



## Brussels Policy Development Briefing n° 23

### Addressing ACP nutrition security: the key role of Agriculture

Wednesday 15<sup>th</sup> June 2011, 8h30 – 13h00

European Commission, Building Borschette, Rue Froissart, 36- Brussels , Room 0A

<http://brusselsbriefings.net>

#### Context

Food security is not only about the quantity of food which we consume; it is also about its quality and diversity. While food insecurity has been high on the political agenda since the food-price crisis of 2008, the issue of nutrition insecurity, which affects one billion people's health, has received less attention. *Malnutrition* or *undernutrition*<sup>1</sup>, often called "hidden hunger", occurs when people lack sufficient *macro- and micro-nutrients*<sup>2</sup>. Malnutrition is either directly or indirectly responsible for approximately half of all deaths worldwide.<sup>3</sup> Poor nutrition and calorie deficiencies cause nearly one in three people to die prematurely or have disabilities, according to the World Health Organisation (WHO).

A wide range of factors influence agricultural production and the nutritional levels of the poor in ACP countries. These include climate change, energy security, population growth, youth unemployment, global land acquisition, migration and urbanisation, water scarcity, the decrease in expatriate remittances, the demand for biofuels and declining investment in research over the past two decades. Other factors, such as the increase in the purchasing power of the emerging middle classes in countries like China, and the competition between food and fuel production, are also influencing food policy and pose complex challenges to global agriculture, whose goal must be to ensure food and energy security in ways that are environmentally and socially sustainable.

In February 2011, the International Food Policy Research Institute (IFPRI)<sup>4</sup> organised a major conference on '*Leveraging Agriculture for Improving Nutrition and Health*' in New Delhi, India. This examined the latest research on the links between health, agriculture and nutrition. The Briefing in Brussels will build upon IFPRI's work on the subject.

#### Main nutrition challenges

The number of hungry people rose from 842 million in 1990-1992 to 873 million in 2004-2006 and 1.02 billion people in 2009, the highest level ever, before going down slightly to 925 million in 2010. In 2010, some 115 million children worldwide were underweight and 186 million children under five years of age were stunted<sup>5</sup>.

Chronic undernutrition affects one in three children in developing countries. Every year it causes the death of more than three million children and more than 100,000 mothers. Undernutrition cripples the immune system, making children much more susceptible to disease. It increases the risk of anemia and women dying during pregnancy and childbirth. It prevents proper brain development, which means children are less able to start school when they should, and less able to learn and perform. Adults who were

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<sup>1</sup> **Malnutrition:** an abnormal physiological condition caused by deficiencies, excesses or imbalances in energy, protein and/or other nutrients. **Undernutrition:** when the body contains lower than normal amounts of one or more nutrients, i.e. deficiencies in macronutrients and/or micronutrients.

<sup>2</sup> **Macronutrients** are nutrients that the body uses in relatively large amounts - proteins, carbohydrates, and fats. This is as opposed to **micronutrients**, which the body requires in smaller amounts, such as vitamins and minerals. Macronutrients provide calories to the body as well as performing other functions.

<sup>3</sup> World Health Organisation, A Review of Nutrition Policies, December 2010  
[http://www.who.int/nutrition/EB128\\_18\\_Backgroundpaper1\\_A\\_review\\_of\\_nutritionpolicies.pdf](http://www.who.int/nutrition/EB128_18_Backgroundpaper1_A_review_of_nutritionpolicies.pdf)

<sup>4</sup> [www.ifpri.org](http://www.ifpri.org) and <http://2020conference.ifpri.info/> - See also a 20 page summary: *Highlights From An International Conference*

<sup>5</sup> Underweight and stunting, in: *World Health Statistics 2010*. Geneva, World Health Organization, 2010. WorldHunger.org. FAO. 2011.

undernourished in childhood earn significantly less and contribute less to economic growth. Undernutrition reduces GDP by at least 2-3%<sup>6</sup>.

Overall, more than 2 billion people are deficient in micronutrients. Since 1990 life expectancy at birth has increased in all regions, largely as a result of reductions in infant and child mortality. However, the gain in life expectancy has not been even, with Africa making the least progress. About 80% of the world's stunted children live in 20 countries. These are mostly in sub-Saharan Africa and South Asia.

