

# Climate Change and Nutrition: qualitative assessment of the challenges and programme responses in four African Countries

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The impact of climate change on nutrition: Learning from four countries | ENN (enonline.net)

## Findings: World Vision's Activities measured against Climate Change Recommendations #

### Introduction

Climate change is affecting Africa with severely changed weather patterns ranging from drought, flooding and devastating food security and health effects. Climate change can therefore affect all forms of malnutrition through pathways and inter-linkages related to the three underlying causes: insufficient household food security; inadequate maternal and child care; insufficient health services and an unhealthy environment. World Vision (WV) Ireland's AIM Health Plus is a health programme with a nutrition component. It is implemented in Mauritania, Sierra Leone, Tanzania and Uganda. Health Plus country programmes were reviewed to assess the impact of climate change on the causes of malnutrition and to map the responses and adaptations that have been made to address these.



<p><b>1. Food supply-chain inputs</b> Increase access to resistant seed varieties and livestock breeds</p> <p>Use agricultural extension programs to improve access to information Improve soil quality</p> <p>Increase irrigation</p>	<p>AIM Health Plus and other WV activities- examples Tanzania and Sierra Leone: Use of drought-resistant pigeon peas, cassava. Uganda: Legumes are bred that can adapt to climate.</p> <p>All countries work with Agriculture Extension as a key partner to train and roll out innovations Use of Conservation Agriculture in Tanzania and Climate Smart Agriculture is implemented in Uganda and Sierra Leone. Irrigation systems and bore holes are introduced as well as grey water systems for irrigation in keyhole gardens in all countries.</p>
<p><b>2. Food (agriculture) production</b> Invest in and provide education</p> <p>Expand access to services and financing</p>	<p>Improving diversity in production systems is integral to the Livelihoods approach. Farming as a business training, savings and transformation training in all countries.</p>
<p><b>3. Post-harvest storage and processing</b> Improve infrastructure Provide training on safe storage and processing</p>	<p>This is beyond the scope of the WV programmes Training is provided by local partners on post-harvest handling and storage, processing food in all countries</p>
<p><b>4. Distribution, marketing, and retail</b> Improve retailer access to water, electricity, and cold storage Create networks of food producers</p> <p>Improve transportation infrastructure</p>	<p>This is beyond the scope of the WV programmes</p> <p>Farmers groups are formed for improved market access and pricing in all countries In Sierra Leone transport support is provided where infrastructure is destroyed.</p>
<p><b>5. Food consumption and utilization</b> Expand access to social protection services, Increase consumption of animal-source foods</p> <p>Improve access to safe and energy-efficient cookstoves Increase access to healthcare</p>	<p>Social protection is provided, in Sierra Leone Gifts in Kind are given and RUTF for malnourished children. Small livestock using improved breeds and veterinary support in Tanzania and Uganda. Behaviour change communication activities to promote nutritious diets using local foods in all countries.</p> <p>Use of energy efficient stoves in Tanzania, tree planting in all countries Increased access to health care in all countries and support to local Community Health Workers.</p>
<p><b>6. Early warning systems</b> Improve early warning systems</p> <p>Provide training to producers on how prepare for extreme weather events</p>	<p>Early warning systems in Sierra Leone to support farmers in decision making. Conservation Agriculture (Tanzania) produces food with less water and perennial cropping systems, such as Agroforestry (Uganda) is more resilient to extreme weather.</p>
<p><b>7. Evidence for and inclusion of nutrition in climate research</b> Conduct research, and collect and analyse data on how climate change affects the food system</p>	<p>This has not been done systematically</p>

# Recommendations are from Fanzo, J., C. Davis, R. McLaren and J. Choufani (2018). "The effect of climate change across food systems: Implications for nutrition outcomes." *Global Food Security* 18: 12-19.

### Findings: climate change has exacerbated all the causes of malnutrition.

- Agricultural production was severely affected by droughts and floods;
- women's time and work burdens had increased;
- food quality had deteriorated;
- food prices had increased;
- diets had deteriorated in quantity and quality;
- infant and young child feeding practices were affected by women's workload and lack of food availability;
- water shortages affected hygiene practices and agricultural production;
- water-borne diseases had increased.

### Conclusions

- The effects of climate change on nutrition are very far reaching.
- It will be impossible to reverse the causes just working locally because they are global and originate outside the countries that are most affected.
- There are many approaches that will help communities adapt whilst addressing the causes of malnutrition.
- WV has many tried and tested programme models and ways of working with communities that are proving essential to help communities adapt.
- Bringing these together as a package will be useful both for WV and for other similar agencies.

### Methods

The poor results for the nutrition indicators for the first phase of AIM Health Plus in the 4 countries of the study, suggested that the food security situation and causes outside the scope of the programme, such as climate change were making it impossible to meet the targets. Given this background, WV Ireland commissioned research on the links between climate change and nutrition.

Interviews were conducted remotely with World Vision staff, Agriculture Extension staff, Focus group discussions were carried out via zoom with community members.

### Recommendations

1. Well-integrated multi-sector and *flexible* programmes are required.
2. A *localised strategy* for climate change and nutrition is needed, drawing on a set of core project models and a mechanism to diagnose and adapt according to context.
3. *Capacity building* at all levels of the organisation for climate change adaptation is necessary.
4. Strong *community resilience* is essential to adapt to climate change
5. A *systematic monitoring* system designed to cross all sectors for organisations to share their experiences and build evidence about challenges and effective strategies.
6. *Mitigation* on a global scale is imperative.



Sack Garden, Tanzania. Credit Daudi Gambo (World Vision)

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