ISSUES IN AGRICULTURE

Key issues in the agricultural sector

FACULTY OF ECONOMICS THAMMASAT UNIVERSITY

Agriculture and Poverty – 1

- **Locational characteristics.** In most developing countries, people are disproportionately concentrated in rural areas, are poor and depend on agriculture
- **Agriculture vs industrial growth.** Agricultural growth is more effective in reducing poverty compared to industrial growth
- **Policies for poverty alleviation in the agricultural sector** pro-poor growth policies should include developing the agricultural sector

Agriculture and Poverty – 2

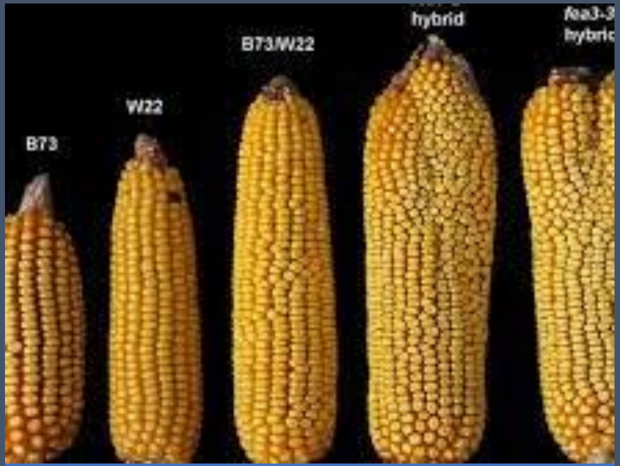
Agricultural growth provides pathways out of poverty by:

- Enabling subsistence oriented farmers increase their farm outputs
- Engaging in rural labor markets especially for non-farm work which can be used to invest in improved farming
- Migrate to the urban economy; remittances back to rural areas can support household consumption and investment

The Green Revolution

- **Use of traditional technologies and crop varieties:** Although suited to local contexts, productivity was low (before the 1950s)
- **Rapid population growth:** sufficient food relied on expansion of areas under cultivation
- **New technologies (1960s):** resulted in new crop varieties, better quality seeds and improved agricultural inputs and substantial increases in agricultural productivity

Outputs of the Green Revolution



Disease resistency

mostly staple crops such as rice, wheat and maize which can withstand pest diseases, parasites and weeds

Higher yields

high-yielding crop varieties, with substantial increases in crop yield per hectare

