

ECDPM interviews with:

AU Commissioner Sacko

Italian Minister Martina and

ECOWAS Agriculture Director Sy Traoré

With contributions from:

Francesco Branca, World Health Organisation

Louise O. Fresco, Wageningen University and Research

Highlighting:

Why sustainable food systems matter, market perspectives

Nutritional improvements and cases of implementation

About GREAT Insights

ECDPM's magazine covers a wide range of topics related to economic development in Africa and the developing world. *GREAT Insights* gathers expert analysis and commentaries from a wide variety of stakeholders with different perspectives.

GREAT Insights is published by ECDPM Editor:

sb@ecdpm.org Twitter: @SanBilal1 **Guest editors:** Carmen Torres and Ewald Wermuth

Web editors:

Sanoussi Bilal.

Jacques van Laar and Jacquie Dias

Design, layout and production: Claudia Backes, cba@ecdpm.org.

HEAD OFFICE

Onze Lieve Vrouweplein 21 6211 HE Maastricht The Netherlands Tel +31 (0)43 350 29 00 Fax +31 (0)43 350 29 02

BRUSSELS OFFICE

Rue Archimède 5 1000 Brussels Belgium Tel +32 (0)2 237 43 10 Fax +32 (0)2 237 43 19

ISSN: 2215-0593 (print)
2213-0063 (online)
For further information
or to subscribe to our
E-newsletters, visit
www.ecdpm.org/subscribe.
To order a hard copy of an
ECDPM publication,
info@ecdpm.org.

This publication benefits from structural support by ECDPM's institutional partners The Netherlands, Belgium, Estonia, Finland, Ireland, Luxembourg, Sweden, Switzerland, Austria and Denmark. This issue also benefits from the funding from the Italian Ministry of Research (MIUR) under the SASS programme.

Copyright:

Prior permission is not required for quoting, translating or reproducing part of the contents of this publication provided the source is fully acknowledged.

Cover photo:

Saleswoman in a fruit market in Nairobi, Kenya.
Photo: Bioversity International



Contents

Features

- 4 Investing in agricultural transformation to achieve sustainable food systems
 - H.E. Josefa Sacko, African Union Commissioner
- 8 Minister Martina and Italy's experience in green farming policies

Maurizio Martina, Italian Minister of Agricultural, Food and Forestry policies

10 A panoply of policy instruments to promote sustainable food systems in West Africa

Alain Sy Traoré, ECOWAS Director

Market perspectives

29 Voluntary standards and institutional innovations

Alison Loconto, Anne-Sophie Poisot and Pilar Santacoloma, Food and Agriculture Organization of the United Nations

32 How can a bank's financial services and networks contribute to the sustainablility of food systems?

Alain Cracau and Maarten Biermans,
Rabobank

Sustainable food systems matter

13 Challenges and perspectives for supporting sustainable and inclusive food systems

Louise O. Fresco, Ruerd Ruben and Marion Herens, Wageningen University & Research

- 16 Diversification for sustainable food systems and the role of ECDPM Carmen Torres and Francesco Rampa, ECDPM
- 18 Why are sustainable food systems paramount to the World Health Organization's nutrition mission?
 Francesco Branca, Harrison Phelps and Lina Mahy, World Health Organisation

Nutritional improvements

21 Bring NUS back to the table!

Stefano Padulosi, Bioversity International

23 Policy coherence across the food system for nutrition: from challenge to opportunity?

Corinna Hawkes, Centre for Food Policy, City, University of London

25 Virtuous emulsification of business and nutrition

Lawrence Haddad, Director, Global Alliance for Improved Nutrition

27 What role for informal markets in achieving sustainable and inclusive food systems?

Bill Vorley, International Institute for Environment and Development

Cases of implementation

34 "I couldn't believe that in Africa we export what we produce and import what we eat!"

Marie Diongoye Konaté, CEO, Protein Kissèe-La S.A.

37 Food challenges and opportunites in Nairobi

Diana Lee Smith, Mazingira Institute

40 The right evidence to guide integrated investments for food security in Laikipia County. Kenya

Louise E. Buck, Constance L. Neely and Louis Wertz, EcoAgriculture Partners and World Agroforestry Centre

Regulars

- 3 Editorial
- 42 The Weekly Compass
- 43 Our Blogs
- 44 Latest ECDPM Publications

Editorial

Towards more sustainable food systems

The UN 2030 Agenda for sustainable development, as a universal agenda, provides a valuable framework to put sustainability at the heart of a wide range of human activities. Agriculture, and more broadly food system activities, are no exception.

A "sustainable food system" is understood as a system that ensures food security and nutrition for all without compromising the economic, social and environmental bases of such systems for future generations. Today, our global food system is unsustainable. In many cases, current food production, distribution and consumption practices are depleting our resources and polluting the globe; the majority of the world's population is not properly nourished; and our food systems are generating inequality in income and wealth, with profit concentrated in a small portion of the food system actors.

With a still fast growing and urbanising world population, and many economies still highly dependent on agriculture and increasingly agribusiness activities, the pressures are high to fulfil food and nutrition needs and achieve new economic opportunities. Moreover, major trends affecting food systems pose a number of additional challenges, most notably competition over limited resources and the adverse effects of climate change, issues arising from growing urban and informal markets, the current double burden of malnutrition and the increasing power concentration within a few players in our food systems. Yet, it is precisely because of these pressures that sustainable food systems should be at the centre of our concerns.

This is not only a challenge for developing countries, but a global one. How can we increase production using less agrochemicals, lower greenhouse gas emissions, avoid environmental degradation, and preserve biodiversity and ecosystems? How can we promote food systems that foster fairer and more equitable production, distribution, trading and consumption patterns, promote the inclusion of small farmers, women and youth and integrate better territorial development objectives? How to better deliver healthy diets and achieve better nutrition and the zero hunger goals?

There are numerous ways to reach such objectives, and plenty of initiatives and examples at hand. Many policy makers and stakeholders in the food systems have made commitments in that sense, towards greater sustainability and inclusiveness. This issue of GREAT Insights tries to capture some of the policy initiatives that are being developed, examples of successful endeavours, and explores the different visions of leading thinkers on this topic. For instance, notable efforts are being dedicated to foster greater food variety in our food systems, including by supporting the production, processing, marketing and consumption of neglected and underutilised species (NUS).

Do such ambitions require a paradigm shift, away from industrial agriculture and "modern" food systems in favour of more traditional and small scale ones, as many would argue? Not necessarily. The task includes, for instance, increasing the sustainability and inclusiveness of the more industrial agriculture, and seek to better combine and integrate it with

efficient and sustainable forms of 'traditional' food systems, notably through the diversification of food production and consumption.

We need to address food systems in their entirety to find "openings" for change. This would require, for instance, to explicitly recognize the prominence of the informal sector in African economies for the livelihood of a large part of the population, while promoting sustainable and inclusive agricultural transformation and industrialisation, including through some formalisation processes. This also means paying greater attention to the rural-urban nexus, patterns of production, distribution and consumption, as well as the international dimension, notably in terms of trade and value chains promotion. Efficiency, equity, inclusiveness, diversity and health are all important dimensions to consider; so are the transparency and accountability of food

The articles and interviews in this issue of *GREAT Insights* seek to address the 'People, Profit and Planet' sustainability challenge in food systems, focusing on how greater sustainability and inclusiveness are achievable. This exercise is part of a broader ECDPM endeavour, with its partners and a new programme we launched for the coming years, towards better understanding and promoting the sustainability dimensions of food systems, in particular in Africa. As always, we welcome your comments and suggestions.

Guest editors for this issue: Carmen Torres (Policy Officer) and Ewald Wermuth (Director)

Editor: San Bilal

This Issue was produced with the contribution of the Italian Ministry of Research (MIUR) under the SASS (Sustainable Agrifood Systems Strategies) programme.



Carmen Torres is Policy Officer for the Sustainable Food Systems team of ECDPM's Economic and Agricultural Transformation programme.

Follow Carmen on Twitter: @CarmenTorresL



Dr San Bilal, Head of Programme, Economic Transformation - Trade, Investment and Finance, ECDPM.

Follow San on Twitter: @SanBilal1

Investing in agricultural transformation to achieve sustainable food systems

Interview conducted by Francesco Rampa



ECDPM's Francesco Rampa interviewed H. E. Mrs. Josefa Sacko about the critical challenges and tremendous opportunities African agriculture faces, linking development to nutrition, food security and broader climate issues.

Francesco Rampa: Sustainable food systems face a number of critical challenges in Africa, including land tenure issues, intellectual property laws on seeds, vested interests in certain policy reform that are detrimental to the environment. What is the AU doing to achieve sustainable and inclusive food systems (enabling nutrition, health, environmental, social and economic goals to be delivered more coherently)? What are the key policy frameworks and programmes in place? Any concrete examples?

H.E. Josefa Sacko: In most African countries, agriculture contributes on average 30% to GDP and up to 70% to overall employment. In view of the dominant role of agriculture in African economies and its huge untapped potential, investment in agricultural transformation would provide the best opportunity for achieving sustainable food systems. It would also help to push the continent toward

sustained economic transformation, enhanced food security, poverty reduction and integration into the global economy. However, agricultural transformation and related benefits to catalyse sustainable and inclusive food systems have not yet happened; this is due to persistent constraints, such as low investment at farm level and insufficient linkages of the farmers to agro-industries, agri-chains and markets in general. Transforming African agriculture requires strategies that address the key challenges to agricultural development in a more holistic approach. It also requires innovative programmes to strengthen the links between agriculture, infrastructure and finance and to promote agricultural value chains and markets at national and regional levels.

Recognising the contribution of agriculture as the backbone of Africa's economies and the continued decline of the sector's growth creates the urgent need to foster its development.

It is in that context that in 2003, at the African Union (AU) Summit in Maputo, Mozambique, Africa's Heads of State and Governments committed to the Comprehensive Africa Agriculture Development Programme (CAADP). CAADP represents a political development framework for national and regional agricultural sector reform which shall contribute to achieving better strategic planning, more coherent agricultural policies, increased productivity and more effective allocation of investments. The main goal of CAADP is to help African countries reach a higher path of economic growth which eliminates hunger, reduces poverty and food insecurity and enables expansion of exports in a sustainable way.

To underline the commitment to agricultural development, the African Heads of States pledged to allocate at least 10% of their national budgets for 2008 and work to achieve at least 6% per annum growth rate in the agricultural sector.

At AU Member States levels, countries have taken various steps in allocating the required resources to the agricultural sectors as well as developing National Agricultural Investment Plans. The NAIPs help countries to undertake their agricultural planning and investment to achieve the 6% annual growth rate in the agricultural sector. Some countries have gone further and have developed the second generation of their NAIPs. These plans ensure that countries are enabled to report on their annual growth targets. The various NAIPS are aligned to the Regional Investment Plans to ensure that the continent is moving in an integrated manner with a unified framework.

To what extent has CAADP been able to support sustainable agriculture and food systems in Africa from an environmental sustainability point of view? More concisely, is CAADP aligned with NEPAD, African Climate Smart Agriculture Alliance, and which incentives are provided to achieve environmental sustainability goals?

Africa's development is inextricably linked to its environment. Therefore, failing to properly address environmental sustainability will certainly jeopardise the continent's hardwon development achievements and its aspiration for further growth, elimination of hunger and poverty reduction. It is because of this fact that during the tenth anniversary of CAADP in 2014, the AU Heads of State and Government not only adopted the Malabo Declaration on Africa Accelerated Agricultural Growth and Transformation for Shared Prosperity and Improved Livelihoods, but also endorsed the NEPAD Programme on Climate Smart Agriculture with its components on an African Climate Smart Agriculture Coordination Platform through which NEPAD Planning and Coordination Agency (NPCA) will collaborate with partners including Regional Economic Communities and Non-Governmental Organisations targeting 25 million farm households by 2025.

Furthermore, the Malabo Declaration calls for enhancing the resilience of agricultural production systems and

livelihoods. Since then, the Climate Smart Agriculture (CSA) approach has won the attention of many African countries in their attempt to effectively deal with the challenges related to environmental sustainability, adaptation to climate change, building resilience and at the same time addressing mitigation as co-benefits. Thus the Department of Rural Economy and Agriculture (DREA) of the African Union and the NEPAD Planning and Coordinating Agency (NPCA) have increased their technical and coordination support to African countries in mainstreaming climate change into CAADP national investment plans and to build resilience and adaptive capacity in responding to the impacts of climate change and variability. The support is also extended to designing climate smart agriculture (CSA) investment projects for possible funding by the Green Climate Fund (GCF). In doing so, we ensure that the CSA investment proposals are not only well aligned to the Malabo commitments on African agricultural transformation but also responsive to the environmental sustainability criteria of the Global Climate Facility.

African agricultural development is crucial for income generation, but it's also crucial for achieving food and nutrition security in Africa. What have been the AU's main achievements and challenges in making agriculture, food security and trade policies more nutrition sensitive?

The AU recognised the importance of integrating policies for improving nutrition into its agricultural development flagship programme - CAADP - by embracing the Framework for Africa's Food Security (FAFS) in 2009. It was acknowledged that malnutrition and poor health pose major impediments to the agricultural sector and development in general, considering that the sector employs close to two-thirds of the continent's rural population. The FAFS integrates approaches for eliminating malnutrition in a holistic manner and involving all four dimensions of food and nutrition security: availability. access, sustainability and utilisation. Most importantly, the framework outlines and describes options for developing the agricultural sector through a food system-based and value chain approach from productivity to consumption. This Framework specifically recommends inclusion into the CAADPinformed National Agricultural Investment Plans of activities for diversifying and cultivating food crops and animal industry that culminate in consumption of nutrition-dense diets, especially in rural and vulnerable populations, including children and pregnant women.

In the earlier half of this decade, the AU called for doubling of efforts to reduce stunting from its current alarming levels (40% on average) to 10% and underweight to 5%; the goal was to end hunger in Africa by 2025. With the same objective in mind, the AU Commission and the Department of Rural Economy and Agriculture, in its 4-year Business and Operational Plan for 2017-2021, formulated a number of



Beans in Burundi: fighting malnutrition. Photo: Georgina Smith / CIAT

activities under six strategic action areas, namely: expanding access and usage of inputs and mechanisation; enhancing post-harvest management; expanding food bio-fortification and food systems; improving social protection and safety nets in rural farming communities; improving food systems and nutrition knowledge management; and expanding home-grown school feeding. The AU Commission has so far taken concrete steps toward implementing activities under these strategic action areas, working in partnership with technical and global partners in combating malnutrition and ending hunger.

The Green Climate Fund (GCF), seems promising for sustainable agricultural development and food security, but agriculture is not the specific focus of the Paris Agreement nor earmarked under the GCF. Would you use these types of funds to adapt agriculture in Africa (also given that agriculture is one of the priority adaptation areas, as stated in most of the African NDCs)?

We recognise the Paris Agreement on Climate Change as a landmark achievement in which both developed and developing countries have committed themselves to a climate-resilient and low-emission future. But it has been the concern of most African countries that the Paris Agreement fails to give the agricultural sector the place it deserves in such a historic agreement, even though it explicitly recognises in its preamble the fundamental priority of safeguarding food security and ending hunger, and the particular vulnerability of food production systems to the adverse impacts of climate change.

However, alongside the intensive consultations for having a Conference of the Parties (COP) decision on agriculture, African countries have an opportunity to implement climate change-related activities in the agricultural sector through the implementation of their respective Nationally Determined

Contributions (NDCs). As we are all aware, the building blocks of the Paris Agreement are the Intended Nationally Determined Contributions (INDCs) submitted by Parties to the UNFCCC prior to the Paris Agreement. An overwhelming majority of the African INDCs have included agriculture in their adaptation and mitigation responses. The implementation of the Paris Agreement and the safeguarding of the food production systems in Africa through their NDCs require climate-resilient and transformative interventions in the agricultural sector.

Accordingly, the DREA of the African Union Commission and the NPCA are providing strategic guidance to African countries on how to respond to climate change and pursue sustainable development through the implementation of the Africa Accelerated Agricultural Growth and Transformation for Shared Prosperity and Improved Livelihoods, commonly known as the Malabo Declaration. Some of this support includes preparation of bankable proposals to the Global Climate Finance, particularly to the Green Climate Fund (GCF), solicit Accredited Entries of the GCF to support African countries in bringing forward the Funding Proposals, preparation of the Implementation Strategy for NDCs, identifying best practices in adaptation and mitigation policy measures, and facilitating synergy among various interventions including National Adaptation Plans (NAPs), Nationally Appropriate Mitigation Actions (NAMAs), and the Green Climate Fund (GCF) country programming.

Even though GCF has not earmarked agriculture specifically for special funding, its guiding principle of 50% adaptation and 50% mitigation for funding projects is an opportunity for African agriculture to benefit better from GCF as compared to the previous Global Climate Funding facilities. Thus African countries have to generate sound climate-resilient and low-emission proposals in agriculture to capitalise on

the opportunity created. In this respect, DREA is planning to convene a multi-stakeholder consultation in October 2017 with the aim of reviewing progress made since the Paris Agreement and identify specific areas of support required by African countries to successfully implement their NDCs.

Looking forward: What is your vision for the next ten years of moving towards sustainable food systems in Africa, taking into account the various challenges of demography, rural-urban dynamics, industrialisation, sustainable natural resources management, climate change and stimulating investment flows to the continent? How to promote a more coherent approach?

