



ADDRESSING FOOD SECURITY AND NUTRITION IN THE CONTEXT OF CHANGING RURAL-URBAN DYNAMICS: EXPERIENCES AND EFFECTIVE POLICY APPROACHES

DRAFT FOR DISCUSSION BY THE OEWG ON URBANIZATION AND RURAL TRANSFORMATION

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Background and objectives

1. In 2016, as part of its Multi-Year Programme of Work (MYPoW), the CFS held a Forum on Urbanization, Rural Transformation and Implications for Food Security and Nutrition “to reach a better understanding of the issues at stake, identify key areas for policy attention and possible roles for CFS”.
2. The subsequent Forum held at CFS 43, informed by a comprehensive background document¹, provided a first opportunity for CFS stakeholders to exchange views and practical experiences on the challenges, opportunities and positive outcomes that they have seen as a result of more integrated rural-urban approaches.
3. As a follow-up to the *Forum* and following the adoption of the New Urban Agenda, the Committee requested the Open-Ended Working Group (OEWG) on Urbanization and Rural Transformation to meet in 2017, and to agree on a process to compile experiences and effective policy approaches for addressing food security and nutrition in the context of changing rural-urban dynamics.
4. Following consultations within the OEWG, a global call was placed through the Global Forum on Food Security and Nutrition (FSN Forum), soliciting short summaries of experiences and effective policy approaches having rural-urban linkages as a primary focus, and touching upon the following thematic areas: governance, sustainability, food systems and social and economic equity.
5. The document provides a compilation of selected experiences and policy approaches that identify some key messages relating to addressing food security and nutrition in the context of changing rural-urban dynamics. The presentation of the experiences is preceded by an overview of the current shifts taking place within and across the dynamics of urbanization, rural transformation and changes in the food system; as well as an overview of the global policy environment.
6. This document seeks to achieve the dual objective of informing CFS stakeholders and stimulating further discussions on possible roles for CFS going forward. While recognizing that the experiences received through the call represent neither all geographical areas, nor the full range of dynamics under the broad topic of urbanization and rural transformation, the contributions contained in this paper nevertheless offer insights into the design/adjustment of food and agriculture related policies/investments in the effort to meet the needs of all people across the rural-urban continuum.

Methodology

7. This document is the result of a four-step process:
 - 1) Screening of the submissions received through the global call – Following a first screening of the 93 submissions² received through the global call on the FSN Forum, the Technical Task Team (TTT) – comprising FAO, IFAD, WFP, UNSCN, UN Habitat, the CFS Civil Society Mechanism and the CFS Private

¹ Background document to the CFS Forum on Urbanization, Rural Transformation and Implications for Food Security and Nutrition - key areas for policy attention and possible roles for CFS “(CFS 2016/43/11) - <http://www.fao.org/3/a-mr205e.pdf>

² Call for experiences and effective policy approaches in addressing food security and nutrition in the context of changing rural-urban dynamics. Proceedings, <http://www.fao.org/fsnforum/activities/discussions/call-urbanization-rural-transformation>

Sector Mechanism – developed a matrix (see page 53) that allowed for the experiences and policy approaches to be mapped along three thematic areas (*i. Governance, food systems and territorial planning; ii. Labour flows of people, goods and services; iii. Sustainable food systems for healthy diets*; and five cross-cutting issues (*i. Health/Nutrition; ii. Environment/climate change; iii. Resilience to risks and crises; iv. Social and economic equity; v. Capacity development, consumer awareness, education*).

2) Selection of the experiences – The matrix exercise facilitated a preliminary selection of experiences (attached as an annex to this document) on the basis of the first two criteria agreed by the OEWG: focus on rural-urban linkages and impact/relevance for food security and nutrition. A further selection was made on the basis of the additional criteria agreed by the OEWG (adversity; equity; innovation and change) and included in this report. Each thematic area used in the matrix is briefly introduced as a chapeau to the selected experiences.

3) Analysis of the experiences and identification of key messages – Building on the above review and with the general acknowledgement of a need for additional geographical and thematically diversified data that would result in a more rigorous process, the TTT developed a set of key messages for each of the three above-mentioned thematic areas. The analysis of the experiences was complemented by additional ongoing research within the Rome Based Agencies and beyond, and the identification of additional key messages;

4) Identification of policy implications – Drawing from the analysis of the experiences summarized in the matrix and the analysis of the key messages identified under each thematic area, a number of categories with policy implications have been singled out to guide discussions in CFS, as well as to facilitate linkages to both existing policy tools/recommendations and ongoing CFS workstreams.

