

# **Agricultural Development and Food Security in Sub-Saharan Africa**

**Building a Case  
for  
More Support**

## Chapter 5

# CONSTRAINTS TO SUSTAINABLE AGR. DEVELOPMENT IN SSA

# KEY ISSUES

- Can agriculture in SSA be an engine for broad-based economic growth?
- What should be the role of the public and private sectors?
- What would be the optimum level of government engagement

# Development Environment : political unrest and armed conflicts

- Worst performers in terms of daily per capita calorie intake during the period 1990 to 2002 were Burundi, Democratic Republic of the Congo, Guinea-Bissau, Eritrea and Liberia.
- Conflicts impact through:
  - Diversion of budgets and human resources to defence and internal-security
  - Associated risk undermines private investment both domestic and foreign
  - markets and other services are disrupted
  - infrastructure and private property are destroyed, and so on
  - Agr. most affected.

# political unrest and armed conflicts

- Agriculture is often one of the most affected sectors → Farmers most affected
- Rural populations are displaced - fields unattended, with drastic consequences
- Social ties and capital are dislocated

# Non-conducive policy environment and poor institutional framework

- Inadequate political commitment and action
- Weak institutional capacity and structure for policy programme/project development and implementation
- Not conducive public policies in favour of agriculture and rural development
- Unstable macroeconomic environment
- Legislative framework either weak, missing or not properly enforced
- undermines private sector involvement and investment.

# Policies – Why past policies including SAPs did not work

- For some reforms under SAP not been fully applied
- Others ascribe failures to poor governance
  - Strong executive, largely inefficient and often corrupt and weak civil society organizations
  - Macroeconomic stabilization policies broadly enforced but expenditures on defence, internal security, diplomacy etc. are protected
  - public contracts awarded or managed in a non-competitive way
  - At times markets destabilized by deliberate misinformation and unconvincing promises

# Why past policies failed ..

- Sudden public sector retreat following sweeping reforms in the 1980s and early 1990s
- downsizing of all public institutions - unable to maintain a critical mass
- loss of most experienced and competent staff to internal and external competitors who offered better conditions of service
- "brain-drain" of African -highly qualified Africans left the continent for the West
  - 1960 to 1975 an estimated 27,000
  - 40 000 between 1975 and 1984
  - 60,000 between 1985 and 1990
  - average of 20,000 annually since the 1990s.

# Weak Research Capacity

- *Some basic figures on agricultural research in Mozambique and Brazil*
  - Total number of staff in recently established Mozambican Institute for Agricultural Research (IIAM) 902 people - Only 2 percent of those are researchers hold MSc and PhD degrees.
  - Brazilian Agricultural Research Corporation (EMBRAPA); a public corporation
    - has 37 research centres and 3 service centres,
    - present in almost all 24 Brazilian states
    - 8,169 employees - 2 221 are researchers with master's degrees and 53 with doctoral degrees
    - Average salary US\$1 700 per month

# LIMITATION TO INCREASED PRODUCTION

# Limitations to area expansion – (a) Land Tenure System

- rigidities in tenure systems
  - communal or government ownership not ensure sufficient security to encourage investment
  - land is in the custody of the local chiefs, distribution arbitrary
  - not favour external investors with capital and know-how
  - infringes on rights to access of community members when powerful private investors exert pressure or bribe local leaders
  - women's access not always guaranteed - forfeit upon divorce or in the event of death of husband.
  - system does not allow for a land market → land fragmentation and inefficient utilization

# Limit to area expansion – (b)

## Physical Availability

- Per capita land availability dwindling
  - Population pressure and lack of alternative employment opportunities,
  - land degradation and desertification
- Most land-constrained countries - Burundi, Ethiopia, Kenya and Rwanda and yet recent production increases in some of these countries attributed to area expansion
- marginal, grazing and forest lands being switched to crop production, with adverse effect on sustainable livelihoods and the environment.
- opportunities exist for area expansion in some SSA, provided:
  - infrastructure is established to facilitate access
  - measures put in place to protect land from erosion and degradation

## Other Limitation to Area Expansion – (d) Mech. Power

- Low traction power →. agriculture dominated by a hoe culture
  - modest increase in trend in tractor use remains still very low
  - more than 5 percent per annum between 1961 and 1973
  - Only 2 percent and 1 percent 1973-1994 and 1995-2002, respectively