Building on the tremendous progress that was made after ten years of the CAADP implementation, the African Governments realise the need to continue to embrace the CAADP framework but change the way business in the agricultural sector is conducted. Hence the continent resolved to take a more integrated, inclusive approach toward achieving the broader CAADP goals and recommitted themselves in 2014 to the renewed Africa Accelerated Agricultural Growth and Transformation (3AGT) agenda for attaining sustainable food and nutrition security, reduce poverty, boost intra-African trade in agricultural goods and services, and enhance resilience of production systems and livelihoods to climate change and related shocks. This vision is articulated within Africa's Agenda 2063 Ten Year Implementation Plan with short-term actions around seven strategic areas in the recently launched AU Business Plan for Implementation of the CAADP-Malabo Declaration 2017-2021.

The seven areas are aligned to the different commitments in the 2014 Malabo Declaration including: Commitment to principles and values of the CAADP processes; Enhancing Investment Finance in Agriculture; Ending Hunger in Africa by 2025; Halving Poverty by 2025 through Inclusive Agricultural Growth and Transformation; Boosting intra African Trade in Agricultural Commodities and Services; Enhancing Resilience of Livelihoods and Production Systems for Climate Variability and other related risks and Enhanced Mutual Accountability for Strategic Actions and Results. These strategic actions aim to address challenges of youth unemployment that is continually rising, rural-urban dynamics, low agricultureled industrialisation, natural resource vulnerability to many shocks and inadequate investment flows to the productive sector. To achieve this, the continent will need to continue to strengthen institutional and systemic capacities for programme implementation; it will also have to harness the required political will at all levels to enact the policy and institutional changes required for genuine agricultural development.

Rigorous evidence-based analysis to guide strategic and collaborative planning among stakeholders in turn becomes the basis for our advocacy efforts. Internalising and applying the CAADP framework tools, principles and values to operationalise new ventures in agricultural industrialisation and

growth should result in new comprehensive and integrated partnerships around defined priority business and investment opportunities. Our priority will be leveraging the required policy and institutional environment for responsible private sector participation and enacting reforms that catalyse opportunities for youths and women in an inclusive manner to engage in agricultural production and agribusinesses. These should be oriented to the best possible growth options and mainstreamed into existing national development strategies and activities with good prospects for achieving economies of national and/or regional scale and scope. The process should also result in transformed engagement with development partners in the context of a global economic architecture where Africa participates as an economic actor in its own right and where a shared vision exists of African countries networked into a coherent, continental economy and market. This should enable Africa to enhance the wealth creation capacity of the continent, including our capacity to retain a larger and fairer share of global wealth generated from the exploitation of its human and natural resources, investment opportunities and markets.

The AU Commission continues to support the AU member states to integrate the Malabo commitments into their national agricultural investment plans, to identify and undertake policy and regulatory reforms to attract private sector investments in agriculture and to institutionalise partnerships that support advancement of the African agriculture Transformation Agenda. In turn, AU member states are progressively working toward identifying and committing resources to investments that will enable them to achieve the Malabo commitments and creating a conducive policy and regulatory environment to attract private sector investments into agriculture.

About the interviewee:

H.E. Mrs. Josefa Sacko is the Commissioner for Rural Economy and Agriculture of the African Union Commission.

Minister Martina and Italy's experience in green farming policies

Interview conducted by Francesco Rampa



ECDPM's Francesco Rampa interviewed Maurizio Martina, the Italian Minister of Agriculture, Food and Forestry Policies on Italy's approach to sustainable food systems

A 'sustainable food system' is understood as a system in which all activities are sustainable from an environmental, economic and social point of view. In this interview with Maurizio Martina, the Italian Minister of Agriculture, we discuss the major trends affecting food systems, most notably climate change and limited resources availability, challenges arising from growing urban and informal markets, the current double burden of malnutrition, and the power concentration within groups of big retailers and supermarkets. The following questions cover, to a great extent, all three dimensions of a sustainable food system (planet, people, profit).

Francesco Rampa: What is Italy doing to achieve sustainable food systems (including going beyond agricultural development and food security and reconciling economic goals with nutrition/health and environmental sustainability)? Which incentives exist to promote more sustainable food systems?

Maurizio Martina: Sustainability is key to making the Italian agricultural model more competitive. In Europe, Italy is leading in the organic farming sector with about 60,000 operators and 1.5 million hectares cultivated. Italian farmers started to reduce the negative environmental impacts of farming practices many years ago. As a result, our country has cut by half the use of pesticides and significantly reduced greenhouse gas emissions, scoring well below the European average. Our government invests more than €3bn in European agricultural funds for sustainability incentives, and we have recently approved a law for the establishment of organic canteens certified by the government. All this confirms that Italy is at the forefront when it comes to green farming policies.

Global climate funds, such as the Green Climate Fund (GCF), seem promising for sustainable agricultural development & food security, but agriculture is not a specific focus of the Paris Agreement nor earmarked under the GCF. As a potential contributor to the Green Climate Fund, would Italy agree to use these type of funds for adapting agriculture in Africa (also given that agriculture is one of the priority adaptation area, as stated in most of Africa's NDCs)?

Agriculture will be a central part of the fight against climate change. In the next years it will be crucial to invest in the African continent on low-impact agricultural models, which combine productivity needs with respect for the territory and the environment. Italian and European experiences can be an important reference.

What can Italy, and Europe, do better to support sustainable food systems in African countries as part of their international cooperation?

International cooperation around agriculture and food systems is one of the main avenues that richer countries must pursue

to support peace and coexistence among peoples. This can be achieved by adopting funding policies for the development of agriculture in the poorest countries, improving access to resources and ensuring fairer trade practices. There are still 800 million people who are chronically hungry and have no access to water, especially in Africa. It is a theme that requires concrete answers at the global level, because we especially in the Mediterranean region can see the consequences every day.

Given Italy's own cluster ('distretti') and agricultural model (based on family and organic farming, certification/'DOC' labeling, etc.) what are your suggestions (innovative partnerships, policies and programmes) to supporting 'short' food value-chains in Africa (or better combining/integrating 'long' value chains, which are more commercial/export/cash crops/commodities oriented; with 'shorter' traditional value-chains, which tend to be more sustainable and nutritious, such as neglected and underutilised species (NUS))?

That is precisely what I was referring to before. The Italian model is based on territorial development through the collaboration between a network of small and medium-sized agricultural actors, and a transformation system that points to the origin indications as an added value. More generally, we need to think about a new relationship between ecology and agriculture. This relationship needs to ensure farmers' income support, more innovation for small producers, and

Local farm shop, Italy. Photo: Marchmont Communications / Flickr.

strong rules to ensure fairer markets. So let's start from there to give concrete answers and new opportunities not only to Africa but also to the 500 million small producers in the world. Transferring knowledge and guaranteeing a fairer power balance in the industry means making countries like in Africa stronger and more productive. We are in fact planning to discuss these issues with H.E. Josefa Sacko, Agriculture Commissioner of the African Union, who will be with us at the Agriculture Ministers meeting of the G7, in Bergamo, in October 2017.

Looking forward: what is your vision for the next ten years to achieve sustainable food systems through global processes (e.g. Committee for Food Security (CFS), Global Alliance for Climate-Smart Agriculture (GACSA), etc.), taking into account the various challenges of climate change, urbanisation, population growth, etc.?

Adopting sustainable farming practices and ensuring greater resilience can facilitate the achievement of the UN 2030 Sustainable Development Goals, in particular those related to food security. The zero hunger goal, for example, can only be achieved with greater inclusion of small farmers, women and the youth; the adoption of good agricultural practices; effective rural development programmes; the expansion of organic farming, broader adoption of biodiversity conservation measures; and more investment in research and technology. These are critical issues, which are also interwoven with migration dynamics. We will discuss all these issues at the Agriculture Ministers meeting of the G7, in a forward-looking manner. Thinking over the next ten years means thinking about the world we want for our children, and engaging in concrete and shared policies to make it happen.

About the interviewee:

Maurizio Martina is the Italian Minister of Agricultural, Food and Forestry Policies.

A panoply of policy instruments to promote sustainable food systems in West Africa

Interview conducted by Carmen Torres



ECDPM's Carmen Torres interviews ECOWAS Director Alain Sy Traoré, on how his organisation is seeking to use its new agricultural policy, ECOWAP 2015-2025, and various other policy tools, to promote agricultural development, food and nutrition security and the sustainability of food systems in West Africa.

Dir. Alain Sy Traoré. Photo: Sahel and West Africa Club (SWAC/OECD)

Carmen Torres: What are the key policy frameworks and programmes put in place by the ECOWAS Directorate of Agriculture to achieve sustainable and inclusive food systems? Can you give concrete examples of successful experiences?

Alain Sy Traoré: ECOWAS' main regional policy framework to achieve sustainable and inclusive food systems in West Africa is the ECOWAP (ECOWAS Agricultural Policy), which derives from the Comprehensive Africa Agriculture Development Programme (CAADP), the flagship policy framework for agricultural development and food and nutrition security in Africa. In 2015, 10 years after ECOWAP's adoption, we engaged in a review process, in particular to consider key social, economic and environmental sustainability issues. We adopted a new Strategic Framework for 2015-2025 which addresses key sustainability challenges linked to food security, nutrition, climate change, youth employment in agriculture

and gender, amongst others. The Framework also takes into account all major policies and global initiatives (the Sustainable Development Goals, the Paris Agreement on climate change, etc.) relevant to achieving food security and nutrition in the region. But first and foremost, the ECOWAP 2015-2025 takes into consideration and builds on the demographic challenges we face in our region.

To implement our new regional agricultural policy, we developed the Regional Agricultural Investment Plan and Food and Nutrition Security (RAIP-FNS), which was endorsed by the 15 ECOWAS Ministers of Agriculture on 12 December 2016 in Abuja. The RAIP-FNS aims to:

1) contribute to increasing agro-forestry, pastoral and fisheries productivity and production through diversified and sustainable production systems, and to reducing post-production losses;
2) promote contractual, inclusive and competitive agricultural and food value

chains oriented towards regional and international demand, with a view to regional market integration;

- 3) improve access to food, nutrition and resilience for vulnerable populations; and
- 4) improve the business environment and the governance and funding mechanisms for the agriculture and food sector.

The RAIP-FNS (like the former RAIP) is operationalised via different programmes and projects that are being executed, and we are currently formulating with the European Union and with our other technical and financial partners new projects targeting the different challenges our region faces to achieve sustainable food systems.

ECOWAS countries are currently designing their National Agricultural Investment Plan and Food and Nutrition Security (NAIP-FNS), a process that will come to an end in December 2017. With our technical and financial partners (IFPRI, FAO, CORAF, CILSS, etc.) we

have put in place what we call "Regional Clinics", in order to give technical assistance to our member states in the formulation of their NAIP-FNS. During these missions, we use sustainability indicators and criteria to evaluate the progress made by each member state in the formulation of their NAIP-FNS. We check, for instance, if the documents take into account the creation of jobs for the youth in agro-food value chains, if they are nutrition-sensitive, if they take into account their Intended Nationally-Determined Contribution (INDC), etc. In that way, we want to make sure that our Regional and National Agricultural Investment plans achieve not only agricultural development but also sustainable and inclusive food systems.

As a successful experience, I would like to give the example of the West Africa Food and Nutrition Security Support Programme (PASANAO). This programme, among others, has contributed to the development of a harmonised tool for food security analysis, the Harmonized Framework for the Analysis and Identification of Areas at Risk and Vulnerable Groups, more commonly referred to as the Cadre Harmonisé (CH), in the 15 ECOWAS countries. The CH provides tools for the classification, analysis, and reporting of food insecurity, as well as joint approaches for undertaking monitoring, assessments, data collection, and database management, which is absolutely crucial to formulate, implement, monitor and evaluate policies related to sustainable food systems. This allows us to capitalise on lessons in order to inform the NAIP-FNS that are currently prepared by ECOWAS member countries. The programme also includes support for the Master on Food and Nutrition Security implemented at the Regional Agrhymet center, and funding for innovative projects, whose results will be evaluated for scaling-up. We have selected some strategic thematic areas targeting key sustainability issues, including: 1) food fortification and local production of nutritional supplements; 2) securing pastoral activity systems; and 3) strengthening credit systems and agricultural insurance.

Supporting innovation and knowledge-sharing between ECOWAS countries, strengthening knowledge and capacity of national and regional agents, and promoting advocacy are all crucial to achieving socially, economically and environmentally sustainable agricultural development, and the ECOWAS Directorate of Agriculture and Rural Development has a strong role to play in this regard.

What policy instruments are in place in the region to ensure agriculture and food security policies are more sensitive to nutrition?

The RAIP-FNS has a specific objective linked to access to food, nutrition and resilience, and we have established a mechanism in the review process of the NAIP-FNS to make sure these plans are nutrition-sensitive. We have put special emphasis on the diversification of food production, the fortification of crops and food products, and on food safety. Many of the projects developed under the RAIP-FNS are related to food insecurity and malnutrition, such as the previously mentioned PASANAO. We also have a programme financing innovative projects related to safety nets, and our flagship project of establishing a regional food security reserve as a third safety net to complement local and national reserves. These reserves are strategically placed close to vulnerable regions that are prone to food insecurity crises, and represent an important component of a sustainable food system.

It is true that, for the most part, nutrition-specific actions are overseen by Ministries of Health, and that Ministries of Agriculture remain focused on agricultural and rural development. But we now all understand the need for coordinated actions to achieve food security and nutrition. Fortification of sweet potato with vitamin A, for example, is now possible, and gives an opportunity to promote nutrition-sensitive agriculture in the upstream part of the food system. We support the promotion of varieties with an additional nutritional advantage in the agricultural investment plans. We also support the strengthening of capacities at national level to integrate nutrition issues into agricultural plans, and encourage countries to ensure the participation of health and nutrition stakeholders in the formulation of their NAIP-FNS. It is not easy, but having NAIP-FNS that are nutrition-sensitive is a high priority for us. We also promote nutrition-sensitive actions in the

downstream part of our food systems with specific policy instruments, such as regulations addressing, for example, the fortification of key food products, such as oil and salt.

Let me finish by saying that our regional agricultural policy, the ECOWAP, is first and foremost a food sovereignty policy. From a food security and nutrition perspective, this means that we consider our region has all that it takes to feed and nourish our people, and we aim to reach regional food self-sufficiency (i.e. to replace food imports with regional food production). That is why in the first generation of the ECOWAP, we prioritised food products that are widely consumed by West Africans: millet and sorghum, maize, rice, roots and tubers, fruit and vegetables, and animal and fish products. In the new ECOWAP 2015-2025, we have also included major regional cash/export crops, as these are important not only for income generation, which is strongly correlated with household food security and nutrition, but also because some export crops, such as tropical fruits and nuts, are also extremely important for our people's food security and nutrition. For example, mango is a popular export to European markets. During the lean season, however, mangoes also constitute a fundamental nutritional contribution for rural populations. That's why we have programmes in place to address key challenges in such value chains, such as the "Project to support the regional plan to combat and control fruit flies in West Africa".

What policy instruments are in place in the region to achieve resilience and environmental sustainability in West African food systems, and how are they linked to the new PRIA-SAN?

We have two major policy tools. The first one is the Global Alliance for Resilience (AGIR), launched in 2012, which is a framework that helps to foster improved synergy, coherence and effectiveness in support of resilience initiatives in the 17 West African and Sahelian countries. Building on the "Zero Hunger" target within the next 20 years, the Alliance is a policy tool aimed at channeling efforts of regional and international stakeholders towards a common results framework. All Sahelian and West

African countries are now engaged in the process of formulating their country resilience priorities (PRP-AGIR). Burkina Faso, Cabo Verde, Côte d'Ivoire, The Gambia, Niger, Mali, Chad and Togo have already validated their resilience priorities, which should be included in their NAIP-FNS.

The second one is the Regional Framework for the Development of Climate Smart Agriculture (AIC), established in 2012. ECOWAS supports the development of innovations for climate-smart agriculture, i.e. agriculture techniques which help to increase agricultural productivity but also give sustainable income, strengthen adaptation and resilience to climate variability and climate change, reduce greenhouse gas emissions, ensure gender equality, and promote young people and vulnerable populations' access to productive resources for AIC. The framework intends to provide a comprehensive and coherent guide for the development of AIC in regional and national agricultural investment plans (RAIP-FNS and NAIP-FNS).

Through the 'Regional Clinics' I mentioned before, we check if the countries' PRP and the guidance provided by the AIC framework are adequately integrated in the NAIP-FNS. The reality is that the integration of these frameworks is not easy. At regional level, we can guide and provide tools for policy-making at national level, but the countries have the sovereignty over their national policies. Some countries consider it their main objective to increase productivity in order to nourish their people 'no matter how', and are less interested in environmental issues.

Finally, I would like to point out that West Africa includes a sub-region that is particularly vulnerable to climate change and environmental degradation, namely the Sahelian region. In the Sahel we also have specific flagship programmes which address key challenges for sustainable food systems. Two important ones are the Regional Sahel Pastoralism Support Project (PRAPS) and the Sahel Irrigation Initiative, both financed by the World Bank.

Are you planning to use global climate funds, such as the Green Climate Fund (GCF) to adapt agriculture in Africa? What can ECOWAS do to support its member states on this issue?

We are definitely planning to use available global climate funds to develop and adapt our agricultural systems.

A few years ago we noticed that, although these funds were available, our countries were not benefiting from them, and we found two reasons for that. The first reason is the lack of capacity to formulate projects, and the second is that they usually cannot afford the counterpart contribution they are asked to make by the vast majority of these funds. The ECOWAS Commission is playing an active role to overcome these obstacles. We first gathered ECOWAS countries representatives and asked the different people in charge of these funds to present them and explain their mechanisms and how our countries could access them. After that, with our colleagues from the Environment Directorate we developed a capacity strengthening programme of two years, which trained 400 experts in project development.

