The Cost of Hunger in Africa

Implications of Child Undernutrition for Africa's Social and Economic Transformation
COHA – An African Union Led Initiative in Nutrition implemented by Member States

The Cost of Hunger in Africa is an African Project, led by the African Union, implemented by members states, and will help to improve the lives of Africa’s children.

NEPAD provides technical guidance in nutrition related issues and serves as a convener to insure the integration in complementary regional actions.

The technical aspects are led by UNECA, in a South-South partnership with ECLAC as part of a regional program to develop analytical tools.

The World Food Programme provides field-level expertise and support at country level through its expanded presence in Africa.
A Brief RECAP of the COHA

Feasibility Analysis

Adapting Methodology to the African Context w/support of 4 Pilot countries

2012

Presented at AU Summit

AU/ECA 5th Conference of MOFAD, Declaration 898

Adapting Methodology to the African Context

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A Brief RECAP of the COHA

1. Urges member States to intensify their efforts and investments to address acute and chronic hunger, applying the principles and priorities put forward in the African Regional Nutrition Strategy and Comprehensive Africa Agriculture Development Programme;

2. Requests the African Union Commission and the Economic Commission for Africa to intensify their support for these efforts and investments by member States;

3. Welcomes the multi-country study on the cost of hunger in Africa being led by the African Union Commission and the Economic Commission for Africa, in collaboration with the World Food Programme, to quantify the aggregate social and economic impacts of chronic hunger in Africa;

4. Anticipates that the study will lead to increased understanding among key national and regional policymakers of the depth and breadth of child undernutrition on the continent, and its aggregate social and economic consequences, and thereby establish a firmer foundation for policies and investments to put an end to hunger in Africa;

5. Comments the consultative process through which the study is being implemented, in particular the technical oversight role of the African Task Force on Food and Nutrition Development;

6. Notes that the African Task Force on Food and Nutrition Development has endorsed the methodology being applied in the study;

7. Acknowledges the technical support for the study being provided by the United Nations Economic Commission for Latin America and the Caribbean, as an excellent illustration of South-South cooperation;

8. Takes note of the preliminary results of the study indicating potentially large aggregate social and economic impacts of child undernutrition in African contexts;

9. Requests the African Union Commission and the Economic Commission for Africa, in collaboration with the World Food Programme, to expedite the successful completion of the study, including wide dissemination of the results at country and regional levels;

10. Urges member States and partners participating in the study to provide the necessary resources for the successful completion of the study.
12 Initial Participating Countries

4 Pilot Countries
- Egypt
- Swaziland
- Ethiopia
- Uganda

8 Roll-out Countries
- Burkina Faso
- Ghana
- Botswana
- Malawi
- Mauritania
- Rwanda
- Kenya
- Cameroon

This map was produced as a reference aid only. The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.
The time for Africa is now

Most important economic expansion period in the last 30 years. Yet, it is not enough

Shift from a commodity-driven growth strategy, diversified, industrialization and integration of products into national and regional value chains.

- Youth population with decent labour opportunities in economic activities that will also help Africa move towards a more industrialized and urbanized society that builds on the continent’s comparative advantages.

Focus on ensuring human capital growth through improved health, education and labour productivity.

- The gap in access to health services between the rural and urban population must be. The continent cannot afford the losses in human capital associated with poor health and its consequences to society.

Implications of urbanization in Labour Markets

- Africa, having the highest percentage of youth, with over 40 percent of the population in sub-Saharan under the age of 15, stands to gain important human capital by reducing dropout rates in schools and increasing the educational levels.

