

# Towards a ``Farm to Fork`` Model for Food and Nutrition Security in CARICOM Countries

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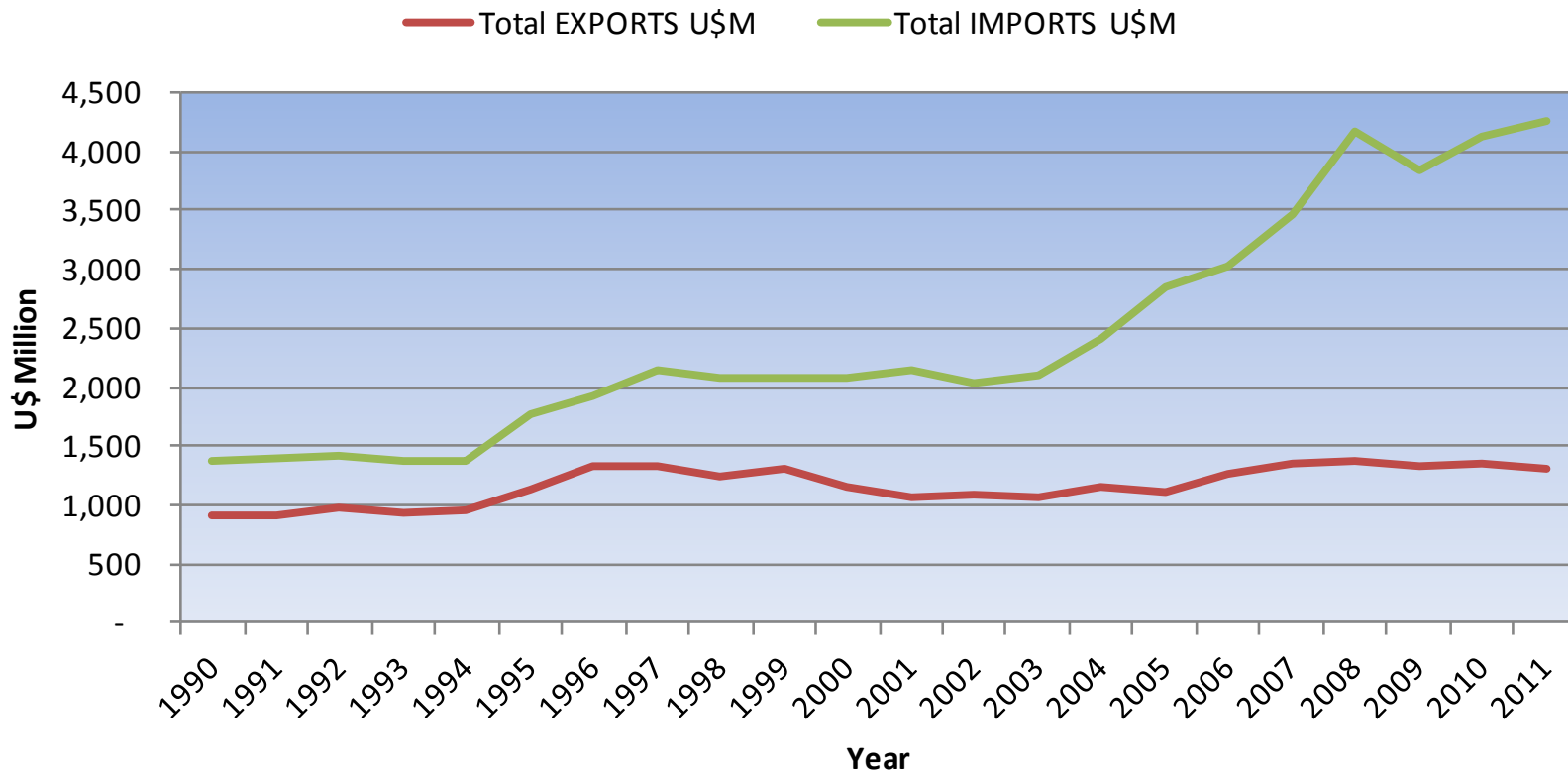
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- CARICOM Food Insecurity has taken the form of **overweight & obesity**
- Obesity is high risk factor in **NCDs, costing CARICOM 5-8% of GDP** (Hospedales et al. 2011)
- Obesity , **especially women**, is rapidly increasing, and on the rise among **children**
- Obesity is linked to **low consumption of fruits & vegetables**, high intakes of fats, oils and sugar- Poor consumer food choices and lifestyles;
- High **food import bill** (US \$5 bil/yr) – energy- dense food types
- Institutional and **market constraints** on domestic production of nutritious food
- **Seasonality in crop and livestock productivity , floods and droughts**
- **Limited Institutional Capacity**