# Limitation to area Expansion

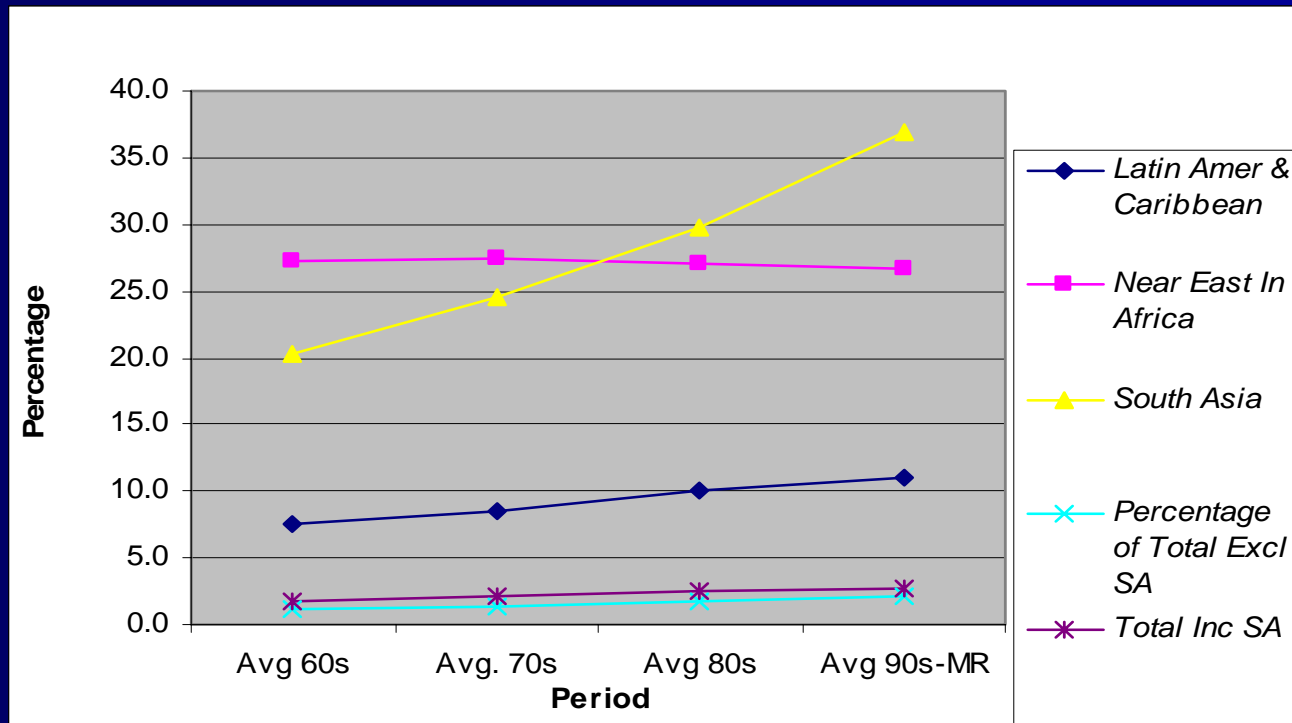
## – (e) Labour

- Farmers engaged in off-farm income-generating activities
- The HIV/AIDS pandemic, especially in Southern and East Africa,

# Limitation to Increased Productivity - Water

- Recurrent droughts and increasing (7 countries in 19980/90 to 13 1991/03)
- Investment in water harvesting and Irrigation still inadequate
- Irrigated agriculture not increasing 2.1% excluding Sudan and South Africa, and 2.8 if SA included;
- FAO estimates availability of sufficient water to develop ca 42.5 million ha under full irrigation
- Only significant (>10%) in five countries; 25 countries <2%
- Potential high e.g. Eth 3.7 million Ha (2%) → see table

