

Global Food Policy and Food Security Symposium Series

Assisting the Escape from Persistent Ultra-Poverty in Rural Africa

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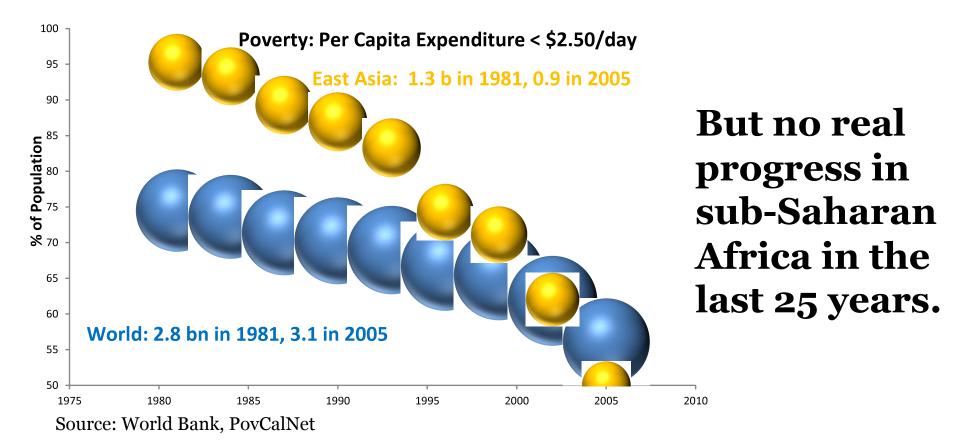


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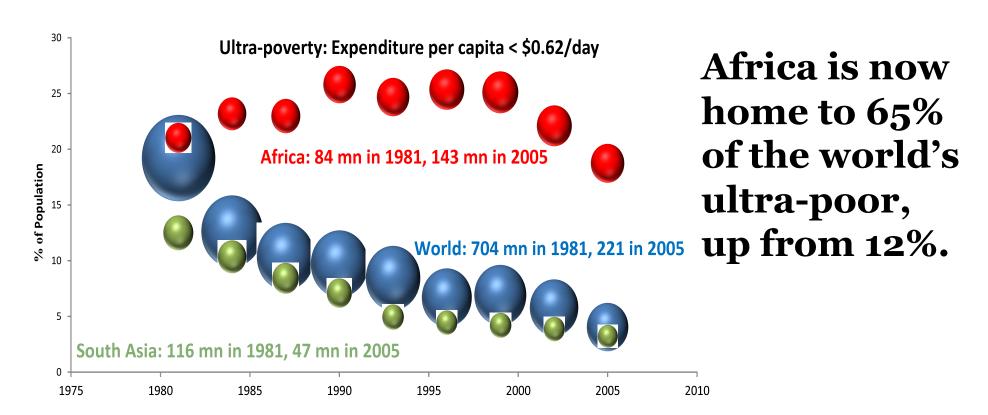
Chris Barrett Cornell University

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Rapid poverty reduction is possible ... as demonstrated by a generation of falling poverty rates, especially in East Asia.



The big challenge is the persistence of concentrated ultra-poverty ... in Africa, where it has almost doubled in a generation.

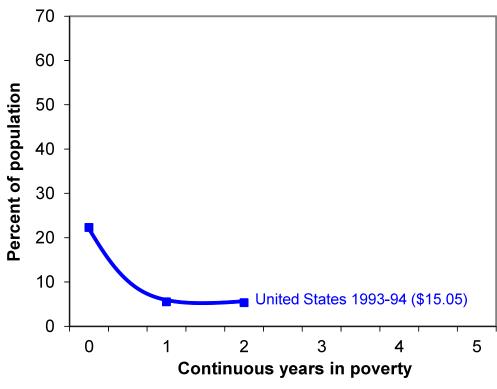


Source: World Bank, PovCalNet

Longitudinal data reinforce the story

- In the US, the median poverty spell length is only 4.5 months. The overwhelming majority of US poverty is transitory.
- In rural Africa, we don't know the median spell length! Most poverty is chronic, with complex and multiple causation.

Comparative Poverty Dynamics



Sources: USA: Naifeh (1998). Poverty line levels are all in inflation-adjusted 2002 US dollars.

