Enhancing Resilience to Natural Disasters in Sub-Saharan Africa

Regional Economic Outlook for Sub-Saharan Africa

African Department
International Monetary Fund
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Outline

➢ Natural disasters in Sub-Saharan Africa
➢ Sources of vulnerabilities
➢ Macroeconomic and social impacts
➢ Risks posed by climate change
➢ Policies to enhance resilience
Based on the frequency of all disasters, Sub-Saharan Africa is about as exposed as other regions.
But the frequency of disasters varies across countries...

...as does the percentage of population affected

However, the region is more vulnerable, due to structural factors...

Sub-Saharan Africa: Vulnerability to Natural Disasters
...including high reliance on rain-fed agriculture,...

High share of agriculture in GDP

And nearly all agriculture rain-fed

Share of Agriculture and GDP per Capita, 2014

Percent of Rain-Fed Farmed Area, Average 2005–13
... and limited adaptation capabilities

High levels of absolute poverty

Selected Regions: Poverty Headcount Ratios, 2012

Limited financial sector development

Selected Regions: Agricultural Insurance Premium, 2011 (Percent of total)
These vulnerabilities exacerbate economic and social impacts through several channels...

**Channels**
- Lower human capital
- Damaged infrastructure
- Slowdown in economic activity

**Disruption**
- Reduced output and exports, plus increased imports
- Lower tax revenue and increased spending
- Reduced subsistence production and employment opportunities

**Impact**
- Lower growth
- Weakened external position
- Worsened fiscal position
- Weaker financial sector
- Social indicators worsen (food insecurity, poverty, inequality)
... And lead to a relatively higher cost of disasters in Sub-Saharan Africa than in other regions.

Average Economic Cost, 1990–2014
(Top 20 percent of disasters)

Average Human Cost, 1990–2014
(Top 20 percent of disasters)
The growth impact is significant in the long-term

**Muted growth impact in short-term**

Average impact on income per capita growth, 1990–2014
*(year of impact)*

**Significant impact in long-term**

Average impact on real GDP growth, 1990-2014
*(compounded over a 10-year period, percent)*
Natural disasters tend to worsen external vulnerabilities...

Econometric Estimates, Impact on Current Account Balance
...as well as fiscal positions and the financial sector

Weaker fiscal position in some cases


Increasing Non Performing Loans

Econometric Estimates, Impact on NPLs
Social conditions also deteriorate.

**Food insecurity**

Event Analysis, Food Security Index, 2011–14

**Higher poverty and inequality**

Event Analysis, Poverty and Inequality, 2011–13
Climate change adds to the risks

Rising temperatures

Temperature, 1980–2012

Increasing rainfall volatility

Rainfall, 1980–2012
The impact of climate change will be significant, although the exact magnitude is uncertain.

**Channels**

- Reduced agricultural productivity and output
- Desertification
- Hydro generation capacity
- Rising sea levels
- Environmental degradation
- Propagation of diseases

**Macro effects**

- Growth
  - Rising temperatures have reduced growth by 0.5 pp
  - Reduced rain has reduced agric. growth by 0.08 pp per cm.
- Fiscal
- Financial
Enhancing resilience requires a multi-pronged policy response

Mostly about risk management

Managing Disasters and Risks

With additional considerations

➢ Financial and technical considerations

➢ Many cost-effective initiatives undertaken in SSA
  – Including in low capacity LICs

➢ Enhancing resilience to natural disasters can also aid against climate change

➢ Local initiatives as part of global efforts
Emphasizing both risk reduction and transfer

**Risk Reduction**

- Risk assessment and information dissemination
- More resilient agriculture
- Economic diversification
- Physical infrastructure
- Stronger financial infrastructure

**Risk Transfer**

- Increased access cost-effective insurance
- Improved international assistance and coordination
But also dealing with residual risks and coping with disasters when they occur

**Risk Retention**

- Higher reserves and fiscal buffers can help in some cases
- Stronger social safety nets and public health systems
- Reliance on international assistance

**Post disaster response**

- Expenditure flexibility for disaster relief and reconstruction
- Domestic financing or aid
- Maintaining liquidity
- Exchange rate flexibility can complement adjustment
How can the IMF help?

Disasters
➢ Various instruments to meet Balance of Payment needs
➢ Augmentation of access
➢ Debt relief

Climate change
➢ Macro aspects and carbon taxation
Carbon taxation can help mobilize more revenues as part of a global response to mitigate climate change
Concluding Remarks

➢ Natural disasters generate significant economic and social costs

➢ Climate change adds to the uncertainty

➢ Imperative to accelerate efforts to enhance resilience
Thank You!

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