## TRENDS IN CARICOM AGRICULTURAL TRADE IN CROPS AND LIVESTOCK PRODUCTS 1990-2011



Source: J. R. Deep Ford 2013; FAO

# Food Availability in the Caribbean

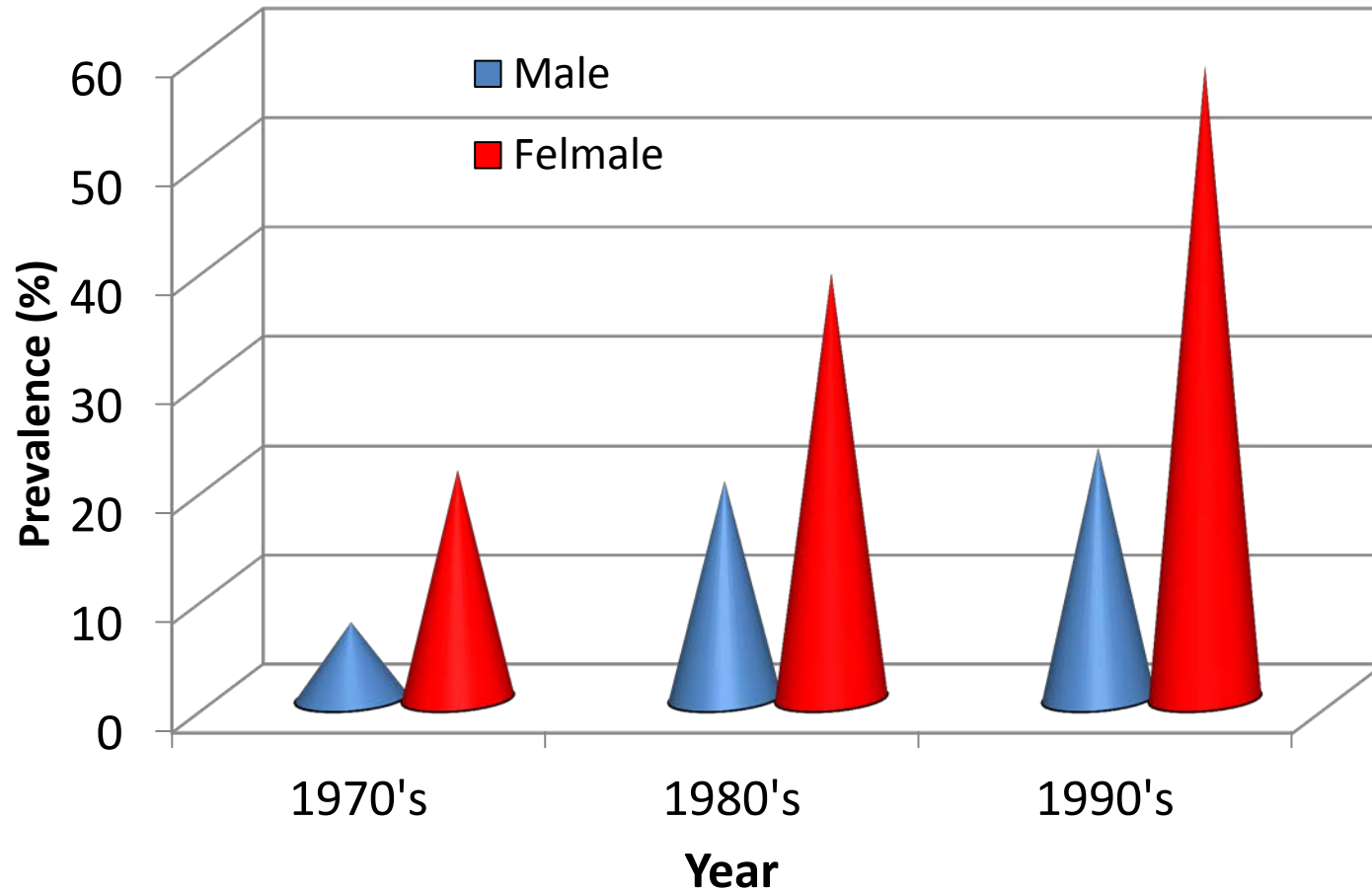
**Table II.1: CARIFORUM Food Availability (Calories/Grams), Selected Periods.**