That is our support at country level, but at regional level we also developed and submitted a project to access the "Adaptation Fund" to promote climatesmart agriculture in West Africa. We are already in the final phase of the selection process, so we are confident that we will get US\$14 million for this project. Regarding the Global Environment Facility funds (GEF), we have submitted a US\$12 million project to eliminate/ substitute obsolete pesticides, with the FAO playing the role of fiduciary agency. We are planning to put in place a specialized unit to deal with these funds and sustain our support to ECOWAS countries to access them. We have many partnerships to work on this, such as with the Global Climate Change Alliance (GCCA) and Expertise France, among others. We have also developed training programmes to develop local capacities on these topics, such as the Master on Climate Change programme at the Regional Agrhymet center. We have also signed and support the "4/1000 Initiative", which aims to ensure that agriculture plays its part in combating climate change. In that context we've developed a project on agroecology with the support of the Agence Française de Développement (AFD), which is just about to start.

We were also actively engaged in the formulation of our bloc's common position regarding climate change for the Paris negotiations, and we are currently preparing for COP 23 (Bonn, November 2017). We also support the implementation of ECOWAS countries' INDC with our colleagues from the Environment Directorate.

What is your vision for the next ten years on sustainable food systems in West Africa, taking into account the different challenges of demography, rural-urban dynamics, industrialization, the sustainable management of natural resources, climate change and others?

Our region's natural endowments and current demographic dynamics (population growth, urbanisation, migration and increasing incomes, which affect dietary patterns) are a big challenge but also a huge opportunity to achieve sustainable food systems in West Africa. In that sense, the proper functioning of our regional market is crucial to take advantage of the opportunities offered by the region. We have put in place many important instruments to achieve this, such as the ECOWAS Common External Tariff (CET) and the Trade Liberalisation Scheme (ETLS), which is the main ECOWAS operational tool for promoting the West Africa region as a Free Trade Area, and we are working hard to make these instruments work on the ground.

The ECOWAP 2015-2025 vision for the next ten years on sustainable food systems in West Africa is: "A modern agro-sylvo-pastoral and fisheries sector that is competitive, inclusive and sustainable, guaranteeing decent jobs, food security and nutrition, and food sovereignty".

About the interviewee:

Alain Sy Traoré is the Director in charge of Agriculture and Rural Development at the ECOWAS Commission.

Challenges and perspectives for supporting sustainable and inclusive food systems

by Louise O. Fresco, Ruerd Ruben and Marion Herens

This article outlines prospects for enhancing sustainability, resilience and inclusiveness in food system development and indicates strategic pathways to address the different interlinked challenges.

Food Systems Approach

Food systems in low and middle income countries are experiencing a radical transition in response to socio-economic and demographic changes. Rising incomes, rapid urbanisation and growing middle classes lead to strong adjustments in dietary preferences and consumer behaviour and require public and private investments for improved food market integration. Increasing agro-food production has only partially translated into less hunger and certainly has not been accompanied by a reduction in malnutrition. While there are currently about 800 million people still suffering from undernutrition, worldwide some 2.1 billion people are overweight or obese, mainly due to dietary insufficiencies, in high as well as low and middle income countries.

The perspective of food systems is increasingly considered as a useful framework for understanding these changes and for shaping transformative action at the interface of science and policy. Food systems are considerably broader than only agriculture and food value chains. They encompass all the stages of food transformation: growing, harvesting, packing, processing, marketing, consuming and disposing of food residues. Food systems are essentially multidimensional, including sociocultural, economic, environmental and political aspects, having complex interactions with multiple actors engaged into nested agro-food systems operating within dynamic and interactive food environments (see Figure 1). It is in this light that we need to consider future developments in diet quality and healthy eating behaviours of people.

Figure 1: Food System Analysis



Source: GLOPAN 2016

It is increasingly recognised that urban and rural households are simultaneously engaged into different types of food systems. Food systems vary widely across the world. The most common food system is the agro-industrial, or 'modern', food system acting on a global scale, dominated by a few multinational corporations through vertical integration, composed by complex, industry-driven sub-systems with long supply chains, consolidating inputs, processing and food retail, involving mainly processed foods channelled through large supermarket chains, restaurants and catering.

Alongside the agro-industrial food systems, 'traditional' food systems are omnipresent. These are small-scale, local systems driven by family farming, rather short supply chains, locally produced food channelled through small, local shops or wet markets. Today, it is estimated that globally most people, notably in Asia, participate in food systems which could be called 'intermediate'. These intermediate food systems are a combination of both smallholder and larger farms, long and short supply chains, of basic products and processed food, channelled through local shops as well as modern retail outlets.

Key challenges for achieving sustainable and inclusive future food systems

A scenario analysis addressing the future of food systems globally, developed by the World Economic Forum and its partners in the 2017 'Shaping the Future of Global Food Systems' report, outlines four key aspirations for future-proof food systems:

- Inclusiveness, ensuring economic and social inclusion for all food system actors, including smallholder farmers, women and youth;
- Sustainability, minimising negative environmental impacts, conserving scarce natural resources and strengthening resiliency against future shocks;
- Efficiency, producing adequate quantities of food for global needs while minimising losses and waste;
- Nutritious and healthy, providing and promoting consumption of diverse nutritious and safe foods for a healthy diet.

The growing attention to food system inclusiveness and sustainability as global issues is a useful complement to common conceptions of food security that address issues of access, quality, utilisation of food and stability of food supply. There are several critical issues that challenge food system performance: (a) rapid urbanisation and the growth of megacities, (b) requirements for agro-food systems upgrading, and (c) management of food access, distribution and price through rural-urban linkages:

• **Urbanisation.** More people live today in urban than in rural areas and by 2050 two-thirds of the world population



Vegetable seller at local market in Abuja. Photo: IFPRI/Milo Mitchell

will reside in cities. Economic growth is rarely keeping pace with the cities' growth. This leads to difficulties for people finding employment, pressure on land and housing allocation, and growing demands for urban planning and governance. Developing inclusive and sustainable food systems for the rapidly expanding urban populations is one of the most pressing challenges.

- Value chain upgrading. The provision of healthy food to these urban agglomerations puts enormous pressure on the agro-food subsystem. If this increased and changing demand is to be met by domestic supply, local agricultural production needs to become more diversified. More value can be added to agricultural products through processing, trade and packaging. Currently, in many food systems these processes tend to be far more energy-intensive and are accompanied by substantial losses due to inadequate handling and/or infrastructure failures. On the other hand, they may also provide new employment opportunities outside agriculture.
- Food price management and rural-urban linkages. Rural-urban interfaces also deserve attention for improving the stability of food supply and access to food, both in terms of seasonal variation as well as with respect to food prices. Consumers can be heavily affected by sudden food price spikes due to harvest failures or increasing demand. Such insecurities are frequently addressed by maintaining strategic food reserves at household, regional or even national level. This might not only be a fairly expensive strategy but could also lead to market imbalances if sales are not in line with regular price tendencies. Whereas food price management for key staple crops (rice, maize) is sometimes understood from a food sovereignty perspective, prices of fresh foods like fruit, vegetables, milk, eggs and meat tend to be more volatile. Regional trade may offer an interesting alternative for price stabilisation. More importantly, food prices can also be balanced through better forecasting (using satellite weather information) and with insurance strategies for mitigating losses. Such market resilience is vital for enabling a more inclusive food system transformation.

Policy and Practice Perspectives

Food systems are based on complex interactions between human actors and biophysical processes. Changing these interactions for dealing with the emerging challenges presented above requires engagement into a dynamic and often unpredictable process. It requires knowledge about the system dynamics and an interactive process with key stakeholders to develop innovative partnerships, policies and programmes. (See www.mspguide.org for a resource portal on multi-stakeholder partnerships) Some perspectives and illustrative examples of critical incentives for food system change include:

- Food governance. Responses to the new urbanising geography of food security are emerging at the local level, particularly in emerging economies, where municipal governments are recasting themselves as food system innovators. Some authors highlight the need for a tighter scholarly and policy focus on 'connectivities', i.e. the role of food exchange nodes and of governance coordination in the design and implementation of more effective food policy strategies. Typical examples are public facilities for local open food markets, ICT-based information provision about health properties of foods, and voucher systems that provide preferential access to food for vulnerable population groups. At another level, the Milan Pact (www.milanurbanfoodpolicypact.org) and the City Deals network (http://agendastad.nl/city-deals) in the Netherlands are innovative platforms addressing urban food policy development.
- Non-farm employment. Rapid changes in consumer markets, income-based food purchases, integrated value chains, and ICT innovations lead to rising off-farm labour and provide opportunities for young people to engage and contribute. One can think of sector transformations for youth employment - especially with respect to commodities such as coffee, cacao, and palm oil bringing processing close to production sites. This is also related to value-addition along local and regional food value chains, contributing to employment creation, linking urban consumers' food demand with dynamic and more sustainable (sub)regional food systems. Policymakers are concerned about a withdrawal of young people from the agricultural sector and the tendency to migrate to urban areas and beyond. The youth face major constraints related to access to agricultural land and capital, power differences, cultural barriers and lack of participation in decision-making.

- Agro-food sector transformation. Food systems need to be tightly integrated and require effective coordination to guarantee dynamic adaptive management tailored towards frequently changing market circumstances. Typical examples show that food system change needs to involve both technical agro-logistical change (e.g. better packaging material to reduce post-harvest losses) as well as organisational change (e.g. delivery contracts that create incentives for using improved technologies). Therefore, food system change requires a multidisciplinary approach that integrates technical expertise with strategic process facilitation. Such sector transformation also combines "long" value chains which are more commercial and export oriented-in particular involving end products rather than raw materials-with "shorter" value-chains which tend to be focused on vulnerable, perishable commodities.
- Innovative partnerships. Inclusive and sustainable food systems tend to be embedded in partnerships that enable equity, diversity and solidarity. These partnerships may involve horizontal coordination between public, civic and private agents, as well as vertical supply chain coordination amongst private sector producers and industries. The particular aim of PPPs is to encourage inclusive and sustainable economic development through market-oriented investment. PPPs enable knowledge, expertise and financing to be pooled: the private sector's market-oriented approach can be coupled with civil society organisations' knowledge of local demand, while research institutions contribute expertise and the government provides key regulations and standards. It is the networking function and the creation of lateral bonds that strengthen the capacity to address sustainability issues and to contribute to policy coherence. These relationships, as well as the innovative solutions that emerge, are necessary to fully achieve the SDGs. From our Dutch background, the PPP model is further enriched through a so-called "Dutch diamond approach" that provides a framework for joint innovation around bottlenecks in the agro-food system. These partnerships play a major role in implementing and anchoring Dutch development cooperation policy. They enable seed system investments to become linked to smallholder producers in Ghana, Ethiopia and Kenya, and support the value chain integration of dairy and aquaculture programmes for better reaching bottom-of-the-pyramid segments of consumers.
- Contracts. In a similar vein, direct coordination amongst agro-food producers and other value chain partners is important to enhance trust, to support certainty on transactions and to reduce post-harvest losses. Whereas in traditional food systems exchange between producers and traders is largely based on spot transactions, food systems of nutrient-rich perishable products require closer integration. Therefore, different types of quality standards and delivery contracts are developed that involve producers, traders and retailers. To achieve greater scale and reliability in agro-food transactions, opportunities for horizontal cooperation (i.e. farmers' associations) are promoted that help to overcome constraints smallholders face, e.g. aggregating demand for inputs and services, creating economies of scale that enable investments in value addition and increase smallholders' voice in decision making processes. Such longstanding market relations are critical for achieving incentives for investment in quality upgrading and continuous supply that support market resilience.

In summary, food system transformation that responds to diet transitions in emerging economies needs to simultaneously address different and sometimes competing challenges. Dovetailing technological strategies, socioeconomic incentives and governance regimes provide useful opportunities to overcome trade-offs. Food system thinking might help us to identify pathways towards supporting the sustainability, responsiveness and inclusiveness of the food systems at stake.

References

- Global Panel on Agriculture and Food Systems for Nutrition. (2016). Food systems and diets: Facing the challenges of the 21st century. London, UK. http://glopan. org/sites/default/files/ForesightReport.pdf.
- Westhoek, H., van Berkum, S., Özay, L., & Hajer, M. (2016). Food systems and natural resources. Paris: United Nations Environment Programme (UNEP), International Resource Panel.
- UN-Habitat (2014). The State of African Cities 2014: Re-imagining sustainable urban transitions. Nairobi, Kenya. Retrieved from http://unhabitat.org/books/state-of-african-cities-2014-re-imagining-sustainable-urban-transitions/.
- Sonnino R. (2016). *The new geography of food security: exploring the potential of urban food strategies*, The Geographical Journal, Vol. 182(2); pp.190–200, doi: 10.1111/geoj.12129.
- Ploumen L., Schwartz P., Fries L. (2017). Davos: Can Connectivity Feed the World? Blog FORBES, World Economic Forum.
- Van der Lee, J.; Zijlstra, J.; Wouters, A.P.; Van Vugt, S.M. (2014). Milking to Potential: Strategic Framework for Dairy Sector Development in Emerging Economies. Discussion paper. Centre for Development Innovation and Livestock Research, Wageningen UR (University & Research Centre), Wageningen.

About the authors



Prof.dr.ir. Louise O. Fresco is president of Wageningen University & Research. She combines a long academic career as professor in Wageningen and Amsterdam, with various visiting professorships, with an extensive involvement in policy and development.



Dr.ir. Marion Herens holds the position of food and nutrition security expert at Wageningen University & Research - Centre for Development Innovation (CDI).



Prof.dr. Ruerd Ruben is professor of Impact Assessment for Food Systems at Wageningen University & Research and coordinates Food & Nutrition Security and Sustainable Value Chains at Wageningen Economic Research (WECR).

Diversification for sustainable food systems and the role of ECDPM

By Carmen Torres and Francesco Rampa

Delivering food security and nutrition to all is undoubtedly an essential goal of our food systems. Their environmental and socioeconomic outcomes are equally important, in particular in the context of the Sustainable Development Goals and the Paris Climate Agreement. Today, however, our food systems are unsustainable.

Our food systems need to serve better, and simultaneously, the needs of the *Planet*, as current food production, distribution and consumption practices are depleting our resources and polluting the globe; *People*, as almost two-thirds of the world's population is not properly nourished (malnutrition is the single largest contributor to disease in the world); and *Profit*, as our food systems are generating inequality in income and wealth, with profit concentrated in a small portion of the value chain actors.

The global challenge ahead of us is to promote sustainable food systems to feed (and nourish) the growing population in a sustainable way.



Women selling cowpea – a type of African leafy vegetable – in a market. Photo: Bioversity International / P. Maundu, Flickr.

Diversified sustainable food systems deliver food security and nutrition and are socially, economically and environmentally sustainable.

International expert recommendations point to the need to diversify production and consumption. The IPES report 'From Uniformity to Diversity' (2016) calls for "a paradigm shift from industrial agriculture to diversified agroecological systems", as these systems can be competitive, perform particularly strongly under environmental stress, and also pave the way for diverse diets and improved health. The same report argues that promoting a food systems approach can help meet 13 of the 17 UN SDGs. Likewise, the FAO 'Recommendations for improving nutrition through agriculture and food systems' (2015) highlights the importance of facilitating production diversification, marketing of nutritious foods, and increasing incentives (and decreasing disincentives) for availability, access, and consumption of diverse, nutritious and safe foods through environmentally sustainable production, trade, and distribution.

The UN Decade of Action on Nutrition (2016-2025) work programme, action area 1 (Sustainable, resilient food systems for healthy diets), calls for "improved production, availability, accessibility and affordability of a variety of cereals, legumes, vegetables, fruits and animal-source foods, including fish, meat, eggs and dairy products, produced and consumed sustainably; and diets containing adequate macronutrients, fibre and micronutrients in line with WHO recommendations on healthy diets." The foresight report of the Global Panel on Agriculture and Food Systems for Nutrition (2016) highlights the importance of enhancing the ability of food systems to deliver high quality diets, and stresses the importance to go beyond agriculture to "encompass trade, the environment and health, harnessing the power of the private sector and empowering consumers to demand better diets."

'Traditional' food will be key to address together the challenges of nourishing people, protecting the planet and reducing inequality.

One way to foster food variety in our food systems is by supporting the production, processing, marketing and consumption of neglected and underutilised species (NUS). NUS, still abundant in the tropics, are very high in minerals, nutrients and vitamins; perform well under extreme weather conditions and tend to adapt easily to climate change; contribute to protecting agricultural biodiversity; if properly recognised are more likely to generate fair profits for smallholders (compared to food chains controlled by

powerful corporations); and, with their related traditional knowledge, can reinforce cultural identity and strengthen people's ownership of the food system. But they are likely to be wiped out in a world where about 90% of the food energy and protein consumed comes from only 15 plant and 8 animal species, and agricultural production systems for more recognised species continue to erode genetic diversity. As Bioversity International states, "NUS should be at the centre of global efforts on nutrition, sustainability and climate change adaptation: they can provide a robust contribution in the implementation of most of the 17 SDGs".

Integrating NUS with more commercial/popular crops can contribute to more sustainable food systems.

Unfortunately, diversifying food production and consumption is easier said than done, given that four crops (rice, wheat, corn and soy) represent 60% of all calories consumed across the globe. Diversification will require, in particular, helping farmers identify and produce efficiently a more diverse range of crops, as well as building new markets by educating communities about the nutritional importance of eating a wide range of foods. But it will require much more than that, including addressing the power imbalances and vested interests along and across very complex food systems, where concentration of power largely influences production and consumption.

As recently explained by the Global Panel on Agriculture and Food Systems for Nutrition, "market systems that make diversity of diets both affordable and attractive to the consumer are game changers to achieve food security for all. This requires imaginative investment in appropriate producer incentives, markets that work for the poor, and more resource-efficient value chains."

