

“Transforming Food Systems for Improved Nutrition”

How can the agricultural sector in African countries help tackling the triple burden of malnutrition?

Summary of lunch meeting 29th June 2017 at The Dutch Ministry Foreign Affairs

African Union (AU) members demand the international community to support them in their ambition of a nutrition revolution. Transitions of African food systems are at a crossroads. If AU countries take the right direction, there is an opportunity to prevent mistakes made in OECD countries, where reducing undernutrition was accompanied by a pendulum swing in the direction of overnutrition and environmental degradation. A food systems approach, including multi-sectoral collaboration such as between the health and the agricultural sector, is a key entry point to address this ‘triple burden’¹. These were some of the highlights from a lunch meeting entitled ‘Transforming Food Systems for Improved Nutrition’ on 29 June 2017.

Slow progress in tackling nutrition

Namukolo Covic of IFPRI (Poverty Health and Nutrition Division, Ethiopia) presented an overview of nutrition trends in Africa. She indicated that the current nutrition situation in Africa paints a picture where millions are affected but there is slow progress that can be leveraged. Undernutrition does not only affect individuals but also the national economy: the estimated annual cost of undernutrition is around 7 % of GDP for Ghana and Burkina Faso, and 16% of GDP for Ethiopia. To achieve a nutrition revolution African countries need to move faster than they do at the moment.

The number of people affected by malnutrition is difficult to estimate since there are multiple forms of malnutrition per person (see Box 1).

Box 1 - Number of people affected by malnutrition

- 58 million children too short for age (stunted)
- 14 million children weight too little for height (wasted)
- 10 million children overweight
- 164 million children and women are anemic
- 220 million people calorie deficient...(undernourished, hungry)
- 8 % of adults over 20 years are obese; numbers rising in all 54 African countries
- Many facing multiple manifestations of malnutrition

Source: UNICEF, WHO, and World Bank (2015); WHO (2015a, 2015b, 2015c); FAO (2015); IFPRI (2016)

There is too little progress in different African countries (see picture below). Nine countries are on course to meet the stunting targets for children under-5 (green bar), while another 34 countries are off course with some progress (orange bar). Covic: “Here the nutrition revolution comes in: these countries can and need to be pulled to the green side and reach the target.” Regarding wasting of children under-5, African countries are in trouble: two thirds of the countries show little or no progress. Except for Burundi, all other African countries show no progress in addressing anemia in women. Child overweight is still being effectively addressed, but for adults’ overweight, obesity and diabetes the situation is getting worse. Covic comments: “If we can keep child overweight rates below 5%, than at least we are doing well for the future generation.”

¹ The ‘triple burden’ of malnutrition refers to three simultaneous dimensions of undernourishment, micronutrient deficiencies, and over-nutrition manifest in overweight and obesity.

FIGURE 3.3—NUMBER OF AFRICAN COUNTRIES AT VARIOUS STAGES OF PROGRESS AGAINST GLOBAL TARGETS ON NUTRITION



Source: IFPRI (2016); data on stunting, wasting, and overweight based on Joint Malnutrition Estimates of UNICEF, WHO, and World Bank (2015); data on exclusive breastfeeding from UNICEF (2016); data on anemia in women of reproductive age from Stevens et al. (2013).
 Note: Analysis includes 54 African countries, listed according to the United Nations' naming and regional classification. The Global Nutrition Report 2016 (IFPRI 2016) provides data for all 54 African countries on levels and rates of progress for these indicators.

Source: Haddad et al., 2016 ATOR, 2015

Mismatch

While the development of the agricultural sector is progressing, levels of chronic malnutrition and undernourishment are not decreasing. There seems to be a mismatch between the food produced at national level and the nutrition needs of particular groups. When looking more particularly at the situation in four countries, South Africa, Botswana, Ethiopia and Zambia, these countries supply enough staple crops to meet national food requirements. South Africa, the strongest economy, for example, has the lowest percentage for undernourishment, but if you go sub-nationally 30% of the population does not meet their energy requirements and less than 25% of the children meet acceptable diet standards. In these four countries, exclusive breast feeding rates show progress, while there is no improvement with complementary feeding. Covic: ‘At first glance, we may applaud for the development in the agricultural sector if we see staple crop yields are going up. But if we look more carefully we see that nutrition indicators tell that a country is not doing well.’ This is why the role of the agricultural sector in nutrition deserves further attention. ‘Addressing vitamin A deficiency is an area where agriculture can help’. A food system approach would help developing a more comprehensive set of actions meeting both economic, agricultural and nutrition targets.