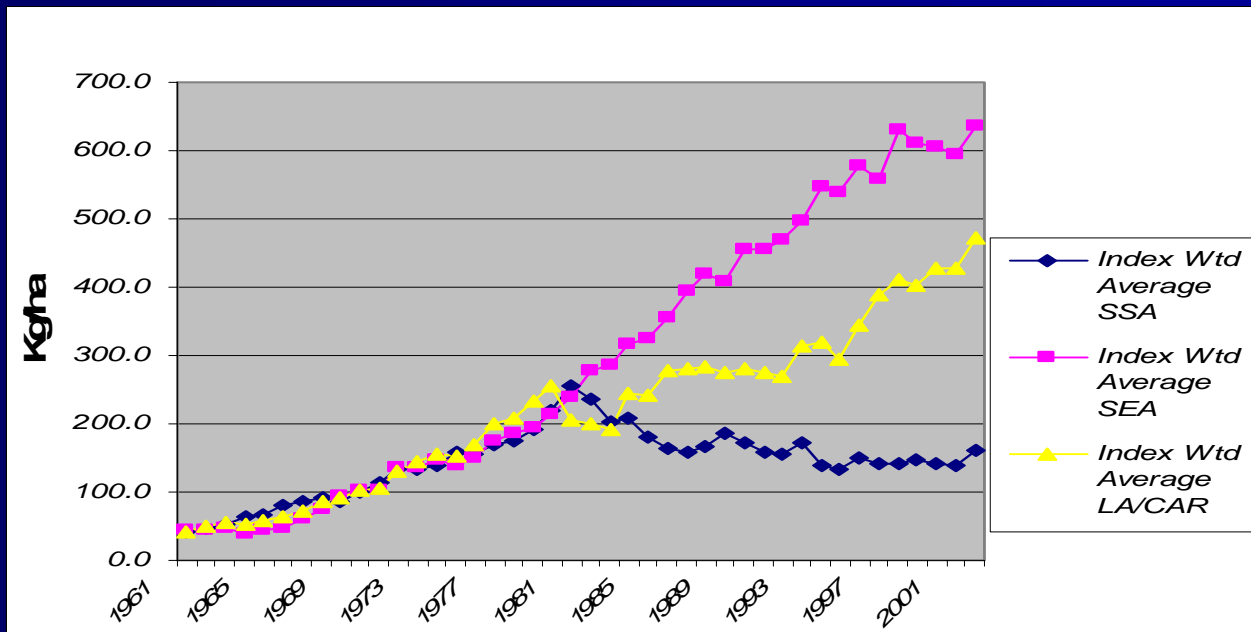
# Irrigation Africa Vs Other Regions of the World



# Limitation to Productivity – Soil Fertility

- Low input and low output technology
- Average cereal yield 1.3 to 1.4 tonnes per hectare
- ranges from 0.2 in Botswana to 4 tonnes per hectare in Mauritius
- Fertilizer application lowest in the world; yet soils are generally poor
- Average fertilizer use 35 Kg/ha in the 1980s; declined to 26 Kg/ha in the 1990s
- Reasons: increased price, subsidy elimination and access to credit
- Southeast Asia and Latin America, increased from 50Kg and 100Kg to 150 and 200 Kg, respectively

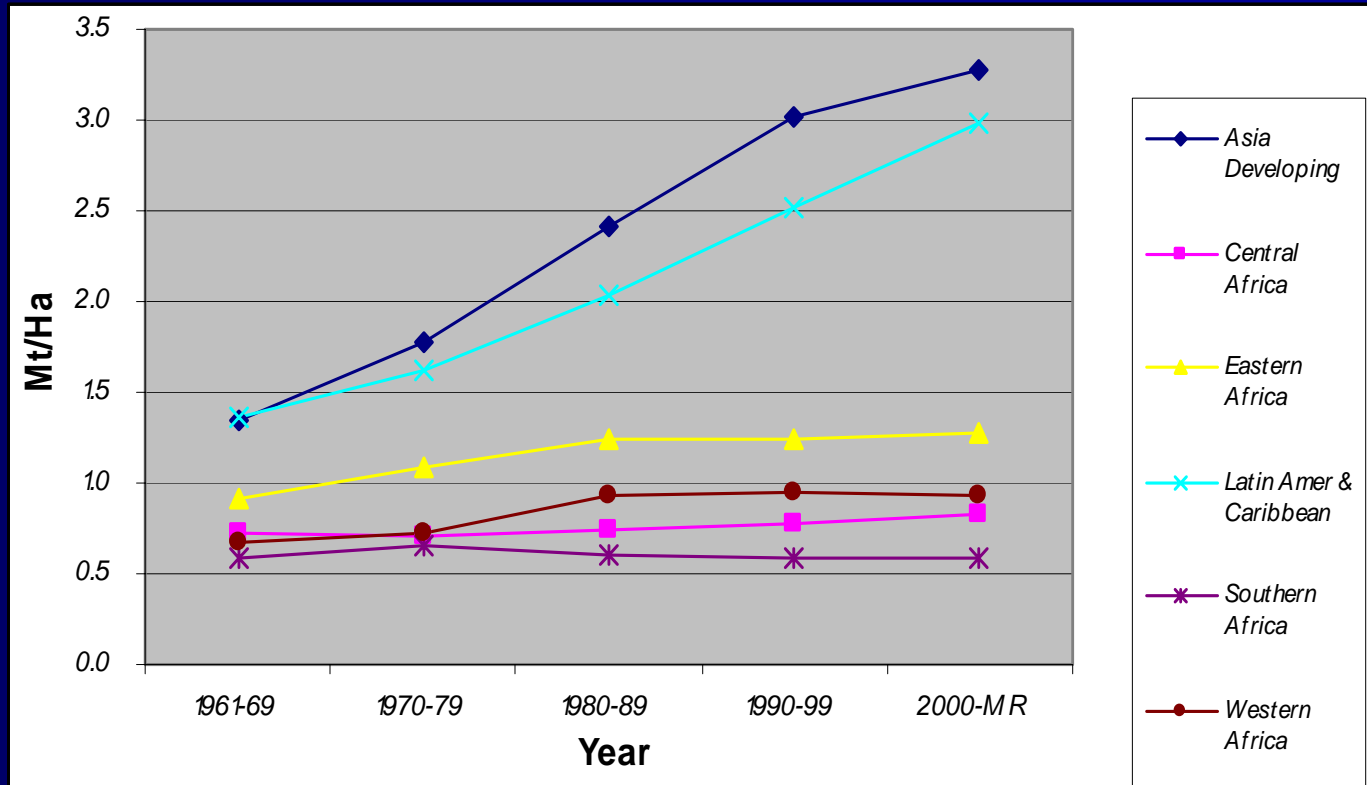
# Soil Fertility Mgmt.



