

AGRICULTURE FOR IMPROVED NUTRITION OF WOMEN AND CHILDREN IN NIGERIA

Advocacy Brief Number 1, February 2011



Nutritional Status of Women and Children in Nigeria

Malnutrition is a key public health problem in Nigeria. Nigeria is among the 20 countries worldwide that are responsible for 80% of global malnutrition¹; and one of only two African countries in this group. Malnutrition is widespread in Nigeria and cuts across all age groups and categories of individuals². Wasting and stunting, two indicators of acute and chronic malnutrition in children are highly prevalent in Nigeria. The 2008 National Demographic Health Survey showed that 41% of Nigerian children were stunted, 14% were wasted, and 25% were underweight. In the same survey the prevalence of Severe Acute Malnutrition (SAM) was above 2% in 24 states of the country, translating into 1million children under the age of five years of age affected by SAM.³

Nutrition is strongly linked with health, especially in children. The World Bank has suggested that malnutrition is the single biggest contributor to

child mortality globally⁴. Malnutrition, including micronutrient deficiency, is estimated to contribute about 53% to mortality in children less than five years of age. The risk of dying from disease is twice as high for mildly malnourished children compared with well-nourished children, five times as high for moderately malnourished children and eight times greater for children classified as severely malnourished⁵. Pregnant women are also vulnerable to disease resulting from poor nutrition. About 15% of women in Nigeria are undernourished⁶, while iron deficiency anaemia is among the top causes of maternal mortality, accounting for 11% of maternal deaths. The effect of malnutrition in pregnancy has far-reaching effects, as it contributes significantly to low birth weight (LBW), which in turn predisposes the newborn to neonatal infections and is the starting point for many cases of failure to thrive. LBW is also a risk factor for some types of chronic diseases during adulthood⁷.

Improvements in nutritional status have the potential to prevent many deaths and significantly reduce the burden of disease among

¹ UNICEF (2009) *Tracking Progress on Child and Maternal Nutrition: A survival and development priority.*

http://www.unicef.org/publications/files/Tracking_Progress_on_Child_and_Maternal_Nutrition_EN_110309.pdf (accessed 16th Dec 2010)

² Akinyele I. (2009): *Ensuring Food and Nutrition Security in Rural Nigeria: An Assessment of the Challenges, Information Needs, and Analytical Capacity.* Nigeria Strategy Support Program (NSSP), Background Paper No. NSSP 007, IFPRI

³ National Population Commission (Nigeria) and ICF Macro (2009). *Nigeria Demographic and Health Survey 2008.* Abuja, Nigeria.

⁴ World Bank (2006) *World Development Report: Equity and Development*, OUP, New York

⁵ UNICEF (1996) *State of the World's Children.* UNICEF, Geneva. <http://www.unicef.org/sowc98/sowc98.pdf> (accessed 16th Dec 2010)

⁶ The WHO Global Database on Body Mass Index. <http://apps.who.int/bmi/index.jsp> (accessed 15th Dec, 2010)

⁷ Lewit et al (1995) *The direct cost of low birth weight in: The Future of Children Vol. 5, No. 1.* Princeton University