The immediate cause of malnutrition is an imbalance between dietary intake of energy and nutrients. The underlying causes relate to factors that lead to an imbalance in supply and demand, such as household food insecurity, inadequate care for women and children, unhealthy environments, including poor sanitation and hygiene, and a lack of health services.

### **Linking nutrition security to agriculture and agricultural research**

Shortfalls in food production constitute a large reason for inadequate food intake among the rural poor, especially among subsistence farming families who have to produce most of the food they consume. Nowhere is this more critical than in Africa, where some 70% of the population is directly dependent on agriculture for its income. Increased productivity through the use of improved agronomic practices, including conservation agriculture and crop rotation, high-yield varieties and fertilisers, can reverse the process of soil degradation and improve yields. Minimum tillage helps to conserve soil structure and keep nutrients within the soil. The selective use of herbicides helps farmers to control weeds and prevent pre- and post-harvest losses, especially for delicate, nutrient-rich fruits and vegetables.

Promoting diversification in agriculture can promote healthier diets (horticultural, dairy and fish products) and improved nutrition amongst the rural poor.

Planting crops high in micronutrients can ensure that children get the healthy foods they need. Intercropping of grain legumes and cereal crops and mixed farming of crops and livestock afford poor rural farmers opportunities for balanced diets. It is also recognized that some indigenous foods are nutritious and deserve more research. Poor soil quality is a significant factor that leads to micronutrient deficiencies in humans: if the soil is not rich in all the necessary nutrients, food products will not contain the necessary nutritional balance. Micronutrient-enriched fertilizers improve soil fertility and help to support higher yields of more nutritious crops. There is great potential to link small producers to nutritionally-improved varieties, such as improved rice with enhanced iron and protein-rich maize, and to link to researchers promoting nutrition in production. On soils with micronutrient deficiencies, the application of small amounts of nutrients (Boron, chlorine, cobalt, copper, iron, manganese, molybdenum and zinc) can greatly enhance crop production. For example, it is illustrated that copper, zinc and molybdenum deficiencies are common in many coarse textured, acid soils of Ethiopia, Ghana, Malawi, Nigeria, Sierra Leone, Tanzania, and Zambia.

Food fortification is the practice of adding micronutrients to foods to ensure that minimum dietary requirements are met. Biofortified foods are bred to have higher amounts of micronutrients and can help provide essential vitamins and minerals. For instance, Golden Rice contains higher amounts of beta-carotene and iron, with potential benefits for 250 million children who risk blindness due to vitamin A deficiency and 1.4 billion women who suffer from anemia due to iron deficiency<sup>7</sup>. Harvest Plus<sup>8</sup>, a CGIAR Challenge Programme launched in 2004, seeks to reduce micronutrient malnutrition among the poor by breeding and disseminating staple food crops that are high in iron, zinc and vitamin A. Working with more than 200 agricultural and nutrition scientists around the world, the centre is currently biofortifying the seven key staple crops that will have the greatest impact in alleviating micronutrient malnutrition in Asia and Africa – beans, maize, cassava, pearl millet, rice, sweet potato and wheat.

### **Nutrition back in the development agenda**

Official Development Assistance (ODA) for basic nutrition has not increased substantially since 1995. During 2005-07, out of a total of US\$5.608 billion committed to health by the Global Fund to Fight AIDS, Tuberculosis and Malaria, only 0.7% was allocated to nutrition. The World Bank allocated 12.6% of its funds to basic nutrition; the UK Department for International Development 0.7%; US Agency for International Development 0.3%; and the European Commission 0.4%. In a recent report, 'Scaling Up

<sup>6</sup> <http://www.parliament.uk/deposits/depositedpapers/2010/DEP2010-0651.pdf>

<sup>7</sup> Agriculture can help address malnutrition around the world. <http://www.farmingfirst.org/nutrition/>

<sup>8</sup> <http://www.harvestplus.org/>

Nutrition What will it cost?',<sup>9</sup> Horton et al (2010) argued that the scaling up of nutritional financing must be accompanied by a scaling up of in-country capacities and systems to design, deliver, manage and evaluate large-scale programmes.