Food Availability	Availability <sup>1</sup> (Calories/caput/day)		RPG <sup>2</sup>	2000-02 Surplus (+) or Deficit (-) relative to RPG (%)
	1991-03	2000-02		
Total Food Calories	2,933	3,071	2,250	36(+)
Carbohydrates	1,766	1,825	1,238	47(+)
Protein	313	336	225	49(+)
Fats/Oils	746	802	450	78(+)
Fruits/Vegetables	215	238	337	29(-)
Sweeteners	393	424	180	136(+)
Staples <sup>3</sup>	967	974	1012	4(-)

<sup>1</sup>Calories/caput/day; <sup>2</sup>Recommended Population Goal; <sup>3</sup>Staples=Cereals + Starchy Roots

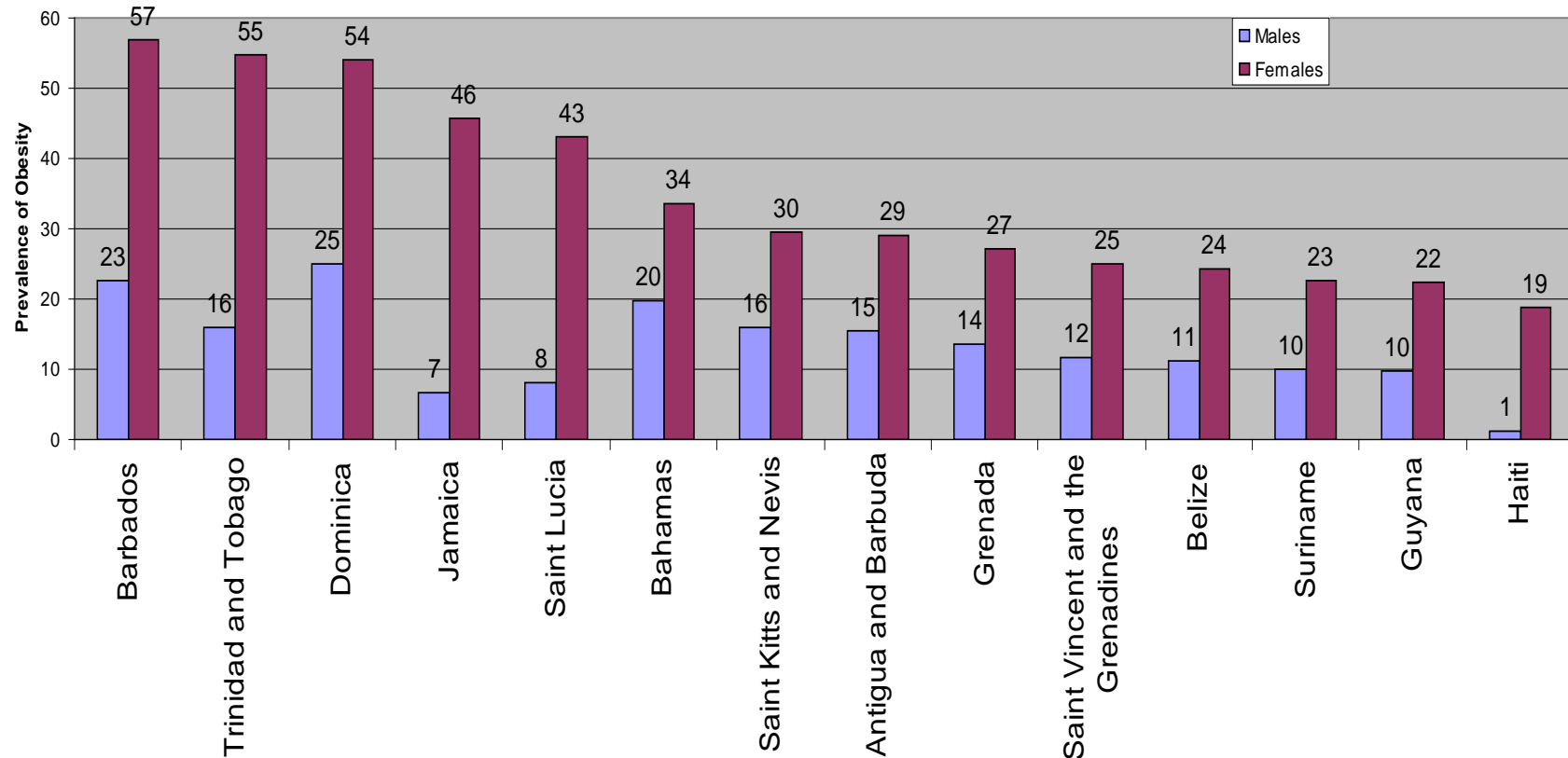
Source: FAOSTAT. [www.fao.org](http://www.fao.org). August 2006.