Improved agriculture inputs

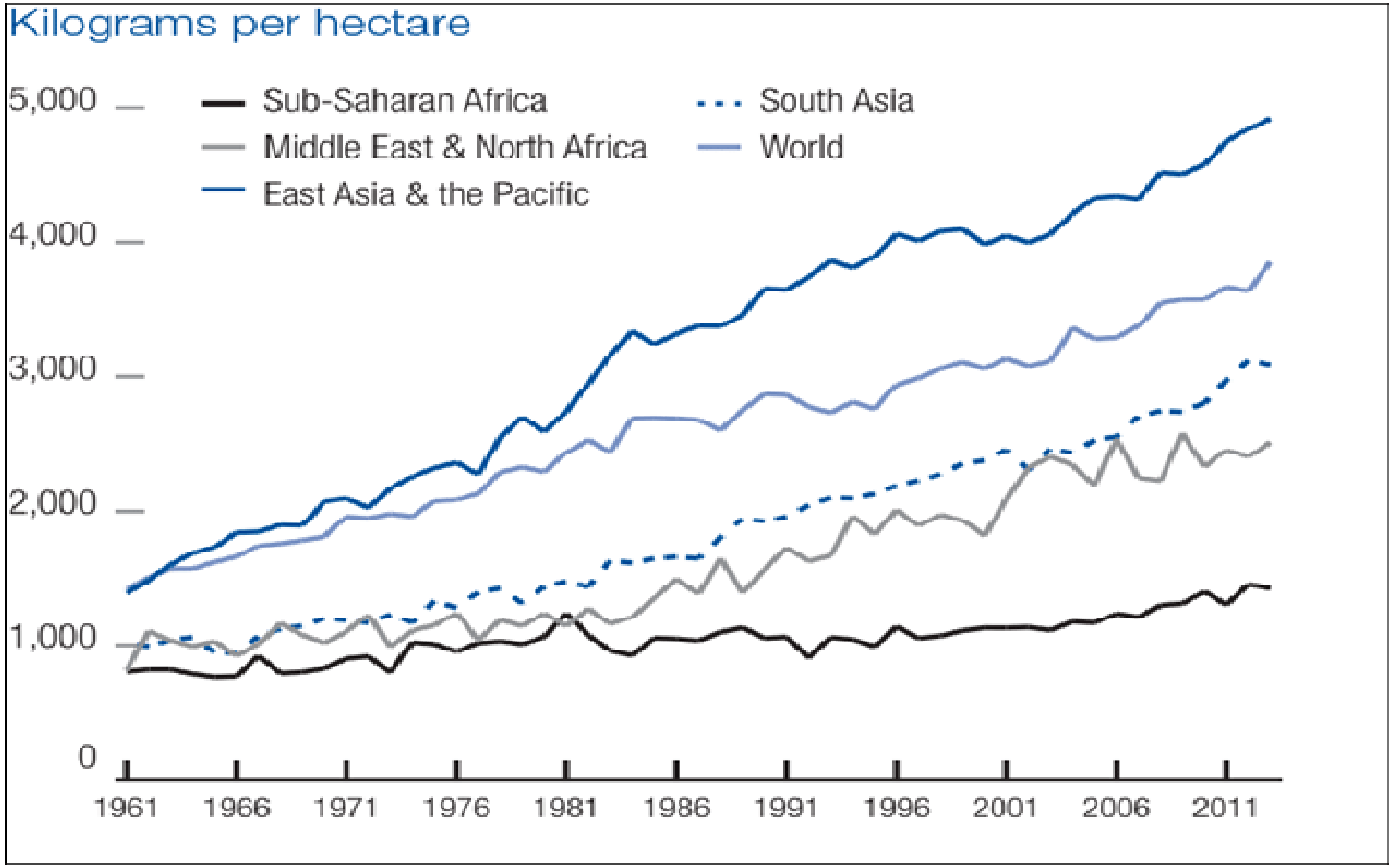
Better mechanical equipment, application of chemical fertilizers, and improvement of other farm inputs

Improved farming practices

innovative crop breeding, and improved farm practices

Cereal yield worldwide, 1960-2011

- Worldwide, food production has been increasing
- Cereal production rate (and productivity) has increased faster than population growth rate, particularly in East Asia and the pacific



Land Reform

Background

- Land is the only fixed factor of production; as many poor farmers have limited land, equitable redistribution of land could improve agricultural output
- Land reform involves: changes in laws, regulations or customs regarding land ownership; and re-distribution of land from wealthy landowners to farmers who work the land

Land Reform

Land reform takes a variety of forms:

- Land Reform of rent contracts: increases security of tenure
- Rent reduction: places a ceiling on rent
- Land to the tiller with compensation
- Land to the tiller without compensation

Implementation of land reform:

- Not easy and sometimes controversial
- Difficult where land is given to the tiller without compensation

