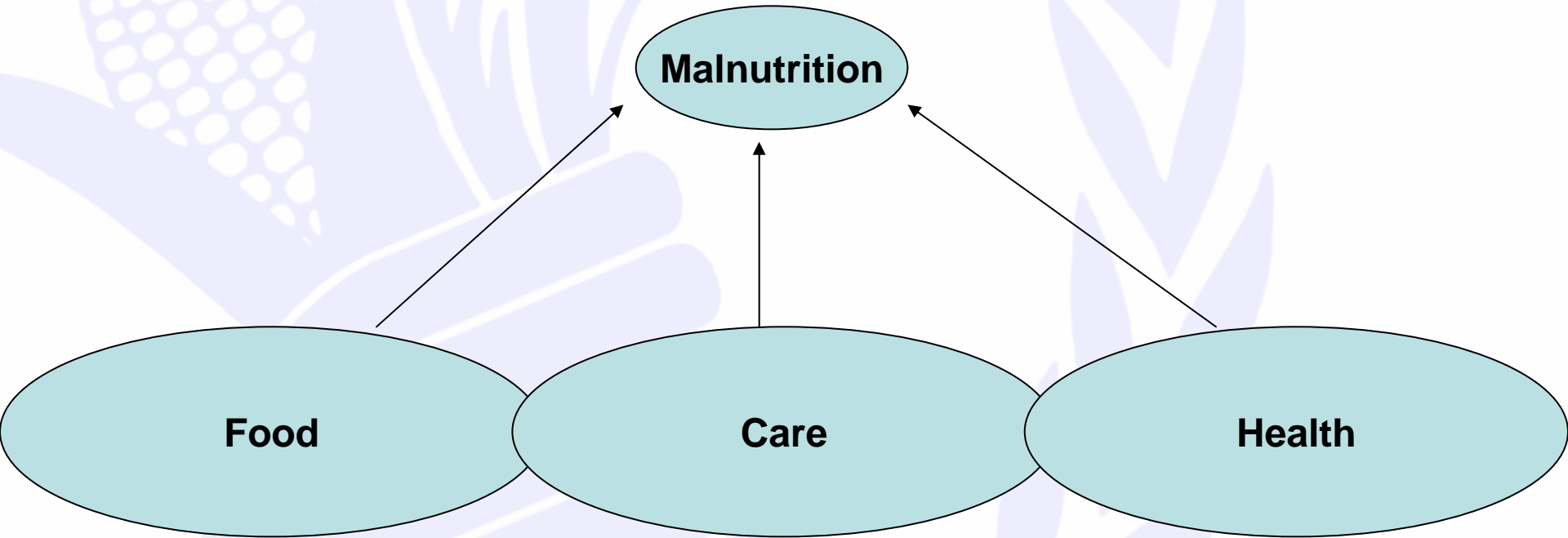


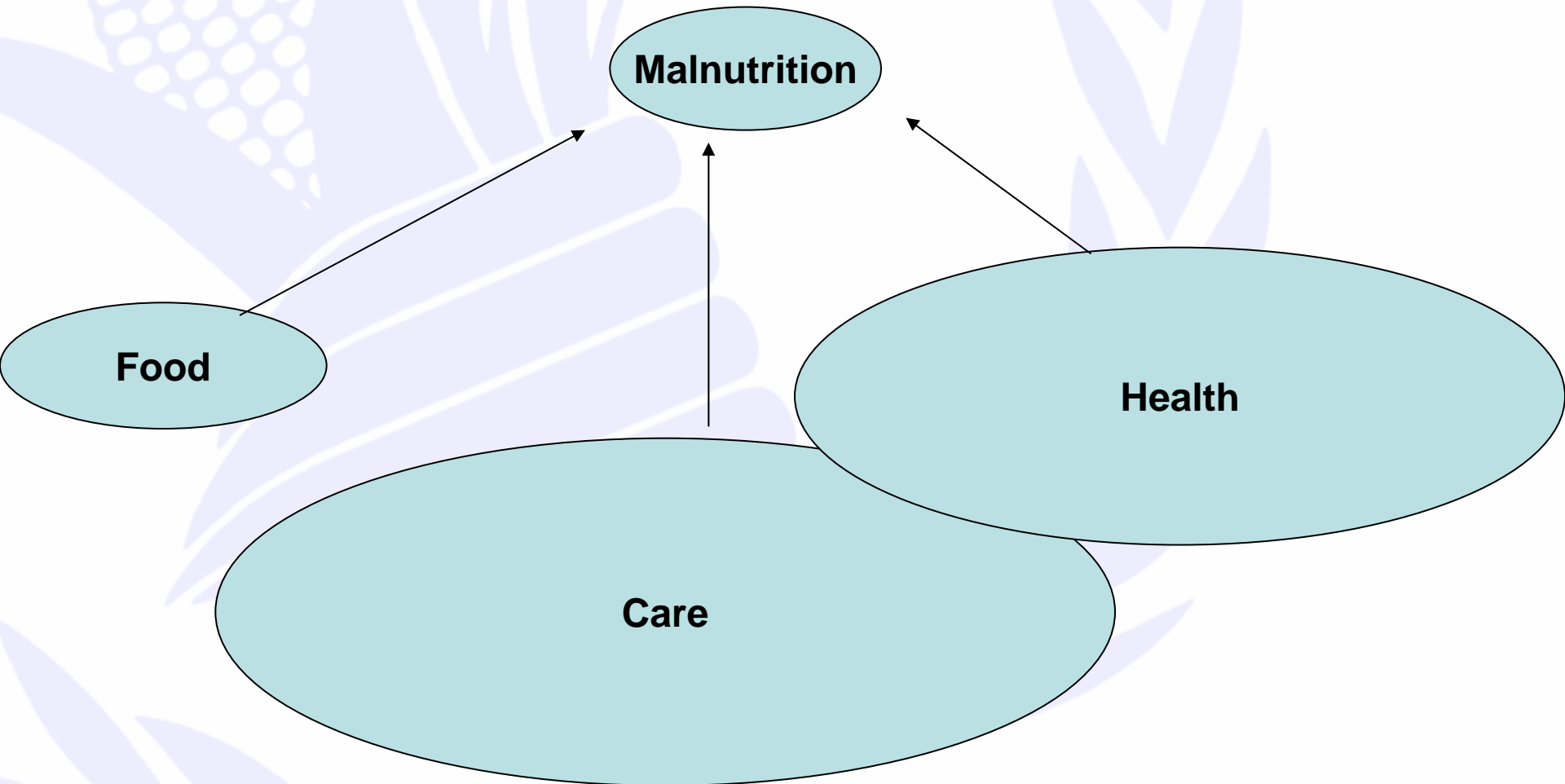
# Food Quality as a Critical Issue in Nutrition, HIV/AIDS, and TB Programmes