**Obesity Trends in CARICOM**



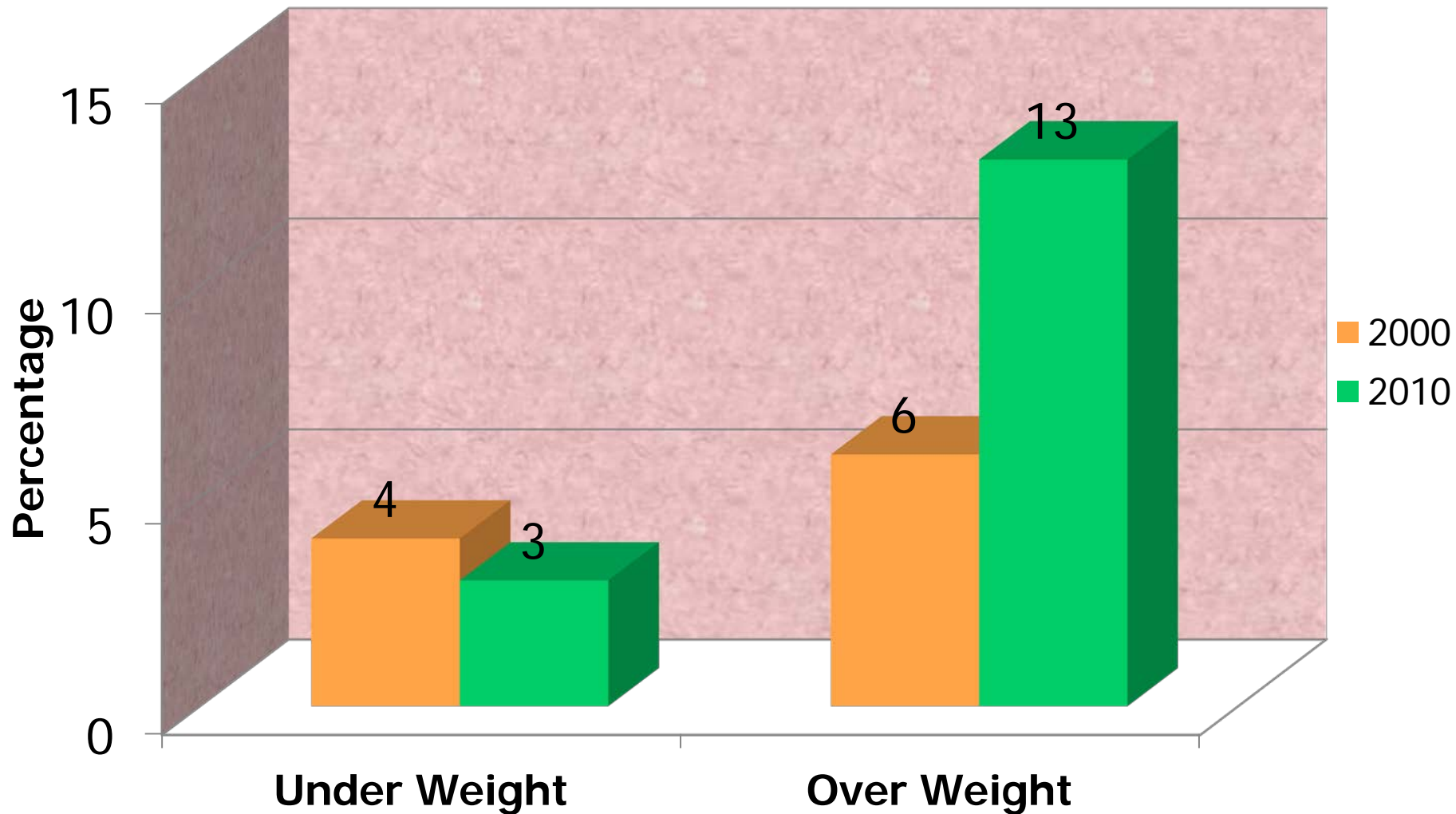
Source: CFNI

# Prevalence of Overwt / Obesity in the Caribbean in > 30 years old



Source: J. R. Deep Ford 2013; FAO

# Changes in Childhood (0-5yr) Underweight and Overweight Status During a decade



Source: CFNI

### Key Regional Documents

- **Nassau Declaration** – *Wealth of the Region is Health of the Region- 2001*
- **Jagdeo initiative 2005**
