

# THE INTERNATIONAL DEVELOPMENT PROGRAMME



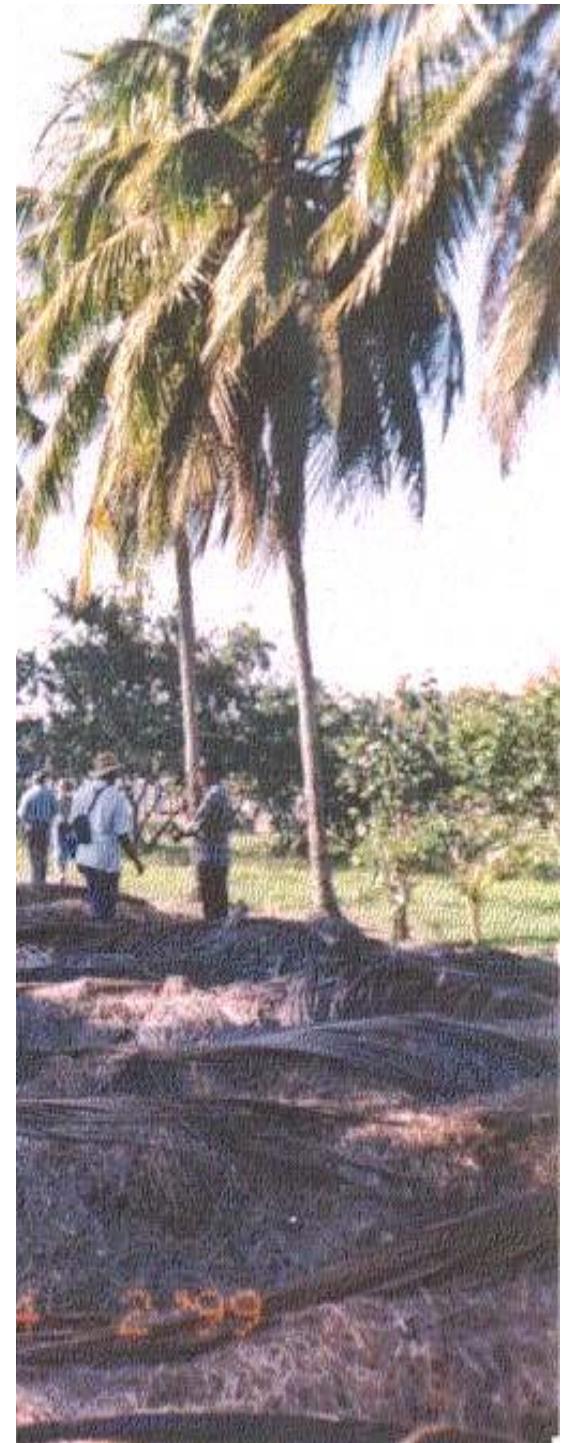
Henry Doubleday Research Association, Ryton Organic Gardens, Coventry, UK



# **Feeding the World with a More Ecological Agriculture: So What's Stopping Us?**

**(Learning from the  
Cuban experience)**

**Julia Wright**



# The Cuban Food Crisis of the 1990s

**Collapse of the  
Soviet Bloc  
1989-90**



**Loss of external support and inputs**



↓ 50% diesel and food imports

↓ 75% petrol, agrochemicals, animal feeds

**Impact on the Cuban food system**



↓ 30% domestic food production and calorific intake

↓ 50% seed production and sugar harvests



**U.S. sanctions  
- economic  
isolation**

# Has Cuba been able to feed it's people with a more ecological agriculture?

## **"CRISIS FORCES CUBA TO CONSERVE ...**

In an attempt to ride out the difficult times, the Government is becoming increasingly "green"..."