The Cost of Hunger in Africa (COHA) study demonstrates that the transformation agenda for Africa cannot effectively be achieved without addressing child undernutrition.
Framework for the Cost of Hunger in Africa

Undernutrition

- Higher mortality risk
- Higher morbidity risks: Acute and Chronic illnesses

Increased demand to social services

- Lower educational performance
- Social inclusion problems

Lower Performance in Manual Labor

Lower Productivity

- Higher labor absenteeism
- Cognitive and psychomotor underdevelopment
- Lower physical capacity
- Increased demand to social services
- Lower performance in manual labor
Presentation of Results

The following data are the result of the work carried out by a national implementation team that collected, processed and analyzed official data, and supported the adaptation of the model to estimate the social and economic impact of child undernutrition in Africa.
Malnutrition in children predisposes to a variety of health and developmental risks that can be reversed if tackled at the early stages of a child’s life. For every additional case of child illness, both the families and health system and are faced with additional economic costs.
Incremental morbidity associated with underweight children

**Egypt**
- Underweight children: 659,000
- Incremental morbidity Episodes: 901,440
- Economic Cost: US$213 million

**Ethiopia**
- Underweight children: 3.0 million
- Incremental morbidity Episodes: 4.4 million
- Economic Cost: US$155 million

**Swaziland**
- Underweight children: 9,645
- Incremental morbidity Episodes: 25,446
- Economic Cost: US$7 million

**Uganda**
- Underweight children: 975,000
- Incremental morbidity Episodes: 1.3 million
- Economic Cost: US$259 million

Graph showing percentage distribution of incremental morbidity in each country, categorized by conditions such as Anaemia, Fever/Malaria, Acute Respiratory Infection, and Diarrhoea.
Incremental child mortality associated to underweight children

**EGYPT**
11 percent of child deaths associated with undernutrition
378,591 additional cases of child mortality

**ETHIOPIA**
28 percent of child deaths associated with undernutrition
110,220 additional cases of child mortality

**SWAZILAND**
8 percent of child deaths associated with undernutrition
1,351 additional cases of child mortality

**UGANDA**
15 percent of child deaths associated with undernutrition
28,102 additional cases of child mortality
An child who is undernourished, is at risk of suffering from cognitive and physical impairment, which impacts the quality of life as an child and an adult within the society. Stunted children are more likely to repeat grades in school or even drop out.

Effects on EDUCATION
Results from 4 Pilot Countries
The higher risk of stunted children on repeating grades resulted in incremental grade repetition rates that ranged from 2% to 4.9% more than non-stunted children.
# Economic Cost of Grade Repetition of Stunted Children

*Primary education only. No data for secondary education.*

<table>
<thead>
<tr>
<th>Pilot Country</th>
<th>Stunted School-age Population (5-18 years)</th>
<th>Total Reported Grade Repetition (2009)</th>
<th>% of Repetitions Associated with stunting</th>
<th>Number of Repetitions associated with stunting (2009)</th>
<th>% of Repetition in Primary Education</th>
<th>Local Currency (in millions)</th>
<th>USD (in millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Egypt</td>
<td>7.9 million</td>
<td>830,603</td>
<td>9.6%</td>
<td>79,391</td>
<td>59%</td>
<td>EGP 271 million</td>
<td>49</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>17.5 million</td>
<td>963,599</td>
<td>16%</td>
<td>152,488</td>
<td>100%</td>
<td>ETB 93 million</td>
<td>8</td>
</tr>
<tr>
<td>Swaziland</td>
<td>168 thousand</td>
<td>47,371</td>
<td>12%</td>
<td>5,550</td>
<td>86%</td>
<td>SZL 6 million</td>
<td>1</td>
</tr>
<tr>
<td>Uganda</td>
<td>5.8 million</td>
<td>1.8 Million</td>
<td>7.3%</td>
<td>133,931</td>
<td>96%</td>
<td>UGX 20 billion</td>
<td>9.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>90%</td>
<td></td>
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</tbody>
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<thead>
<tr>
<th>% of Cost Covered by Families</th>
<th>% of Cost Covered by Public system</th>
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<tbody>
<tr>
<td>Uganda</td>
<td>54%</td>
</tr>
<tr>
<td>Swaziland</td>
<td>30%</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>64%</td>
</tr>
<tr>
<td>Egypt</td>
<td>39%</td>
</tr>
</tbody>
</table>
Estimations in Schooling Differential of Working Age Population

The higher risk of stunted children on dropping out of school resulted in lower schooling of the stunted population that ranged from -0.2 to -1.2 years.