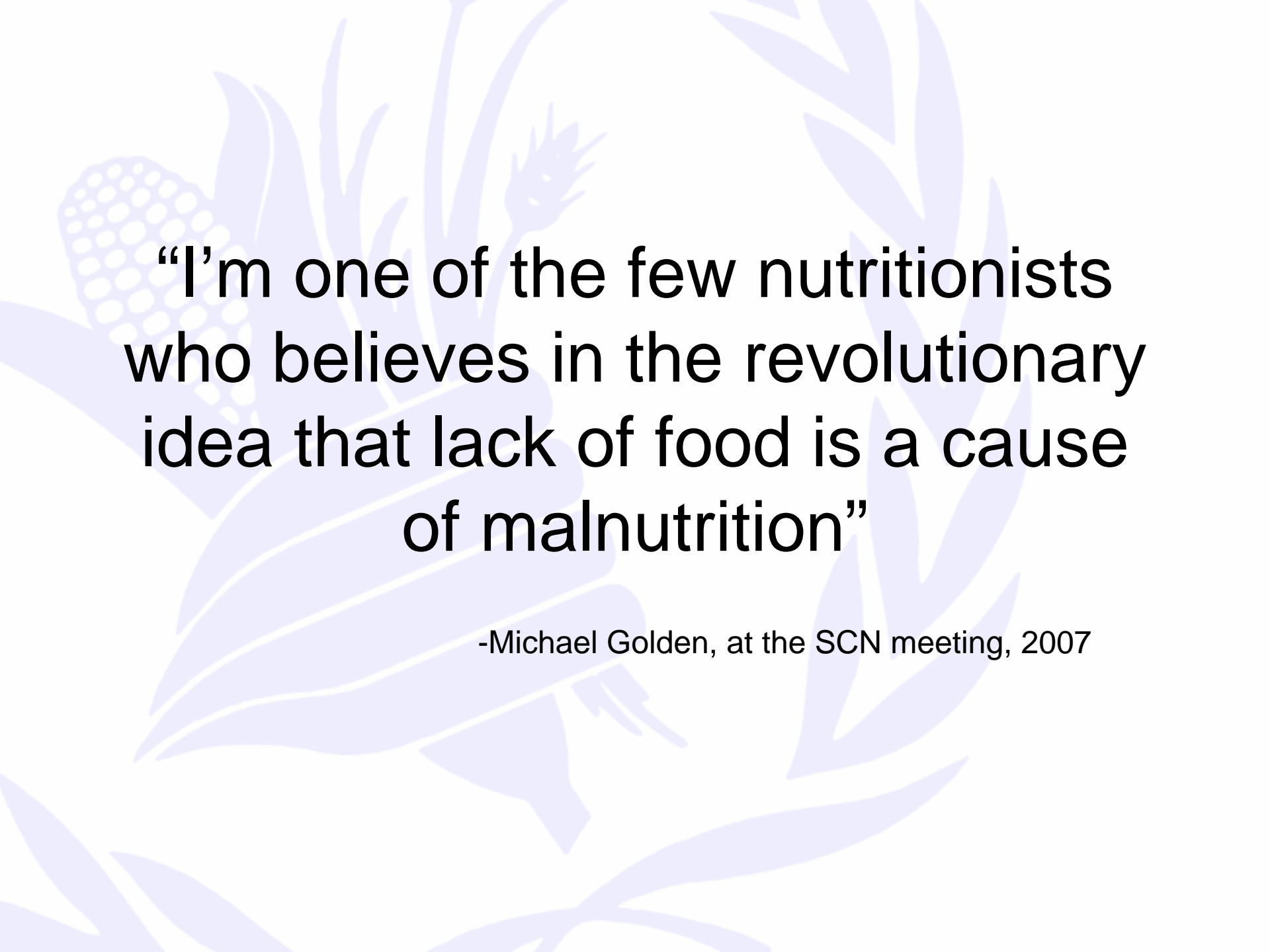
Martin Bloem  
Chief, Nutrition Service  
World Food Programme