Kaufman, 1993

**"The greening of the revolution: Cuba's experiment with organic agriculture."**

Rosset & Benjamin (eds.), 1994

## **"Cuba Goes Organic! ...**

Pushed by the loss of imported pesticides and fertilisers and pulled by a growing awareness of environmental damage caused by intensive agricultural techniques; the Cuban government looked to sustainable, organic methods of cultivation to resuscitate and develop domestic food production."

Weaver et al, 1997

## **"Food Security and Local Production of Biopesticides in Cuba.**

Cuba has embarked on an unprecedented national transition from high-external input to low-input and organic agriculture ..."

Rosset & Moore, 1997

## **"A revolution in Urban Agriculture ...**

Cubans have combined the revival of traditional farming systems with the development of high-tech methods."

Ritchie, 1998

## **"CUBA'S ORGANIC REVOLUTION.**

Organic agriculture has been adopted as the official government strategy for all new agriculture in Cuba ..."

The Pesticides Trust. 1998

## **"Fidel's sustainable farmers."**

Economist, 1999

## **"Cuba: towards a national organic regime?"**

Today, 65% of Cuba's rice and 50% of its fresh vegetables are produced organically."

Parrott & Marsden, 2002

## **"An Organic Coup in Cuba?"**

Castro says organic is working."

Simon, 1997

**Wider implications in relation to:**

- **Achieving food security in tropics**
- **Performance of organic/ecological agriculture**
- **Global decline in fossil fuel reserves**

# Field research with the National Institute of Agricultural Sciences, Havana, Cuba 1999-2001



# Heading-off a food crisis: Promotion of food self-sufficiency

- **Multi-level self-provisioning,**
- **Ecological production techniques,**
- **Increased land access,**
- **Smaller farm sizes/human-scale plantations,**
- **Urban-rural migration,**
- **Increased market options/  
higher farm gate prices.**