- **CARCOM Commission on Health and Development- 2005**
- **CARICOM Food and Nutrition Security Policy- 2005**
  - *National Food and Nutrition security Policy*
  - *National Action Plans*
- **Port of Spain Summit Declaration on NCDs- *Uniting to stop the Epidemic of NCDs- 2007***
- **Raising the Priority of Chronic NCDs in the Caribbean – Hospedales et al. 2011**

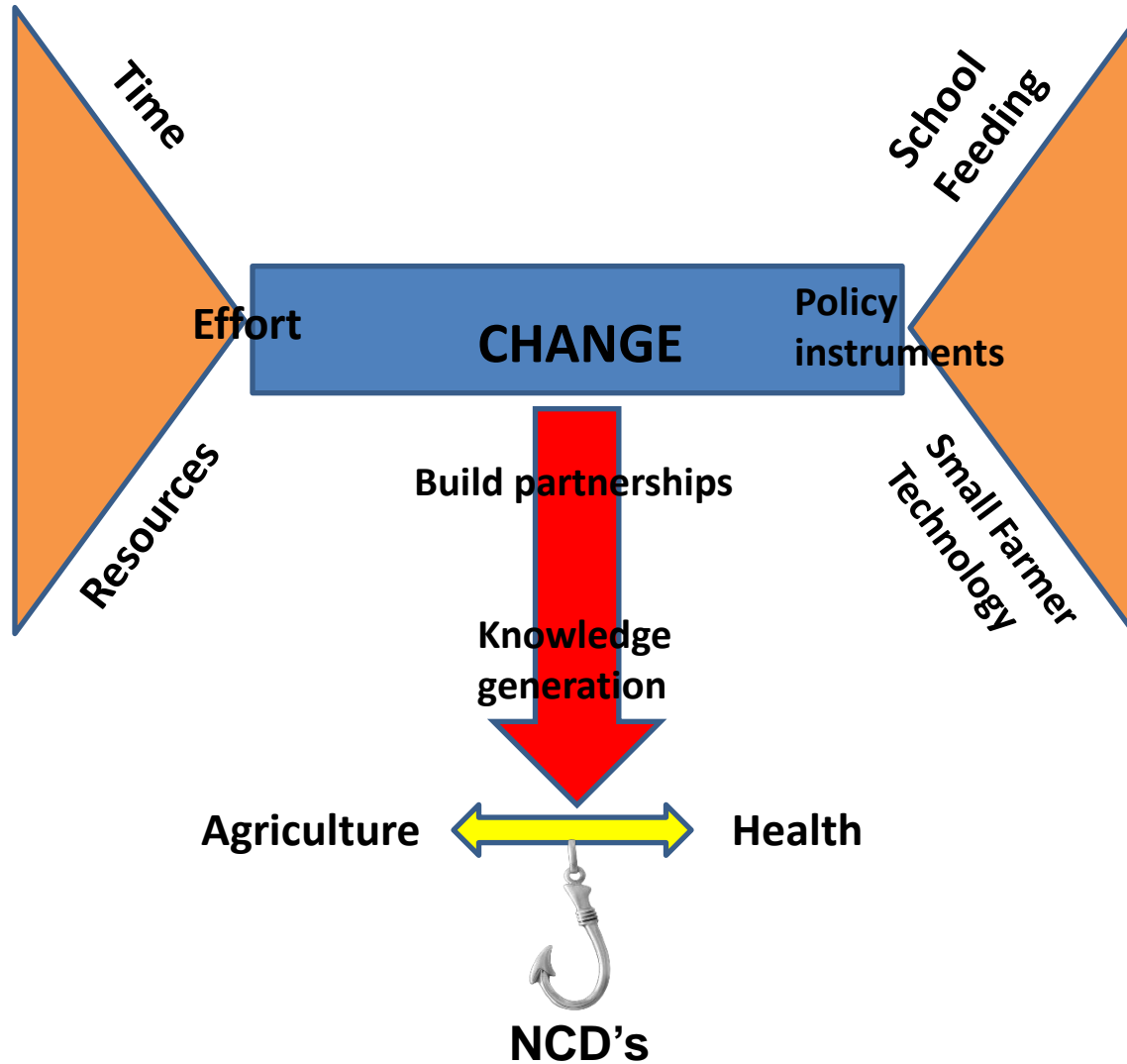
### Data Collection projects - CWA 2013 Reports to COTED