Transition in the right direction

The African continent has the networks in place for an effective joint response to these trends: 38 African countries are member of the Scaling Up Nutrition movement, and there are 44 in Comprehensive Africa Agriculture Development Programme (CAADP). Both networks use a multi-sectoral approach to achieve impact on nutrition. CAADP does not follow a food systems approach, possibly only in some aspects. In addition to these initiatives, there are the Africa Regional Nutrition Strategy (ARNS) and the AU Agenda for 2063, including the ambition to eradicate malnutrition from the continent.

The challenges, according to Covic, are several. CAADP should leave its commodity focus and orient its work towards diversification. The food transformation sector, still in its infancy in most African

countries except South Africa, should be given a boost; that is where Africa can learn from the Netherlands. And more importantly, policy and practice need to look at the food environment. This ensures that the food transition takes place into the right direction, fostering healthy diets, and not allowing that reducing undernutrition would be accompanied by a pendulum swing in the direction of overnutrition and environmental degradation.

Healthy diets

Representing the Netherlands Working Group for Nutrition, Saskia Osendarp (consultant and working with WUR for CGIAR programme [A4NH](#)) observed that the consumer and the quality of the diet are at the heart of this debate. It is not easy to define what is a healthy diet, as this varies per situation and target group. The rapid transition in low and middle income countries has brought an increase in harmful and a decrease in beneficial products.

An example of a Dutch intervention which aims to contribute to improved nutrition in Africa is the [Amsterdam Initiative against Malnutrition](#), a multi-stakeholder initiative targeting the entire food system and following a market-based and consumer-centered approach. It bridges the gap between consumers and farmers, working with supermarkets and retail, strengthening all the links in the food systems.

Private sector partnership

On behalf of the seed company Rijk Zwaan, Heleen Bos highlighted the opportunities that can be created through multi-stakeholder collaboration. For the private sector, working with others is an opportunity to combine everyone's strengths. RijkZwaan is also a partner of AIM in the [Vegetables for All programme](#) in Tanzania, which promotes vegetable consumption through a value chain approach. This programme raises awareness about the importance of vegetables for a healthy diet, and also tackles post-harvest losses, encouraging farmers to produce more, and to bring fresh produce to the market when there is a scarcity. In a second programme with other seed companies, the [SEVIA programme](#), farmers are also trained in smarter vegetable production.

The discussion following these presentations facilitated by Ruerd Ruben (WECR) focused on how to address the remaining challenges to enhance nutrition security in Africa, and on the particular opportunities of a food systems approach.

Multi-stakeholder and multi-sector collaboration

Participants and panelists agreed on the need to collaborate across sectors and with different actors, to achieve impact. National governments implement different programs through different Ministries or departments, for example the Ministries of Health respectively Agriculture. Education and WASH are also sectors with a potential impact on nutrition, particularly given the prevention measures they could be leading on. Better and more collaboration could accelerate outcomes: both within the government and with different actors in society from civil society, private sector and academia.

'The SUN movement in Africa not only brought up policies and strategies,' commented Covic, 'but it brought the multi-sector approach too. Ministries of Health are usually involved in SUN, besides the Ministries of Agriculture, and usually also the Ministry of Water and Sanitation and Social Protection.' For example Zambia has six ministries in that multi-sectoral approach, and Ethiopia even 13 ministries and this number might grow. In spite of these steps and the necessary structures which countries are putting in place, the challenge is making it work in practice. 'Unfortunately people tend to remain anchored in silos, and the collaboration remains limited. This needs attention to improve quality of engagement.'

Policy coherence is also an area for further implementation. In Zambia for example, from 2010 onwards, policy coherence was formulated on paper. Policy documents of Ministry of Health and Ministry of Agriculture made reference to one another. 'At paper level, we increasingly see coherence, while there is less coherence at implementation level, about how we actually do things'.

Tackling the triple burden

There is a need to pay attention to both undernutrition and to overweight. Even if standard indicators haven't yet been fully developed for it, improving total diet quality should be the ambition.

To address undernutrition, targeting ‘the first 1000 days’ is recommended. It offers good entry points to reach women of reproductive age as well as infants and young children. Adequately educating women helps strengthening their position in household decisions on food, and the opportunities for the new generation. However, the circumstances do not always allow them to act on the knowledge they have. To reach more impact interventions should include the ability of beneficiaries to deal with the knowledge.