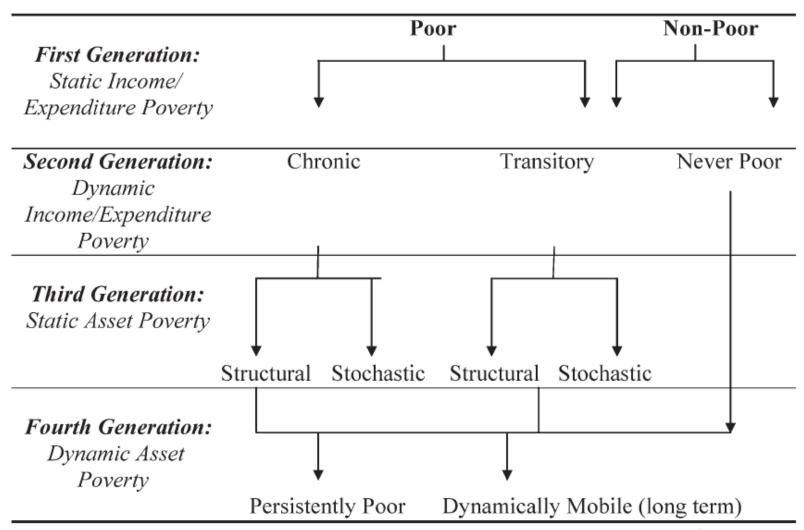
Evolving Measures/Concepts of Poverty

Such observations have fuelled growing interest in:

- "chronic" (as distinct from "transitory") poverty, recognizing that the duration of deprivation matters.
- richer study of "structural" (rather than "stochastic") poverty, emphasizing central role of changes in asset holdings and their productivity.
- still richer (and more difficult) study of asset and productivity dynamics, where human agency enters, with accumulation and learning behavioral responses that change asset holdings and productivity.



Evolving Measures/Concepts of Poverty



Carter & Barrett (JDS 2006)

Pastoralists in northern Kenya/southern Ethiopia

The Setting:

<u>Harsh physical geography</u>: rainfall 200-750 mm/yr, negligible transport/comms/power infrastructure.

Limited supporting institutions: inter-group violence, complex and contested property rights in land/water (even animals) – lots of coordination problems arise.

Pastoralists in northern Kenya/southern Ethiopia

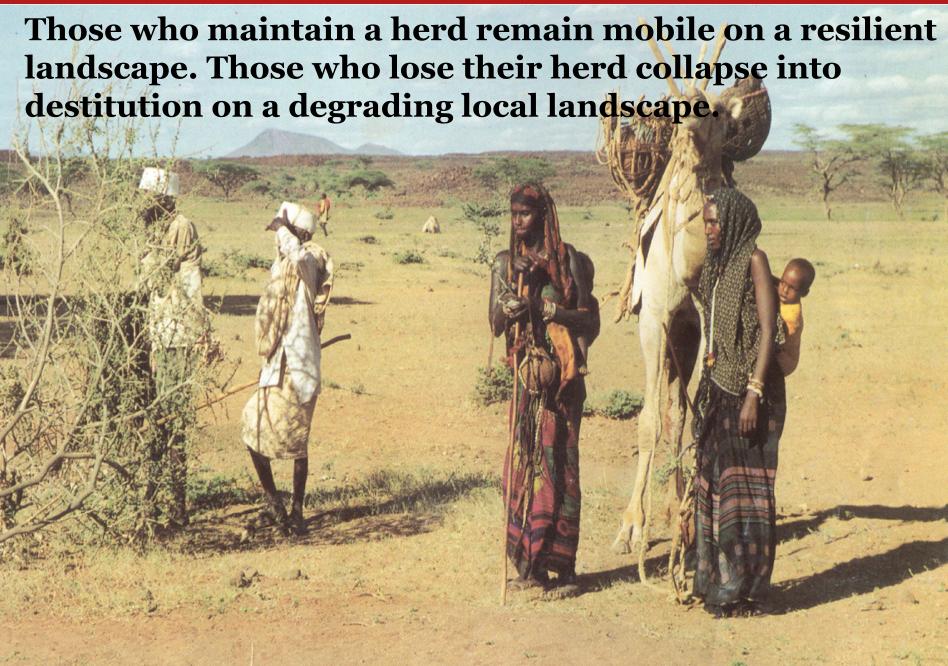
Behavioral and Welfare Outcomes:

High rates of persistent poverty based largely on herd sizes. Multiple herd size equilibria:

- low level associated with sedentarization and localized range degradation ... a resource degradation poverty trap
- high level associated with mobile pastoralism and resilient range ecology
- multiple equilibria arise due to uninsured climate risk, and are faced by those with moderate-high herding ability (low ability herders face unique, low-level equilibrium)

Little incentive to invest in other assets (incl. education)