Source: UNECA, based on the official household surveys in each country.
Note: Schooling achievement based on information of head of household. It does not represent the schooling level of the population.
Theory indicates that when a child is stunted, this will impact them when they enter the labour force. On the whole, stunted workers are less productive than non-stunted workers, and are less able to contribute to the national economy.

Effects on **PRODUCTIVITY**

Results from 4 Pilot Countries
Impact of Child Undernutrition in Working Age Population

**EGYPT**
An estimated 40 percent of workforce is stunted

20 million people in the workforce were stunted as children

**ETHIOPIA**
An estimated 67 percent of workforce is stunted

26 million people in the workforce were stunted as children

**SWAZILAND**
An estimated 40 percent of workforce is stunted

270,000 people in the workforce were stunted as children

**UGANDA**
An estimated 54 percent of workforce is stunted

8 million people in the workforce were stunted as children
Economic Impact of Child Undernutrition in Productivity of Working Age Population

Distribution of Manual and Non-Manual Labour

- **% Working Age Population in Manual Activities**
  - Egypt: 64%
  - Ethiopia: 93%
  - Swaziland: 62%
  - Uganda: 91%

- **% Working Age Population in NON-Manual Activities**
  - Egypt: 36%
  - Ethiopia: 7%
  - Swaziland: 38%
  - Uganda: 9%

Losses in Productivity by type of Labour (in millions of $US)

- **Lost Productivity in Manual Activities**
  - Egypt: $US 1,951
  - Ethiopia: $US 30
  - Swaziland: $US 15
  - Uganda: $US 117

- **Lost Productivity in Non-Manual Activities**
  - Egypt: $US 484
  - Ethiopia: $US 53
  - Swaziland: $US 1090
  - Uganda: $US 202
The impact of undernutrition on child mortality rates increases in countries with higher prevalence. A percentage of the WAP is absent from the economy due to incremental risk associated to undernutrition.
## Economic Impact of Child Undernutrition

<table>
<thead>
<tr>
<th>Country</th>
<th>Losses in Local Currency</th>
<th>Annual Losses in USD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Egypt</td>
<td>EGP 20.3 billion</td>
<td>$3.7 billion</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>ETB 55.5 billion</td>
<td>$4.5 billion</td>
</tr>
<tr>
<td>Swaziland</td>
<td>SZL 783 million</td>
<td>$76 million</td>
</tr>
<tr>
<td>Uganda</td>
<td>UGX 1.8 trillion</td>
<td>$899 million</td>
</tr>
</tbody>
</table>

The aggregate cost estimation for Health, Education and Productivity are equivalent to between **1.9% to 16.5% of GDP**
What are the potential savings of a reduction in child stunting prevalence?
## Summary of Savings Scenarios

<table>
<thead>
<tr>
<th>Country</th>
<th>Average Annual Savings</th>
<th>Scenario #1: Halving the Prevalence of Child Undernutrition by 2025</th>
<th>Scenario #2: The ‘Goal’ Scenario: “10% Stunting and 5% Underweight by 2025”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Egypt</td>
<td>US$133 million</td>
<td></td>
<td>US$165 million</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>US$376 million</td>
<td></td>
<td>US$784 million</td>
</tr>
<tr>
<td>Swaziland</td>
<td>US$3 million</td>
<td></td>
<td>US$4 million</td>
</tr>
<tr>
<td>Uganda</td>
<td>US$86 million</td>
<td></td>
<td>US$128 million</td>
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Note: All estimations are based on the period from 2009 to 2025.
### 10 Things we should know about child nutrition in Africa*