Between 2002 and 2007, the major donor nations—the US, the EU, and Japan—spent less than 1% of all bilateral development assistance on malnutrition.<sup>2</sup>

Brazil has shown that important changes can be achieved in a relatively short time with the correct combination of activities and with support at the highest level. Since 2003, the Hunger Zero Program has been at the heart of the government's efforts to improve food and nutrition security. Gaining political commitment backed up by resources and legislation (laws and regulation that enforce policies) are key factors in successful policies and programmes. Some good achievements have also been documented in breastfeeding promotion, in curbing childhood overweight, and in reducing the consumption of salt and trans fatty acids.

Brazil has already achieved the Millennium Development Goal (MDG 1) of reducing poverty by half: between 2003 and 2008, extreme poverty was reduced by 48 percent. Economic growth played a role in the country's swift development, but the main reason for the impressive progress against poverty came from improving safety net programs and attacking endemic social, economic, and political inequalities.

In Brazil, the major linkages between agriculture and health and nutrition have been through an intersectoral approach to social and economic policies, centered on food and nutrition security, on the constitutional right to food and on the territorial organization of local actions, so food production, distribution, consumption and nutrient intake are all connected. Some of the most important food and nutrition security policies include improving coverage and quality of primary health care (through Family Health Teams), redistributing income (especially through cash transfer programs, as the *Bolsa Familia* Program, which allies the access to food to basic social rights as health and education), stimulation of local agriculture (mostly through homegrown production) and the school meal program (which covers over 45 million students and must purchase at least 30% of its food products from local producers).

At the ACP regional level, several major efforts to improve nutrition are underway.

The African Regional Nutrition Strategy 2005-2015 (ARNS) was adopted by the Conference of African Ministers of Health, held in Gaborone, Botswana, in October 2005. It was subsequently adopted by the Summit of the Heads of States of the African Union (AU) in January 2006 in Sudan (AU 2006). The strategy recognised that there is a disconnect between efforts to boost nutrition and efforts to improve national socio-economic development. This has led to low investment in nutrition at international, regional, national and sub-national levels.

The Pan-African Nutrition Initiative (PANI) was developed under the umbrella of the New Partnership for African Development (NEPAD), a programme of the African Union. CAADP Pillar 3 aims to increase food supply, address nutritional security and improve responses to food emergencies across the region by raising smallholder productivity and improving responses to food emergencies. Leading African and international food and nutrition experts met in July 2010, prior to the 15th African Union Summit in Kampala, Uganda, under the theme: "Africa must feed itself. No child should go to bed hungry. Reduce child stunting by 50 percent in the next five years and beyond". Discussions centred on four programmatic themes: maternal, infant and child nutrition; home-grown school feeding; dietary diversity and food fortification; and biofortification<sup>10</sup>.

These are all seen as key mechanisms to advance food and nutritional security and agricultural development in Africa.

Pacific populations are at great risk of malnutrition, food-borne diseases and non-communicable diseases (NCDs). More than 50% of adults are overweight in most Pacific countries, and in some of these countries, over 40% of the population suffers from diabetes. Up to 80% of adults in the Pacific consume less than the WHO recommended five or more servings of fruit and vegetables each day. At the inaugural Pacific Food Summit in Port Vila, Vanuatu, held in April 2010, 170 experts from more than 21 Pacific countries, representing governments, the private sector, NGOs, faith-based groups and development

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<sup>9</sup> <http://siteresources.worldbank.org/HEALTHNUTRITIONANDPOPULATION/Resources/Peer-Reviewed-Publications/ScalingUpNutrition.pdf>

<sup>10</sup> Unlike typical [food fortification](#), when a mineral is added to a food once it has been harvested and processed, with bio-fortification, scientists seek out nature's super foods to boost the nutrition of less enriched varieties either through genetic modification or selective breeding.

agencies, endorsed the region's ambitious multi-sectoral Framework for Action for Food Security<sup>11</sup>. Its aim is to provide an over-arching strategic plan that guides Pacific countries to move towards ensuring that all people have physical, social and economic access to sufficient, safe and nutritious food.

