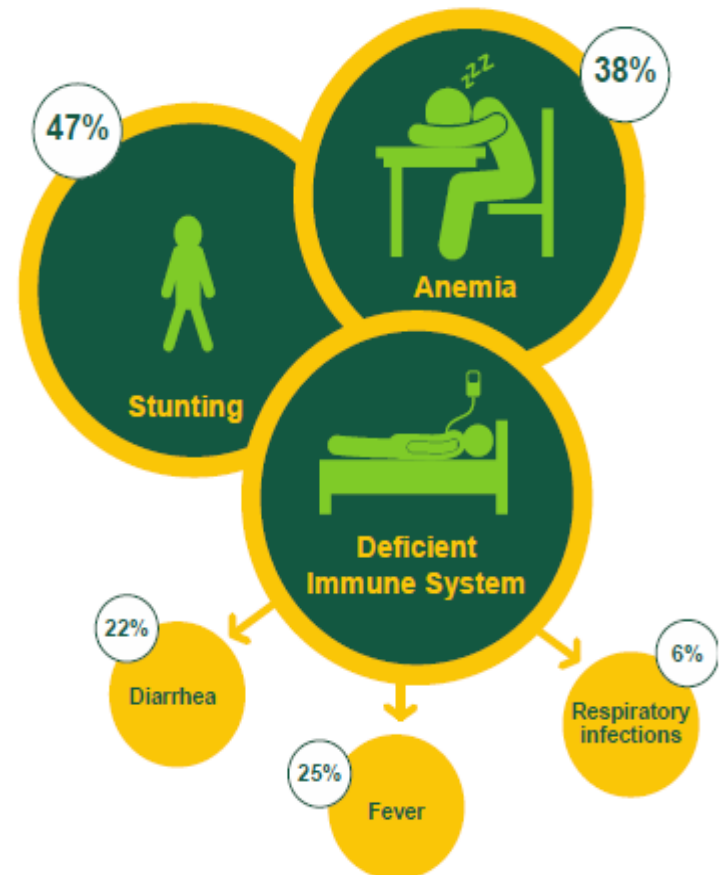
RWANDA IS ON ITS WAY TO MEET NUTRITION TARGETS,

Rwanda Vision 2020 Child malnutrition target



The reality in 2010

Data: children < 5 years



**THE FORTIFICATION PROGRAM WILL
ADDRESS MANY OF THESE DEFICIENCIES**



**Iron
Folic Acid
Vitamin B12**



**Carbohydrates
Proteins
Vitamin A
Iron, Zinc**

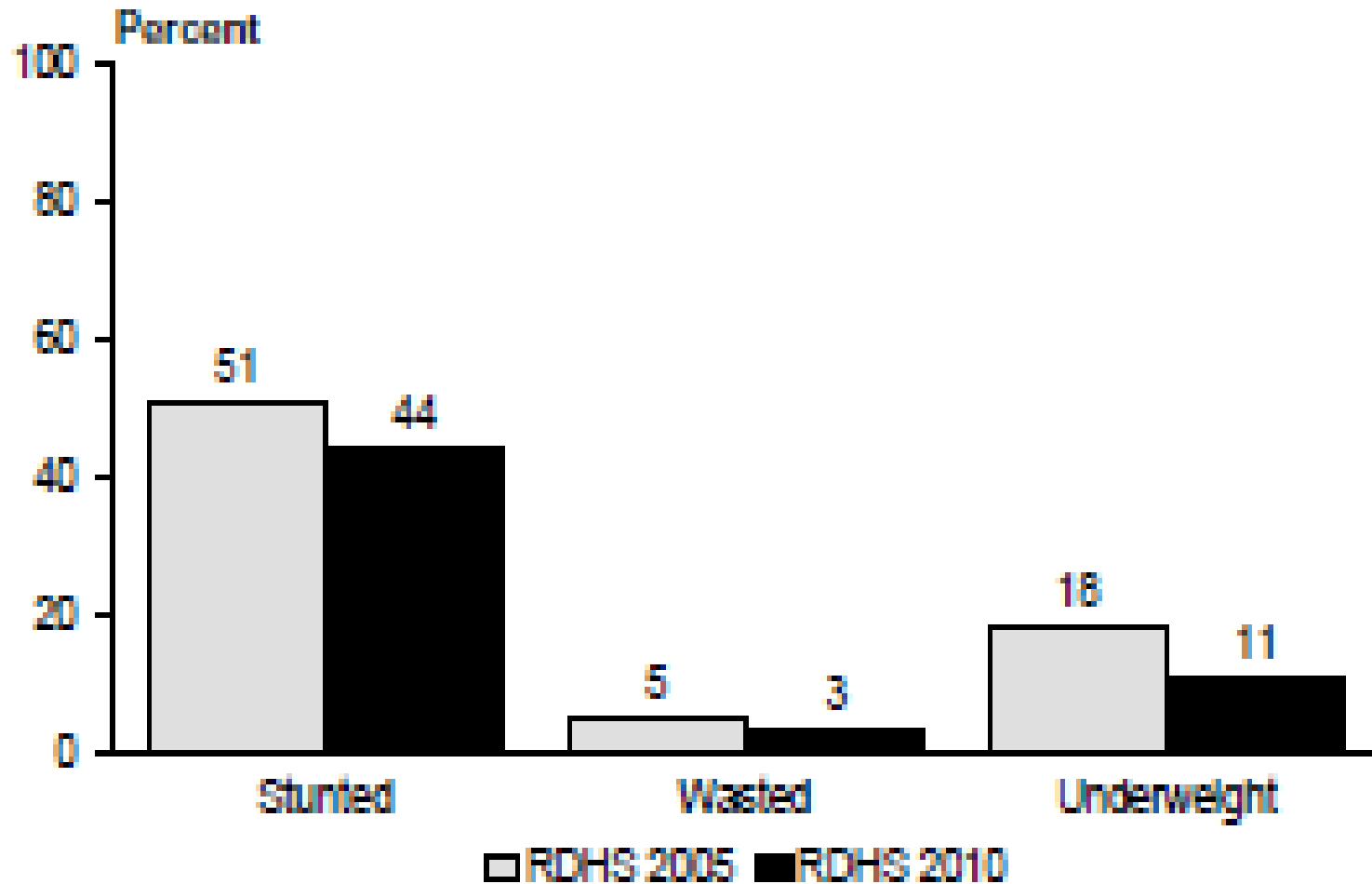


**Vitamin A
Pyridoxine
Folic Acid
Vitamin B12
Iron, Zinc**

Rwanda Nutrition Data

Population (2012)	11.7 Million	
Population under 5 years of age (0-59 months, 2012)	1.9 Million	
	2005^y	2010^z
Prevalence of stunting among children under 5 (0-59 months)	51%	44%
Prevalence of underweight among children under 5 (0-59 months)	18%	11%
Prevalence of wasting among children under 5 (0-59 months)	5%	3%