In the case of 'traditional' food, according to Bioversity, promoting NUS will entail (1) creating an enabling policy environment, adequate incentives and partnerships; (2) institutional support to scale up successful pilot business opportunities (facilitate access to financing, meet food safety standards, design packaging and labeling, access export markets, etc.); and (3) promoting multi-disciplinary research and knowledge creation. Taking into account the importance of market demand and economic incentives within the food system, a particularly interesting area for further work towards diversification (and conservation of agricultural biodiversity) is around certification and labelling approaches, to indicate to consumers that NUS support the conservation of ecosystems, improved nutrition and more equitable and culturally viable food systems.

The contribution of research, policy processes and partnerships...as well as ECDPM

ECDPM, as part of its new strategy, is committed to contributing to this required shift towards food systems that better serve the needs of Planet, People and Profit simultaneously. In a consortium with Italian Universities, we launched a programme on 'food systems for sustainable development', called SASS (Sustainable Agrifood Systems

Strategies), co-funded by the Italian Ministry of Research. Between 2017 and 2019, the SASS programme will build knowledge, policy dialogue and partnerships contributing to sustainable food systems at national, regional and international levels, based on three research locations: the Arusha area in Northern Tanzania, the SAGCOT area in Southern Tanzania, and the Naivasha basin area in Kenya. In each of these locations, the aspects of social, environmental and economic sustainability will be addressed by analysing the challenges and opportunities for the integration of local NUS into the existing, more commercial and widely supported staple food systems such as maize, rice and dairy. Among the areas of focus of such research and concrete policy recommendations will be the possible launch of Labelling and Certification schemes, as well as marketing strategies, to promote the production and consumption of NUS.

This work will be carried out in partnership with different local stakeholders, to ensure the institutional and political feasibility of the proposed improvements in the food systems, and will aim at contributing to several processes, at local, national, regional and global levels, such as: creation of labels that recognise simultaneously the environmental, social and economic sustainability of local NUS; participatory certification schemes affordable to smallholders; strengthening of the food system dimensions of the national CAADP in Kenya and Tanzania; revision of the Eastern African Community Organic Standard to capture all three types of sustainability; a continental level ecolabelling system under the framework of the AU; and feeding such results and approaches from Africa to the relevant multilateral processes such as the within the Committee on World Food Security and the Decade of Action on Nutrition.

About the authors



Carmen Torres is Policy Officer for the Sustainable Food Systems team of ECDPM's Economic and Agricultural Transformation programme.



Francesco Rampa is Head of Programme for the Sustainable Food Systems team of ECDPM's Economic and Agricultural Transformation programme.

Why are sustainable food systems paramount to the World Health Organization's nutrition mission?

by Francesco Branca, Harrison Phelps and Lina Mahy

For the first time, the WHO recognises sustainable food systems as paramount to population health with its "Ambition and Action in Nutrition 2016-2025".



UN Decade of Action on Nutrition: what countries have defined

SDGs emphasise sustainable food systems, but lack policy options The United Nations General Assembly recognised in 2015 the importance of sustainable food systems in the 2030 Agenda for Sustainable Development by adopting SDG target 2.4, which strives "to ensure sustainable food production systems by implementing resilient agricultural practices, which help maintain ecosystems and strengthen capacity." Thus, the UN General Assembly and all its Member States recognise the need for sustainable food systems. However, the SDGs lack policy options to lead country action, requiring a comprehensive and concrete plan for action in order to successfully reach the 2030 goal for sustainable food production systems.

ICN2 Framework for Action provides policies, but lacks timeframe The Framework for Action (FfA), one of the two outcome documents of the 2014 Second International Conference on Nutrition (ICN2), provides a menu of policy options to lead country action and successfully reach the SDGs. The ICN2 brought together representatives from more than 170 governments, 150 representatives from civil society and nearly 100 from the business community, providing a space for participants to commit to action in addressing malnutrition in all its forms. The two main outcome documents of the ICN2--the Rome Declaration on Nutrition and the FfA--were negotiated and adopted by participating governments at the conference, committing world leaders to establish national policies for reaching the agreed six global nutrition targets and three diet-related noncommunicable disease (NCD) targets (see figure 1).

These frameworks should not remain words but need an impetus for action with a catalysing timeframe to drive country implementation of the FfA.

The UN Decade of Action on Nutrition provides a holistic platform for action

UN Member States proclaimed in April 2016 the UN Decade of Action on Nutrition 2016-2025, which calls upon FAO and WHO to lead implementation of the Nutrition Decade and reach its aim to accelerate implementation of the ICN2 commitments, achieve the global nutrition and diet-related NCD targets by 2025, and contribute to the realisation of the SDGs by 2030. Importantly, the Nutrition Decade serves as an umbrella space for nutrition-related work along six crosscutting integrative areas for impact on sustainable food systems. Based on the ICN2 FfA recommendations, the six areas of the Nutrition Decade include the following three relevant to sustainable food systems: 1) Sustainable resilient food systems for healthy diets; 2) Social protection and nutrition education and; 3) Safe and supportive environments for nutrition at all ages. Consequently, the UN Decade of Action on Nutrition catalyses change and provides a robust platform for Member State action to attain SDG2 and ensure sustainable food systems.

People and planetary health is a win-win

The double burden of malnutrition
The spreading scourge of both
undernutrition and overweight and
obesity in high, middle and low income
countries has resulted in a double
burden of malnutrition (http://www.who.
int/nutrition/double-burden-malnutrition/
en). While the world is fighting stunting
in 155 million children younger than five
years old and wasting in 52 million, more

Figure 1: The six global nutrition targets and three diet-related NCD targets

Global targets 2025 to improve Nutrition as an enabler for maternal, infant and young child NCD targets and objectives nutrition 40% reduction in the number of children under 5 who are stunted premature mortality REDUCE FROM from NCDs 50% reduction of anaemia in women of reproductive age Diet-related Global NCD targets 30% reduction in low birth weight relative reduction in mean 30% population intake of salt/sodium no increase in childhood overweight relative reduction in the prevalence of raised blood pressure or contain the increase the rate of exclusive prevalence of raised blood breastfeeding in the first 6 pressure, according to national months up to at least 50% circumstances Halt in diabetes and obesity reduce and maintain childhood the rise wasting to less than 5%

than 42 million children and 640 million adults are either overweight or obese. These polar extremes have created an explosion of diet-related NCDs, limiting the physical and cognitive development of populations and placing an undue burden on healthcare systems. The double burden can only be solved by a multisectoral nutrition response, which introduces nutrient-rich, holistic and culturally appropriate foods into the diets of everyone, but especially of at-risk populations. Unfortunately, current food systems are unsustainable and do not provide the foods we desperately need, increasing production and consumption of highly processed foods and jeopardising planetary and population health.

Planetary impact

Climate change, dwindling biodiversity and a host of other threats currently undermine planetary health. In particular, overfishing, antibiotic overuse, monoculture, overproduction of cash crops and other agricultural and aquaculture practices have resulted in dwindling fish stocks, increasingly resilient bacterial populations, nutrient loss and more. Additionally, greenhouse gas emissions from meat production surpass nearly all other industries, making industrial meat production harmful to planetary health. Unsustainable food systems endanger

our planet and, in turn, the health of the global population, requiring a sustainable approach to solve the threats against people and the planet.

The solution: Sustainable food systems

Thus, sustainable food systems are paramount in the fight to ensure planetary health and end malnutrition in all its forms. Tilman and Clark (2014) prove this connection between sustainability and population health in their study, 'Global diets link environmental sustainability and human health.' Essentially, creating sustainable agricultural and aquaculture practices will simultaneously secure stocks of nutrient-rich foods to fight the double burden of malnutrition and mitigate the

Box 1

Neglecting to create sustainable food systems will contribute to an 80% increase in global agricultural greenhouse gas emissions by 2050, Tilman and Clark predict, requiring immediate action.

Healthy global diets could reduce greenhouse gases from food 29-70% and have economic benefits of up to \$31 trillion by 2050 (Springmann et al, 2016).

harmful climate impacts that current agricultural practices have on planetary health. Sustainable food systems, therefore, create a 'win-win' situation by securing population and planetary health (Box 1).

Fortunately, many countries are starting to use the UN Decade of Action on Nutrition to take action and ensure sustainable food systems (Box 2). WHO calls upon other Member States to follow the champion countries' lead to establish relevant action networks and make SMART commitments under the UN Decade of Action on Nutrition for a sustainable, healthy future.

WHO Ambition and Action in Nutrition 2016-2025

WHO is expected to co-lead the UN Decade of Action on Nutrition, as per General Assembly of the United Nations resolution UNGA A/RES/70/259. Consequently, the WHO has developed a comprehensive nutrition strategic framework, WHO Ambition and Action in Nutrition 2016-2025, which for the first time provides a cohesive WHO nutrition theory of change, bringing together the SDGs, ICN2 and Decade of Action on Nutrition. WHO's Ambition

Box 2

Norway has launched the Global Action Network on Sustainable Food from the Ocean for Food Security and Nutrition, becoming the first country to establish an action network as part of the United Nations Decade of Action on Nutrition 2016-2025. Norway's action network calls for higher priority to be given to fisheries and aquaculture in efforts to improve global food security.

Brazil has committed to:

- Provide continued technical support and rural extension to 700,000 families from agrarian reform and forest extractions
- Increase public procurement of foods from family farmers to 2.5Bn reals
- Propose fiscal measures in order to reduce the price of healthy, sustainable foods

Ecuador has committed to:

- Generate environments that favour population health
- Promote food sovereignty
- Promote community and intersectoral participation in public policy

and Action in Nutrition responds to the renewed momentum for improving nutrition and acknowledges the need for multisectoral collaboration outside the health sector to combat the spread of malnutrition in all its forms. For the first time ever, this innovative strategic document commits WHO, a health agency, to work with countries to ensure health through access to sustainable, healthy diets.

WHO's MISSION **STATEMENT:**

"To work with Member States and partners to ensure universal access to effective nutrition actions and to healthy and sustainable diets.'

Our dedication to universal access of healthy and sustainable diets recognises the central and fundamental role of healthy diets at all stages of life, as well as the importance of sustainable environments and food systems in achieving the nutrition targets as recognised by the ICN2. This is a revolutionary approach to nutrition that the WHO hopes will reverberate through other health organisations.

WHO's core goal for sustainable food systems, as outlined by the Ambition and Action in Nutrition, is to: "Define healthy, sustainable diets and guide the identification and use of effective nutrition interventions." With this goal, WHO is responsible for defining healthy, sustainable diets that not only ensure the prevention of all forms of malnutrition and diet-related

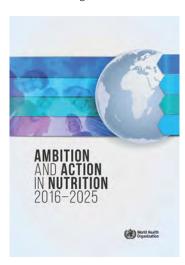
NCDs throughout the life course, but also are compatible with planetary health. This audacious goal requires developing national policies that incorporate both international and local contexts in order to ensure effective interventions that do not unintentionally harm local populations and cultures.

Additionally, as global guidelines for sustainable diets are not yet defined, WHO will be challenged to clearly articulate and measure their goals in a fairly new field in nutrition. Along these lines, the WHO will: 1) Improve efficiency and transparency of the guideline development process: 2) Maintain and expand the guidance development groups; 3) Strengthen and expand guideline dissemination processes; 4) Update integrated guidance (effective means to achieve global nutrition targets); 5) Strengthen the process of monitoring adoption and evaluating impact of guideline adoption and implementation; 6) Develop tools to facilitate policy implementation and 7) Keep the three levels of the Organization up to date with new and revised guidance.

These actions can and will be delivered through a multisectoral approach, which is stated clearly in the ICN2 outcome documents: including sectors outside of health, especially agriculture, is paramount for ensuring a world free from all forms of malnutrition where all people achieve health and well-being.

WHO has a role as a leader and catalyst for multisectoral action to ensure the development and proliferation of sustainable food systems. Through WHO's Ambition and Action in Nutrition, our agency is fit for purpose.

For further reading, see:



About the authors



Dr Francesco Branca is Director of the Department of Nutrition for Health and Development (NHD) in WHO, Geneva.

Harrison Phelps is Intern and Lina Mahy is Technical Officer in the Office of the Director, NHD, WHO.

Bring NUS back to the table!

by Stefano Padulosi

NUS, or Neglected and Underutilized Species, are wild, cultivated or semi-domesticated non-commodity crops at the margin of mainstream agriculture. Their contribution to tackling food and nutrition insecurity and climate change vulnerability is huge and can no longer be overlooked. They might not be 'neglected' for much longer.



Finger millet. Photo: Bioversity/S. Padulosi

NUS (Neglected and Underutilised Species), also called orphan, abandoned, lost, underused, local, minor, traditional, alternative, niche, or underdeveloped crops are part of a large portfolio of useful species cultivated and nurtured for centuries by users around the world, predominantly local communities. Although NUS have been neglected and underused, they hold great potential: hardy and highly nutritious, these vegetables, pulses, cereals, and fruits form a universe of tastes and flavours that have been shaping traditional systems everywhere. NUS species are impressive: 539 vegetables and 645 fruits in Africa, 2800 edible fruits in the Tropics, 200 leafy vegetables in Kenya, 228 vegetables in southeast Asia and 137 indigenous vegetables in Italy.

NUS versus commodity crops

All countries have a rich NUS basket as part of their unique cultural heritage. Unfortunately these species are

disappearing from the field because of their scarce competitiveness in modern agriculture.

This marginalisation raises great concerns in our capacities to feed the world and feed it well. Food today is seen as a pure 'commodity crop yield', lacking nutrition or agro-ecological considerations. Therefore, the main concerns in production systems are crop intensification, heavy use of agrochemicals, mechanisation, standardisation of agronomic practices and unprecedented decline of crop species and varieties in cultivation.

Marginalised by research -- and sadly also by development efforts — NUS lose out in national markets and survive only in small local or niche markets. Once symbols of people's cultural identity and sources of their pride, NUS have now become gourmet food for the wealthy. Interestingly, supermarket shelves seem to be loaded with a tremendous diversity of foods, but a closer look reveals that such 'diversity'

is the result of intense food processing from only a few crops and varieties. The over 5,000 edible crops estimated to exist today are largely untapped by current food systems, dominated by maize, wheat, and rice that provide more than 50% of the world's plant-derived calories to the world.

The last 60 years of research investments over few resourceintensive crops—the so-called 'Green revolution'—have led to higher yields and important contributions to reduce hunger in the world. However, this huge achievement has been accompanied by a major downside: the heavy erosion of our plant-based diets and the loss of the biological foundation on which our farming practices are based. A staggering 75% of crop diversity has been lost in the course of last century (an estimated 300,000 varieties). Just twelve crops together with five animal species provide 75% of the world's food, and of the 137 most important crops in the world, 20 are cultivated over 80% of the global agricultural area and the remaining 117 on a mere 20%. These trends are worsening every year.

Not helpful either is the poor conservation of NUS: most samples safeguarded in ex situ gene banks around the world represent very marginally NUS genetic resources, which are mainly maintained by farmers in the field.

Finally, monocropping a limited number of resource-intensive crops has led to land degradation and marginalisation of smallholder agriculture.

NUS are the solution

Globally, 800 million people are food insecure, 2 billion suffer from micronutrient deficiencies and 2.1 billion are overweight or obese. A new Green revolution is needed to tackle

the daunting problems of malnutrition in its diverse forms. This cannot succeed without agrobiodiversity. NUS hold the key to this new revolution. Foodbased solutions that diversify what we grow and what we eat provide enduring benefits to local communities and the environment by addressing these problems at their base.

So what should be done to reverse this condition of extreme vulnerability within our food systems? The answer rests with NUS and their sustainable use enhancement.

Clearly, the world needs to continue securing the production of staple crops to feed the world, but that effort must be complemented by parallel investments on the many nutritious and resilient crops found in the NUS basket. Diversifying the production systems with the injection of various NUS will buffer food systems against socio-economic shocks and at the same time strengthen the health of agroecosystems, support smallholder agriculture, safeguard food cultures and associated economies that revolve around local crops and traditions now fast disappearing. In addition, many NUS are drought-resilient, so they hold potential to tackle negative climate change impacts.

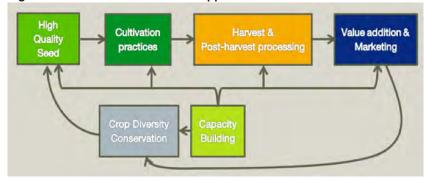
A methodological framework

The promotion of NUS is an opportunity to increase traditional crop diversity and associated food traditions. Safeguarding traditional heritage is an important contribution to protecting the identity of local communities and reinforcing their confidence to counteract threats arising from globalisation trends and changes in lifestyles.

Women play a central role in using diverse NUS as well as in the nexus between agrobiodiversity and nutrition security of households. Therefore, women's capacity should be built, including through the dissemination of best practices for cultivation or value addition, the enhancement of marketing skills, and awareness raising of nutrition and better food preparation.

However, NUS lack the collaborative structures, information, data and services that are instead easily available for commodity crops. For example, extension agents are poorly trained on how to promote NUS and should also be targeted in capacity-building activities. Carrying out research programmes for the promotion of NUS is a great challenge for National Agricultural Research Systems (NARS) and so is the development of their value chains. To address these challenges, resources are

Figure 1: The holistic value chain approach



needed to strengthen capacities.

Dealing with NUS requires a collaborative approach among experts from different sectors and disciplines. Bioversity International has been working on NUS for more than two decades. It has developed a successful collaborative framework—the 'holistic value chain approach' (see Figure 1)—that has been tested on several NUS, including Andean grains and minor millets. This framework, followed in several projects (with support from the International Fund for Agricultural Development (IFAD) and the European Union) has allowed actors to work closely together to overcome the many bottlenecks encountered in the NUS value chains.