# The conceptual framework for malnutrition



# The conceptual framework for malnutrition in practice?





**“I’m one of the few nutritionists  
who believes in the revolutionary  
idea that lack of food is a cause  
of malnutrition”**

-Michael Golden, at the SCN meeting, 2007

# Public health vs Public Nutrition

- Public Health

- Vaccination programs
- Tuberculosis (DOTS)
- HIV/AIDS treatment programs
- Bednets

- Public Nutrition

- Nutrition Education
- Cultural sensitive programming
- Bottom-up
- Holostic approach
- Community based

# Keratomalacia



# “Cinderella” of the Diseases



Nutritionists ignored it  
as a problem for  
blindness prevention

while those involved  
with blindness  
prevention ignored it  
as problem for  
nutritionists

# International Conference on vitamin A and nutritional blindness 1980



- WHO, UNICEF, USAID, HKI, and IVACG
  - Xerophthalmia is prevalent throughout the developing world
  - Large oral dose of vitamin A (200,000 IU) is an effective strategy to prevent xerophthalmia

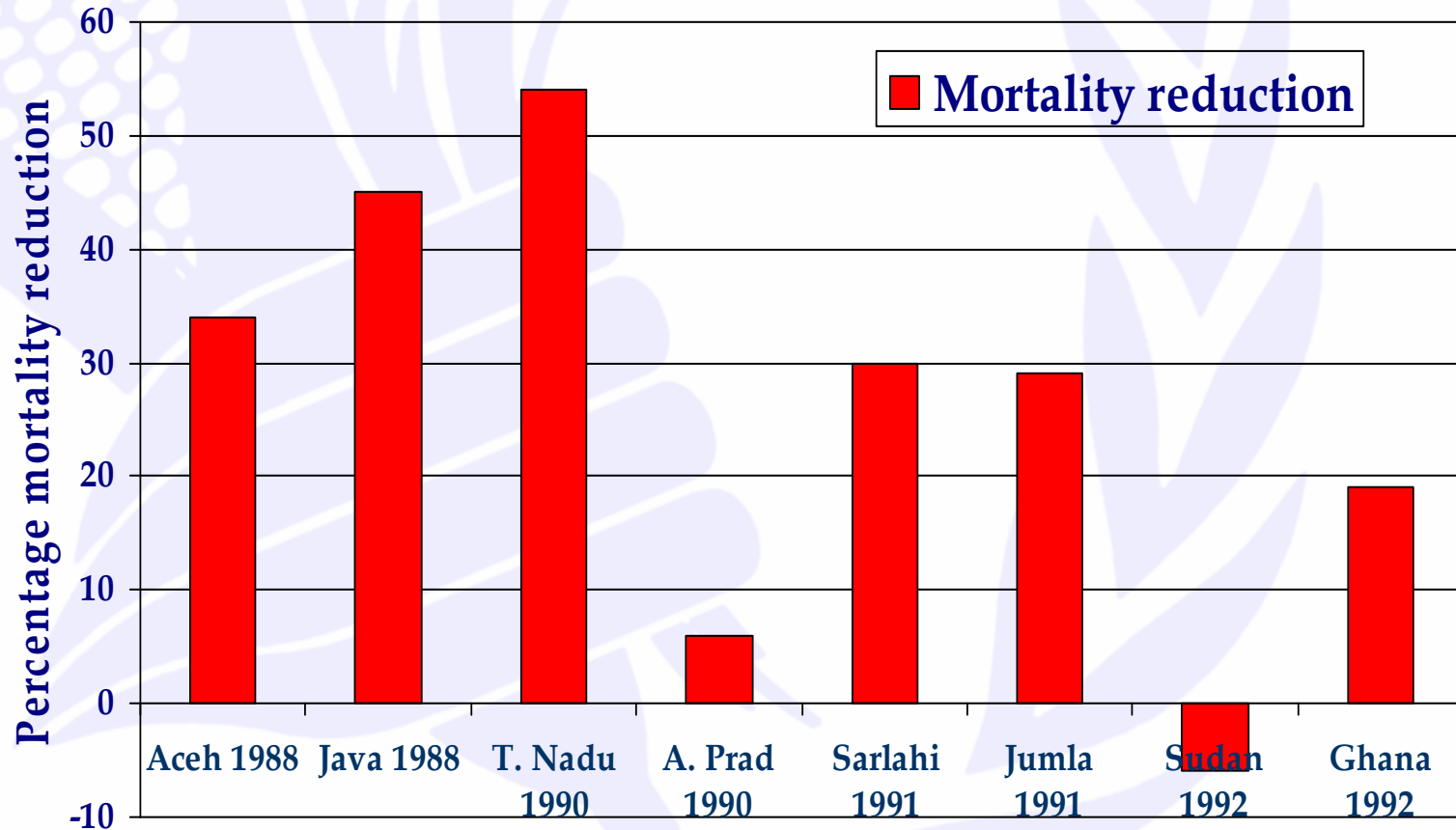
# What were countries doing about it?