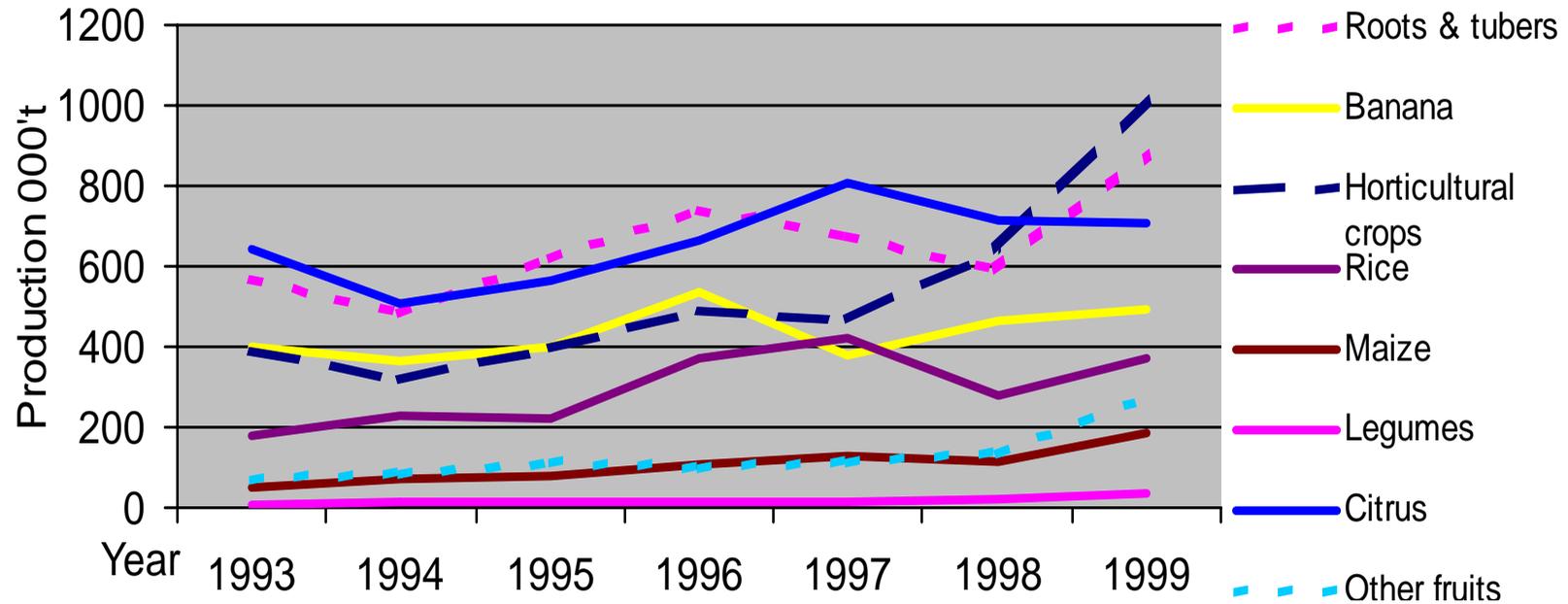


# Heading-off a food crisis: Additional mechanisms

- **Ensuring food access: equitable distribution (the ration) and social safety nets (Food & Nutrition Surveillance System),**
- **Increased post-harvest efficiency & processing,**
- **Continued investment in research, extension & training.**
- **Relative autonomy over food imports/exports.**



# Achievements in agriculture in the 1990s



- **Calorific availability increased 25%**
- **Farmers' wages tripled**
- **Agricultural subsidies halved**

# Continued Food Security Challenges

- **Continued *feeling* of food insecurity**
- **Continued partial reliance on food aid**
- **Productivist focus on quantity over quality:**
  - **Widespread environmental degradation**
  - **High pesticide residue levels (on prioritised crops)**
  - **Overweight and obesity levels (Havana):**

**1980s**

**1993**

**1998/9**

**30%**



**16%**



**36.5%**

# Is Cuban agriculture 'organic'?



- \* **75% farmers applying agro-chemicals**
- \* **83% farmers would apply more if available**
- \* **Agro-chemical imports increasing**
- \* **State plans for high-input and integrated production for 80% of certain staple crops**

# Cuban agriculture: a stage of input substitution

## “A Patchwork Effect”



**State-prioritised,  
high-input crops**



**Non-prioritised,  
low-input crops**



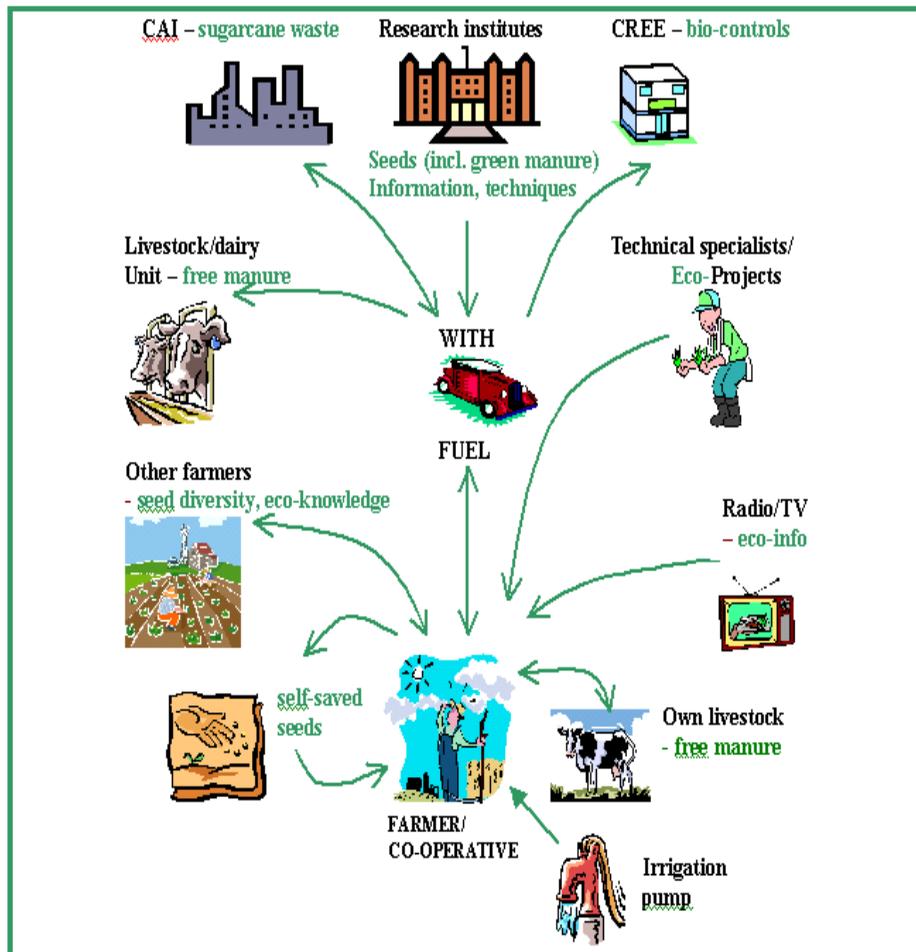
**Agro-ecology  
projects, urban  
agriculture**