For example, farmers have engaged with scientists in surveying, collecting, conserving and selecting the genetic diversity of target species; food specialists worked closely with germplasm experts and consumers to develop more nutritious food, easier food technologies and attractive recipes; private companies participated in the marketing of raw and processed products; nutritionists, school teachers and media experts helped raising public awareness on the nutritional and health benefits related to NUS, and decision makers were involved with other stakeholders in the development of policies for removing obstacles along the value chains.

Positive impacts

Bioversity International's NUS project interventions using the holistic value chain approach has strengthened the resilience of livelihood systems in both urban and rural communities through a wider deployment of NUS at household level and in the value chains. More specifically, it has produced a number of encouraging outcomes in target areas: women and men farmers and other value chain actors gained knowledge to identify diverse, stresstolerant, adapted crops with market

potential and ways to better document and monitor their use; climate-smart practices are being developed and disseminated; high quality seed of stress-tolerant varieties is produced by local communities and researchers; women's and men's farmer groups are increasingly generating more income thanks to their enhanced skills in cultivation, value addition and marketing; demand for nutritious products from NUS has increased, leading to enhanced nutrition, income and empowerment of vulnerable groups; capacities of farmers to manage weather-associated risks through NUS have been strengthened; market opportunities have been realised which in turn have created incentives for farmers to continue growing and safeguarding NUS on their farm; awareness among policy makers has been raised which led to a number of relevant policies for supporting wider uses (e.g. inclusion of NUS in school meal programmes in Brazil or in the national procurement system in India).

Looking back at the journey to promote NUS, progress has been made in many regards. However, NUS should be further encouraged, promoted and supported with policies at national and international level to create greater synergy among agencies that have been working on these issues in isolation.

About the author



Dr Stefano Padulosi is Senior Scientist on Integrated Conservation and Use Methodologies at Bioversity International, Rome, Italy.

www.bioversityinternational.org www.nuscommunity.org

Policy coherence across the food system for nutrition: from challenge to opportunity?

by Corinna Hawkes

Policy coherence occurs when policy actions across sectors and stakeholders are actively aligned towards meeting agreed objectives. Policies that affect the food system are currently not aligned towards improved nutrition outcomes. Yet there are opportunities for greater coherence. Identifying priorities for action will require careful analysis.

As soon as we start thinking about how to create greater policy coherence in the food system, we have to ask: "coherence for what?" and "coherence with what?" "For what" is all about what we want the food system to do: deliver enough food; make healthy diets available and affordable; provide decent jobs; protect the planet; and nurture social cohesion, all while supporting economic development, equitably. "Coherence with what" is about whether policies designed to improve one or another of these objectives also supports - or at least does not harm the pursuit of other objectives.

In other words, policy coherence is about ensuring that policies aiming to improve one outcome of the food system do not undermine others. The goal is to reduce inefficiencies and outright conflicts between different goals and identify where there are synergies for mutual benefit. A policy coherence perspective means asking: How can we achieve different food system objectives synergistically?

Nutrition as a key goal

A starting point is to take one policy objective and assess whether policies affecting the food system are coherent with it. Let's take the case of nutrition. As reported in the *Global Nutrition Report 2016*, millions of people are too thin, do not grow properly, carry excess weight, or experience debilitating disorders and diseases as a result of inadequate and imbalanced diets.

The good news is that improving nutrition is now on the agenda of many governments around the world. The 2015 Sustainable Development Goals include targets on ending hunger and malnutrition in all its forms, as well as health goals influenced by what we eat, including non-communicable chronic diseases. The world would undoubtedly benefit from diets that promote health for all - diets which are safe, diverse,



Market in Zemio Photo: Tedeum/Flickr

nutritious, and low in foods that offer no health benefits. The question is: are the policies that affect food systems coherent with this objective?

Incoherence with dietary objectives

As soon as we delve into the policies of the food system, we see a space riven with incoherence between

differing policy objectives. For example, international agencies and governments have all agreed that boosting fruit and vegetable intake is critical to achieving health objectives. Yet as noted by the report *Food Systems and Diets* published by the Global Panel on Agriculture and Food Systems for Nutrition in 2016, public investment into agricultural research is largely

driven by the objective of producing enough food and thus allocated to a small number of cereals, not fruits and vegetables. A recent report by the NGO Hivos and the think tank the International Institute for Environment and Development (IIED), highlights the incoherence between policies that create incentives for the production of certain foods at the expense of others. The report Agriculture, Food systems, Diets and Nutrition in Zambia, shows that government spending on agriculture is heavily skewed towards maize production--with the goal of producing enough food--and yet evidence shows this is inconsistent with diverse diets and does not benefit the most vulnerable households

An oft-cited example is that of palm oil, the world's most produced edible oil. International institutions and governments, notably in South East Asia, have historically used public investment and policy measures to create conditions that enable greater production of palm oil. The goal here is economic development and jobs to reduce poverty. Yet there is a conflicting dietary objective of reducing consumption of saturated fats, and a conflicting environmental objective of protecting forests and the animals who live in them.

Inconsistencies cross international borders too. An action plan released by the UK government in 2016 with the goal of boosting the economic benefits of food exports, raises questions about why they are promoting exports of cookies, confectionary, snacks and meat when UK dietary guidelines recommend eating less of these foods. Work I have done with colleagues shows that trade liberalisation policies designed to boost national and global economic growth have made it easier to import, produce and advertise fast food, snacks and soda. Policies designed to support mass production of meat are inconsistent with global efforts to reduce greenhouse gas emissions.

Intelligently identifying areas for action

Constructively addressing these inconsistencies requires careful analysis. Some solutions appearing intuitive would in fact be inadequate on their own or, worse, counterproductive. What, for example, is the use of pouring agricultural research investment into fruits and vegetables if the only beneficiaries are wealthy western consumers in search of a crunchier form of broccoli, juice manufacturers pulping

the uneaten results, or supermarkets full of fruit with a long shelf life but lacking in taste? What would be the point of acting in one country to make palm oil production more sustainable or switching to alternative oils if production simply increases in another? Why bother to shift from maize to more diverse crops if there is no infrastructure in place to get these products to markets serving the underserved? Fixing incoherence for nutrition will clearly only be effective if analysis considers alignment from fork to farm.

It is undoubtedly a complex business: there is a lot of policy in the food system - some of these policies are implemented to achieve food systems goals; many have other objectives - such as transport policy or urban planning - but nevertheless have major impacts on the food system. Incoherence does not necessarily mean that individual policy objectives are not legitimate. Analysis should recognise the need for different goals while bringing conflicts out into the open and creating a space for a conversation about if and how they can be reconciled.

The relationship between public policy and the private sector is key. For when we look at policy incoherence, it becomes evident that while we are talking about public policy, its outcomes are influenced by the private sector who delivers our food, from the independent farmer to the vast corporation. This means we need to look carefully at how different private sector enterprises respond to policy: are they undermining policy objectives, or supporting them? Is the private sector making it harder or easier for the public sector to do the right thing? Is the public sector doing enough to create an enabling environment for the private sector to achieve positive food system objectives?

Finally, there is the question of implementation and impact. A project I am involved in on policy coherence for fruits and vegetables in Argentina is finding that the biggest coherence gap is between policies on paper and delivery of those policies. One of my Food Policy Masters students is doing a coherence analysis between government policies and the Mediterranean diet in Spain, finding there can be coherent policies on paper, but lack of specificity of objectives means it is hard to analyse what impact they might have in practice. The Centre for Food Policy's own incipient analysis of the implications of "Brexit" has shown clearly that starting the process by looking at the vast scope of EU food law is not the way to

go unless we know what outcomes it actually has.

Careful analysis should take into account whether policies are actually implemented and if so, what outcomes they have in practice.

Starting with the problem

We need tools to analyse coherence between food systems policies and nutrition - along with other food systems goals - that start with the dietary problem at hand. By starting with a problem and working backwards into the food system. we can trace how policies play out in practice and influence the nutritional outcome, from fork to farm. It's a way of avoiding getting lost in the complexity and ending up with an analysis that looks good on paper but has little relation to what is actually happening in the messiness of the food system and little connection to the real causes of the nutritional problem.

There is surprisingly little good policy coherence analysis out there. Much work is still needed to develop clear methods of doing so. This means we are missing opportunities to improve nutrition and other food systems goals. The presence of a target on *Enhancing* Policy Coherence for Development in the Sustainable Development Goals presents such an opportunity. For example, the Organization for Economic Cooperation and Development has developed a policy coherence tool in the context of the SDGs; the World Health Organization is convening a global conference on enhancing policy coherence for non-communicable diseases in October 2017.

It is now time for careful analysis of opportunities for policy coherence for nutrition - along with other food system goals. It is desperately needed to enhance the effectiveness and efficiency of all the many actions currently being taken to fix the global food system.

About the author



Professor Corinna Hawkes is Director at the Centre for Food Policy, City, University of London, UK.

Twitter @corinnahawkes https://www.city.ac.uk/arts-socialsciences/sociology/centre-for-foodpolicy

Virtuous emulsification of business and nutrition

by Lawrence Haddad

The title 'Virtuous Emulsification of Business and Nutrition' signals the need for emulsification of business and nutrition: they can't be treated as oil and water indefinitely. We need more emulsifiers.



View from a village market, Madagascar. Photo: GAIN

The UN Decade of Action on Nutrition invites us to be optimistic that stakeholders will come together to end malnutrition by 2030: The April 2016 proclamation of the United Nations Decade of Action on Nutrition (2016–2025) provides a unique opportunity for stakeholders to strengthen joint efforts towards eradicating hunger and preventing all forms of malnutrition worldwide.

After all, while there are many development problems that seem intractable, malnutrition is not one of them. For many forms of malnutrition we know what to do, and even how to do it: what we need to increase is the resolve, courage and grit needed to intensify action. The breadth and intensity of action to accelerate nutrition improvement will be the measure of success for the Decade.

I am less optimistic about the Decade of Action's ability to galvanise the private sector. While government resources and overseas development aid are vital for development, business resources will become ever more important in the Sustainable Development Goal era. This is especially true for diets because more and more people buy food from markets. Out of about 40 countries that the World Bank Living Standards Measurement Survey team has worked on, only one, Mozambique, has more than 50% of households getting food from their own consumption. In all the others, food from market purchases was the predominant source. And what do markets mean? Businesses.

What business has business in nutrition?

Businesses are already shaping food supply and demand. The question is: how can they shape these dimensions for better nutrition? Not enough of us are posing this question, let alone answering it. Why is that? Because the topic is highly controversial. We are paralysed by a fear of engagement. Concerns over reputational risk, the fear of doing damage, and sheer distrust are holding us back. These fears and concerns are fed by a lack of evidence on when, how and why to engage, a lack of transparency in engagement and a weak accountability infrastructure.

In order to occupy the substantial middle ground between thinking 'business is the answer' and 'business has no business in nutrition', we need a much more enabling environment. Accountability can be strengthened by the collection and public sharing of data on which businesses are behaving responsibly with respect to compliance with codes such as the marketing of breast milk substitutes; by tracing product formulation; and by tracking transparency of operations. Many stakeholders in certain contexts have conflicts of interest that need to be declared when it comes to actions that affect nutrition status. For example, governments, donors and NGOs sometimes have a particular solution they are pushing which may not be the most appropriate for a country's nutrition needs. Usually the efforts will be aimed at improving nutrition outcomes, even if they fail. But the explicit interest of businesses in profit maximisation introduces the

possibility that their work will have no intent to improve nutrition status and may actually worsen outcomes. So a requirement to declare conflicts of interest must be upheld. There should, for example, be public registers of the terms of public-private partnerships as there are in the "land grab" governance arena.

These accountability tools should be applied to governments and civil society organisations too. No organisation is free of conflicts of interest. For instance, NGOs that specialise in a particular type of nutrition intervention run the risk of influencing donors and governments to implement the interventions they have capacity in, whether or not it is a priority for the country's needs or wishes. Evaluations of public-private partnerships and the extent of their contributions to advancing nutrition should be supported by research funders. I know of no research programme anywhere in the world on this topic. The capacity of all stakeholders to engage needs to improve: governments to set and enforce priorities and standards and to identify opportunities to engage; civil society organisations to monitor and enforce these standards and also to engage with businesses; and businesses themselves to engage with the public sector and to understand the nutrition fault lines much better than they do now.

The cost of failing to engage

But fundamental to all this is the need to engage. The clunky term Social Behaviour Change Communication (SBCC) says it all: to change, we have to communicate better. Behaviour will not change without it. Frankly, people have been anxious about the consequences of engaging: of being labelled corporate sell-outs, Trojan horses, and in bed with the "baby killers" (the breast milk substitute manufacturers who do not comply with the International Code on breast milk substitute marketing). If engagement with businesses is done in an indiscriminate and irresponsible way, these kinds of sentiments might be warranted, although I personally think name-calling is unhelpful.

But what are the costs of failing to engage? Businesses have done good things for nutrition. The fortification of foods for the general population is a good example—it has benefit cost ratios of 6-9 (see the Copenhagen Consensus paper from 2012 by Hoddinott, Torero and Rosegrant), and most of the costs are taken on by businesses (although some of this may be passed on to consumers).

And businesses are capable of doing much more. First, consider funding. Matching funding mechanisms are just beginning to take hold: think of the Power of Nutrition (CIFF and DFID), the Amsterdam Initiative Against Malnutrition (Government of Netherlands), Global Development Alliances (USAID) and the Business Program for Nutritious Foods (Government of Canada). If these mechanisms take off, they could lead to significant increases of funding for nutrition.

Second, consider the skills of firms to influence consumer choices around foods. They tend to target the right-brain side of things: emotions, intuition and imagination. Current behaviour change efforts in nutrition tend to be more left-brain: a focus on logic, facts and tasks. Can firms help to bring some of the right-brain thinking into the creation of the demand for healthier foods?

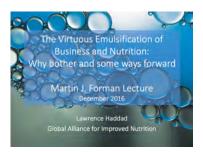
GAIN's Marketplace for Nutritious Foods

My final example is the kind of mechanism exemplified by GAIN's Marketplace for Nutritious Foods. The Marketplace directs small amounts of public funds in one-off investments to small and medium-sized businesses in countries with high levels of under-nutrition. The one-off interventions are designed to help small and medium-sized firms overcome barriers to market entry to bring their healthy food innovations to market. The programme has had success in increasing the number of healthy servings brought to market by the companies. Whether this actually reduces the price of healthy diets and improves diets is a question we are assessing now. But if they do, small initial investments have a potential to scale nutritious foods at pennies per serving.

So we need more emulsifiers for business and nutrition. But there is one critical proviso. Because emulsification can be healthy or unhealthy, it is vital that we get a virtuous emulsification: one that helps us navigate this complex and fraught terrain, one where a stronger enabling environment de-risks the space for everyone.

This is GAIN's goal: to help all stakeholders, governments, businesses and civil society come and work together to find solutions that make nutritious, safe food more demanded, available, affordable and consumed—by all people and especially those most vulnerable to malnutrition in all its forms.

We don't champion business, but we champion critical engagement with them for improved nutrition. Come and join us.



See also the Martin J. Forman Lecture of December 2016 for further reading on the subject

http://www.gainhealth.org/ wp-content/uploads/2016/12/ The-Virtuous-Emulsification-of-Business-and-Nutrition-Lawrence-Haddad. compressed.pdf

About the author



Lawrence Haddad is Executive Director, Global Alliance for Improved Nutrition (GAIN).

Twitter: @l_haddad www.gainhealth.org

What role for informal markets in achieving sustainable and inclusive food systems?

by Bill Vorley

The informal economy is the main route for food to reach consumers in much of the global South. Its dominance and dynamism challenges our understanding of what constitutes a sustainable and inclusive food system.

The dynamism of the informal food economy has been central to the food security of growing populations in much of the global South.

Despite rather than because of policy, and without large corporate

Despite rather than because of policy, and without large corporate structures, informal food networks have responded to changing market demands. These networks, sometimes stretching across long distances, have driven a reorientation of markets towards domestic and regional provision. Agriculture in West Africa, for example, has shifted from 50% dependence on exports to the global market in 1961, to only 12% in 2010 (Allen and Heinrigs, 2016).

It is the inclusive nature of the informal food economy that explains its resilience. Low-income consumers in informal settlements can find staples, fresh food, animal products, processed or prepared food to suit their constraints of cash, time or space.

For smallholder farmers too, inclusiveness is the informal market's comparative advantage. Informal traders pay cash, come to the farm, and buy all qualities. Formal markets, by comparison, may be less attractive. We have seen how contract farming schemes—from oilseeds to cotton—can struggle in the face of growing competition from informal traders.



Uganda's staple of matoke (cooking banana) en route from Western Uganda to the capital Kampala -- the trade in matoke is predominantly informal. Photo: Bill Vorley

Inclusive growth?

'Inclusive growth' has become a watchword of development agencies and progressive companies. It is a paradox therefore that 'inclusive growth' initiatives focus on formal markets, given the inherent inclusiveness of the informal economy. The informal economy is, after all, the biggest private sector in much of the global South, and food trading,

vending and processing will provide many of the one billion new jobs that the World Bank estimates are required by 2030 to absorb young people entering the workforce.

Similarly, development agencies continue to emphasise the 'upgrading' of farmers to 'high value' formal and export markets and continue to finance 'inclusive business' case studies. This

is often in partnership with multinational consumer brands, with an expectation that lessons can be scaled up. But scaling from formal to informal markets is not as logical as it sounds. With some exceptions, these are different markets, and initiatives in formal markets may remain as islands of success rather than templates for wider transformation.