- *FAO- School feeding project (Antigua)*
- *CIFSRF CARICOM Project 2011-2014- four country integrated “farm to fork” project (St. Kitts, Trinidad & Tobago, Guyana, St. Lucia)*



## CIFSRF CARICOM Project: Contributions to Solutions

- **Generate scientific and integrated knowledge and findings as a model to inform policy action**
- **Build regional, national and Canada- CARICOM partnerships for collective action**
- **Strengthen efforts in capacity building and ``research for development``**
- **Take a multi-sectoral approach to food and nutrition security linking agriculture, health and education**
- **Engage school feeding programs, small holder farmers and community actors as vehicles to effect change, market development & innovations for food security.**



- Improve nutrition & health outcomes of CARICOM populations through availability of foods that would increase intake of vegetables & fruits, decrease caloric intake, and increase micronutrient intake;
- Develop food production systems based on agricultural diversification, water conservation & efficient use of land;
- Understand constraints to, and accelerate the rate of technology adoption by small farmers;
- Adapt international standards of food safety and quality for a healthy, market-oriented food supply chain;
- Build and test a Farm to Fork Model for CARICOM food and nutrition security;
- Expand and build human and institutional capacity to solve problems of food and nutrition insecurity in CARICOM;

### From Farm

#### Socio-Economic Studies

- Consumer and Farmer Household Surveys
- Focus groups on innovation & technology adoption



#### Water and Land Resources

- Drip Irrigation, Water and Soil Conservation
- Protected Agriculture
- Open Field Crop Diversification
- Silage conservation for Small Ruminants

#### Environmental Management

#### Market access

- Post-Harvest Loss Management
- Food Safety and Quality



#### Gender Consideration



#### Community Nutrition and Health

- Improving the quality of School Meals
- Nutrition Education
- Consumer food choices

Policy Changes for Sustained  
Food Security in CARICOM

...and beyond



To Fork

# CIFSRF CARICOM Food Security Project

Project Targets: "Community Change Agents"

Children, Caregivers, Women, School Meals staff, Small holders farmers, Policy makers

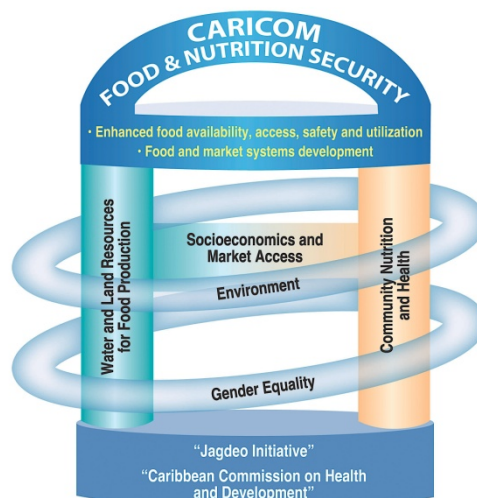


**Overall Goal: Improving nutrition and health of CARICOM population through sustainable agricultural technologies that increase food availability and diversity of food choices**