# Weak Research, Credit and Extension Services

- Understaffed and under equipped research and extension services;
- Poor research/extension/farmer linkages
- improved varieties account for 70% to 90% yield increase in Asia and the Near East: only for 28% in Africa
- Credit services have failed
- regional cooperation in research not promoted (economies of scale)

# Yield Comparison



# Marketing & Market Access

- Transaction cost very high : a ton of maize USA (11,000Km) to Mombassa US\$45 to US\$48; Mombassa/Mbrara in Uganda (1,500Km) ranges from US\$ 125 to US\$140.
- rural transport costs e.g. Ghana and Zimbabwe 2-3 higher than in Asia – Pak, Indonesia and Srilanka
- Road connectivity less than 2.4Km/1000 population; less than 40% are paved
- Market failures the norms →
  - weak and colluding private traders →monopsony
  - lack of information

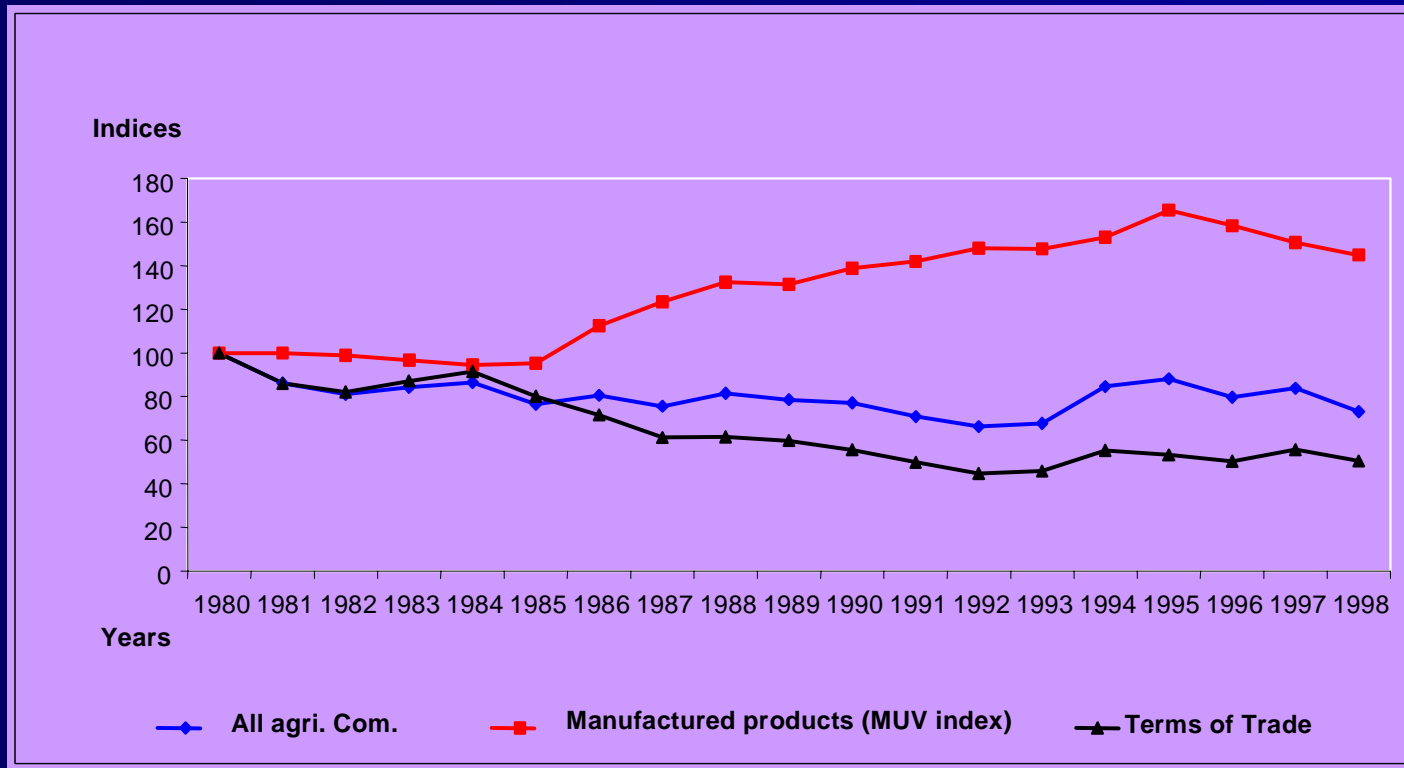
# Deteriorating Terms of Trade – Barter Terms of T