Land Reform in South Korea and Taiwan

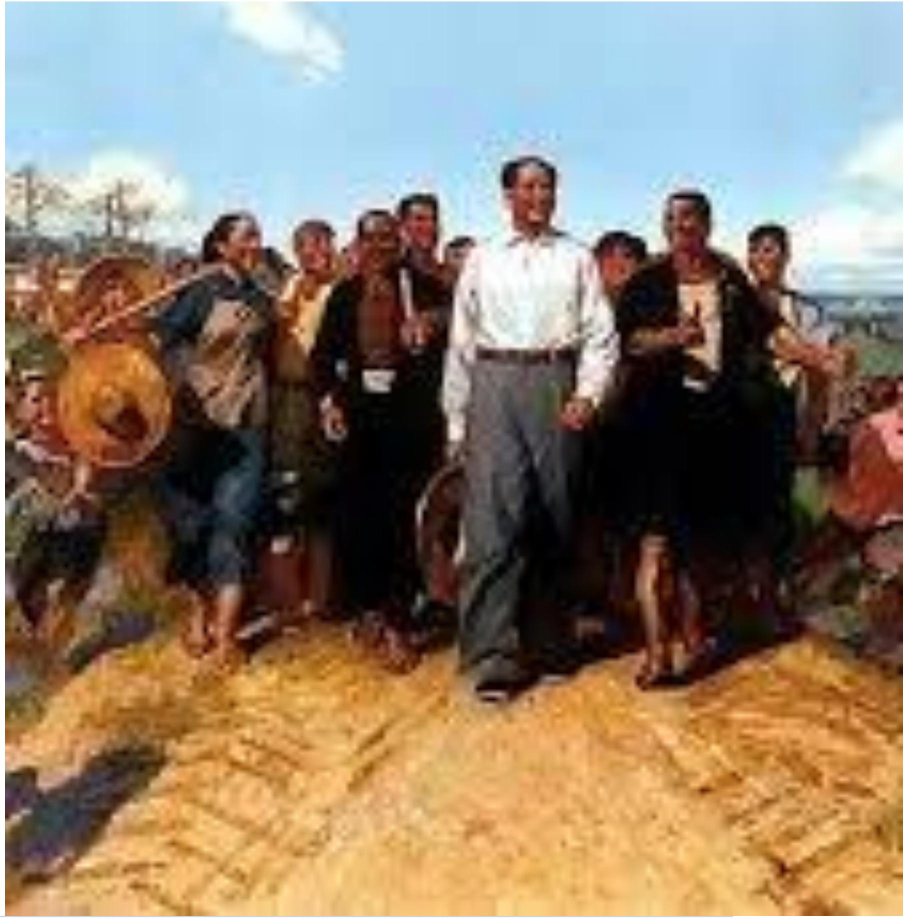
Case of successful land reform: South Korea and Taiwan after World War II

- Korea and Taiwan were under Japan occupation before the war
- Following Japanese defeat, land holdings were re-distributed
- Farmers were given the rights of ownership
- Agricultural production and productivity increased

Land Reform in Soviet Union and China

Case of reforms in the context of socialism

- Land reform preceded by foreign invasions that destroyed the agrarian order followed by revolutions
- Land confiscated from rich landlords and distributed to peasants
- Similar cases experienced by Cuba, Ethiopia, Nicaragua and Viet Nam