### EXPECTED OUTCOMES



Increased year-round supply and diversity of fruits and vegetables



### EXPECTED OUTCOMES



Healthy changes in body mass index and diet diversity through increased intake of fruits and vegetable



Adoption of good agricultural practices for food safety and quality



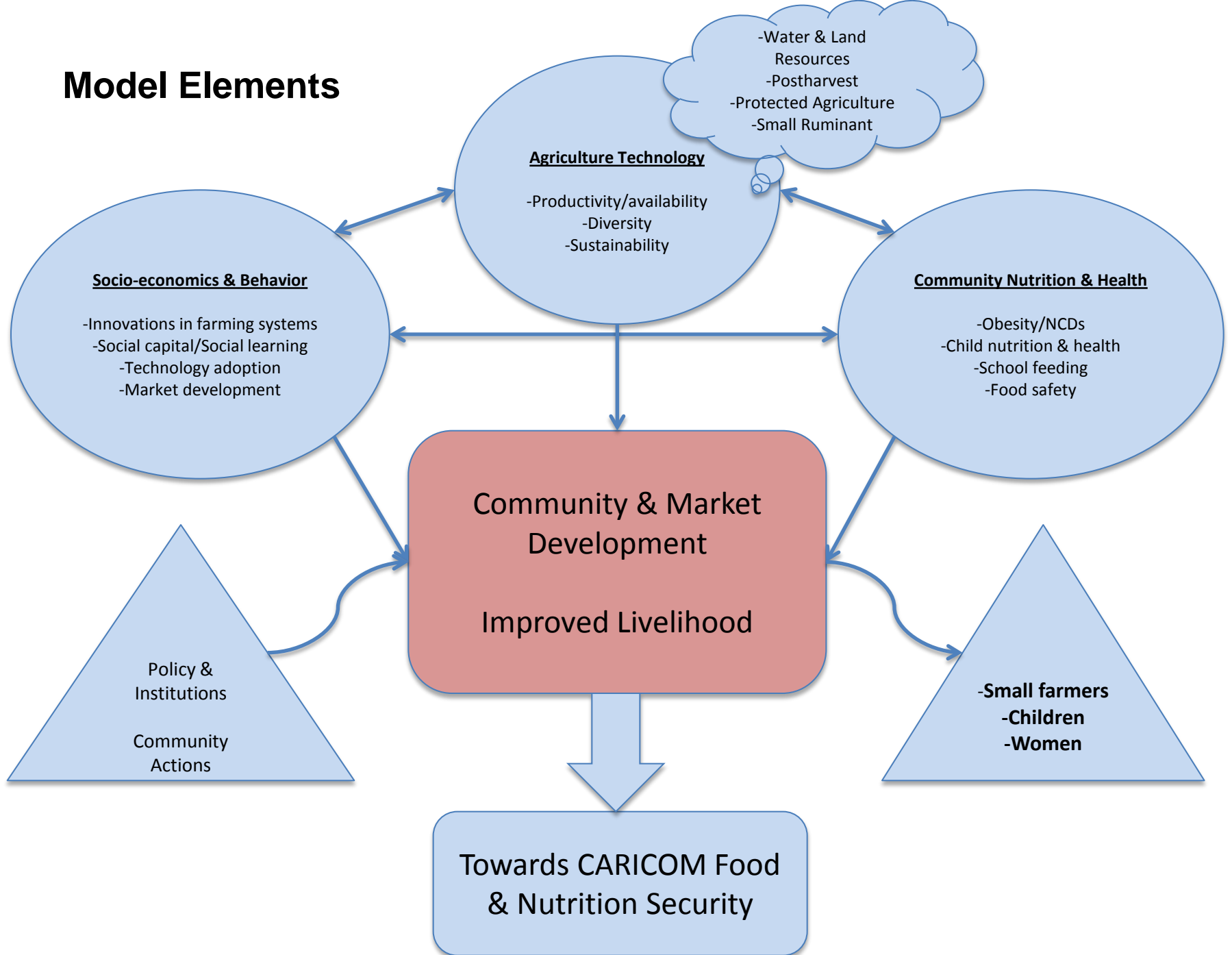
To influence policy makers on food and nutrition security policy



Development of a sustainable “farm to fork” model for CARICOM food and nutrition security