**Why didn't Cuba embrace a more  
ecological/organic agriculture in the  
1990s?**

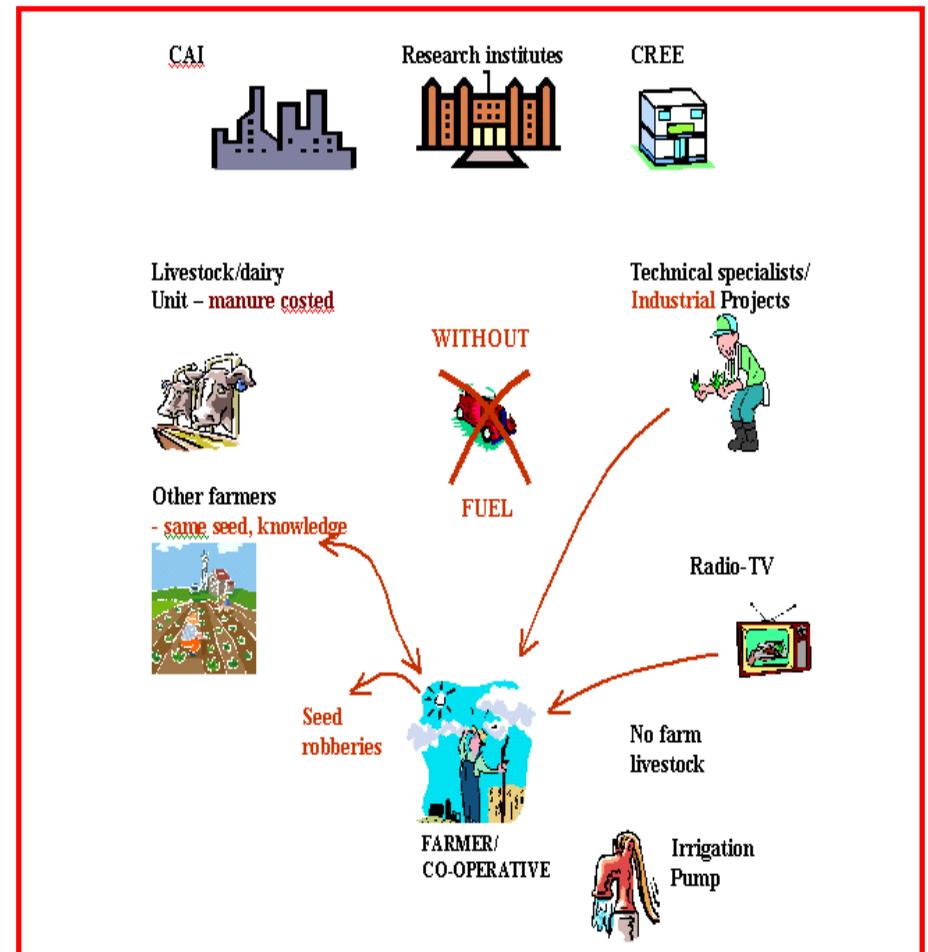
*(What's stopping us from farming  
more sustainably,  
beside agribusiness?)*