Policy makers and planners often hold the informal food economy in contempt as inefficient, unsafe, taxavoiding, and a drag on modernisation and law and order. And they continue to exclude informal actors from policy and planning processes; for example, Uganda's Vision 2040—the government's central strategic planning document—makes no mention of the informal economy despite its huge economic relevance for the country.

Sustainable = formal?

Our toolkit for 'sustainable' food notably standards, certification and labels—is inextricably linked to formal value chains. To be sustainable is to be formal, if sustainability is defined by certification and labelling.

But the high costs of verification, the lack of market premiums, and the diffuse nature of informal supply networks mean that these sustainability tools are a poor fit to the realities of mainstream informal markets, no matter how many pilot projects are financed.

The same applies to another set of interventions for sustainability that revolve around 'cutting out the middleman'. Some of those 'middlemen' have been central to the functioning of the informal food economy, but are rarely consulted as stakeholders in a sustainable food system.

Policy pointers

Rather than wish away the informal food economy, there is much that can be done to build on its inclusiveness while addressing its shortcomings. Those shortcomings include the fact that much food reaching consumers through informal channels has been produced through unsustainable practices. Little value is added in rural areas. And there are risks to human health—both perceived and real—especially from animal products and prepared food ('street food').

Policy to improve the performance of the informal food economy must be built on evidence rather than perception, so that interventions can target hotspots of risk and unsustainability.

A recent review of evidence from agrifood, mining and forestry showed that light touch approaches to formalisation can work, and do not always require regulation (Lewis, 2016). The International Livestock Research Institute (ILRI) has shown leadership in evidence-based recommendations, especially in distinguishing between hazard and risk in informal milk and meat supply (Roesel and Grace, 2014). Recognition of the informal food economy and its actors is a key step, meeting farmers, traders, processors and vendors in their markets.

We have to stop pretending that we can get agriculture onto a sustainable footing through leveraging only the power of the formal economy. We cannot expect consumer brands or sustainability standards to pick up where public extension services left off. We need to address sectors as a whole, rather than individual value chains. There are examples around the world of how

sectors can be aligned and funds raised for improving sustainability, productivity and quality across a sector. But with food staples, there is no escaping the importance of public investment, and the value of involving the informal food economy in getting the food system onto a more sustainable path.

References

- Allen, T. and Heinrigs, P. (2016), "Emerging Opportunities in the West African Food Economy", West African Papers, No. 01, OECD Publishing, Paris. http://dx.doi. org/10.1787/5jlvfi4968jb-en.
- Lewis, S. (2016). Informality and inclusive green growth. IIED http://pubs.iied.org/17365IIED/.
- Roesel, K. and Grace, D. (2014).
 Food safety and informal markets:
 Animal products in sub-Saharan
 Africa. London, UK: Routledge.
 https://cgspace.cgiar.org/
 handle/10568/42438.

About the author



Bill Vorley is Senior Associate, Shaping Sustainable Markets group, at the International Institute for Environment and Development (IIED), London.

bill.vorley@iied.org www.iied.org

Voluntary standards and institutional innovations – the right path to sustainable and inclusive food systems?

by Allison Loconto, Anne-Sophie Poisot and Pilar Santacoloma

Enabling consumers to identify products as being produced sustainably is fundamental to incentivising farmers to market their products in this way. In this article, we reflect upon what we know about efforts to link sustainable production with responsible consumption both within global value chains and within domestic markets in developing countries.



Fish seller in Western Kenya. Photo credit: C. Schubert (CCAFS)/Flickr.

Sustainable Food Systems (SFS)—those systems that connect and support sustainable production and consumption patterns—are the foundations of the future of food and agriculture and are clearly recognised in the 2030 Agenda for Sustainable Development. Rather than talking about one, singular global food system, we refer to many systems—of varying sizes, made up of different types of exchanges of a range of products and services, including diverse actors—that interconnect and ensure that high quality and sustainably produced food can be consumed in a responsible way by people around the world. Together, these systems contribute to shaping what the global food system looks like and what opportunities exist for innovation.

In order to transform current food systems into SFS, a number of changes must occur that can address some of the bottlenecks in how agricultural research and production, food processing, packaging and marketing, trade and consumption practices interact. Most approaches look towards production practices as the main entry point into system change. Typically, policy-makers will provide financial

incentives that could pay producers to conserve ecosystem services or alternatively fine them for unsustainable (or polluting) practices. Often, these types of incentives are sector or commodity focused and don't address the intersections in systems that are necessary for sustainable agriculture to take hold. Indeed, there is a suite of knowledge, practices, technologies and organisational arrangements that must be mobilised in order for farmers to be able to ensure that they are producing sustainably and that they are able to sustain their livelihoods through the sale of their products.

Enabling consumers to identify products as being produced sustainably is fundamental to incentivising farmers to market their products in this way. In this short article, we reflect upon what we know about efforts to link sustainable production with responsible consumption both within global value chains and within domestic markets in developing countries.

Voluntary standards as a tool for global value chains

Since the 1980s, voluntary standards have increasingly been used by civil society organisations, private companies and governments to encourage sustainable production practices by linking consumer demand and branded products to the supply of sustainably produced products. These standards provide rules for production, processing and sometimes trade, and seek to improve the food quality, food safety and sustainability (economic, environmental and social) of agricultural value chains. This rapid expansion of the use of voluntary standards in international trade is often linked to the effects of globalisation, in particular to the World Trade Organization's (WTO) technical barriers to trade agreement, whereby the increased control of supermarkets over global value chains is coupled with food safety scares and consumer interest in social and environmental sustainability (Busch, Loconto and Li. 2008, Reardon et al. 2003; Santacoloma

While the market for certified products is still only a small fraction of international trade in agrifood products, they are increasingly becoming important for key tropical commodities such as coffee (39%), cocoa (30%), wild catch fish (20%), palm oil (22%), tea (18%) and forest products (10%) (Potts, et al. 2014). As these markets expand, global buyers are increasingly relying upon small-scale producers to source their supply.

According to a 2014 study published by The Food and Agriculture Organization of the United Nations (FAO) on the impact of standards on smallholders' access to markets, there is evidence of economies of scale in certified markets and a tendency for self-selection in these systems. This means that the farmers and exporters who have the means (financial, educational and infrastructural) to make the initial investments are the first to join voluntary standards schemes. This self-selection is strongly related to the evidence of exclusion found in standards that focus primarily on good agricultural practices and general food safety standards (FAO 2014).

There is evidence of increased rural employment in certified value chains (Maertens and Swinnen 2012), and the literature suggests that this may be caused by a shift from smallholder agriculture to employed labour on certified farms. For example, with the increased global demand for certified tea due to significant public commitments made by leading tea blenders (e.g., Lipton, Tetley, Twinings, Sara Lee), employment opportunities in certified plantations can create valuable jobs in rural areas if employment programmes are sensitive to the gendered conditions of labour (Loconto 2015). However, the linkage between certified on-farm employment opportunities and the decrease of certified smallholder agriculture has not been sufficiently researched and thus it is not clear how standards impact on total rural employment.

Because of economies of scale and increased vertical coordination, smallholders can access certified markets only through group certification, particularly for standards like Fair Trade where the creation of a smallholder cooperatives is a requirement for certification. In standards like the Rainforest Alliance, the Global Coffee Platform, Bonsucro, GlobalGAP and Organic agriculture, special group certification mechanisms have been developed. The desire to be included in voluntary standards schemes in order to gain access to lucrative export markets thus provides incentives for forming associations or cooperatives and for out-grower schemes through the use of contract farming arrangements (FAO 2014).

The importance of local institutions for smallholder impact

The FAO found that international voluntary standards have a positive impact on smallholder access to markets when local institutions have the capacity to support smallholder adoption of standards. This means that there is a need for:

- national and/or regional legislation that enables the creation of cooperatives and other forms of smallholder organisation,
- 2. national and/or regional regulations that officially recognise or facilitate a system of control and traceability for organic agriculture or good agricultural practices,
- 3. public policies (e.g. subsidies) that support the ecosystem

- services provided by sustainable agriculture or for family farmers in particular,
- 4. NGOs who provide support services,
- 5. effective extension services (both public and private),
- a corporate or sector-wide culture that is dedicated to rural development and investment in smallholder agriculture,
- 7. competent local certification bodies and
- easily accessible testing laboratories. Public and private investment in the above infrastructure, particularly in siting some of these organisations and laboratories within rural areas, can improve the effectiveness of voluntary standards and also are themselves fundamental to stimulating rural transformations.

Within this context of international voluntary standards, we see that innovations are also occurring in value chains that use sustainability standards, particularly for organic agriculture. These innovations are providing opportunities for rural transformation within developing countries as they are providing opportunities to develop local food systems that can both produce and consume sustainably produced products. Based on two empirical studies that collected data from 22 different case studies in 21 countries, there is evidence that standards can incentivise the adoption of sustainable practices when they are used to create new roles and responsibilities between value chain actors working mostly in domestic markets (FAO 2016; FAO 2017). In these cases, the use of participatory guarantee systems, which is an alternative to third-party certification, has enabled small-scale farmers to create innovative market arrangements directly with consumers who live in the same socio-economic region. We also found that there are about 22 different market channels used in these initiatives that link small-scale producers with small-scale processors, retailers, and consumers. These alternative market channels are facilitating new ways of organising value chains that are based on inclusiveness, short food supply chains and community embeddedness.

Insights from institutional innovations

From our research, we found that a wide range of actors in developing countries are inventing new forms of interaction and organisation to supply local markets with sustainable agricultural products. This is what we mean when we use the term 'institutional innovation'. Institutional innovations are the new rules and forms of interaction that help actors from civil society, the private sector and even civil servants to redefine sustainable practices for the local level and bring together food systems actors that have not traditionally worked together.

In our 2016 book, we identified three types of innovations from the 15 case studies that deserve particular attention by policy makers. These are: participatory guarantee systems, multi-actor innovation platforms and community-supported agriculture. Each of these mechanisms was originally developed for a specific purpose, but the actors were able to strategically mobilise their knowledge and resources to be able to create local SFS that reached beyond their initial purpose. The point here is that each case is fundamentally different in what the local actors were able to do to create

markets for sustainable products.

One important point to add is that while local markets are the focus of most initiatives, all cases are also selling some of their products in domestic, regional or international markets through a diversity of value chains. This supports food systems arguments against focusing on singular value chains in development interventions as this approach is limited in its effectiveness if we are looking to affect food system change.

Even when innovations are led by private actors, partnerships with public actors and civil society have an important role in creating linkages between farmers and markets. What we mean by this is that these innovations are not 'private-sector' driven in the sense that they are happening all on their own. It is precisely because there is collaboration at multiple levels (and a reallocation of roles and responsibilities) between private, public and civil society actors that these innovations have been able to endure over time and effect real changes in the rules about sustainable agriculture.

Overall, we have found that autonomy, reciprocity and recognition of the diverse types of knowledge fostered through institutional innovations (and to some extent voluntary standards) all serve as incentives for producers to adopt and adapt sustainable practices. In sum, social and institutional innovations are as essential as technological innovations in transitions to sustainable food systems, and they require policy support.

References

- Busch, Lawrence, Allison Loconto, and Xueshi Li. 2008. "New Technologies, Standards, and Local Food Resources." in *Proceedings of the Third Afrasian International Symposium "Resources under Stress: Sustainability of the Local Community in Asia and Africa, 23-24 February 2008,* edited by Yoshio Kawamura, Hisashi Nakamura, Shiro Sato, Aysun Uyar, and Shinya Ishizaka. Kyoto, Japan: Afrasian Centre for Peace and Development Studies, Ryukoku University and Center for Southeast Asian Studies, Kyoto University.
- FAO. 2014. Impact of international voluntary standards on smallholders' market participation in developing countries: A review of the literature. Rome: Food and Agriculture Organization of the United Nations.
- (Ed.). 2016. Innovative markets for sustainable agriculture: How innovations in market institutions encourage sustainable agriculture in developing countries. Rome: Food and Agriculture Organization of the United Nations and Institut National de la Recherche Agronomique.
- (Ed.). 2017. Constructing markets for agroecology. An analysis of diverse options for marketing products from agroecology. Rome: Food and Agriculture Organization of the United Nations.
- Loconto, Allison. 2015. "Can Certified-Tea Value Chains Deliver Gender Equality in Tanzania?" *Feminist Economics* 21(3):191-215.
- Maertens, M., and J. F. M. Swinnen. 2012. "Gender and Modern Supply Chains in Developing Countries." *Journal of Development Studies* 48(10):1412-30.

- Reardon, Thomas, C. Peter Timmer, Christopher B. Barrett, and Julio Berdegue. 2003. "The Rise of Supermarkets in Africa, Asia, and Latin America." American Journal of Agricultural Economics 85(5):1140-46.
- Santacoloma, Pilar. 2014. "Nexus between public and private food standards: main issues and perspectives."
 Pp. 11-24 in Voluntary Standards for Sustainable Food Systems: Challenges and Opportunities. A Workshop of the FAO/UNEP Programme on Sustainable Food Systems, edited by Alexandre Meybeck and Suzanne Redfern. Rome, Italy: Food and Agriculture Organization of the United Nations and United Nations Environment Program.

About the authors



Allison Loconto (corresponding author) is Chargée de recherche, Institut National de la Recherche Agronomique (INRA), and Visiting Scientist, Food and Agriculture Organization of the United Nations (FAO), allison.loconto@fao.org



Anne Sophie Poisot is Project Coordinator, Farmer Field Schools Global Program, Food and Agriculture Organization of the United Nations (FAO), annesophie.poisot@fao.org



Pilar Santacoloma is Agri-food Systems Officer, Sub-regional Office for Meso-America, Food and Agriculture Organization of the United Nations (FAO), pilar.santacoloma@fao.org

How can a bank's financial services and networks contribute to the sustainability of food systems?

ECDPM's Paulina Bizzotto Molina and Jeske van Seters interview Alain Cracau and Maarten Biermans from Rabobank

Finance can play a role in moving towards more sustainable food systems. ECDPM's Paulina Bizzotto Molina and Jeske van Seters explore this topic with Maarten Biermans and Alain Cracau of Rabobank, an agricultural cooperative bank founded nearly 120 years ago in the Netherlands.

What do you see as the main challenges, risks and opportunities in making food systems more sustainable and what is the particular role of Rabobank in this challenge?

Rabobank takes the challenge of the earth having to feed nine billion people in 2050 to heart. Climate change makes this challenge even more difficult to tackle. The agricultural sector is a major contributor to climate change, being responsible for a third of total global greenhouse gas emissions. Agricultural players will have to increase yields while reducing negative environmental externalities. Smart agriculture is necessary to tackle these multiple objectives. Agriculture is in Rabobank's DNA, so we feel a responsibility to contribute to efforts to tackle this challenge. We can collaborate with and support our customers and business partners to engage in more sustainable business practices, as well as engage in global initiatives such as the World Business Council for Sustainable Development.

Under the banner 'Banking for Food', Rabobank aims to help its customers face up to the immense challenge. The bank's strategy to contribute to a sustainable development of agriculture centres on the four internationally recognised dimensions of food security: increasing availability of food, improving access to food, promoting balanced and healthy

Cassava drying outside huts in Northern Uganda. Photo: Mariola Acosta/Flickr

nutrition and increasing stability in the supply chain. Rabobank invests not only in agriculture, but all along food supply chains. The bank has a total of €96bn in credits to businesses in the agro-food sector, ranging from farmers and horticulturists to food processing companies and supermarkets. We support customers who want to invest in the agro-food sector and in some cases invest ourselves directly.

How does Rabobank concretely support clients towards more sustainable business practices?

Compliance with sustainability criteria is a prerequisite for accessing Rabobank financing, but we support the shift towards sustainability of our clients by going beyond providing financial services. We are actively involved with our clients and their projects, thinking together with them about better ways to do their business. Thanks to our long history as a cooperative bank in the agri-food sector, we have our own research department and a large network of actors in the food system, from businesses to policy makers and knowledge institutes. Rabobank takes on the role of network player.

We link customers with each other and with the expertise that we have either in-house or in our network of customers and partners, for example by linking a question of a client with an expert at the Wageningen University. The role of Rabobank as knowledge broker is important. Knowledge is power. Improving access to market information and knowing about available technologies and innovations can be the key to change. We believe very much in the potential of big data solutions that can contribute to many of the sustainability challenges.

Rabobank supports innovation in the agri-food sector, as it is central to transition to more sustainable food systems. We recently launched the Rabo Food & Agri Innovation Fund. This venture capital fund targets innovative food and agri companies that are able to bring innovative solutions to the mainstream. The fund will primarily invest in western European countries and the USA.

Rabobank is also increasingly active in developing markets, with their own challenges and opportunities. What is Rabobank's approach in these markets?

In developing markets such as in Africa, bigger steps can generally be made with relatively small investments. Sustainability can be enhanced with relatively little capital investment. In Africa, Rabobank, through Rabo Development, primarily works together with local banks to improve the access to affordable finance. Concretely, Rabo Development provides them with capital, management services and technical assistance.

Rabobank Foundation, the bank's social fund, helps farmers to organise themselves in cooperatives, enabling them to invest, for example, in better storage methods for their products. This serves their interests, as well as the interest of larger companies further down the value chain, sourcing from smallholders. Rabobank Foundation efforts are geared toward strengthening farming communities' economic base. First and foremost, Rabobank Foundation aims to achieve this by supporting them in forming and strengthening cooperatives or organisations that are structured along cooperative lines. It also invests in the economic self-reliance of the cooperatives. These cooperatives may be producer organisations such as those of coffee and cotton farmers, or they may be savings and credit cooperatives.

To what extent is there a role to play for blended finance (combination of grants and loans) to strengthen sustainable food systems? What are your experiences so far?