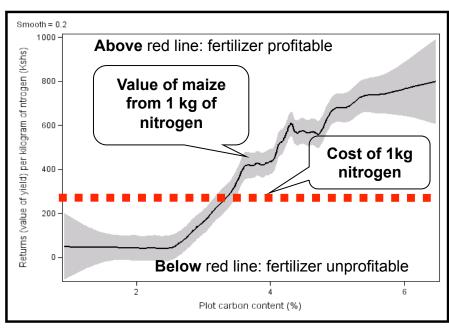
Western Kenyan maize systems

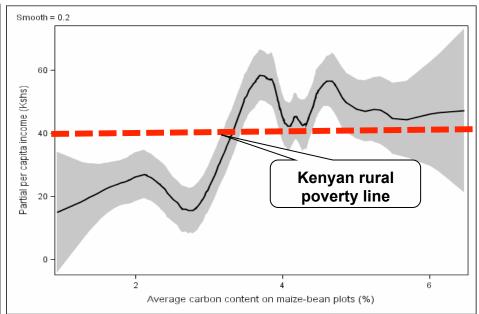
<u>Two stories</u>: (i) homeostatic systems of good living standards and reasonable productivity alongside (ii)more dominant modes of poverty, hunger and resource degradation.

- Lumpy cost and/or delayed payoff to tea, dairy, education and INRM push investments beyond the reach of the poor.
- Collapses into persistent poverty typically due to (health) shocks.
- Major problems of soil, pest and pathogen management, some due to coordination problems, others to technologies, poor markets and informational problems.

Western Kenyan maize systems

The result: poverty traps based on ill health and natural resource degradation. For example, the marginal returns to fertilizer application is low on degraded soils. The poorest farmers cultivate the most degraded soils.





(Source: Marenya and Barrett, *AJAE*, 2009).

Why persistent ultra-poverty?

Multiple, interacting causes:

- 1) Stocks govern the dynamics of the system. Low asset stocks
- human, financial, natural and physical capital due to:
 - limited investment capacity (access to credit/savings)
 - limited security (risk natural/human sources)
 - limited returns to investments (productivity)
- 2) Productivity maps stocks into (income/expenditure) flows. Low productivity of asset holdings due to:
 - limited technological advance, esp. in agriculture
 - high costs of market access (mkts are technologies)
 - inefficiencies due to risk, weak institutions, etc.

Why spatially concentrated ultra-poverty?

Again, multiple, interacting causes:

- Physical geography limiting:
 - costly access to markets, both internal and external
 - high prevalence of disease (human and animal)
 - limited water availability, poor soils (productivity)
- Institutional weaknesses reinforce geographic disadvantage:
 - limited range of public goods and services
 - ensuring security more difficult
 - coordination failures in communities/ markets/ states

Result is fractal poverty traps (Barrett & Swallow 2006 WD) and associated geographic poverty traps.

Poverty traps

Reinforcing feedback:

Low productivity causes poverty.

Poverty causes hunger, natural resource degradation and weak institutions.

But hunger, weak institutions and degraded natural resources also cause poverty and low productivity.

Hence the vicious cycle of poverty traps, hunger, natural resources degradation and weak institutions.



Poverty traps

Two key features of poverty traps:

1) Initial conditions matter

- "It takes money to make money" ... asset holdings and their productivity through technologies and markets matters enormously. Investment in asset accumulation and productivity growth is key.
- Not just private asset holdings: Also public goods and services ... institutional and physical infrastructure to crowd in private investment.

Poverty traps

Two key features of poverty traps:

2) Risk matters

- Direct loss of productive assets to biophysical shocks (disease, drought, etc.), conflict, crime, etc.
- Responses: ex post coping (e.g., school drop-outs, distress asset sales) and ex ante risk management (e.g., low-risk, low-return livelihoods).
- Social protection measures, whether state-based formal systems or community-based informal ones, are crucial to prevent catastrophic collapse and to preserve investment incentives.

Start w/ag and rural dev't

"Most of the people in the world are poor, so if we knew the economics of being poor we would know much of the economics that really matters. Most of the world's poor people earn their living from agriculture, so if we knew the economics of agriculture we would know much of the economics of being poor."

- Theodore W. Schultz

Opening sentences of 1979 Nobel Prize in Economics lecture

Reason 1: location, livelihood and asset holdings

- Most ultra-poor live in rural areas (the rural-urban poverty gap increases in poverty depth).
- >75% of ultra-poor work in agriculture, the most unskilled labor-intensive sector. So productivity growth mainly benefits poor workers (incl. self-employed). Because the poor use off-farm labor markets for financial liquidity, labor gains foster on-farm investment by farm workers.
- The non-human productive assets of the ultra-poor are mainly agricultural land and livestock, followed by transport and communications ... key inputs to agriculture.

