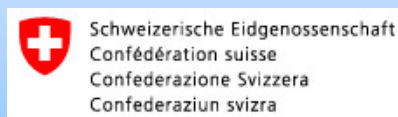




STABILITY OF FOOD SECURITY IN A GREEN ECONOMY ENVIRONMENT

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The stability dimension of food security

Second order effect on other 3 dimensions (often less visible)

- Two types of instability: i) cyclical ii) sudden disruptions
- Sources of instability:

Availability (production risks of any type, trade problems)

Access (natural resource depletion, loss of entitlements/purchasing power)

Utilization (inadequate storage, waste, poor/lack of processing capacity)

Stability and the Green Economy

Green economy: improved human well-being and equity with reduction of environmental risks and ecological scarcities

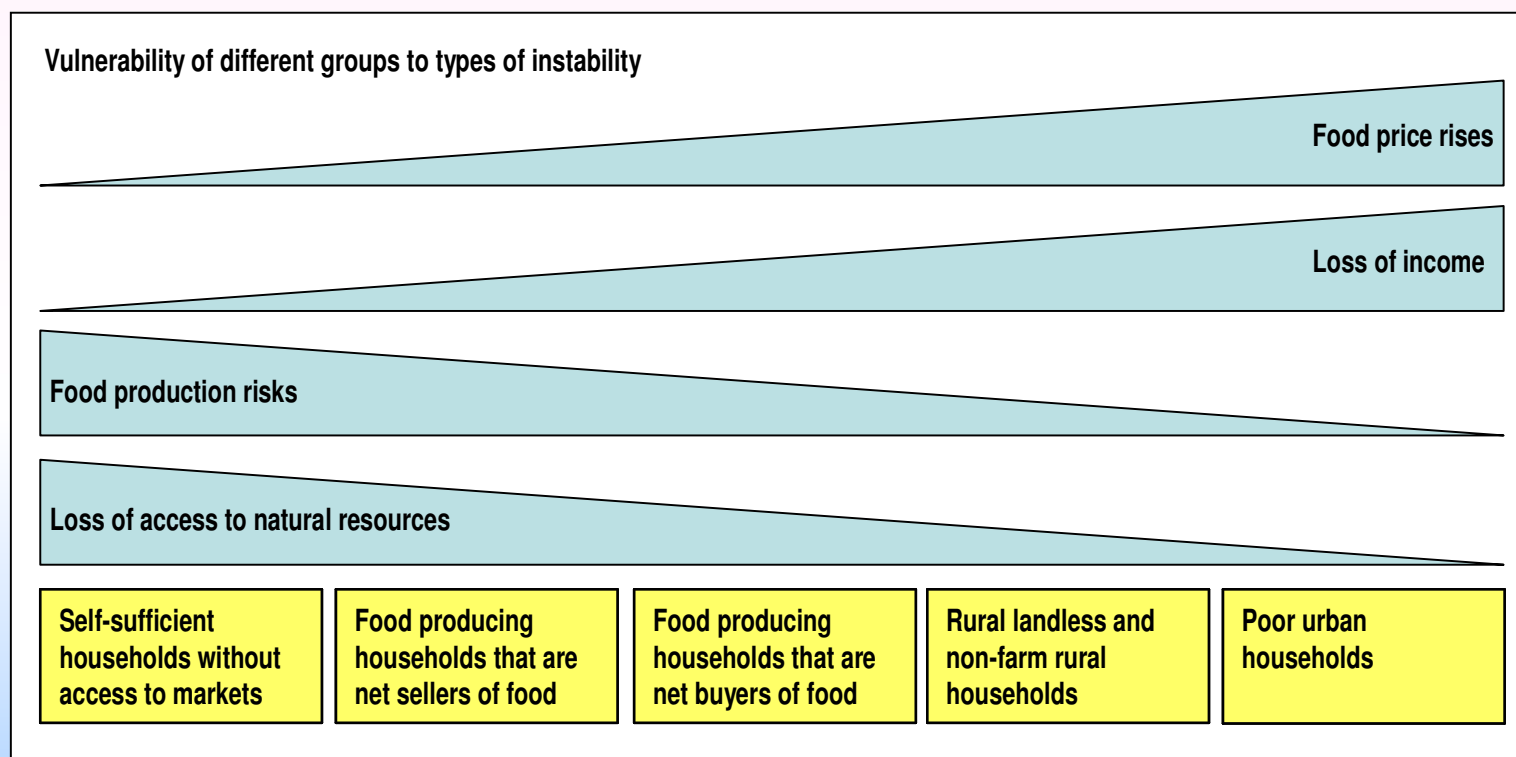
Focus on instability in context of agricultural based economies with high food insecurity:

