Overview of Poverty, Food Security, and **Malnutrition in SSA and South Asia**

This report is commissioned by ICRISAT to accompany the proposal on
CGIAR Research Program on
Grain Legumes and Dryland Cereals Agri-food Systems

(This document is not to be used for citation purposes)

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Poverty

The global rate of extreme poverty has decreased from 28% in 1999 to 11% in 2013. However, most of the reduction occurred in East Asia and Pacific and South Asia, and more particularly in two very populous countries in these regions: China and India (World Bank Group, 2016). By 2013, only two regions had poverty rates higher than that recorded at the global level: South Asia with 15% and sub-Saharan Africa with more than 40%. In sub-Saharan Africa, poverty rates have decreased over time but the number of poor people has increased due to population growth (World Bank – Africa RISING). As of 2013, the majority of the extreme poor lived in sub-Saharan Africa and South Asia: 51% and 33%, respectively.

In terms of poverty across the drylands in South Asia and sub-Saharan Africa, the most recent data is for 2005 and it shows that about 42% of the poor in South Asia lived in the drylands that year; the proportion was 39% for sub-Saharan Africa.

Food security

Food security has also improved on a global scale but not as fast as poverty: between 2000 and 2015, the global prevalence of undernourishment decreased from 15% to 11% of the world's population. This suggests that poverty reduction doesn't automatically translate into enhanced food security.

In 2000, the region with the highest rate of undernourishment was sub-Saharan Africa where 30% of the population was undernourished. South Asia followed with 18%. The two regions maintained their rankings in 2015, although the prevalence rate decreased slightly in sub-Saharan Africa and barely changed in South Asia.

Malnutrition

Child growth for the first 1000 days is a recognized indicator for malnutrition in a community. Trends in child malnutrition have decreased globally since the year 2000. However, by 2016, SSA and South Asia still had the highest prevalence of child stunting: 34% and 36%, respectively (Table 1). Both regions accounted for 77% of the total number of stunted children recorded globally; this amounts to about 199 million stunted children split roughly equally between SSA and South Asia: 62 million in South Asia and 57 million in SSA. The high prevalence of stunting in SSA and South Asia suggests that human diet and food availability in these two regions is inadequate, leading to a large number of people suffering from malnutrition.

Future projections

Assuming moderate growth in population and income across the world (the IPCC's SSP2 middle-of-the-road scenario), sub-Saharan Africa would still have the lowest per capita GDP by 2050: US$7790. South Asia would follow with a GDP per capita which would be about twice that of SSA (Table 2). Under climate change, poverty outcomes should worsen, given the unpredicted effects of weather extremes and long-term climatic change on the biotic and abiotic stresses affecting food production. Here, we use the HadGEM general circulation model (drier future climate) combined with IPCC's Representative Concentration Pathway 8.5 (rapid climate change caused by higher emissions). Our analysis is on the bio-economic effects of the abiotic stresses brought by long-term climate change. Biotic stresses, weather extremes and the effect of long-term climate change on non-agricultural sectors are not considered.

Region[1]	Ratio (% pop)	Share of world total (%)	Ratio (% pop)	Share of world total (%)	Ratio (% pop)	Share of world total (%)	Ratio (% pop)	Share of world total (%)
Table 1. Global and regional trends in indicators for poverty, food security and malnutrition								
	Poverty headcount at US$1.90 a day							
	1999	1999	2005	2005	2010	2010	2013	2013
EAP	37	45	18	29	11	23	4	10
LAC	14	4	11	5	6	4	5	4
MENA	4	1	3	1	NA	NA	NA	NA
SA	NA	NA	34	38	25	37	15	33
SSA	57	22	50	29	46	37	41	51
World	28	100	20	100	16	100	11	100
	Prevalence of undernourishment							
	2000	2000	2005	2005	2010	2010	2015	2015
EAP	16	24	16	23	13	22	10	18
LAC	12	7	9	5	7	5	6	4
MENA	11	2	12	2	11	3	NA	2
SA	18	28	21	34	16	33	16	36
SSA	30	22	28	22	25	25	23	27
World	15	100	15	100	12	100	11	100
	Prevalence of child stunting							
	2000	2000	2005	2005	2010	2010	2016	2016
EAP	25	18	20	16	16	14	12	12
LAC	18	5	16	5	13	4	11	4
MENA	23	4	20	4	18	4	15	5
SA	51	45	46	45	42	43	36	40
SSA	43	25	40	29	38	33	34	37
World	33	100	30	100	26	100	23	100

1: LAC: Latin America and Caribbean; EAP: East Asia & Pacific; MENA: Middle East & North Africa; SAS: Southern Asia; SSA: Sub-Saharan Africa