Global context

8. It is estimated that more than 50 percent of the world's population, or around 3.9 billion people, now lives in cities and large towns classified as urban, and this figure is expected to rise to 67 percent by 2050.³

9. At the same time, the transformation of the rural economy is mostly manifested through the diversification of peoples' income sources and produced output, through increasing dependence on non-farm activities.⁴ This transformation goes hand in hand with increases in agricultural productivity, which dominates rural geography.⁵

10. Furthermore, the food system is changing as a result – and in order to support the needs – of urban populations, and is transforming rural areas. Over recent decades, the industry has expanded as a result of technological advances and changing dietary patterns, urbanization and the greater participation of women in the labour force. The industry has, in turn, played a role in changing dietary patterns in diverse ways. Domestic food dominates supply but imports play an increasing role in satisfying food demand. A range of wholesale and retail markets connect rural and agriculture dominated areas with small towns and urban centres. Globally, the food industry is valued at \$7 trillion (10 percent of the world's GDP)⁶.

11. Evidence indicates that fast urbanization can drive diet-related diseases which are associated with changes in lifestyles and increased dependency upon low-quality and often imported foods, resulting in

³ UN DESA.2014. Revision of World Urbanization Prospects

⁴ Berdegue, Rosada, and Bebbington 2013

⁵ The future of food and agriculture, FAO 2016.

⁶ Wynberg 2015, Frost and Sullivan 2015; Root Capital 2015; ERS 2016; McKinsey 2016

unbalanced and unhealthy diets⁷. In the light of this evidence, food systems need to be repositioned from just supplying food to providing high-quality diets for all⁸.

12. Urbanization, higher incomes but also shifting income sources in a world dominated by digital technologies, are already defining the habits of people regarding what to eat, how food should look, how it should taste, but also how it should be sold⁹. The need to serve large urban markets brings a range of opportunities and challenges for the food system and for small farmers. The food system needs to develop improved storage and transportation and food-processing capacities based on new technologies. In some parts of the world, the ability to satisfy these needs leads to land consolidation and increased importance of mid-sized farms in food production. Where infrastructure, credit and other related facilities are missing or are slow to develop, many farmers and rural populations may fail to benefit from new dynamics.

13. When looking at the world's poor, approximately 78 percent of those living on less than US\$2 per day live in rural areas, and 63 percent of the poor are working in agriculture¹⁰. At the same time, an increasing share of world poverty is located in urban centres¹¹. UN Habitat estimates that about 45 percent of the urban population in developing countries live in slums – or households lacking adequate space, solid construction, secure residential status, safe water, sanitation and access to safe foods that are affordable¹². Rapidly growing unplanned informal settlements are often in the most hazard-prone urban areas, increasing risks of flooding and other climate hazards for poor urban populations.

14. There are serious concerns about climate change, the sustainable use of natural resources and demographic trends that refer to changing fertility rates, high population growth, more women in the labour force, including in agriculture, and an increasing proportion of youth entering the labour force in certain regions and ageing of societies in others. All these factors influence and shape the paths of development transformation, in multiple ways that may diverge from historical patterns and experiences. Increasingly, employment that is decent and remunerative – especially for youth – is becoming a challenge of immense proportions across regions and countries, irrespective of their level of development.

15. Employment opportunities and associated labour mobility in a context of urbanization, rural transformation and overall economic development, depends on a range of push and pull factors that function as drivers and connect rural and urban areas during the transition of economic and social systems. Push factors commonly refer to lack of opportunities in rural areas, whereas pull factors usually relate to the emergence of non-farm sectors, typically associated with industrial development, around urban centres or in rural hubs. In many of the countries where incidence of food insecurity and malnourishment is highest, non-farm and urban sectors have been slow in developing; raising the question of whether agri-food sectors will need to play a significant role in the decades ahead in creating employment for growing youth populations.

16. Where rural townships and intermediate cities are better developed, more agricultural and non-agricultural jobs are created and there is a positive reduction in poverty. Put differently, rural transformations in these contexts are being shaped by the interaction of “two middles” in rural areas¹³:

⁷ SOFA 2017

⁸ <http://glopan.org/news/foresight-report-food-systems-and-diets>

⁹ IFAD RDR 2016, SOFA 2017

¹⁰ Olinto, P.; Beegle, K.; Sobrado, C.; Uematsu, H., 2013. The State of the Poor: Where are the poor, where is extreme poverty harder to end, and what is the current profile of the world's poor. Economic Premise, World Bank. Washington D.C. Available at: <http://siteresources.worldbank.org/EXTPREMNET/Resources/EP125.pdf>

¹¹ Mitlin, D. and Satterthwaite, D., 2013. Urban poverty in the global South: scale and nature. New York: Routledge

¹² UN Habitat. 2012. The State of the World's Cities Report 2012/2013: Prosperity of Cities. Nairobi: United Nations Human Settlements Programme

¹³ FAO 2016, Technical Workshop on Rural transformation, agricultural and food system transition: Building the evidence base for policies that promote sustainable development, food and nutrition security and poverty reduction, Rome