Blended finance certainly has a role to play. It can serve to de-risk certain investments, but importantly also allows for more 'patient money'. For example, replanting cocoa trees may be desirable from an economic and an environmental perspective in the long run, but if it takes 10 years for the plants to bring in sufficient returns, this is not something that commercial banks can engage in. A public grant component or guarantee can help. In some cases where specific expertise is needed, we work together with other partners.

We have experienced blended approaches by servicing the whole coffee chain from strengthening cooperatives through Rabo Foundation and Rabobank International Advisory Services up to our commercial financing and prefinancing schemes with traders, roasters and retailers. Other examples are our work with World Wildlife Fund (WWF) in four projects globally, from sugar and water treatment in India to integrated cropping in Brazil and biodiversity with dairy farmers in the Netherlands, where we learned what business cases can have sustainable impact, whilst we know which financing alternatives and blended approaches are feasible to leverage the pilot projects. For instance, we have developed impact loans with the EIB in the Netherlands for sustainable frontrumers.

These all have been examples of connecting the dots from soft loans to commercial financing directly or in close cooperation with financial partners. It starts with knowing what business cases and sustainable indicators trigger a blended approach. We see great benefits of adding third parties to this approach. In 2017 Rabobank became member of the World Business Council for Sustainable Development, heading the Climate Smart Agriculture working group. In that role we are able to identify projects with food and agri components where the need for blended finance schemes could add value.

However, blending is not an easy exercise. Different partners have different objectives, which need to be married in a single endeavour. We have to balance the interests of these public grants with those of our customers. Furthermore, different blending tools have different requirements and procedures to be respected that can make them cumbersome to implement. Even though blending is tricky, it can be a powerful tool.



Alain Cracau is Team Manager, Sustainable Business Development at Rabobank.



Maarten Biermans is Head of Sustainability Policy at Rabobank.

"I couldn't believe that in Africa we export what we produce, and import what we eat!"

Carmen Torres interviews Marie Diongoye Konaté



The objective of Marie Diongoye Konaté's company, Protein "Kissèe–La", is to transform local grains into a high nutritional value product for adults and children, thus improving nutrition, adding value to local products and creating local jobs. "I knew from the beginning that it would be hard work," she says in this interview with ECDPM guest editor Carmen Torres. "But I also knew people would eventually recognise the quality and the value of the product." And they did.

Carmen Torres: Can you present your company and explain its role in promoting sustainable food systems?

Marie Konaté: The name of my company, Protein "Kissèe-La" means protein "issued from grains" in the Mandinka language. I created the company in 1994 to add value to local soybeans, building on my experience in Brazil in soybean processing. At that time in Côte d'Ivoire, 100% of national soy production was used for animal feed; I thought this was a real shame, given the country's high levels of malnutrition. In Brazil I saw people eat what they produce, and I couldn't believe that in Africa we export what we produce, and we import what we eat! My objective was then to transform these local grains, which were largely available, into a high nutritional value product for adults and children, thus adding value to local products and creating local jobs. I started to make

soy flour in a 40 m² facility with a small mill. Little by little I began mixing the soybean with other local cereals flours (rice, maize, and recently wheat) and expanding production.

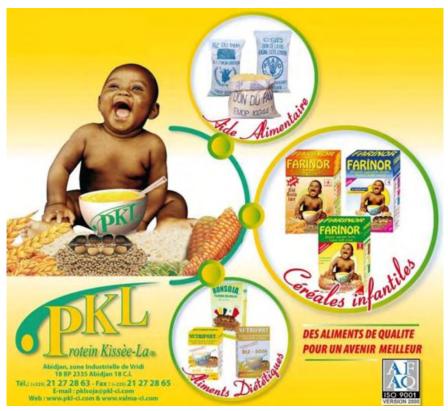
I knew from the beginning that it would be hard work, as local products in the region had the reputation of being of very bad quality. But I believed that it was possible to produce locally--at affordable prices--food products that could have high nutritional value and great hygienic quality. I knew people would eventually recognise the quality and the value of the product. And it worked!

Today PKL facilities cover 7500 m² in an industrial zone, we have 75 employees, nine engineers, ISO certification, and I am proud to say that all our employees have formal employment, with fair remuneration, social and health insurance, and they receive their salary every month which is, unfortunately, rare in the region. Our products for adults and children are well-

known under the trademarks FARINOR®, NUTRIBON® & NUTRIFORT®. They combine the use of widely available local grains with high protein content, with traditional culturally accepted local cereals, and are prepared in the same way African porridge is (flour boiled with water), but with the additional advantage of instant preparation, more convenient for the consumer!

In Côte d'Ivoire, PKL's Farinor® and Nutribon® infant cereals are the third largest in the baby food market after Nestlé and Danone. What were (and are) the main success factors of your business?

Our first infant cereal was a mix of soy and maize. I decided to design a packaging with a beautiful, cheerful and healthy black baby. With this packaging, I made sure that illiterate parents would understand right away that it was a product intended for babies. For the packaging, I only



PKL baby nutrition advert

chose colours whose names exist in the local dialect (for instance, I didn't use violet, as the name of this colour does not exist in our language). The instructions are written in big letters, and we also added illustrations showing all the preparation steps. Our packaging inspired quality and trust, and we did everything to adapt to local consumers, our main target. I started with 600 euros, so I had no money for marketing or publicity. I used my intuition, and it was imperative, for me, to have a product that could be described in the local language. Something as simple as having a black baby in the packaging, instead of the white babies pictured in Nestle and Danone products, made a big difference! I also decided to sell my products in pharmacies, as people think that products sold there are good for them, because that's where we buy our medicines. And we were of course also 50% cheaper that Nestle and Danone infant cereals.

What were the essential elements (in terms of business enabling environment) that were in place in Côte d'Ivoire and led you to decide to start your business there?

I am from Mali, but I decided to start my business in Côte d'Ivoire because that country had the infrastructure I needed. It's as simple as having roads in good condition, telephones that work, stable electricity supply, and also qualified workforce. In Côte d'Ivoire there were already many other factories and therefore I could find trained professionals, subcontractors for spare parts, electricians, plumbers, agronomists looking for employment.

It was also a country open to this kind of initiative, with a stable sociopolitical environment for an SME to thrive. Back then, SMEs were not supported as they are now. The administrative procedures to start a company were slow, but at least they existed! The country had recently opened the CEPICI (Centre de Promotion des Investissements en Côte d'Ivoire), with a single desk dealing with all the administrative procedures to start a business. Today, we can start a business in 48 hours. At the time, it took four to five months, but it was still a regional record! There was also an investment code in place, providing the possibility to make an investment plan of US\$ 1M in order to benefit from fiscal benefits for up to five years, such as tax deductions to import processing machines and other inputs.

What are the main bottlenecks you have encountered and those you are now experiencing as an SME to develop your business? How did you overcome them?

Being a businesswoman was never a problem to me. In Africa, women are the ones keeping the economy alive. We all

have entrepreneurial spirit--it's still not recognised--but it's nothing new.

Access to finance has been the first and the hardest bottleneck. In commercial banks, the interest rates are extremely high. International Finance Institutions like the World Bank and the African Development Bank welcomed me at first, told me my project was amazing and covered all the requirements (being a woman, contribution to tackle a social problem, etc.); however, they called me a few weeks after I had submitted the file to tell me I was not trustworthy, and therefore they could not give me a loan. They said that I would never be able to compete against Nestle and the like. that I would be crushed and that I would never be able to pay the loan back. So I did not manage to get a loan to start my business. The only source of finance I got was through my family contacts. I then got a loan from the "Caisse Française de Développement", and eventually, as the company developed, I had more access to credit, but always with very high interest rates and terrible conditions.

I have never had big issues with my competitors, Nestle and Danone. Sometimes I had to report unfair competition practices, but reporting was not really very effective... At the beginning I mainly had to deal with their contempt, as they kept saying that a local brand managed by a woman would never make it. One positive result was that, as my product was much cheaper than theirs, they were forced to reduce their selling prices. Now, we are more or less at the same price levels. I definitely see that as an important victory.

Another big stumbling block has been not being able to spend in marketing and advertising. Everybody keeps saying that we have to eat local, develop local value-chains, etc., but there is absolutely no money destined to support marketing and publicity activities. I always complain about this to commercial, technical and financial partners. How is it possible that they don't finance at all marketing, commercialisation and promotion? It's crucial to be able to sell, to reach the markets, and for this there's publicity and marketing work that has to be done. Otherwise the machines, and the knowledge, are useless and the company cannot survive. We mainly use motorcycles to go from shop to shop and promote the products. At the beginning it was very difficult, as shop owners wouldn't take our products for fear of upsetting large companies such as Nestle. TV advertisements are extremely expensive; all the available spots are taken by mobile providers, who have the money to pay in advance. So people don't see our product; we can't advertise and reach our target audience. I have made a formal complaint to the government, but with no success.

How can the policies that govern our food systems (global, regional, national and local) better support the promotion of sustainable food systems?

On top of access to finance and support to commercialisations and marketing, there should be an adapted fiscal policy to support entrepreneurs to develop businesses like mine. How is it possible that in countries that have such high malnutrition levels we have to pay extremely high taxes to import vitamins and minerals premixes, which are not available locally? It's outrageous. These products should have tax exemptions.

There should also be better research and development and technical support for SMEs. I'm an architect, and I had to learn everything about this business, buying books and reaching out to authors in France and the Netherlands for help. For instance, they told me in what proportions I should mix soy and maize, or which vitamin premix I should use, etc. I couldn't easily find that kind of expertise in Côte d'Ivoire. It was the same for the equipment; they helped me transform a cocoa-processing machine I had recovered from waste into a machine that could process soybeans! Only in 2013 could I finally buy new machines, thanks to a US\$2m grant from the Global Alliance for Improved Nutrition (GAIN).

Has your choice to work with local raw materials been guided by your principles and ideals, by a lower cost of raw materials, or by

a favourable political environment (e.g. incentives for promoting the use of local raw materials)? What difficulties do you encounter when working with local suppliers, and how could public policies better support SMEs to overcome these difficulties?

Even if imported maize is sometimes cheaper, I always buy local. It's true that the quality of local produce is sometimes a problem, as there can be too many impurities, which adds an additional cleaning step to the process. We don't have contracts with producers--markets here are informal--but we work with local cooperatives.

Another big problem is working with intermediaries. They have the trucks to get the produce from the farmers, so we have to work with them. I'm sure they earn even more than the farmers themselves! And there's also the illegal payments that these intermediaries have to make to police control along the trading routes, which make the final products even more expensive.

We have always had a stable and good supply of cereals and soybeans because we know the farmers and they sell us the product. Aflatoxins are a big problem for maize, however, and there's really no solution.

Let me say, though, that I wouldn't have survived only by selling FARINOR®, NUTRIBON® & NUTRIFORT®. The cost of production of these products is incredibly high! We need, for example, a strict quality control system, specialised engineers in production, expensive analysis, etc. All this is crucial to innovate, maintain high-standards, satisfy our customers, and retain their trust in our products. The activity that supports the company financially speaking is maize grit production for breweries. It's our cash cow! We are the exclusive local supplier for Castel group, and it's a huge market. It has allowed us to expand and keep our business model (expand infant cereals offer, maintain prices, etc.)

You are very active in international policy frameworks, such as the Committee on World Food Security (CFS). What is your role in these multi-stakeholder platforms? What do you expect from your participation?

I've been in these food security and nutrition circles for 20 years now, and I always hear the same thing: that malnutrition is unacceptable, etc. But I don't see any significant improvement and action. We have a proliferation of policies, NGOs, institutions--but there's no real change on the ground. I believe that the private sector has to be given a bigger role and stop being mistrusted. We can't only count on public policies, we need the private sector to develop. I participate in those platforms to share my experience, to show how the private sector can contribute and share the challenges we face to create awareness and find solutions. We could move so much faster if the private sector were better supported! How is it possible that, after so many years, I still don't have a local competitor? That shows how extremely difficult it still is to develop this kind of business in Africa.

About the interviewee: Marie Diongoye Konaté is CEO of PKL for Protein Kissèe-La S.A.

Food challenges and opportunities in Nairobi

Interview conducted by Hanne Knaepen



ECDPM's Hanne Knaepen talks to Dr. Diana Lee-Smith, co-founder of the Kenya NGO Mazingira Institute in Nairobi, Kenya, about the food challenges Nairobi faces.

What are the major challenges that the city food system in Nairobi faces, amidst competing claims on scarce natural resources such as land and water that can become more acute under increasing population pressure and climate change?

Like any large city, Nairobi (estimated 5 million inhabitants) faces extreme competition for land and water by different land users. In addition, it faces the wide variations in incomes and access to resources that characterise developing country cities especially in Africa. Residents living in high density, informal settlements, lacking services, also have high levels of malnutrition. Developing a food system strategy has to take account of these challenges in a way that responds to Kenya's Bill of Rights enshrined in its 2010 Constitution, including citizens' right to food.

In particular, Nairobi has to get a better handle on the safe and effective use of wastewater in urban agriculture and greening of the city. Currently Nairobi's rivers are extremely polluted with biological and chemical wastes, and systematic programmes are needed to clean up the waterways for better management of different types of water (rainwater, run-off, grey and black water) as well as improving sanitation and control of small and large toxic chemical discharges by different types of industries and small enterprises into the city's soil, air and water.

Which explicit policies and strategies are in place in the city of Nairobi to promote sustainable food systems? And, which actions does Nairobi undertake to promote sustainable food systems, in particular by strengthening rural-urban linkages?

Apart from the Kenyan Constitution, Nairobi operates within the framework of the Urban Areas and Cities Act of 2011, which requires all urban authorities to prepare a plan for urban agriculture. There is also a national food security strategy. In 2015 the Nairobi City County Government passed its own Urban Agriculture Promotion and Regulation Act. It must be pointed out that, unlike cities in the global North, urban agriculture is widely practiced: Nairobi has a large number of farming households, estimated between 64,000 and 200,000.

The 2009 census counted 55,000 cattle, 35,000 sheep and 47,000 goats in Nairobi. However, most of these households farm in backyards and they have higher incomes than the residents of high density informal settlements or slums, who have little or no space for producing food and hence are food insecure. The city promotes space intensive farming technologies such as sack gardening for these groups.

In 2013, the function of agriculture was devolved from central to local (county) governments, and Nairobi City County now has a large staff of officers working on urban agriculture, in six separate departments: crops, livestock, veterinary services, fisheries, forestry and natural resources. The city



City Market, Nairobi. Photo: Mwangi Kirubi/Flickr

government, in conjunction with Mazingira Institute – an NGO that has run the Nairobi and Environs Food Security, Agriculture and Livestock Forum (NEFSALF) since the early 2000s – ran inter-sectoral training on urban food systems to implement its new mandate. Staff from sectors other than agriculture took part in the training. For example those from health, environment, planning, trade, and the city inspectorate joined with colleagues from agriculture to explore their collective role in Nairobi's food system. More courses like these are needed in the city.

The majority of Nairobi's food comes from outside the city in the form of agricultural produce from surrounding counties and beyond, as well as processed foods. These food flows are currently being mapped with assistance from the UN's Food and Agriculture Organization (FAO). This will also contribute to the development of Nairobi's urban food strategy.

Nairobi signed the Milan Urban Food Policy Pact (MUFPP). How is this Pact concretely implemented?

The Pact's Framework for Action provides guidelines on six topics: governance, healthy diets and nutrition, social and economic equity, food production (urban agriculture), food supply and distribution, and waste. Nairobi has enacted laws, policies and plans for each of these and implementation is following. The areas in which it has advanced most is governance (the work of the city itself as well as civil society, especially NEFSALF) and urban food production. However, much of the concrete implementation in other areas is yet to be done and measured.

So far, what has worked and which challenges has Nairobi encountered during this process?

The Milan Pact is written mainly from a Northern perspective yet is useful and can be interpreted in terms of local conditions. One of the biggest challenges that Nairobi faces is the integration of waste management with urban agriculture. The MUFPP addresses this as an issue of food waste, but

Nairobi sees it as the overall management of organic waste in the city, which has a large nutrient surplus. This represents a potential input to urban and rural agriculture as fertiliser, both liquid and solid. Soil quality is the biggest constraint on agriculture throughout Africa. The challenge Nairobi faces is the separate management of agriculture and environment in the city government and how to overcome this administratively, as set out in the 2015 Urban Agriculture Act.

What is Nairobi undertaking to provide locally produced foods?

Kenya is a nation of small farmers, and self-provisioning constitutes a part of rural and some urban diets. Though the national diet is rich in food variety, urbanisation, in particular urban poverty, has eroded this, with sugars and starches tending to replace the variety of vegetables and pulses relied on earlier. Lack of protein and animal source foods have been linked to food insecurity in urban households. Thus the support and regulation of urban livestock production is a priority of the Nairobi City County.

Is there a specific focus on crops that are neglected by the formal economy?

Studies carried out since the 1980s have revealed that a huge variety of indigenous vegetables both wild and cultivated--and long-neglected under colonial and postcolonial administrations--is consumed and traded formally and informally. Their very high nutritional benefits and variety were documented, and local civil society organisations promoted their purchase and sale by supermarkets in the city. Women in particular are associated with these indigenous vegetables in their gathering, production and cooking. However, almost all Kenyans, male and female, are very attached to these traditional foods. Promotion of the wide variety of Kenyan ethnic diets has flourished in the 21st Century, but more remains to be done at city level.

From a decentralisation perspective, how autonomous is Nairobi in dealing with its food- and market-related questions? What are the advantages of having a certain autonomy to deal with the city's more pressing challenges?