In the Caribbean, the Special Meeting of the Council for Trade and Economic Development (COTED) Agriculture, held in Grenada in October 2010, endorsed the 'Regional Food and Nutrition Security Policy and Action Plan'. This provides a comprehensive framework to ensure that the region has an adequate, stable and nutritious supply of food

### **The way forward**

Recent reviews (Berti et al. 2004; IFPRI 2007) present compelling evidence that improved nutritional status should be an explicit objective of agricultural interventions. Nutrition goals should be overtly incorporated into agricultural projects and policies to achieve a positive impact on nutrition. Nutrition education should also be integrated into agricultural programmes. In this context, women's role as food producers and primary caregivers for their children should be recognised and strengthened while their access to productive resources should be promoted. One of the conclusions of IFPRI's Conference on "*Leveraging Agriculture for Improving Nutrition and Health*" is the need for more evidence based research on the links between agriculture and nutrition and various collaborative efforts will be needed to perform this in the ACP regions.

### **Objectives of the Briefing**

To improve information sharing and promote networking, CTA, the DG DEVCO from the European Commission, the ACP Secretariat, Concord and various media organise bimonthly briefings on key issues and challenges for rural development in the context of EU/ACP cooperation. The Briefing on 15<sup>th</sup> June 2011, organised with IFPRI, will discuss the key challenges in nutrition in ACP countries and the role agriculture can play in addressing nutritional security. The Briefing will: i) raise awareness about existing and emerging challenges; ii) promote the exchange of information and expertise; iii) feed into the debate various perspectives on policy options.

### **Target group**

More than 150 ACP-EU policy-makers and representatives of EU Member States, civil society groups, research networks and development practitioners, and international organisations based in Brussels.

### **Available material**

Input and comments before, during and after the meetings will be included in the Briefings blog: <http://brusselsbriefings.net/>. A short report and a Reader in printed and electronic format will be produced shortly after the meeting.

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<sup>11</sup> [www.foodsecurepacific.org-](http://www.foodsecurepacific.org-)  
[http://www.foodsecurepacific.org/documents/FINAL%20TOWARDS%20A%20FOOD%20SECURE%20PACIFIC\\_June1.pdf](http://www.foodsecurepacific.org/documents/FINAL%20TOWARDS%20A%20FOOD%20SECURE%20PACIFIC_June1.pdf)



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8h00-8h30 Registration

8h30-9h00 Objectives of the Briefing and Programme: *Isolina Boto, Head, CTA Brussels Office*

Introductory remarks:

*Gary Quince, Director, Sustainable Growth and Development, DG DEVCO, European Commission, Dr. Mohamed Ibn Chambas, Secretary-General of the ACP Group, Rajul Pandya-Lorch, Head of the 2020 Vision Initiative, IFPRI , Michael Hailu, Director CTA*

#### 9h00-10h30 Panel 1: Nutrition security in ACP countries: key challenges and opportunities

Moderator: *H.E. Ambassador of Nigeria, Chair of the ACP Committee of Ambassadors*

##### Panellists:

- Key challenges and opportunities for achieving nutrition security  
*Per Pinstrup-Andersen, H.E. Babcock Professor of Food & Nutrition, Cornell University, USA*
- Linking agriculture and nutrition: Experiences with biofortification  
*Howarth Bouis, Director, HarvestPlus, USA*
- Linking agriculture and nutrition: potentials of value chain approaches  
*Corinna Hawkes, Expert on Food policies*
- Farmer group experiences with improving nutrition through small-holder agriculture  
*Jethro Greene, Chief Coordinator, Caribbean Farmer's Network (CaFAN)*

10h30-10h45 Coffee break

#### 10h45-13h00 Panel 2: Policies and actions improving linkages between agriculture and nutrition

Moderator: *Rajul Pandya-Lorch, Head of the 2020 Vision Initiative, IFPRI*

##### Panellists:

- Policy actions at the regional level: The African Nutrition Strategy  
*Boitshepo "Bibi" Giyose, Senior Food and Nutrition Security Advisor, NEPAD Secretariat*
- Policy actions at the national level
  - The case of Hunger Zero Program in Brazil  
*Dr Jose Graziano da Silva, Assistant Director General and Regional Representative for Latin America and the Caribbean, FAO*
  - Rwanda nutrition policy  
*Faustin Musare, Chargé d'affaires, Embassy of Rwanda*
  - Advocacy, education and capacity development for improved nutrition  
*Robert Mwadime, Senior Regional Nutrition Advisor FANTA-2, Uganda*

Conclusions: *Dr Jose Graziano da Silva, FAO, Rajul Pandya-Lorch, IFPRI , Michael Hailu, CTA*

Networking Lunch