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<tbody>
<tr>
<td>1</td>
<td>Today, there are more stunted children in Africa than 30 years ago</td>
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<tr>
<td>2</td>
<td>61 to 82 percent of all cases of child undernutrition go untreated</td>
</tr>
<tr>
<td>3</td>
<td>Most of the health costs associated with undernutrition occur before the child turns one year old</td>
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<tr>
<td>4</td>
<td>Between 7 to 16 percent of repetitions in school are associated with stunting</td>
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<tr>
<td>5</td>
<td>Stunted children achieve 0.2 to 1.2 years less in school education</td>
</tr>
<tr>
<td>6</td>
<td>8 to 28 percent of all child mortality in Africa is associated with undernutrition</td>
</tr>
<tr>
<td>7</td>
<td>Child mortality associated with undernutrition has reduced Africa's workforce by 1 to 8 percent</td>
</tr>
<tr>
<td>8</td>
<td>40 to 67 percent of the adult population in Africa suffered from stunting as children</td>
</tr>
<tr>
<td>9</td>
<td>The annual costs associated with child undernutrition reach values equivalent to 1.9 to 16.5 percent of GDP</td>
</tr>
<tr>
<td>10</td>
<td>Addressing stunting in Africa is a necessary step its social and economic transformation</td>
</tr>
</tbody>
</table>

* based on the results from 4 pilot countries
Policy Recommendations

Stunting is a useful indicator of effective social policies

• Chronic child undernutrition can no longer be considered a sectoral issue, as both its causes and solutions are linked to social policies across numerous sectors. As such, stunting reduction will require interventions from the health, education, social protection, and social infrastructure perspectives. Stunting can be an effective indicator of success in larger social programmes.

• This study encourages countries not to be content with “acceptable” levels of stunting; equal opportunity should be the aspiration of the continent. In this sense, it is recommended that aggressive targets are set in Africa for the reduction of stunting that go beyond proportional reduction, to establish an absolute value as the goal for the region at 10 percent.

A multi-causal problem requires a multi-sectoral response

• The achievement of this aggressive goal cannot be reached from just the health sector. To have a decisive impact on improving child nutrition, a comprehensive multi-sectoral policy must be put in place, with strong political commitment and allocation of adequate resources for its implementation.

Sustainability requires strong national capacity

• To ensure sustainability of these actions, whenever possible, the role of international aid must be complementary to nationally led investments, and further efforts have to be made in ensuring the strengthening of national capacity to address child undernutrition.

Monitoring is needed for progress

• To measure short-term results in the prevention of stunting, a more systematic approach with shorter periodicity is recommended, such as two years between each assessment. As the focus on the prevention of child undernutrition should target children before two years of age, these results will provide information to policy makers and practitioners on the results being achieved in the implementation of social protection and nutrition programmes.

• The assessment of child nutrition also includes information that relates the nutritional status of the children to the livelihoods and economic activities of the households. This information can be used to inform programme design to ensure that interventions effectively reach these vulnerable families with appropriate incentives and innovative approaches within social protection schemes.

Long-term commitment is necessary to achieve results

• The COHA initiative represents a valuable opportunity to place nutrition within the strategy for ensuring Africa’s sustainable development. As the post-MDG agenda nears, priorities and targets will be set that will serve as a guide for development policies in years to come. It is recommended that the prioritization of the elimination of stunting be not only presented from the traditional forums, but also included in the discussions of a wider sector of development, as a concern for the economic transformation of Africa.
“Child hunger is a moral issue. But as this study demonstrates, it is also a critical economic concern. These findings amount to nothing short of call to action. I hope that governments, national leaders and all interested parties will heed its warning, and push forcefully for increased and sustained allocations to fight hunger and undernutrition. As they do so, I will also urge the international community to step part as well.”

Ban Ki-Moon
Secretary-General of United Nations
Panama City, June 2007
Opportunities of this Study

• Position Child Undernutrition in the Centre of the Economic and Social Development agenda in Africa
  – Stunting as a priority for Development

• Engage this issue as a key element of the Post-MDG agenda
  – Africa can set a target that evidences technical and political commitment

• Partner and Donor support
  – Special funds directed at nutrition interventions