Source: Poverty headcount and prevalence of stunting - regional data from World Bank Group database; Prevalence of undernourishment - regional data from FAOSTAT; for East Asia & Pacific combination of East Asia and Oceania; for MENA, Algeria, Bahrain, Egypt, Iran (Islamic Republic of), Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Qatar, Saudi Arabia, Syrian Arab Republic, Tunisia, Turkey, United Arab Emirates, West Bank and Gaza Strip, Western Sahara, Yemen

Given the projected growth in income, the number of people at risk of hunger would decrease. By 2030, the number of people at risk of hunger would reach 17% for SSA and 8% for South Asia; these rates would further reduce by 2050. However, both regions are projected to account for the highest number of people at risk of hunger in 2030 and 2050. In 2030, SSA would account for 38% of the projected total number of people at risk of hunger globally; South Asia would follow by accounting for 28%. By 2050, sub-Saharan Africa would still account for more than one-third of the global projected number of people at risk of hunger (Table 2).

Child stunting would also decrease substantially assuming moderate growth in per capita income across the world (Table 2). However, in spite of these improvements, the majority of stunted children would still be found in SSA and South Asia unless measures are put in place to improve the human diet and food quality, by especially enhancing the availability of proteins, among others. Most of the GLDC crops have a high content of protein and can be one of the drivers for changing this situation if appropriate R&D investments can be considered.

Region[1]	GDP per capita (000 US$)[2]		Hunger (% of pop)[3]		Hunger - Regional share of world total (%)[4]		Malnourished children - change relative to 2010 (%)[5]		Malnourished children - regional share of world total (%)	
	2050 - NoCC	2050 - HadGEM	2030	2050	2030	2050	2030	2050	2030	2050
EAP	25.84	25.52	5	4	6	6	-31	-58	2	2
LAC	35.41	34.52	5	5	20	22	-45	-62	9	8
MENA	26.04	25.66	6	5	6	8	-31	-52	2	2
SA	13.88	13.27	8	4	28	21	-16	-32	50	50
SSA	7.79	7.50	17	11	38	40	8	-4	35	38
World	25.19	24.67	7	5	100	100	-15	-30	100	100

Table 2: Projections on income, hunger and child malnutrition to 2030 and 2050, by region

Source: IMPACT results from Rosegrant et al. 2017

1: LAC: Latin America and Caribbean; EAP: East Asia & Pacific; MENA: Middle East & North Africa; SA: Southern Asia; SSA: Sub-Saharan Africa
2: GDP per capita: constant 2005 USD; 3: Hunger: population at risk of hunger (% of population); 4: Hunger – regional share of world total: regional share for number of people at risk of hunger (% of world total); 5: Malnourished children: change in number of malnourished children relative to 2010 (%)

Importance of GLDC crops – (micro-level analysis)

Agriculture is an important economic sector in sub-Saharan Africa and South Asia. The contribution of agriculture to total GDP was 18% in South Asia and 17% in sub-Saharan Africa in 2014 compared to a world average of 4% (World Bank Group Database). This suggests that agriculture is a key livelihood in these two regions, with recent estimates showing that agriculture accounts for 50% of all employment in South Asia (World Bank Group Database). Such results imply that improving living standards in sub-Saharan Africa and South Asia should involve greater support for agriculture, the main livelihood in these regions.

Data from the World Bank's Living Standards Measurement Survey (2012/13) was used to analyze cowpea consumption and expenditures patterns across income quintiles in Nigeria. Results show that cowpea is an essential food legume in Nigeria. The poorest households in the country spend a substantial portion of their food budget on cowpea. More specifically, poor urban households spend about 50% of their food budget on cowpea expenditures. For rural households, the share is about 60%. In addition, per capita cowpea consumption is higher in wealthier households, suggesting that rising income leads to an increase in cowpea consumption (Figure 1).
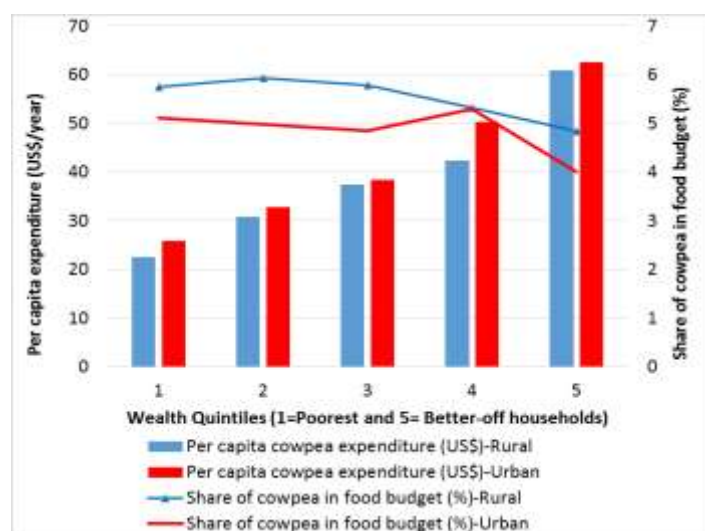

Figure 1: Cowpea expenditures in Nigeria.