- **Instability a key driver of poverty traps – reducing well being and equity**
- **Instability also a key driver of environmental degradation**
- **Environmental and market risks are key sources of instability**
- **Better management of natural resources in agricultural systems is needed for resilience**
- **Reducing both types of risk and increasing resilience is essential to achieving the Green Economy**

“Reducing volatility in national income, even if it may result in lower overall growth, produces greater welfare in developing countries in terms of investment opportunities “(Prakash 2011)

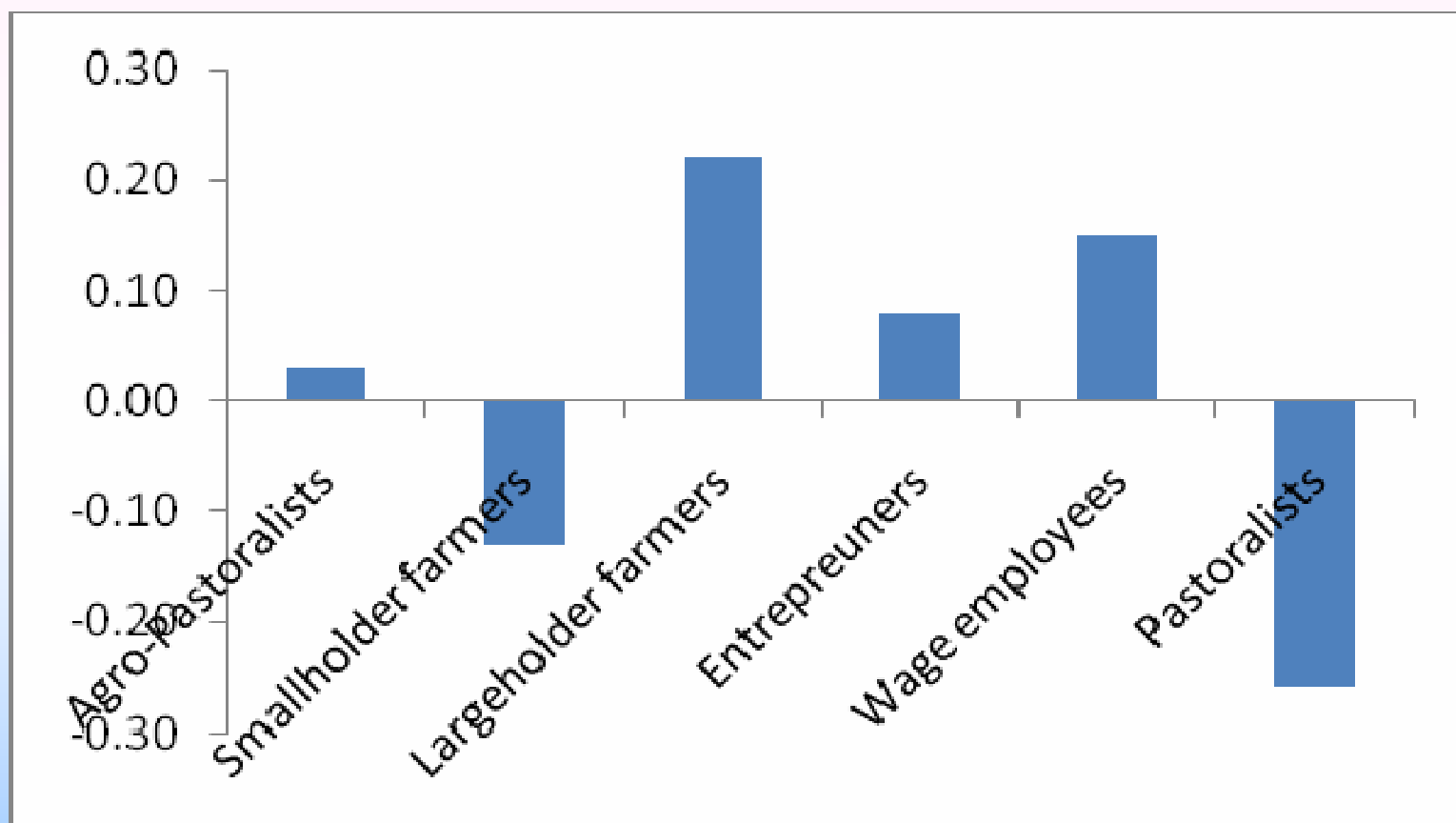


Vulnerability to instability varies across groups





Resilience index by livelihood strategy for Kenya



Source: Alinovi et. al. 2010

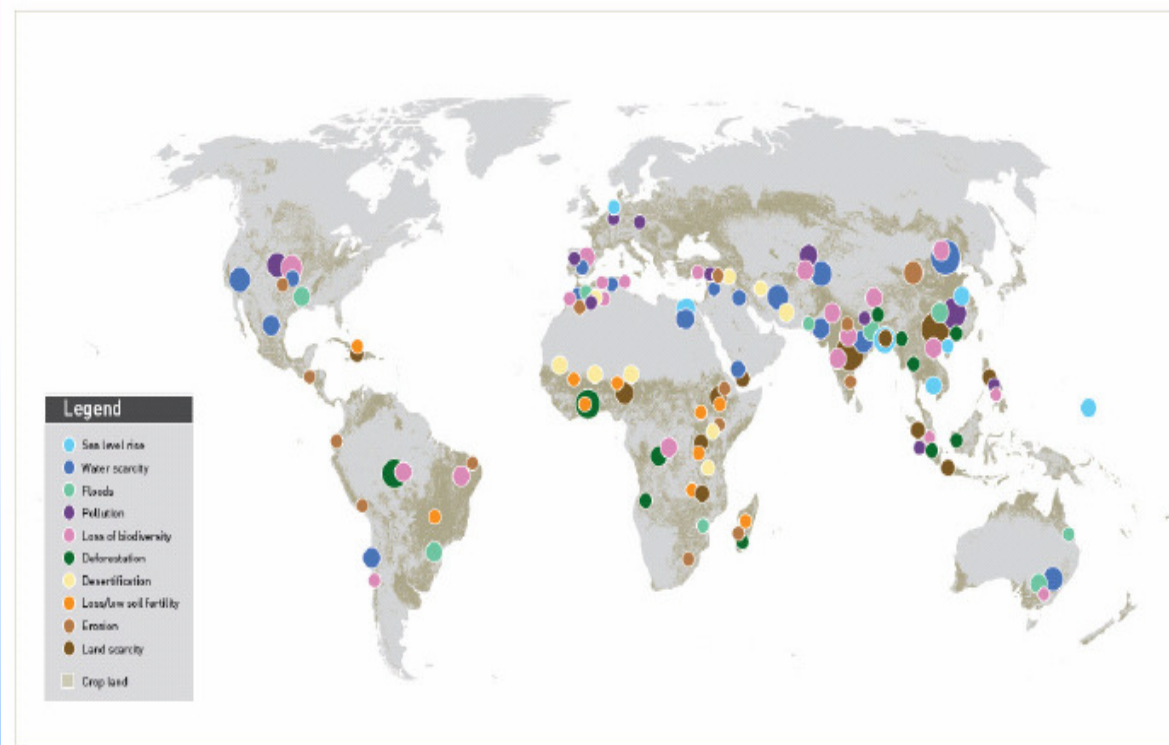




Threats to food systems' stability

- extreme weather events
- loss of ecosystem services
- energy scarcity
- economic and social disruption
- malfunctioning markets