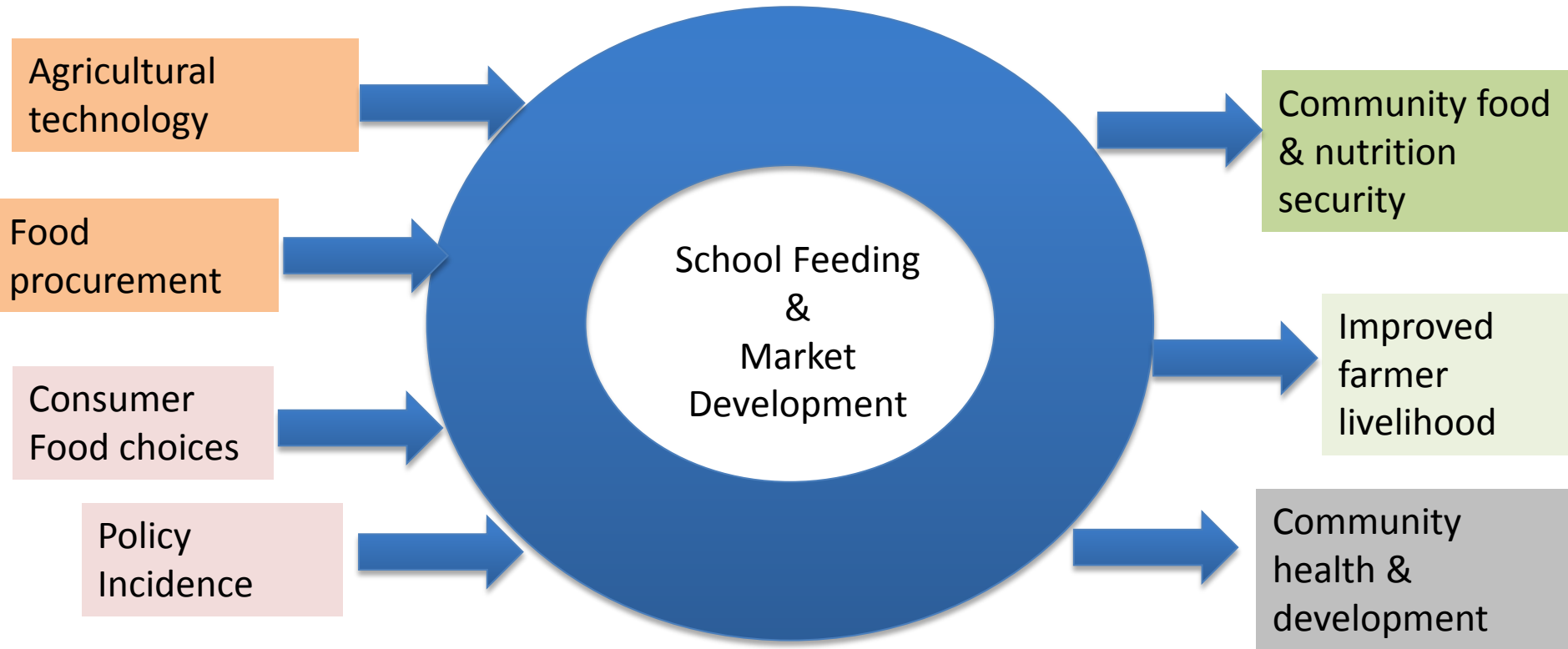
- **Food matters in prevention of obesity and overweight**
- **Adequate level of fruit and vegetable consumption play a role in weight control**
- **Targeting School feeding programmes and children for healthy eating is a useful strategy to improve regional food and nutrition security**
- **programmes promotes market and community development Linking small holder farmers to school feeding**
- **CARICOM Governments, private sector and “community actors” will support development of local farming and child nutrition programmes**
- **Development of a “home-grown school feeding farm to fork model (value chain approach ) has utility and will garner regional support among policy makers**

# Model Elements





# CONCEPTUAL FRAME FOR AGRICULTURAL DEVELOPMENT AND FOOD & NUTRITION SECURITY



- **School feeding** programs are underutilized vehicles for reversing the obesity trends in CARICOM while providing market opportunity for **small holder farmers** ;
- Findings from the Project could serve as a useful **farm to fork model** for regional application in finding solutions to CARICOM food and nutrition insecurity

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# THANK YOU