- Only Indonesia, India, and Bangladesh started national vitamin A supplementation programs

# What did other countries do about it?

- Most countries could only spend a few dollars per child on health care per year.
- How could they divert those limited resources to something like blindness when so many children and women were dying?

# Mortality reduction in 8 major community-based intervention trials



# Vitamin A deficiency strategies

- Short-term strategy:  
VA-Capsules
- Medium-term  
strategy: Fortification
- Long-term strategy:  
More intake of fruits  
and vegetables



# Rate of progress towards reaching goal

- 1990-1995: limited progress

# Definitions of Poverty

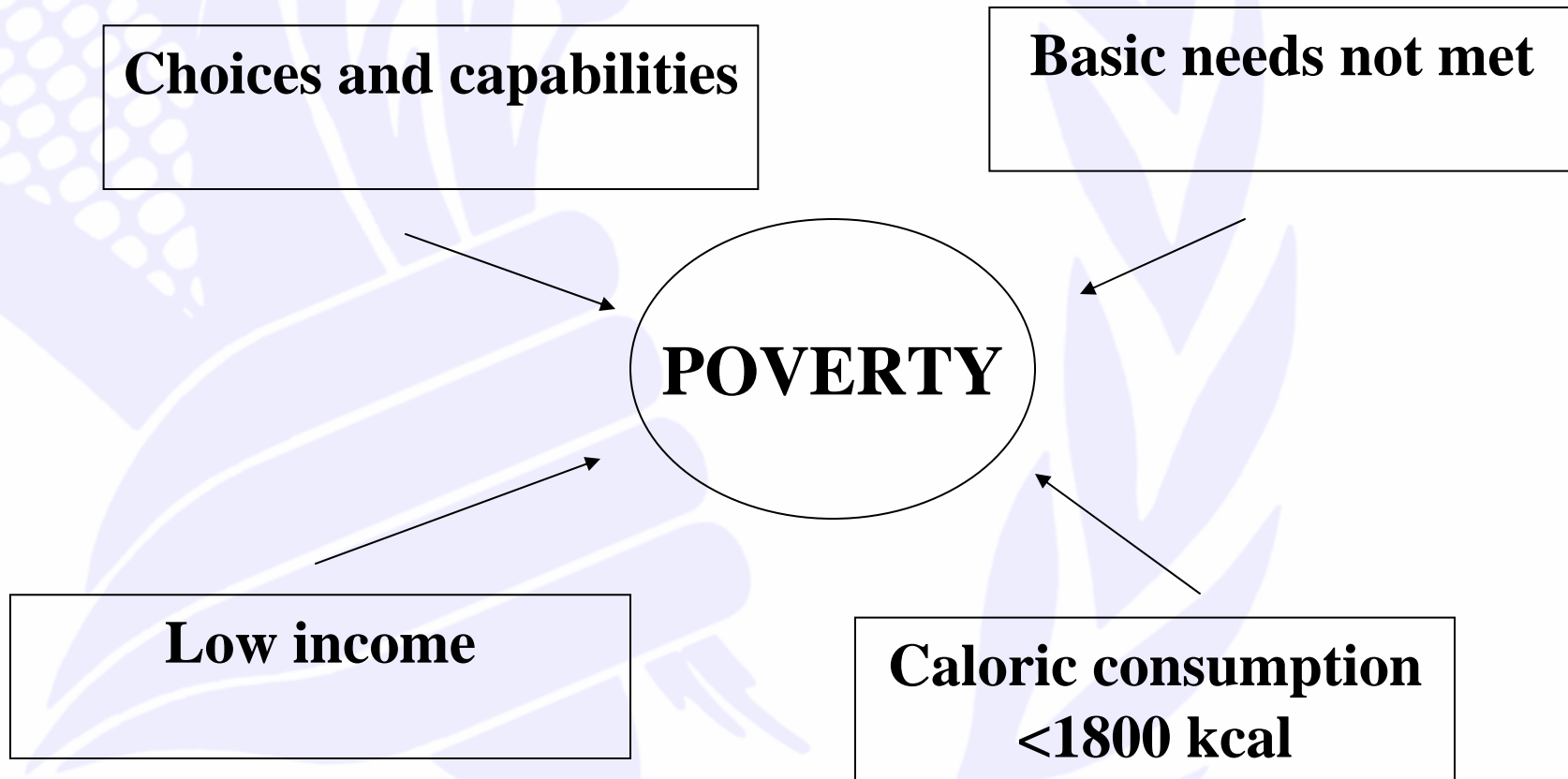
**Choices and capabilities**

**Basic needs not met**

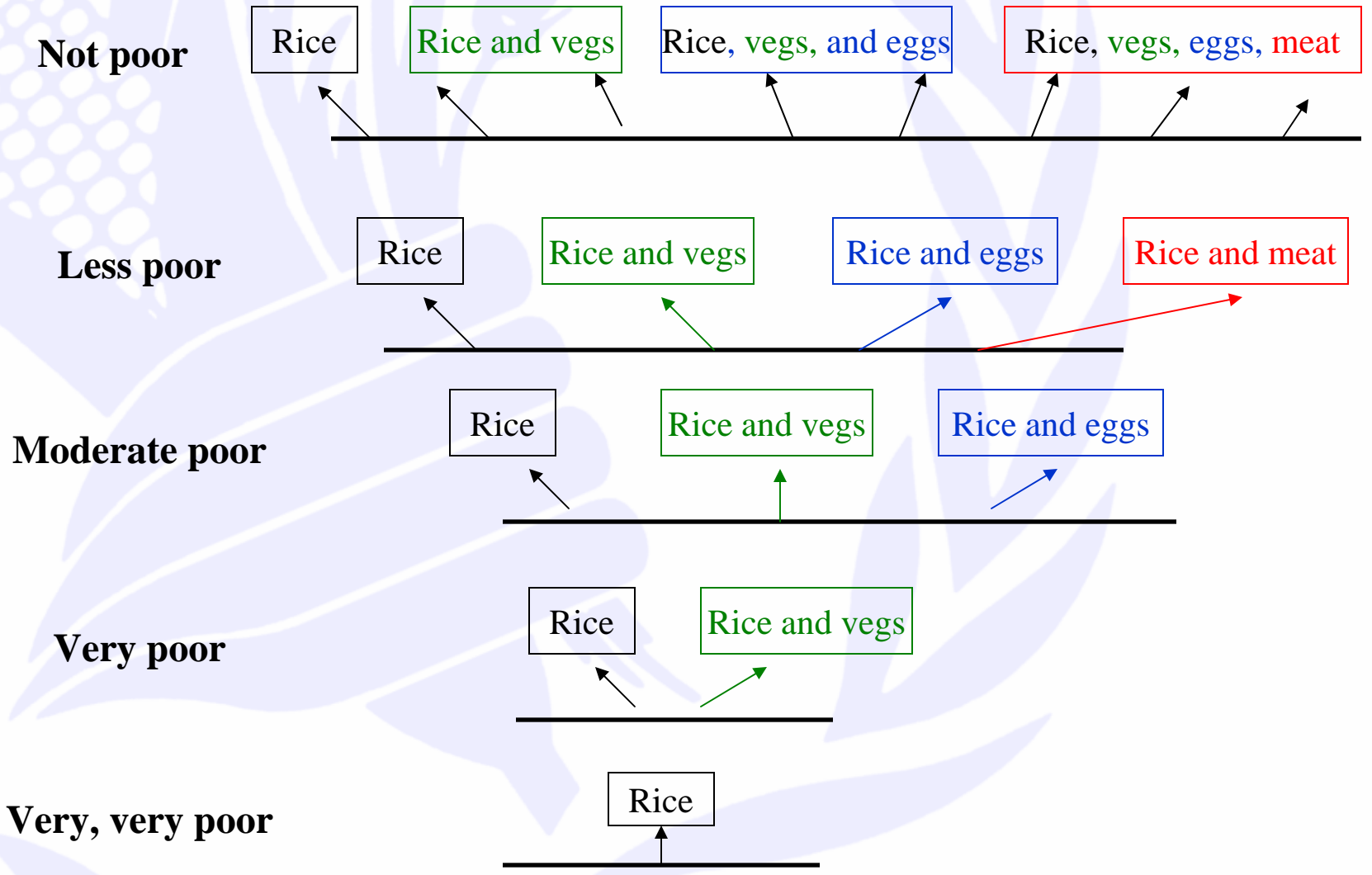
**POVERTY**

**Low income**

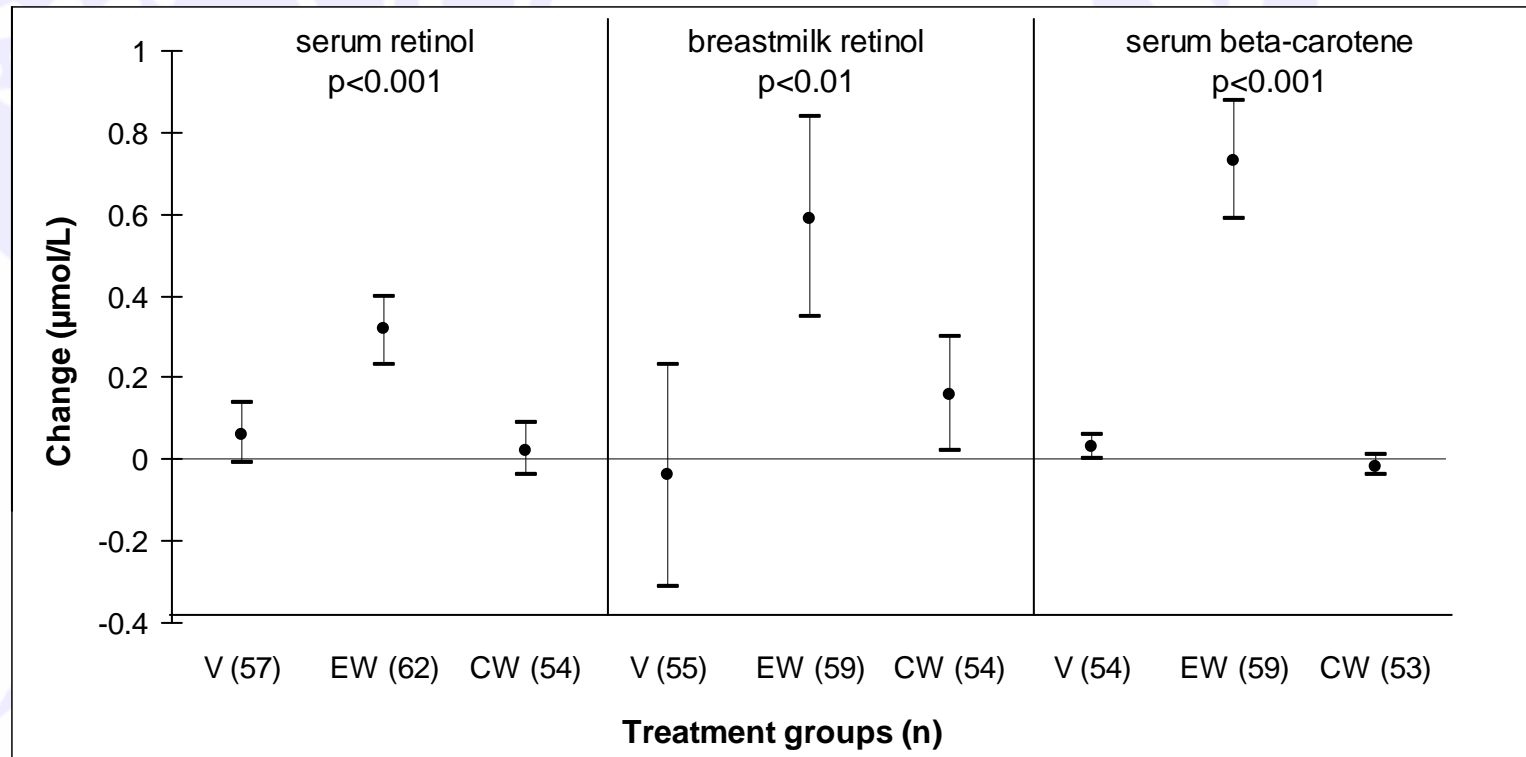