Since devolution in 2013, mandated by Kenya's 2010 Constitution, Nairobi City County has been responsible for agriculture as well as markets in the city, and it enjoys a high degree of autonomy with regard to these and thus to food in general. It also plays a leadership role for other counties in Kenya, all of which have urban settlements within their periphery: they are beginning to look to Nairobi for ideas on urban food. The autonomy that Nairobi enjoys in this respect is certainly beneficial. The city also benefits from the high skill level of personnel that were devolved to county level from national government at that time. This changed the workings of city government from one that opposed consideration of food and agriculture as not within its mandate to whole-hearted acceptance of this role.

Which partners do you need to address these challenges?

Nairobi City County has already been working with multiple partners in defining and implementing its role in food and agriculture. However, it is also currently engaging in an exercise to document and identify the full range of partners needed and to explore their potential roles. The Advisory Board defined under the 2015 Urban Agriculture Act does not have much power or status, never mind resources, and these might be needed for it to function effectively under Kenya's food security mandate which is being developed nationally. Areas of specific concern include malnutrition in Nairobi slums where stronger links are needed to bodies such the African Population Health Research Council (APHRC), Red Cross, UNICEF and so on; education where systematic links between city schools and the Nairobi food strategy are needed; and marketing, promotion and support to the production of local foods and their distribution through formal and informal markets, where stronger links are needed to stakeholders that engage in such support, as well as the media on promoting local foods.

How do you link with policies and interventions at national level?

Nairobi has good links at the national level, being a beneficiary of the Agriculture Sector Development Support Program (ASDSP) that came about through devolution of the sector. Nairobi is also a primate city with significant personnel resources. The national government views Nairobi as a useful partner because of the strides it has made since 2013 – these are potential resources for collaboration and coordination in the national effort towards greater food security.

Informal traders and vendors play an important role in urban food systems, especially for the urban poor. Does the city of Nairobi support these informal actors, and if so, how?

Insufficiently as yet. There are inadequate institutional links to these actors because they are not coherent and recognised organisations, and the long history of their exclusion. The 'mama mboga' women traders who have been bringing heavy

loads of vegetables into the city on foot have operated for over a hundred years, maintaining supplies of local and indigenous foods. Unfortunately, informal traders and vendors have often been the victims of harassment and corruption by the lower levels of city government staff. Until recent times, it was also manifest in official policy and approaches to the traders, with inadequate issuance of traders' licenses and other shortfalls in management.

It is also a problem of public health and food safety. The enforcement of the Public Health Act is a primary responsibility of the city's health sector in general and the City Inspectorate in particular, and there is a long way to go in developing effective ways of monitoring and supporting informal traders and vendors as the primary suppliers and distributors of food to the City's population, despite some shifts in the political environment of the city.

What is your vision for the next ten years to achieve sustainable food systems in Nairobi, taking into account the various challenges of climate change, urbanisation, population growth, cheap imports?

As a representative of the NGO Mazingira Institute, which has worked on these issues for the last three and half decades, my vision is that all the work we have put into this will continue to be implemented by the Nairobi City County, the rightful authority with responsibility for the food and agriculture sector of the city. At the same time, we and other concerned and responsible stakeholders, including the NEFSALF network of farmers in the city and its environs, will play our full roles in advising the city and jointly implementing its policies.

Despite the progress that the City has made in governance, particularly legislative reform and management of the food and agriculture sector, much remains to be done. The city's commitment to and achievement of the objectives of its 2015 Urban Agriculture Act, particularly regarding the priority of food security especially for residents of high density, informal settlements, must be monitored and tested. Implementation of another objective of the Act concerning management of wastes for reuse in urban and rural agriculture, likewise needs monitoring if the city is to meet its goals of food security and sustainability in the face of climate change and other challenges.

About the interviewee:

Dr. Diana Lee-Smith co-founded the Kenya NGO Mazingira Institute, Nairobi, Kenya She is also an Associate of the Centre for Studies in Food Security at Ryerson University in Canada.

The right evidence to guide integrated investments for food security in Laikipia County, Kenya

by Louise E. Buck, Constance L. Neely and Louis Wertz

Mapping food flows, coupled with ecological, social, and spatial data, helped create a "dashboard" that will strengthen the impact of the next five-year county integrated development plan.

At mid-morning at the market at Kimanjo, in Northern Laikipia County, Kenya, and with no shade structures to speak of, cabbages, tomatoes and bananas that have been hauled here from as far away as 140km over exceedingly rough roads are spoiling. Meanwhile, livestock swat flies with their tails as they await loading into trucks that will take them to butcheries in Nanyuki, a 60km (but 2 hours, thanks to the roads) drive away, and Nairobi (240km and as much as 6 hours away), while the pastoralists who brought them to market sit on the fence and chew dry grass stalks. This bi-monthly market, with its complete lack of basic infrastructure and shade, not to mention refrigeration, is essential to feeding 20,000 local people.

The research team from the World Agroforestry Centre (ICRAF) and EcoAgriculture Partners spoke with the produce and livestock sellers at this market, and others around Laikipia county late last year to map food flows into and out of the county. Data on how much food was being sold in the county, to whom, for consumption where, was not available, but our team knew it was critical if the county government wanted their next County Integrated Development Plan, or CIDP, to improve the food system for vulnerable people in the area. Without understanding the basic movement of food in the county, what we call "food flows," it would be impossible for the county to take a nutrition-sensitive approach to their planning efforts. Such an approach is critical for Laikipia: chronic and acute malnutrition are everyday problems for a large (but inexactly known, as data for almost everything in the county is poor) portion of the population.

Pastoralists living on the edge

On a good day KES 10 million (€82,000) in livestock can be traded at the Kimanjo market. But, during the months of August-September and January-March, when it's dry, less than KES 1 million (€8,200) is traded per day. Livestock brokers frequently take advantage of pastoralists, who are desperate to sell animals quickly during this lean period, by offering exceedingly low prices. Pastoralists become especially food insecure during these dry times, because they depend almost entirely on the livestock trade to buy staples like maize and beans.

A seemingly endless drought in the Horn of Africa is magnifying this seasonal variability and contributing to a cascade of crises. The unreliable rain combined with highly degraded land has pushed many pastoral communities in and around Laikipia to desperation, as dwindling water resources threaten their herds, and thus their entire livelihoods. Attracted by more abundant water and relatively healthy grasslands, pastoralists from surrounding counties, where the drought is worse and the climate has long been drier, have led what some in Laikipia call a cattle invasion. The colonial legacy, past violence, and ethnic division in the region complicate the story considerably. Ranchers own large tracts in Laikipia, and in general their management practices have made their land more resilient to the drought.

The lure of these sustainably managed islands of green has led to violent clashes between local ranchers and the outsiders, including ethnic Somalis. The recent national elections in Kenya amplified these tensions. Meanwhile, displaced peoples' camps in Laikipia that were created of necessity

during election-related violence in 2007 and 2008 are the loci of some of the worst chronic malnutrition in the county.

Overcoming a failing approach to malnutrition

In the past, the majority of the government's response to the malnutrition problems in Laikipia, and throughout the country, has largely been "emergency nutrition supplementation"; food aid. However, following the new Constitution was passed in 2010, each county in Kenya has greater power and produced a five-year county integrated development plan (CIDP, 2013-2017).

Laikipia's first CIDP repeated this approach: all the nutrition programming was housed in the Health Department focused on supplementation. As one might expect, this approach has not reduced the number of malnourished people in the county. As the county government prepares to issue its second CIDP, it sought a different approach. That's where our team was able to offer assistance.

Cost-effective integrated solutions emerge from the data

Supported by funding from the Daniel and Nina Carasso Foundation, EcoAgriculture and ICRAF have partnered with the leadership of the Laikipia County government to advance a food systems research-practice-policy initiative to "improve landscape resilience and nutritional security for vulnerable groups in Laikipia County". The food flows research, coupled with ecological, social, and geo-spatial data gathered by the team and provided by the county, was put into an accessible "dashboard" created by Dr. Tor Vagen, Head of the Geosciences Lab at ICRAF,



Cattle herd. Nwoya District (Uganda). Photo: Mariola Acosta/Flickr

that presented spatial information on land health alongside other attributes of the landscape. Then, through a series of facilitated workshops using the ICRAFdeveloped methodology called the Stakeholder Approach to Risk Informed and Evidence Based Decision Making (SHARED), we jointly assessed the evidence to derive a picture of the status of five selected nutritionally vulnerable sites and initiated discussions on landscape and farm level interventions for the different sites, building upon available evidence for linking nutritional security to landscape resilience to improve outcomes for both. Deliberations were intentionally structured to inform preparation of the next CIDP.

For example, in the Kimanjo area, where pasture degradation and water scarcity are especially problematic, investments focused on rehabilitating pasturelands through reseeding, erosion control measures, micro-catchment construction, managed grazing, and contour planting, coupled with community land tenure and support for improved marketing of livestock emerged as particularly high-potential. The team then identified the necessary partners, from government, the private sector and civil society, and next steps and timelines to advance these interventions.

Laikipia County stakeholders see clearly the fundamental importance of a sound natural resource base to cope with and eventually resolve not just malnutrition, but many of the other problems that plague the county. In the final workshop, the 35 participants included county department heads or senior staff representing the agriculture and livestock, environment, water, land, trade and markets, and health and nutrition sectors, as well as strategically invited non-state actors with expertise in related domains including biodiversity and wildlife conservation. Commitment to a cross-sectoral approach to the food system of the county runs deep with these professionals.

Next steps to cement a more integrated approach to food and nutrition security programming by co-investing in agriculture, natural resource management, markets and trade and related sectors will involve examining carefully the spatial data patterns revealed by the dashboard as well as regularly updating and expanding the data. This, in combination with the facilitated process, will enable the targeting of investment priorities in the CIDP to help ensure that financial and human resources are being used most optimally.

Acknowledgements:

The authors are grateful to Dr. Tor Vagen and Dr. Stepha McMullin and their team of scientists at ICRAF who have provided leadership for the work on food systems and landscape health in Laikipia County.

About the authors



Louise Buck is Director of Collaborative Management for EcoAgriculture Partners and is also a faculty member at Cornell University.



Constance L. Neely is a Senior Advisor for the Integration of Research, Practice and Policy, World Agroforestry Centre (ICRAF)



Louis Wertz is Head of Communications for EcoAgriculture Partners.



Our weekly update on EU-Africa relations and international cooperation

Want to know the direction in which development cooperation is sailing? Stay informed of all the latest news on EU-Africa and EU-ACP development cooperation with the ECDPM Weekly Compass Newsletter. Our Weekly Compass, has been totally redesigned. New publications, events and interesting reads are all still there, just in what we hope is a more accessible format. If you have any comments or suggestions, do not hesitate to send them to us.

ACP-EU relations beyond 2020: Engaging the future or perpetuating the past?

Weekly Newsletter, 7 September 2017

In September 2018, exactly one year from now, negotiations on a new partnership between the European Union and the African, Caribbean and Pacific group of states (ACP) will start. The socalled 'umbrella' option is now on the table, calling for a single all-ACP agreement with separate regional components for the 'A', the 'C' and the 'P'. This ECDPM brief calls on the negotiating partners to reverse the order of this debate, discussing regional partnerships first and an all-ACP umbrella second.

The odyssey of elections in Africa: A new era of democracy and rule of law?

Weekly Newsletter, 12 September 2017

The Kenyan Supreme Court's decision to annul the election results has raised the issue of the rule of law as a key element for true democratic change in Africa. By looking at the recent wave of elections, including Rwanda, Angola and Kenya, Luckystar Miyandazi underlines the need to concentrate on the legal and political frameworks supporting those elections.

Conflict management under the African Peace and Security Architecture I Europe's response to violent conflict: Shifting priorities in a changing world?

News from the ECDPM Security and Resilience Programme, September 2017

While conflict has decreased worldwide according to various sources and databases, the African continent remains home to the largest share of violent conflicts, ranging from non-violent disputes to wars. For more see: http://ecdpm.org/programmes/ conflict-security-resilience/

Sustainable Food Systems I Multistakeholder workshop on "Sustainable Food Value Chains" in Naivasha, Kenya

News from the ECDPM Food Team, July 2017

SASS: First field mission to Nairobi and Naivasha, Kenya ECDPM's new consortium project on Sustainable Food Systems for Sustainable Development, or SASS, is taking off. In a new video, Francesco Rampa gives an introduction on how the project aims to foster sustainable food systems for people. planet and profit. More videos on this topic will follow. For more see: http://ecdpm.org/programmes/food-security/

Validation Workshop, co-organised by ECDPM, UNDP and GEF, Debre Zevit, **Ethiopia**

News from ECDPM Food Team, May 2017

ECDPM presented the study "Options and opportunities to make food value chains more environmentally sustainable and resilient in Sub-Saharan Africa", commissioned by the UNDP Private Sector Unit and the Global Environment Facility (GEF) during an Expert Validation Workshop in Debre Zevit, Ethiopia. For more see: http://ecdpm.org/events/food-value-chainsenvironmentally-sustainable-resilient-sub-saharan-africa/.

Our Blogs

Our blogs aim to deepen the dialogue on policy issues and get to the heart of the matter in an honest and concise way.



Why is it so difficult to develop sustainable tourism in West and East Africa?

ECDPM Talking Points blog, Greta Galeazzi, 4 September 2017

The Annual World Tourism Conference took place in Kigali, Rwanda, at the end of last week, drawing attention to the potential that sustainable tourism holds for development. Yet this sector is still struggling to flourish in several African countries. Addressing key factors such as infrastructure, visa policies, and security - among others - is essential for tourism to truly become an engine for economic growth and job creation on the continent. This could never be achieved without the engagement of national and local authorities, businesses and entrepreneurs.



G20 in Hamburg and the migration agenda: How changing US policies are affecting global discussions

Talking Points, Noemi Cascone and Anna Knoll, 6 July 2017

Barely in power, President Trump has started his long-term plan to enforce stricter immigration laws delivering on his campaign promises. These include increasing the number of deportations of undocumented migrants, building his (in)famous wall on the Mexico-US border, and reducing refugee admissions.

As the G7 Taormina Summit has shown, Trump's stark policy change is also impacting global discussions on migration governance. At the upcoming G20 Summit in Hamburg, global leaders will have a new chance to discuss concrete commitments to manage migrant flows. The outcome of this Summit will reveal the future of the global migration agenda and the ability of the EU to shape it.

Next issue of *GREAT Insights:* EU-Africa relations

Nov/Dec 2017, Volume 6 - Issue 5

The fifth Europe-Africa Summit of Heads of State will take place in Abidjan on 29 and 30 November. Ten years after the adoption of the Joint Africa-EU Strategy (JAES), the Europe-Africa partnership is at a critical juncture. To revitalise the partnership, we will have to find new ways of managing mutual interests and shared global agendas in a context where both continents have to deal with dramatic transformations and major challenges related to inclusive and sustainable development, job creation for youth, trade, migration, security, values agendas, climate change etc.

Latest ECDPM publications



Bossuyt, J., Keijzer, N., Medinilla, A., Sherriff, A., Laporte, G., Tollenaere, M. de. 2017. ACP-EU relations beyond 2020: Engaging the future or perpetuating the past? Maastricht: ECDPM.

In September 2018, negotiations are due to start between the European Union and the African, Caribbean and Pacific (ACP) States as to what should organise their relations after the expiration of the Cotonou Partnership Agreement (CPA). The EU's draft negotiation position is currently under preparation and builds on the 22 November 2016 Joint Communication in which DEVCO and EEAS unveiled a preferred option for the future. From the outset, the EU insisted that a simple rollover of the Cotonou Agreement -which has governed ACP-EU relations since 2000- would be inadequate to deliver on the multiple challenges of today's world. The review of this specific partnership could therefore be seen as a litmus test of the EU institutions and Member States overall ability to fundamentally adapt its external action and development cooperation approaches.



Torres, C., Seters, J. van, Karaki, K., Kpadonou, R. 2017. An exploratory analysis of measures to make trade facilitation work for inclusive regional agro-food value chains in West Africa. (Discussion Paper 214). Maastricht: ECDPM.

Spurred by growing populations, increasing purchasing power and rapid urbanisation, demand for food in West Africa is growing rapidly, and the composition of this demand is changing. West Africa is increasingly importing food from outside the region, as the region faces a huge challenge in attempting to meet food demand through regional production and trade. Intra-regional food trade is mainly informal and generally considered to be well below its potential. In this context, the region and its member states seek to support the development of regional agro-food value chains and to improve the functioning of the regional market.



ECDPM. 2017. Annual Report 2016. Maastricht: ECDPM.

In our 2016 Annual Report we look back at our activities and their impact in 2016 – a turbulent year for the world and its citizens. We also highlight our ambitions for the years to come. Equipped with a new strategy that reflects the complex and rapidly evolving global reality, we remain fully committed to making policies work for sustainable development for all.



Knaepen, H. Rampa, F. (et al.). 2017. Options and opportunities to make food value chains more environmentally sustainable and resilient in Sub-Saharan Africa. New York: UNDP.

Agricultural food value chains (VCs) are gaining importance as part of broader efforts to achieve food security and improve nutrition, as well as transforming African agriculture and contributing to the Sustainable Development Goals (SDGs). With an increased focus on inputs, markets, financing, agribusiness, and agro-industry, the prospects of commercialization for smallholder farmers will likely expand and involve all major food staples. While much has been done to understand and document good practices that generate global environmental benefits in production landscapes, such knowledge is limited or lacking for food VCs in Sub-Saharan Africa (SSA).

Next issue of *GREAT Insights:* EU-Africa relations
Nov/Dec 2017, Volume 6 - Issue 5

To subscribe to *GREAT Insights* or other ECDPM publications go to: www.ecdpm.org/subscribe
To read previous issues of *GREAT Insights*, go to www.ecdpm.org/GREAT