Consumers should be motivated to eat a healthy diet, but there are no immediate solutions to how to do this. The Netherlands are not yet very successful in addressing overweight and obesity. The discussion explored how the international community can support learning about effective solutions to combat overnutrition. Using the private sector knowledge about markets and about people’s food purchasing behavior is one of the opportunities used in SUN network to enhance that people are going to opt for the more healthy choices. Learning from other countries is important to find innovations that work. African countries, in particular, can learn from OECD countries such as the Netherlands, also from the mistakes made that led to the current high overweight levels. African food industries only just started, and in the design phase they could learn from experiences of OECD countries. ‘South Africa already went far to the wrong side of the pendulum, with high levels of overweight. In Ethiopia the industries only started, so we have the potential to do it differently, not even get overweight.’

An interesting analytical tool developed by WFP together with WUR is the [“Fill the nutrient gap tool”](#), which identifies constraints that consumers face to demand for nutritious foods. It assesses the individual’s nutrient intake, and is being used within the multi-sectoral approach linking health, food systems and social protection. It also measures the cost of a healthy diet. This shows that the unaffordability of health diets is still high. Meeting nutrient requirements is more expensive than only meeting caloric requirements. WFP found that the tool helps to create a common understanding among collaborating stakeholders about the aspects to be addressed for improved nutrition. Osendarp commented it could be explored how this tool can be used in food systems to measure whether changes applied actually have impact.

‘You touch maize, you lose an election’

The debate continued with the question whether research would also show a causal relation between growth in agriculture and undernourishment. This brought the discussion to the politics of staple food production. Many governments focus on promoting staple foods, expecting that producing enough matoke, rice or other staples means there is enough food to feed the national population and means they meet their political targets. “You touch maize, you lose an election”. They facilitated input subsidy programs that were for example maize-centric and – unsurprisingly – encouraged farmers to plant more maize. At the same time, not only African governments, also donors have always only focused on staples. An EU supported intervention tries to improve this, introducing vouchers with which farmers can grow crops of their own choice and still access fertilizers. Only recently, policy makers give more attention to for example vegetables.

Out of the silos

The nutrition community has always been aware of the staple food orientation of agricultural policies. The community itself has primarily focused on nutrition-specific interventions for vulnerable groups. Osendarp: ‘Nowadays, even nutritionists come out of their silos and become involved in a food systems approach. They try to encourage agricultural, but also WASH programs to be more nutrition-sensitive.’ An effective nutrition agenda combines these two: nutrition-sensitive interventions in the agricultural sector amongst others, as well as nutrition-specific interventions. This approach, also used by SUN, is the way forward. Of course, the agricultural sector should not be put in the position of being the only responsible for solving the nutrition problem.

An example of an extremely popular intervention in Africa is the [HGSF programme](#) implemented in at least 12 countries. Products from smallholder farmers are used for school feeding programmes, hence fosters market development as well as child nutrition. Nutrition education is an integral element. Even if there are still some obstacles in the programme related to its structuring and stakeholder involvement, the program offers some real opportunities that needs to be looked at.

To understand the relations between agricultural production and nutrition, it is important to particularly look at intra-household dynamics as well, including at gender and power relations within the household. Many frameworks explaining the pathways from agriculture to nutrition do not explicitly explore these dynamics, though they influence the relationships between increasing income and/or higher agricultural production and improved child nutrition. This is being explored in a [study](#) by KIT in collaboration with Food & Business Knowledge Platform.

Prices and legislation

Food price trends make it even more challenging to work towards improving the quality of diets. Prices of staples have gone up marginally over the last years, while prices of dairy products, fruits and vegetables have gone up in magnitudes of 40%. The price of oils and sugars has gone down. This means policy and programmes need to include new creative solutions centered around the quality of food.

This is where legislation plays a role. In South Africa, for example, salt intakes are very high though with different causes per group. For the black population, it is mainly because of the high salt levels in processed foods; the Caucasian population adds salt at the table. In response, the new salt legislation sets limits to the amount of salt that processors can put in food.

Food systems approach

Hivos comments that positive opportunities can be grasped building on the results achieved at local level. At that level, implementation works much better, is what Hivos observes in their collaboration with local governments, local private sector and NGOs. Hivos recommends to encourage linkages between the global, national and local level and get practical experience from local level for national level to act on.