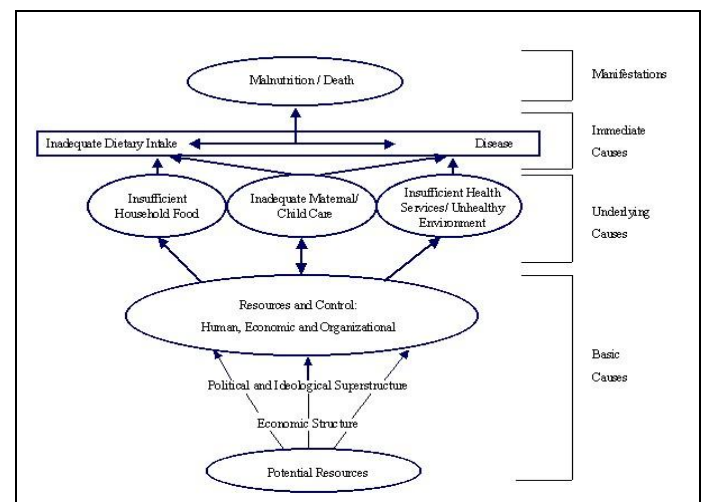
Nigerian women and children⁸. With only a few years to go to the 2015 target date for achieving the Millennium Development Goals, Nigeria still has work to do on her maternal and child health indicators. According to the UNDP MDG report for Nigeria (2010), the figures for maternal and under-five mortality in Nigeria in 2008 stood at 545/100,000 live births and 157/1,000 live births respectively⁹. Malnutrition stands in the way of reducing these numbers and reaching the MDG benchmarks, especially those relating to extreme poverty and hunger, HIV/AIDS, and maternal and child mortality. None of these can be effectively addressed without tackling malnutrition¹⁰

Agriculture and Nutrition

Nigeria has an abundance of agricultural resources. The country lies wholly within the tropics and is characterized by diverse agro-ecological conditions which are suitable for the production of a wide range of agricultural products. About 30.7 million hectares, or 33% of Nigeria's land area, are under cultivation. Agriculture is an important sector of the Nigerian economy accounting for over 40% of the GDP and engaging as much as 65% of the working population, but productivity is limited by inefficient methods of cultivation - the majority of farming activity in Nigeria is done by small scale holders and is characterized by simple tools and shifting cultivation. As a result, Nigeria is a net importer of agricultural goods: in 2009, imports in the sector added up to more than USD3 billion, while agricultural exports accounted for about USD1.4 billion¹¹.

The relationship between agriculture and nutrition has been the subject of considerable debate. Nutritional status is a function of a complex interplay of factors, including availability of and access to food (food security), access to portable water and basic hygiene (sanitation), adequate healthcare services, and health seeking behaviour. Although agriculture is one of the drivers of food security, access to sufficient safe and nutritious food especially in traditional communities is also affected by other variables such as household income, the decision-making power of women within households, and their knowledge about food choices, preparation and preservation. The association between agriculture and nutrition is therefore complicated. As can be seen in Figure 1, improved agricultural yield alone cannot translate automatically into improved nutrition since food security is only one of the causes of malnutrition.

Figure 1: A conceptual framework for malnutrition (UNICEF 1990)



⁸ World Bank, 2009 Scaling Up Nutrition: What Will It Take? The Window of Development Opportunity. <http://siteresources.worldbank.org/HEALTHNUTRITIONANDPOPULATION/Resources/ScalingUpNutritionMeetingReport.pdf> (accessed 17th Dec 2010)

⁹ MDG (2010). Nigeria Country Report, Abuja, Nigeria.

¹⁰ UNICEF (2003) *State of the World's Children*. UNICEF, Geneva

¹¹ National Bureau of Statistics (2010). <http://www.nigerianstat.gov.ng/> (accessed 1st Dec 2010)

Promoting a “Nutrition Sensitive” Approach to Agricultural Development

Nigeria’s population is largely rural and many households’ livelihoods are farm-based, therefore agricultural interventions that improve yield in small farming communities can potentially



increase food consumption in poor households. However, care must be taken to design these maximize their potential impact on food security¹². Very few agricultural programs in Nigeria have improvement of nutritional indices as a specific objective. The focus is typically on economic development and poverty reduction, perhaps with nutrition as an implied goal. However, agricultural development projects that lead to large scale mechanization may have an adverse effect on household food security by displacing jobs and thereby reducing household income and purchasing power.