Land Reform in South Africa and Zimbabwe

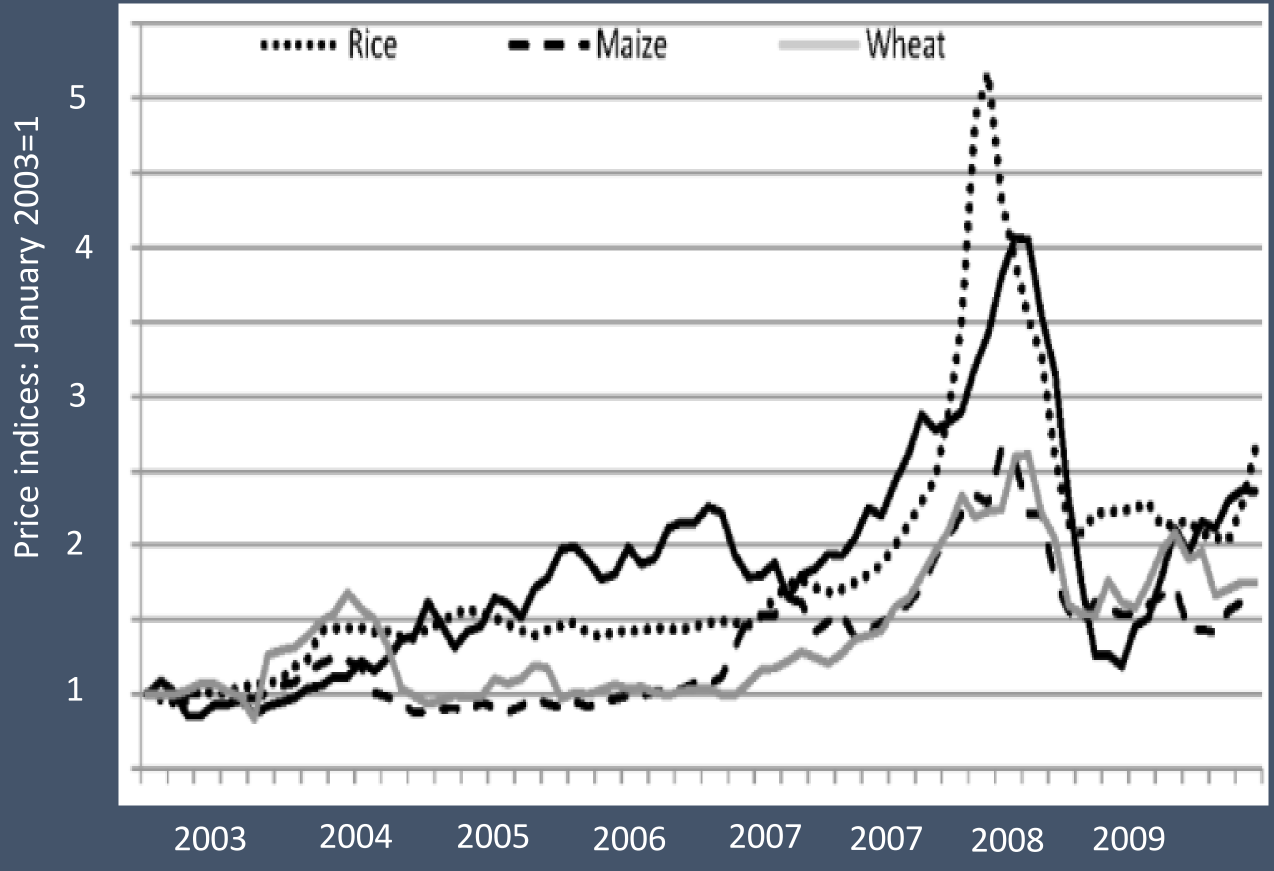
Case of reforms post-apartheid

- Settler communities owned much of the prime land
- Apartheid was abolished in 1999; forced expropriation of white-owned farms and re-distribution of land to black Africans
- Zimbabwe: reforms widely criticized because of violence and favoritism
- South Africa took a more cautious approach; redistributed 30% of white-owned land to black Africa

Global Food Crisis

Background

- During 2005-2008, the world suffered its most severe food crisis with a rapid increase in food prices, triggered by a rise in petroleum prices
- Price of rice tripled from $335 per ton to $1,000 from October 2007 to April 2008; wheat and maize prices also went up



Source: IMF, 2009

Global Food Crisis

Causes of the crisis: a confluence of several factors

- Growth in food demand from China and India
- Speculation on financial markets
- Hoarding and export restrictions, limits supply
- Rising oil prices increases transport costs
- Demand for biofuels, causes land competition
- Depreciation of US dollar

In US, 25% of corn production was dedicated to biofuels, thereby raising corn prices

In 2007, India banned rice exports

In Australia, severe droughts increased wheat prices

Global Food Crisis

Impacts arising from the crisis

- Increased worldwide poverty rates by 4.5% with the rise in food prices
- Shift in food consumption pattern (e.g., eating less rice or shifting from rice to tapioca)
- Increased worldwide poverty count by 105 million

Several policy implications from the crisis:

- the realization that agriculture sector is important
- government should step up to increase sector productivity
- incentives should be in place to ensure continuous and improved agricultural production

Policies to Create Incentives for Production

- **Regulate farm markets**
- **Invest in rural infrastructure** such as irrigation systems, rural roads, and health and educational facilities
- **Set food prices**. Government determines food prices; if prices are set too low, there is no incentive for farmers to produce; if it is too high, then problems of hunger and malnutrition arise
- **Regulate land tenure and rights**

Policies to Enhance Productivity

- **Subsidize agriculture inputs** such as fertilizers, quality seeds, equipment
- **Provide institutional support for agriculture** such as microfinance credits and social protection
- **Introduce technology and know how** through dissemination of technology and information on good agricultural practices and provision of extension services

Summary

- The Green Revolution succeeded in increasing agricultural outputs through research and technology. This reduced prices of agricultural commodities and therefore, incentives to farmers in the long run

THANK YOU!