

U.N. Conference on Trade & Development

Enhancing Food Security through Agricultural Development

Thomas Lines
www.tomlines.org.uk

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What explains the food price crisis of 2007-08 and 2010-11?

Characteristics of the food price crisis

- ✧ It appears from *global* markets
- ✧ Lesser impact in Laos in 2008 because more isolated from world food markets
- ✧ It affects wheat, rice and maize prices in particular
- ✧ It can affect countries even where the market appears to be in balance
 - ✧ Maize in Zambia

The 'hunger gap'

The hunger gap between the case study countries has widened:

Global Hunger Index, 1990:

Best: Tanzania 22.9 Worst: Burundi 31.8

Global Hunger Index, 2010:

Best: Benin 17.1 Worst: Burundi 38.3

- ✧ Benin, Cambodia, Laos improved greatly.
- ✧ Tanzania and Zambia improved slightly.
- ✧ Burundi deteriorated.

It's a crisis of *industrial* agriculture

- ✧ Oil & fertiliser prices increased by *more* than cereal prices
 - ✧ Prices of main export crops (coffee, cotton) increased by *less*
- Real price rises since late 1970s:
- ✧ Crude oil +59%, phosphate rock +46%
 - ✧ Wheat -19%, maize -25%, rice -45%
 - ✧ Cotton -57%, coffee -63%

Higher rural incomes are needed

What prevents them? What impact will they have on food security?

- ✧ Greatest poverty and hunger is in rural areas
- ✧ Major inputs are *imported*
 - ✧ Fuel, agrochemicals, fertilisers
 - ✧ This is expensive for farms, expensive for the country
 - ✧ It's good for the foreign firms which produce them
 - ✧ Part of a dependent, industrial system of agriculture
 - ✧ Can harm the soil, water and air
 - ✧ Especially under monocropping

Earlier evidence from Zambia

Rural poverty *declined* at time of economic crisis and de-urbanisation, in 1990s

- ✧ Emphasis on main staple crop (maize) was dropped
- ✧ Fertiliser subsidies abandoned
- ✧ Prior research into other food crops
 - ✧ Cassava, groundnuts, sweet potatoes
- ✧ Decline in rural poverty from 92% in 1993 to 74% in 2003
 - ✧ Ascribed to growth of food crops (cassava, sweet potatoes, groundnuts) and cash crops (cotton, tobacco)
 - ✧ Described as 'a remarkable achievement'

Evidence from Asia

Indian cereal production since late 1960s:

Rice up 125%
Wheat up 285%
Millet barely changed

- ✧ But millets contain more proteins, minerals and vitamins and are more resilient

In Laos:

- ✧ Consumption of roots and tubers has reduced, partly because of rice strategy
- ✧ But they could improve food security, acc. to HLTF
- ✧ Coping strategy of collecting forest foods in 2008

Policy conclusions I

1. Restrict influence of global markets on basic food supplies
 - ✧ Post-WW2 experience of W. Europe
2. Do not concentrate on just one staple crop
 - ✧ E.g. maize in Zambia, rice in India and Laos
3. Encourage traditional, 'non-traded' crops
 - ✧ Prices are less influenced from abroad
 - ✧ Evolved to suit *local* circumstances
 - ✧ Can be more nutritious
 - ✧ Use local agrarian knowledge
 - ✧ Benefits of nutritional diversity
 - ✧ 'Enormous' number of species presented at Arusha conference on underutilised plant species, 2008

Policy conclusions II

Return to soil science, mixed cropping, natural fertilisers and pest controls

- ✧ 'functional use of biodiversity'
 - M. Pimbert (IIED)
 - ✧ Agroforestry - use of tree cover
 - ✧ e.g. *Faidherbia acacia* provides shade for crops and nitrogen for soil
- Tropical agriculture for tropical conditions

The knowledge base required

Use existing knowledge

- ✧ e.g. Zambian and Malawian reported to be 'very knowledgeable' on wild plants to control insects and pests

Relevant research institutions exist

- ✧ e.g. World Agroforestry Centre (Nairobi), World Vegetable Center (Thailand; Arusha, Tanzania), International Institute for Tropical Agriculture (Ibadan, Nigeria)
- ✧ Use them and develop them

Revive and expand government extension services

- ✧ As a discussion, not a lecture
- ✧ Farmer field schools
 - ✧ Advisors and farmers learn from each other, or farmers teach each other
 - ✧ Help women, less literate farmers, those with medium land size
 - ✧ 'remarkable signs of empowerment' - IAASTD

Evidence of effectiveness

From agroecology:

- ✧ Malawian maize yields 2-3 times higher under Faidherbia canopy

From natural pest controls:

- ✧ Mixed-variety rice cropping in China improved yields by 89%, reduced rice blast disease by 94%

From farmer field schools:

- ✧ Participants' incomes increased by 61% on average in Kenya, Tanzania and Uganda