Start w/ag and rural dev't

Reason 2: Budget exposure

- Food is typically 50-80% of ultra-poor's total expenditures.
- Most African farmers are net food buyers, <u>not</u> net sellers. So the food price effects of agricultural productivity growth reinforce gains to the rural poor by reducing cost of living.
- Hence the seriousness of the current global food price crisis for the poor, including most small farmers in Africa! (Also, brings increased political unrest, which also hurts the poor.)
- Population and income growth in Africa/Asia will expand food demand, driving prices higher still w/o productivity gains.

Start w/ag and rural dev't

An example from Madagascar:

A doubling of rice yields:

- reduces the share of food insecure households by 38%
- shortens the average hungry period by one-third (1.7 months)
- increases real unskilled wages in lean season by 89 % (due to both price and labor demand effects)
- All the poor benefit: unskilled workers, consumers, and net seller producers ... and the poorest gain most.



(Source: Minten and Barrett, World Development, 2008).

No one size fits all approach is viable. Need to contextualize and to target interventions carefully. But there are several key principles:

1. Build and protect ultra-poor's productive assets

Multiple assets matter:

- 1) Human capital
- 2) improved soil and water conservation
- 3) livestock (esp. disease resistance)
- 4) investible funds (savings, credit)

1. Build and protect ultra-poor's productive assets

Priority intervention domains include:

- direct provision of high return investments with long lags (e.g., free maternal and child health care, education).
- for privately held assets (land, livestock, equipment, education, non-farm businesses, etc.), improve investment incentives through greater security, financial services, and complementary public goods/services (incl. social protection). Pay for public goods (incl. sunk costs of creating new private goods and services) but avoid subsidies of private goods.
- better governance mechanisms for public assets, including common pool assets (rangelands, water, forest, etc.).

2. Improve ultra-poor's asset productivity

- 1) Improved production/processing technologies
 - Requires increased investment in basic and applied ag research in Africa. Avg returns ~35%, but only 4% of public expenditures are on ag and a small fraction of that goes into research.
- 2) More efficient/remunerative marketing channels
 - Markets analytically equivalent to technologies. Reduced margins/losses enable avoiding the "food price dilemma".

But uptake/participation turns on assets, so remember #1!



3. Improve risk management options for ultra-poor

Regressivity, multidimensionality and context-specificity of uninsured risk exposure make this a serious challenge. Focus on insuring assets.

Risk reduction:

Improved crops and livestock, better water control, diversification, peace, disease control

Risk transfer:

Improved markets, index-based risk finance, global humanitarian response





4. Facilitate favorable transitions out of agriculture

Must equip the next generation to transition into remunerative non-farm employment.

Keys are (i) supporting physical and institutional infrastructure;



(ii) early childhood health, nutrition and education: 1st 1000 days from conception. Closely tied to improvements to parents' productivity, risk management and asset holdings.

Reasons for hope

There are strong reasons for hope:

- 1) East Asian and, increasingly, South Asian experience.
- 2) Real agricultural output growth is accelerating in SSA at long last ... positive per capita rates of food output growth. This is fuelling rapid economic growth generally in Ethiopia, Ghana, Mozambique, Rwanda, Uganda, etc.
- 3) Renewed public sector and foundation attention (e.g., Gates/AGRA, CAADP, L'Aquila commitment, Feed the Future) in both agriculture and health/nutrition on both building and protecting assets and improving productivity.

Reasons for hope

There are strong reasons for hope:

- 4) Growing private investment in rural Africa, including in providing financial, ICT, power and transport services as well as in modernizing agricultural value chains. Improved technologies and management practices are shrinking marketing margins and improving market access.
- 5) Spreading peace and improving governance. In Uganda, conflict risk costs ~0.5% GDP, equal to the cost of conflict losses. Increased government accountability and improved policies have ushered in new hope and opportunity in many (but still too few!) places in Sub-Saharan Africa.

Conclusions

Persistent ultra-poverty is now an affliction suffered mainly – and quite disproportionately – by rural Africans.

The problems are structural. They stem from meager productive asset holdings and rudimentary productivity associated with weak geography, governments, institutions, markets and technologies.

Agricultural and rural development is central to assisting the escape from persistent ultra-poverty. But the basics are well known: build the poor's assets, improve their productivity, reduce their risk exposure and help their kids move off farm.

There are hopeful signs of progress in these directions!



Thank you