- Farmers face low farm gate output and high input prices (**barter terms of trade**)
- Believed input prices escalated quicker than output prices after SAP - currency realignments, subsidy removal, tax reform and other changes
- Deterioration of relative prices between inputs and consumer goods e.g. Ethiopia, price of food increased by 12% - 1995 to 2000, price of fertilizer (DAP) increased by 76% and 8X for maize.
- Deteriorating terms of trade more pronounced in the 1980s

# Deteriorating International Terms of Trade for SSA main exports

- Slump of price of Arabica in 1986-1987, resulted in a 40 percent fall in Ethiopia's terms of trade led to 6 percent drop in Ethiopia's real income
- Imports about 15 percent of Ethiopia's national expenditure,
- Better for. food prices → reduction only ca 4 percent in US-dollar terms 1995 to 2004
- same period, price of beverages - main exports - by 35 percent
- price index for all commodities increased by nearly 50%

# Terms of trade between agricultural commodities and manufactured products



# Unstable and uncertain input and output prices

- Year-to-year and price variations high, with adverse effects on farmer incomes.
- variation largely explained by lack of storage facilities and absence of public sector price-stabilization measures such, e.g. consumption credits and price support.
- No mechanism put in place to ensure minimum farm gate prices after SAP
- agricultural demand rigid; prices are unstable → small change in the supplied quantity results in large differences in price.
- “Smallholders ... much more vulnerable to global price volatility
- poor targeting and programme or project aid food aid increases supply faster than demand → downward pressure on prices
- vicious circle of low income-low purchasing power of inputs and low input application-low output-low income needs to be broken.

# Declining trend in public support to agriculture

- agriculture have given a relatively low importance on the political agenda of most SSA countries
- Evidence from case studies, 1990- 2001 → budgetary allocation low and declined from ca 5 percent in 1990/91 to 3.5 percent in 2001/02
- Highest proportional decline in Malawi → from around 7% to only 4.2%

# Decline in official foreign aid for agricultural devtpt.

- Decline in domestic public expenditure coupled by decrease in foreign development assistance and private sector investment in agr.
- Globally OECD development aid in agriculture, rural development first increased from US\$1 billion in 1960 to more than US\$30 billion in 1991, but decreased to less than US\$20 billion in 2000.
- Aid to agr US\$4.8 billion in 1989; slightly above US\$2.5 billion after 1997 → insignificant vis-a-vis. US\$240 billion budget for CAADP
- Asian tsunami showed public opinion in developed countries much more easily mobilized for emergency aid through spectacular media reports

# Is support to agriculture a profitable investment?

- Answer is yes;
- E.g. Malawi 2002-2003 - total cost of importing cereals (aid and commercial imports), amounted to 788 539 tonnes at MK 15.6 billion
- If the money was invested in domestic production, then the net production gain would have ranged between 2,489,276 and 4,200,992

# Conclusion

“food insecurity in Africa can be explained by the fact that some decision-makers believe that there will always be ‘cold’ money available in case of food emergency, and that it is better to invest their ‘hot’ money into other activities”.

**Prime Minister of Uganda**