# Challenge 1: *Falta Petroleo*

## Favourable conditions



## Unfavourable conditions



# Challenge 2: Political commitment

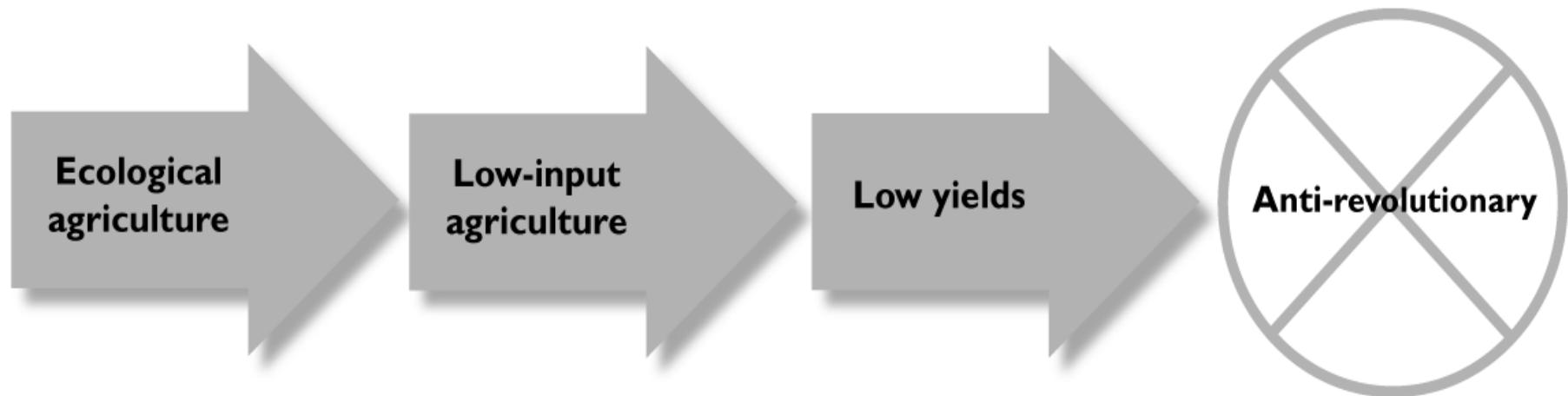
- **An enforced situation**
- **Conflicting drive to maximise production**
- **No proactive organic policy**
- **No market incentive**
- **Institutionalisation of the pioneering Cuban organic movement**



# Challenge 3: Inputs and knowledge

**More ecological agriculture proved to be technically feasible and economically beneficial, but....**

- **Farmers' constraints:**
  - **lack of organic inputs & knowledge**
- **Organic myths & misperceptions (ecological illiteracy)**



# Challenge 4: Reticence to change

- *“Other people’s attitudes take time to change.”*
- *“Industrialised agriculture supports a bureaucratic system which does not want to change.”*



# Challenge 5: Beyond agribusiness – underlying concerns

**Substantiated and unsubstantiated concerns surrounding:**

- **Control (of nature/farmers)**
- **Fear (of a deficiency of inputs/food)**



# Conclusions from the Cuban experience

- 1) **Nationwide food security *is* achievable with political (institutional) will and its comprehensive implementation.**
- 2) **Ecological/organic agriculture *is* technically feasible as a mainstream component of a nation's food supply, but its presence requires more than a lack of agrochemicals and agribusiness; it also requires political commitment.**
- 3) **Without a more holistic approach to agriculture, environmental and human health problems appear to persist.**