Figure 4: Global distribution of risks associated with main agricultural production systems



Source: FAO 2011



Market based risks

- Integration of energy/agricultural markets
 - Biofuels (inelastic demand driven by mandates)
 - Agricultural input costs tied to energy prices
 - Energy market fluctuations transmitted to ag. markets
- “Financialization” of commodity markets
 - Commodity index funds – a source of volatility?
- Malfunctions in food trade systems
 - Export restrictions (25 countries in last 5 years)
 - Lack of transparency
 - Most vulnerable – net importers of food and energy



Solutions will vary by specific agro-ecological and socio-economic circumstances

but key features include:

1. Adopting resilient agricultural systems

- Sustainable crop intensification; “climate smart agricultural systems”
- Greater efficiency of input use/ technologies that augment/complement natural resources in production systems rather than substitute
- Building market chains to reduce waste, enhance participation and returns, send correct price signals

2. Decoupling Energy and Food markets

- Higher priority for energy efficient systems reflected in pricing and technology policies
- Remove biofuel mandates

Solutions cont.

3. Improving global food markets

- Assessing costs/risks of food trade compared with costs of alternatives (production costs/holding stocks) to identify “optimal” level of self-sufficiency/dependence
- Working towards global agreements to limit trade restrictions
- Improving transparency on food production, stocks, trades, policies

4. Safety nets

- National cash and in-kind transfer programs
- Global safety net programs (WB Global Food crisis Response, FAO Food import Financing; WFP)



Examples of measures to reduce instability and strengthen resilience in the Green Economy

Risk	Addressed by...	Cross-cutting measure
Extreme weather events	Implementing sustainable and resilient production systems	Building safety nets for the most vulnerable
Loss of ecosystem services	Implementing sustainable and resilient production systems Investing in rural development	
Energy scarcity	Decoupling food and energy markets Improving market governance	
Economic & social disruption	Investing in rural development	
Malfunctioning global markets	Increasing transparency Improving market governance Investing in rural governance	

Policies and Institutions

Moving from frameworks focused on maximizing productivity to maximizing risk adjusted returns in a Green Economy will require:

- Analytical approaches to capture costs/benefits of risks, uncertainty and instability; costs and benefits of natural resource use
- Increased investments in the agricultural sector
- Collective action to improve market governance globally
- Better integration of agricultural, energy, trade policies
- Technology development

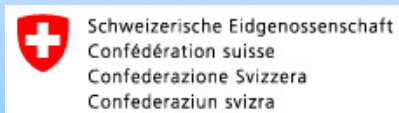
Main messages

- Reducing instability and increasing resilience of rural livelihoods is essential to achieving the Global Green Economy. Achieving a Green Economy will also increase food stability. The two are mutually reinforcing.
- Although the transition to sustainable and resilient agriculture is “win-win” in the long run, there are significant costs and barriers to overcome in the short run
- Markets have tremendous potential to drive green growth and poverty reduction but without better regulation/governance they can magnify instability



THANK YOU FOR YOUR ATTENTION

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Questions for discussion

- 1) In the face of macro-economic and natural shocks, how can food systems made more resilient? How could production systems deliver food security, economic development and climate resilience?
- 2) Is recent and future prospect of higher and volatile prices a valid reason for developing countries to invest more resources into increasing domestic production and decreasing reliance on food imports?
- 3) How likely are we to see the emergence of global governance mechanisms that improve to functioning of global markets? If collective action can produce greater overall welfare, why is it not happening?