**Caloric consumption  
<1800 kcal**



# Choices and economic status

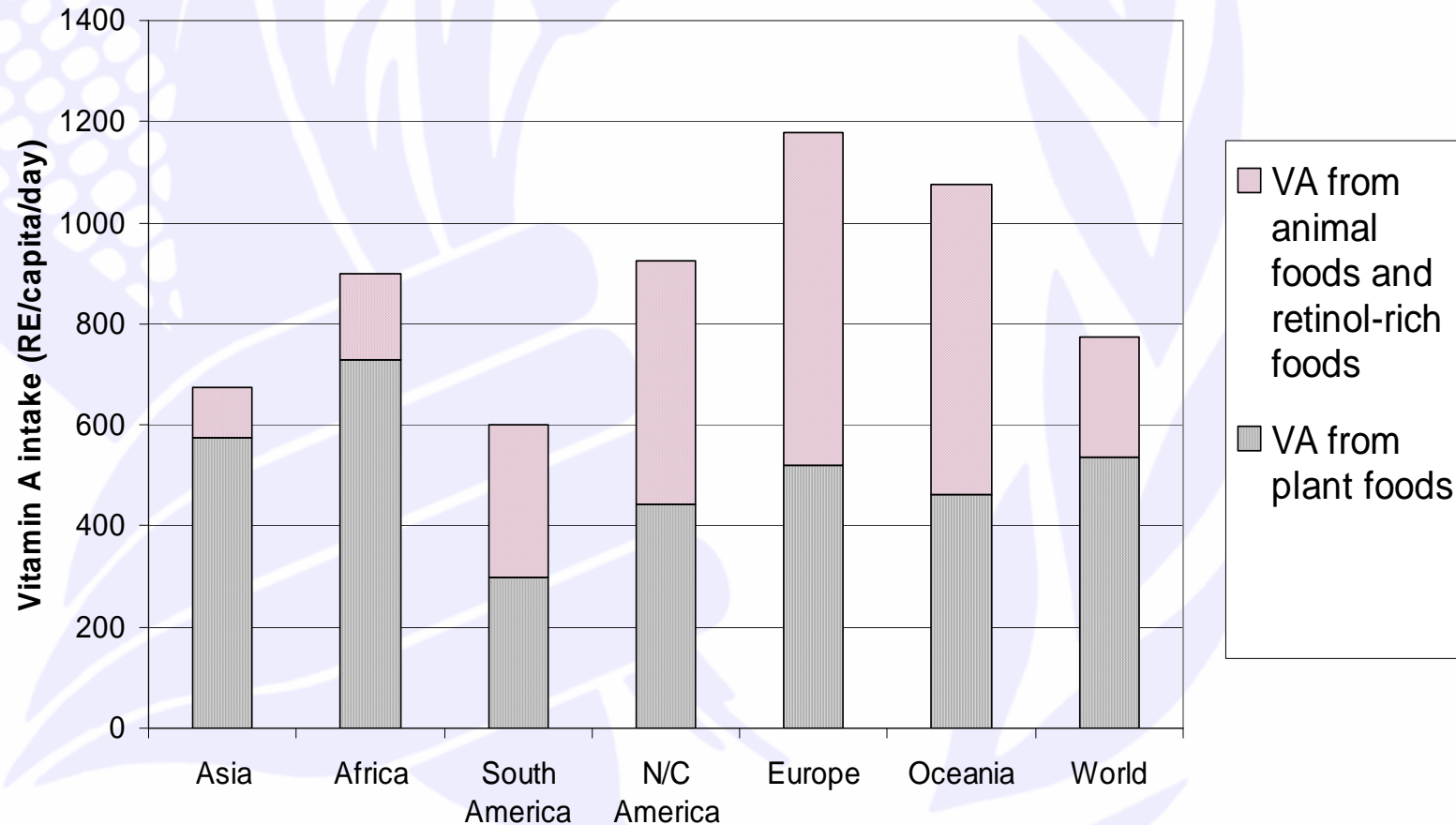


## ***Lack of improvement in vitamin A status with increased consumption of dark-green leafy vegetables***

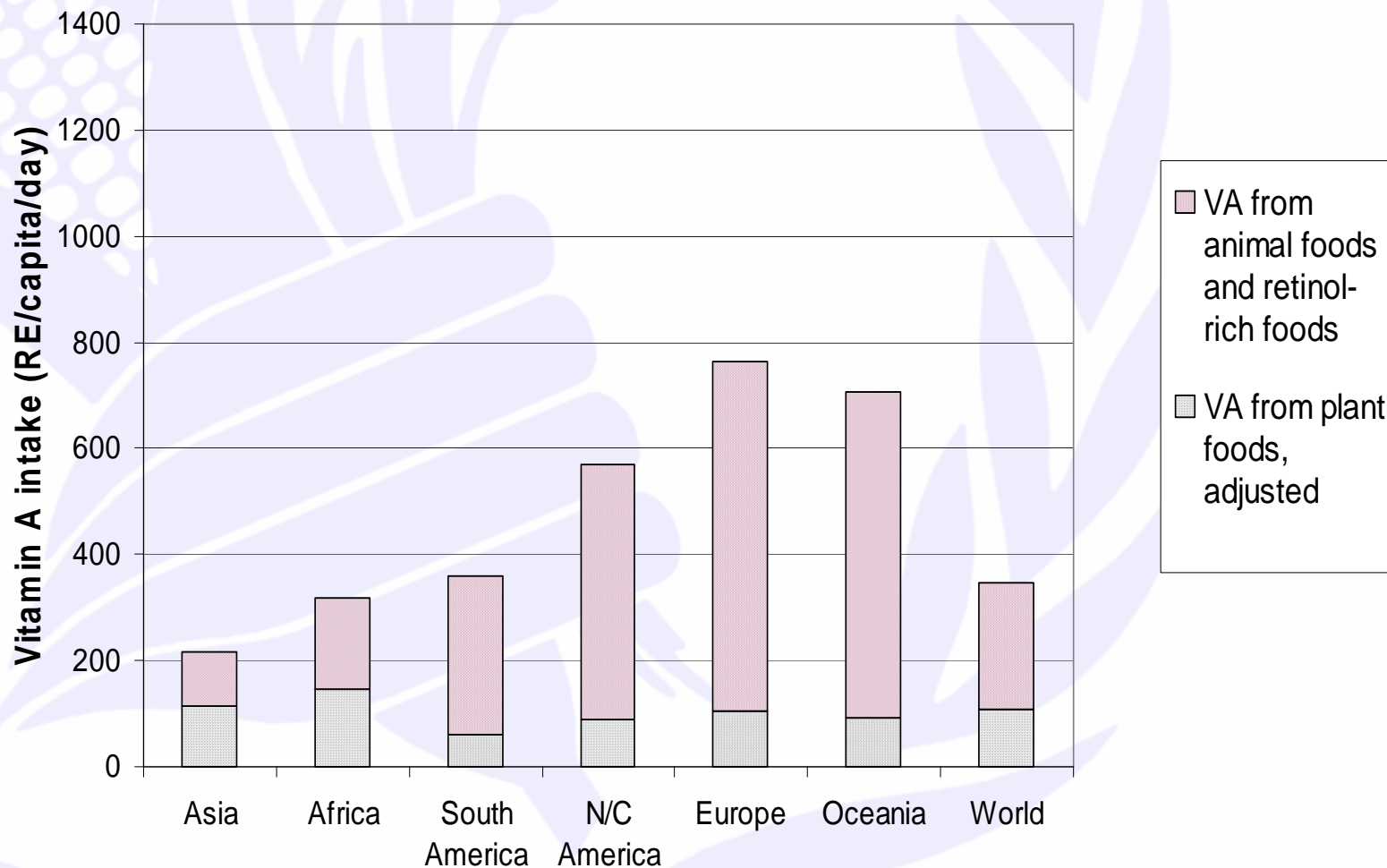


(de Pee S, West CE, Muhilal, Karyadi D, Hautvast JGAJ.  
Lancet 1995; 346: 75-81)

# *Food supply of preformed vitamin A and provitamin A per region*



*Food supply of preformed vitamin A and provitamin A per region after adjusting provitamin A intake by 1/5<sup>th</sup>*



# Micronutrients and animal products

- Other studies with other micronutrients, e.g., zinc, iron, showed similar results that animal products are essential food sources for micronutrients.
- Poverty is the main underlying cause of micronutrient deficiencies and education programs will not solve the problem of MN deficiencies.