Prevalence of anemia among children aged 6-59 months	52%	38%
Prevalence of anemia among women of reproductive age (15-49 years)	26%	17%
Prevalence of thinness among women of reproductive age (15-49 years)	10%	7%
Prevalence of children aged 0-5 months exclusively breastfed	88%	85%
Prevalence of breastfed children aged 6-23 months receiving a minimum acceptable diet	16%	17%

Trends in nutrition status of children under 5 years



Food intake averages

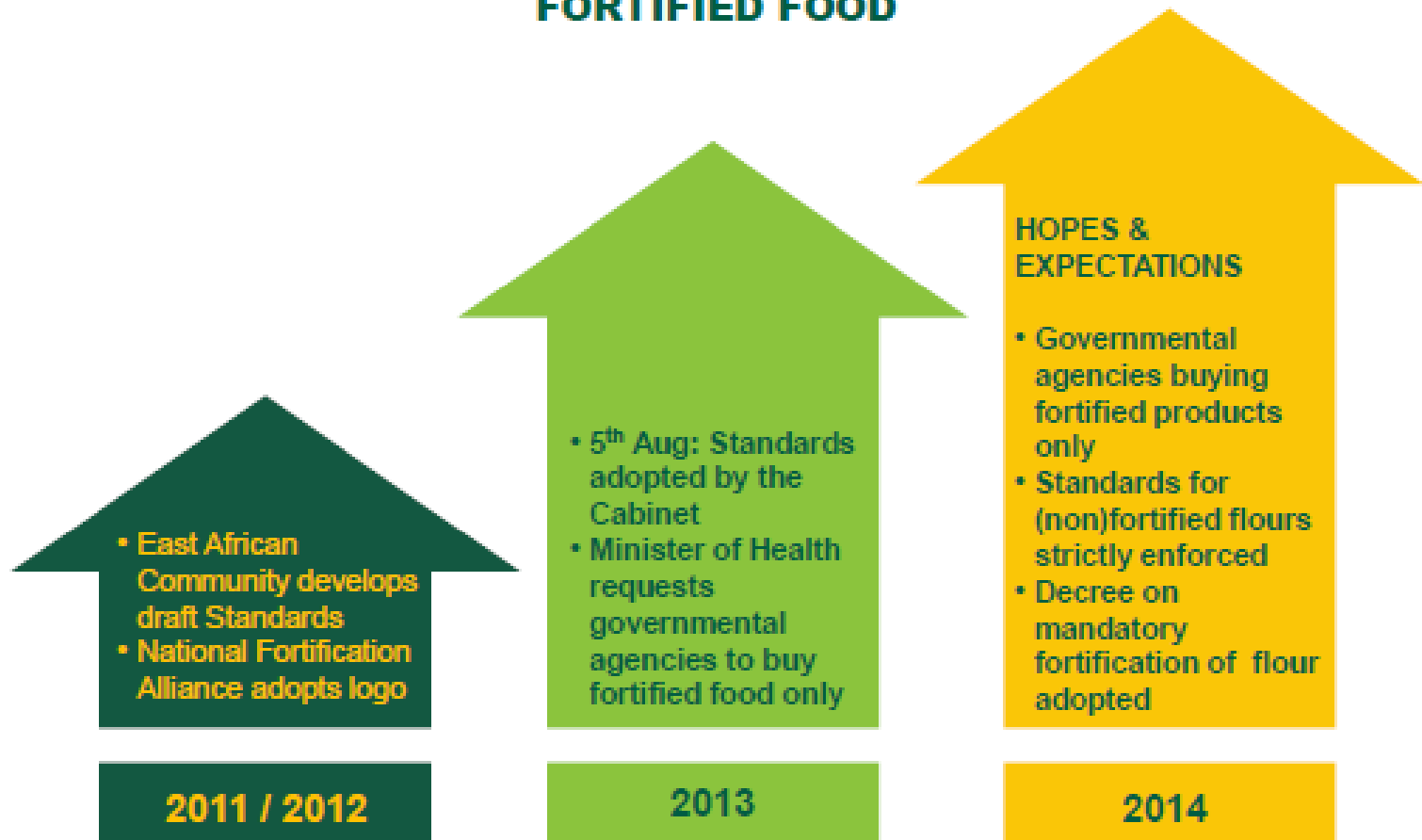
- Starchy foods
- Pulses
- Vegetables
- Oils
- Sugar
- Milk and milk products
- Fruits
- Meat.
- **Note:** Diet in Rwanda is mainly based on **starches and pulses**, very **little meat and fruits**, **poultry, milk and milk products** are mainly consumed in every household.