One key area in which an impact can be made is in the area of policy formulation. Some nutrition-sensitive agricultural interventions that are known to be effective include those targeted at women, those that increase small-scale food production and processing, and projects that improve the micronutrient content of commonly consumed food crops. Policies that promote such interventions and encourage the inclusion of nutrition objectives during project planning will create an enabling environment for agricultural projects that truly improve access to nutritious food. Another area where policy interventions can make a difference is in promoting collaboration between the agricultural, nutrition, health and public works sectors of the government. As an example, Ghana has radically improved her nutritional indices in recent years through a combination of strategic interventions in agriculture, food fortification, improved provision of clean water and sanitation, and nutrition education¹³. For this kind of collaboration to succeed, there must be a concerted effort to ensure that policymakers and program managers in each sector include representatives from the others in policy formulation and program planning and evaluation sessions so that synergies can be built up between them.

In the area of agricultural research, the focus should be on cost-effective and sustainable ways to increase access to and consumption of foods that are rich in the nutrients which are critical to human nutrition, such as protein, iron, zinc and vitamin A. These include selective breeding of nutrient rich strains, bio-fortification of commonly consumed foods, promoting the cultivation and consumption of underutilized indigenous vegetables, fruits and protein sources, and enhancing nutrient availability through optimum preservation, processing and preparation methods. However, for these research efforts to bear fruit, it is critical to strengthen the linkages between agricultural extension workers and nutrition workers in the field so as to promote the widespread adoption of these innovations

Conclusion:

Several opportunities exist within the agricultural sector to address nutrition concerns in Nigeria. However, collaborative actions must be carefully planned in order to maximize impact. Subsequent briefs will examine in more detail some of the policy, research and educational strategies that can be used to link agricultural, nutrition and public health programs for improved nutritional outcomes in Nigeria.

¹² World Bank (2007), World Development Report 2008
Agriculture for Development World Bank, Washington DC

¹³ World Food Programme (2005) *Ghana country programme 2006–2010*, WFP, Rome



Nigerian Academy of Science Workshop on Agriculture and Nutrition (November 30th-December 1st, 2010)

This document is the first of a series of three policy briefs that resulted from a workshop hosted by the Nigerian Academy of Science in Abuja in November 2010. This was the first time that professionals and policy makers from the fields of nutrition and agriculture in Nigeria would be meeting to discuss linkages between the two sectors. The workshop was attended by stakeholders representing the government, academia, non-governmental organizations, and the media, including the Special Representative of the United Nations Secretary General on Food and Nutrition Security, Dr David Nabarro (who addressed the gathering via pre-recorded video), the Senior Health Specialist of the World Bank in Nigeria, Dr. Dinesh Nair, the Nigeria Deputy Country Representative of the Food and Agricultural Organization, Dr. Rabe Mani, and representatives of the Honourable Ministers of Health, Agriculture, and Science/Technology of the Federal Republic of Nigeria, who all delivered goodwill messages. The workshop was supported by a grant from the Bill and Melinda Gates Foundation.

Papers were presented by representatives of the Federal Ministry of Health, the Federal Ministry of Agriculture, the United Nations Children's Fund, the World Bank, the Agricultural Research Council, the Agricultural Society of Nigeria, the Chairperson of the Senate Committee on Health, and distinguished academics from several research institutes and universities within and outside Nigeria. The 3-brief series produced by the Nigerian Academy of Science summarizes the discussions during the workshop and presents recommendations for improving collaboration between the agricultural, health, nutrition and other sectors, towards improving the nutritional status of Nigerian women and children.



Workshop Planning/Steering Committee Members

1. Professor Folorunsho Adu FAS, National Open University of Nigeria (Agriculture Co-Chairman)
2. Professor Tola Atinmo : University of Ibadan: (Nutrition Co-Chairman)
3. Dr Adewale Ilesanmi, Federal Ministry of Agriculture, Abuja (Member)
4. Dr Bussie Maziya-Dixon, International Institute of Tropical Agriculture Ibadan (Member)
5. Prof Isaac Adebayo Adeyemi, Bells University of Technology, Otta (Member)
6. Dr Oluwatoyin Salawu, Federal Ministry of Health, Abuja (Member)
7. Prof SAND Chidebelu, University of Nigeria, Nsukka (Member)