# Take home point

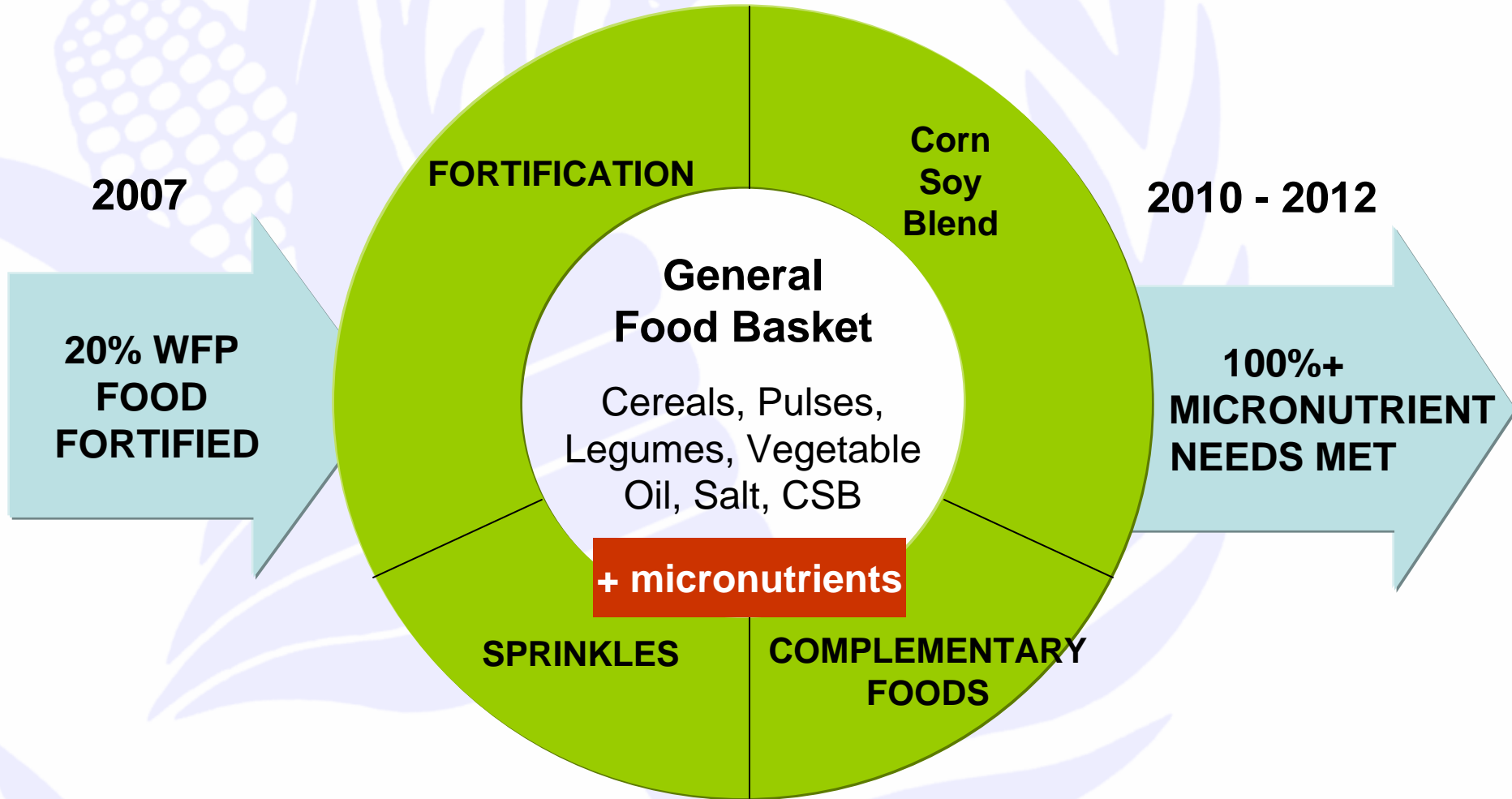
- Nutritional needs of certain groups (especially young children) are difficult to meet using locally available foods in many settings
- Sometimes questions of sustainability are secondary in the short term in order to achieve objectives...like saving lives.

# What do we currently have to work with?

- Maize (\$215/MT),
- Maize meal (\$300/MT)
- Corn Soya Blend (\$410/MT)
- Beans/lentils (\$400-600/MT)
- Dried skimmed milk (\$4500/MT)
- High energy biscuits (\$1000/MT)
- Oil (\$900/MT)
  
- RUTF's? \$2000-4000/MT?

# FEEDING BETTER FOOD...

## Nutrition Strategy



*DSM is playing a critical strategic role in enabling WFP to launch the strategy at the global level.*

# Recommendations

- It is important to realize that several of these proposed (optimized) food options are not yet available or experience with their large-scale use and assessment of impact is limited.
- Therefore, there is a great need to continue development, testing and piloting the implementation of these food products for addressing undernutrition among children as well as other vulnerable groups of the population.