AGRICULTURE PRODUCTIVITY AND POVERTY ERADICATION IN AFRICA

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UN Conference
Bangkok, May 3-6, 2016

Introduction

- Income poverty is widespread in Africa.

 -- About 400 million people in Sub-Saharan Africa are poor.

- Non-income poverty is equally pervasive.

 -- human capital is poor (low life expectancy, and low education achievement).

- Evidence: agricultural productivity growth in Africa is negatively correlated with poverty.

Poverty in Africa in relation to other regions [# of poor people, millions], Poverty Line is $ 1.90 a day

Region	1990	1999	2011
Sub-Saharan Africa	56.8% [287.6]	58.0% [373.6]	44.4% [**393.6**]
South Asia	50.6% [574.6]	41.8% [568.0]	22.2% [**361.7**]
Developing countries	44.4%	34.3%	16.5%
World	37.1%	29.1%	14.1%

Poverty in Africa: a comparative perspective

- Between 1990 and 2015, headcount ratio in Africa fell by ~ 6%.
- In South Asia, it fell by nearly 28%.
- In other developing regions it fell by much more.
- ✓ In Africa the poor increased between 1990-2015, but numbers fell uniformly in other regions.
- ✓ The African region has the highest poverty rate, and the largest number of poor people in the world.
- ✓ Global poverty is concentrated in rural Africa.

Agriculture Productivity and Poverty

- Agricultural productivity growth reduces poverty through a number of channels:

❏ Raises farm and off-farm incomes.

❏ Improves health and nutrition.

❏ Reduces food poverty by lowering food prices.

❏ Increases wage employment in rural and urban sectors.

❏ Transforms agriculture into a surplus generating sector through rural-urban migration.

Determinants of agricultural productivity

- adoption of improved farm technologies, such as farm machinery, new seeds, pesticides, and irrigation.

- Public policies that encourage farmers to innovate and take risks.

- Farmers' human capital.

Nexus between agricultural transformation and poverty reduction

- To increase the likelihood of poverty reduction through agricultural transformation, the following issues should be considered:

✓ Relative size of rural populations (see Table A2).

-- The larger the rural population, the more likely that productivity will reduce poverty.

✓ Factors responsible for low factor productivities in African agriculture, such as underinvestment in agricultural research, unfavorable geographic factors, conflicts, and inability to bear production and marketing risks.

-- Transformation of the sector in the presence of conflicts or risky production environment will do little to reduce poverty.

Nexus…

- ✓ Productivity outside agriculture.

-- Investments designed to keep human capital in agriculture can be wasted if returns to such capital is significantly higher in urban areas (Collier, 2008).

- ✓ The responsiveness of rural poverty to agricultural productivity growth.

-- If rural poverty is insensitive to a productivity increase, then alternative non-farm interventions should be considered.

Nexus…

- The size of smallholder sector relative to large-scale farms.

-- An investment to reduce food poverty in agriculture should favor a large smallholder sector for equity reasons.

- Gender division of labor in the food chain. Women are key to food security in Africa.

-- However, men's non-food activities might be equally important in poverty reduction.

A framework for measuring and eradicating poverty

- The FGT formula: $P_\alpha = 1/N \sum_q [(\mathbf{z} - y_i)/\mathbf{z}]^\alpha$
- where,
- N = the total population.
- q = population below the poverty line.
- $\mathbf{z}$ = the poverty line.
- y_i = income of person i.
- α = poverty aversion parameter.
- P_α = FGT poverty measures.

❑ If y_i for all q is too low and can be approximated by zero, all FGT measures are equal.

Framework…

- ✓ The framework shows how poverty can be <u>measured</u> and <u>eradicated</u>.
- ✓ Specifically, sufficient increases in y and α eradicate poverty.
- A high value for <u>α</u> directs anti-poverty interventions to regions with concentrations of extreme poverty.
- The current global poverty profile suggests eradication efforts should be in rural Africa.

Framework…

- Within rural Africa focus should be on agricultural transformation.

-- [recognizing its interdependence with other sectors, especially the informal and agro-based industries].

-- [recognizing the need for interventions to reduce non-income poverty].

Conclusion

❑ Extreme global poverty is concentrated in rural Sub-Saharan Africa.

❑ The region has the highest poverty rate, and the largest number of the poor in the world.

❑ Productivity growth in African agriculture is negatively correlated with poverty.

-- In many studies, this relationship is causal: productivity growth (especially labor productivity) *reduces* poverty.

Conclusion…

- Resource constraints are some of the reasons why productivity-enhancing interventions are not being implemented in Africa.

- However, 'insufficient aversion to poverty' among African governments seems to be the main obstacle to the implementation of these interventions.

Annex Table A2: Fraction of total population in African agriculture, 2010

Region	Agricultural Population	Total Population	Agricultural Population as a Fraction of Total
Eastern Africa	236442	125471	.731
Middle Africa	71331	125471	.569
Northern Africa	64913	208146	.312
Southern Africa	7414	54458	.136
Western Africa	132840	295347	.450
Africa, Total	512940	1006906	.509

Annex Table A2…

- Table A2 (last column) shows that, except for Northern and Southern Africa, the continent has large agricultural populations.
- The remaining farm populations vary from 45% of the total in Western Africa to 73% on the Eastern part.
- The mean is 51%.
- A much larger fraction of the population depends on agriculture – because urban activities are linked to it.

THANK YOU