Consequences for nutrient deficiencies after fortification

- Expected to **reduce** above mentioned diseases
- **Improvement of nutritional status!**
- 2014 fortification was adopted with a decree
- Need of nutrition survey!

Overview on national food intervention programmes

RWANDAN GOVERNMENT HAS ENGAGED IN SUPPORT OF FORTIFIED FOOD



NOW PRODUCTS ARE BEING BOUGHT IN SMALL VILLAGES



Kirehe, Eastern Province, a father of 5 children bought 25Kg fortified flour for his family ..

Worth a celebration!

Overview on national food intervention programmes

1. Organizations that help in food programmes

. **USAID**

. **CAAD:** Comprehensive Africa Agricultural Development

. **WFP**

. **UNICEF,**

. **FAO, etc.**

2. Fortified products

• Maize meal

• Vegetable edible oil: Vit A

• Salt (import fortified salt): Iodine,

3. Performance of these programmes: good to improve nutrition status in Rwanda.

4. Goals: improving nutrition status of children under 5 years and pregnant mothers

Are fortifying?

- Yes, some products.
- **Fortified products**
- Maize meal
- Vegetable edible oil: Vit A
- Salt (import fortified salt): Iodine.
- Infant foods (porridge): SOSOMA Industries
- . **Industries:** MINIMEX (144MT/ day),
- . Biofortification.
- . **Marketing and communication:** The Government and industry have taken initiative to sensitize schools, prisons, hospitals, police, army to use fortified foods.
- . **Important fortificants:** Iron (NaFeEDTA) and vit A.

THE PRODUCTS ARE THERE



Micronutrient	Chemical form	Amount of micro nutrient added to maize flour, mg/kg
Vitamin A - Retinol	Dry vitamin A palmitate 250 n.s	1
Vitamin B-1	Thiamine mononitrate	4.5
Vitamin B-2	Riboflavin	3
Vitamin B-3	Nicotinamide	25
Vitamin B-6	Pyridoxine hydrochloride	5
Vitamin B-9	Folic Acid	1
Vitamin B-12	Vitamin B12 - 0.1% WS	0.015
Iron	NaFeEDTA	20
Zinc	Zinc oxide	40

- Meeting East African and Rwandan mandatory standard
- Largely meeting the needs of young children
- Distributed across the country
- At a fair price

MINIMEX- maize meal fortification



Challenges

- **Low consumer awareness** about food fortification **and its benefits**. Most of time they ask:
 1. Is it safe?
 2. What are side effects?
 3. Does the taste change?
 4. Where does premix come from?
 5. What is the price?
- Government labs (RBS) are **not equipped to test micronutrients!**
- **Increase the price: 3%**
- Fortified is not mandatory!

Constraints

- Premix availability and affordability
- Many **small uncontrolled mills**.
- Consumer acceptability.

You are not fortifying?

- Yes, for some foods!
- **Foods:** cassava flour, sugar (?), sorghum flour, peanut flour, fish flour.
- Highly consumed.
- **Challenges:** awareness for processors and consumers, price, premix availability, etc.
- **Constraints:** processing facilities, test for micronutrients, standards, etc.

Conclusion

- **RAISE CONSUMER AWARENESS.**
- **ACTIVATE THE LOCAL MILLERS PARTICIPATION IN FORTIFICATION.**
- **RWANDA VERY MUCH COMMITTED IN FOOD FORTIFICATION!**
- **ALL STAKEHOLDERS INVOLVED ARE WILLING TO APPLY FOOD FORTIFICATIONS.**
- **GOOD GOVERNEMENCE INVLOVE SENSITIZING THAN IMPOSING!**

THANK YOU!

Murakoze!