Some challenges remain, such as how exactly will stakeholders deal with the tradeoffs that are always there if one tries to achieve results in multiple areas. Consumers may not always appreciate the changes promoted by certain interventions, which may imply an extra risk for farmers in certain value chains. Also, the challenge for policy makers and market actors is to respond to opportunities offered by the growing purchasing power of the middle class consumer, while at the same time meeting the needs of those at the bottom of the pyramid.

Bos: 'Working together, based on a food systems approach, helps defining the particular roles and contributions of each stakeholder. For our work as a private sector company, it is important to split the tasks in specific elements, and see what exactly we can do, and making it as concise and precise as possible. We realise that we need to work with others to encourage consumers to eat more nutritious food, including vegetables.'

Covic: 'The African continent has the opportunity to learn from others, to at least mitigate the negative trends which are visible at the moment. We need to explore how to do it, addressing the triple burden. The food systems approach gives us an opportunity. At least we see a trend in a positive direction for our children (the overweight levels are under control, see above) and in some countries. In Kenya, stunting, underweight, but also overweight are all going down.'

Please download the PowerPoint presentations by [Namukolo Covic](#), [Saskia Osendarp](#), and [Heleen Bos](#)

Background information

On June 29, 2017 the Food & Business Knowledge Platform, Wageningen UR and the Ministry of Foreign Affairs organized a lunch meeting entitled "Transforming Food Systems for Improved Nutrition – How can a food systems approach improve the quality of diets in Africa?". The meeting aimed to foster the understanding among Dutch stakeholders of factors and actors influencing trends in food systems transitions in Africa, based on the major REKASS publication 'Achieving a nutrition revolution for Africa'.

ANNEX A - Food Systems

Several Dutch organizations and institutions have just joined their forces in an informal multi-stakeholder knowledge sharing network on Food systems, facilitated by the Food & Business Knowledge Platform.

There is growing attention in Dutch and international food and agriculture networks for the concept of "food systems". Primarily because of the complexity of the challenges that need to be addressed to foster food and nutrition security in the context of sustainable development (SDGs; climate agenda); the need to address these at system level, and foster improvements with sufficient scale and long-term impact. The concept is increasingly used for analysing the interface between food production and food consumption; between agrifood chains and the ecological environment (i.e. ecosystems, climate adaptation and mitigation); and a number of other 'nexus' relations.

Interest to further explore the concept was expressed by participants and organizers of IFPRI-Workshop 'Future of Food Systems' in Wageningen, November 2016 lead by WECR. In addition, the MinEA has commissioned WUR to develop a conceptual framework for food systems, to be used for its own policy and programmes. Further, F&BKP has been working with a food systems approach from its start in 2013, and promotes the approach with partner networks and key strategic partners (e.g. WBG, CGIAR) as well as through its research pillar F&B Research. Connecting conceptual frameworks on Food Systems to the actual practice is among the challenges for the multi-stakeholder knowledge sharing network.

Organizations or companies with an interest to join the knowledge sharing network on Food Systems are kindly invited to contact the Food & Business knowledge Platform office.

Further reading on Food Systems

- UNEP (2016) *Food Systems and Natural Resources*.
<http://www.resourcepanel.org/file/395/download?token=JqcqyisH>
- HLPE Food Systems and Healthy Diets (FAO, consultation basis) http://www.fao.org/fsnforum/cfs-hlpe/sites/cfs-hlpe/files/files/Nutrition_Food_Systems/HLPE-Nutrition-and-Food-Systems_Draft-V0-24_October_2016.pdf
- Foresight report on food systems. <http://knowledge4food.net/event/launch-of-the-foresight-report-on-food-systems-and-diets/>
- Fresh initiative – WBCSD. A/o Peter Bakker. <http://www.wbcscd.org/Projects/FReSH> See also: http://www.huffingtonpost.com/entry/from-fork-to-farm-wbcscds-fresh-framework-for-transforming_us_58a5fbae4b0b0e1e0e20814
- 'Image' model (Food Secure project uses this)
- 'Magnet' model (developed by LEI using GTAP model as basis)
- 'Impact' model by IFPRI
- Brazil: Bolsa Familiar programme, specific interventions to boost local production to serve (urban) subsidized food schemes.
- TIFN paper : <http://knowledge4food.net/event/launch-of-the-foresight-report-on-food-systems-and-diets/>