- I. The “hidden middle” of rural societies: This refers to the emergence of rural towns, which provide a potentially dynamic ground for economic and social improvement via the demand for goods, services and food, and the propensity for generating short food-supply chains.
 - II. The “middle segment” of the food system: The component of the system after primary production that refers to trading, processing, packaging, distributing and storing agricultural products including food, up to final consumption.
17. Part of the challenge for new jobs and decent employment in the future (including a decent living wage), lies with the components of the food system and the food supply chain that extends beyond production. These parts of the system are able to create jobs, or improve current working conditions, by engaging and empowering small and medium-sized enterprises and smallholders to capture more benefits by integrating into markets, under supportive conditions¹⁴.
18. A high number of smallholder producers in developing countries still lack access to these markets, and they face barriers both in integrating and in conforming to demand requirements. It still remains to be understood to what extent 6.5 billion urban dwellers by 2050, rural transformation and the changing food system will affect both consumers and producers – particularly the hundreds of millions of smallholder farmers that produce most of the food in the world¹⁵.
19. All the above-mentioned driving forces are mediated by social structures, institutional frameworks, and territorial assets which present a high level of within-country diversity. The food security and poverty outcomes, as well as social inclusion and sustainability of food systems will therefore depend on the interplay of global/national and local factors as well as on the heterogeneity of rural households, and economic and social behaviours.
20. Rural households are generally involved in several interlinked economies, including rural and urban, formal and informal, farm and non-farm. Moreover, markets display wide variety in forms of segmentation based on economic, ethnic, religious, political, spatial, and commodity forces¹⁶. This explains why in some countries transformation patterns do not follow expected processes of transition from nonmarket-to-market, agriculture-to-industry, or rural-to-urban. It also raises the issue of whether the unidirectional characterization of rural change accurately reflects the complex interactions of co-evolving factors influencing rural transformation and food systems patterns.
21. The dynamics outlined above illustrate that achieving sustainable and inclusive food systems will require solutions reflecting the heterogeneity of the rural and urban spaces’ response to drivers of changes, targeting both producers and consumers and building institutions and/or strengthening institutional capacity to deal with this complexity.

Policy environment

22. Governments and the international community have tended to focus on urban and rural development as separate ‘sectors’ and challenges, and usually through the lenses of sectoral progress.
23. In the last two years the adoption of the Sustainable Development Goals (SDGs) of the 2030 Agenda for Sustainable Development, the New Urban Agenda, the UN Decade of Action on Nutrition adopted at Habitat III and the Milan Urban Food Policy Pact, have marked a significant and unprecedented shift towards de-constructing the rural-urban dichotomy, and reframing the policy environment around a more holistic approach to integrated policies:

¹⁴ More concrete options are discussed for smallholder farmers in CFS 2016, Recommendations on Connecting Smallholders to Markets, Rome.

¹⁵ Seto, K.C. and Ramankutty, N., 2016. Hidden linkages between urbanization and food systems. *Science*, 352(6288), pp.943-945.

¹⁶ Koppel B., J. Hawkins, and W. James (Editor) (1994) , *Development or Deterioration?: Work in Rural Asia*

- SDG1 seeks to eradicate extreme poverty, SDG2 to eradicate hunger, eliminate all forms of malnutrition and increase smallholder farmer productivity and incomes, while SDG11 seeks to “make cities and human settlements inclusive, safe, resilient and sustainable”, with Target 11.a aiming to “support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning”. Goal 10 calls for reducing inequalities in income as well as those based on age, sex, disability, race, ethnicity, origin, religion or economic or other status within a country. The Goal also addresses inequalities among countries, including those related to representation, migration and development assistance;
- The New Urban Agenda refers to the “urban-rural continuum of space”, and asks countries and international agencies, to commit to balanced territorial development approaches by promoting equitable growth across the rural and urban continuum of regions, and by leaving no one behind. The Agenda further asks for the promotion of coordinated policies for food security and nutrition across rural, urban and peri-urban areas, in order to facilitate production, storage, transportation processing and marketing of food;
- The Decade of Action on Nutrition (2016-2025) proclaimed by the UN General Assembly in 2016, marks a 10-year window of high-level attention for nutrition and aims to intensify the development of policies, programming and actions for nutrition by all relevant actors. The Decade as such will contribute to the achievement of all other SDGs;
- The Milan Urban Food Policy Pact provides a municipal entry point for coherent territorial food policies through its focus on sustainable food systems, integrating governance, sustainable diets and nutrition, social and economic equity, food production, food supply and distribution, and food waste¹⁷.

24. Together, these mechanisms provide a global enabling environment for addressing food security and nutrition across the rural-urban continuum. However, there is still an urgent demand from governments and other stakeholders for tools and support to develop and implement their own policies.

II. PRESENTATION OF SELECTED EXPERIENCES AND KEY MESSAGES

II.a Governance and territorial, food system planning

25. The growing influence of global food systems is associated with important changes in the way food is produced, traded, and consumed. The consequences of these changes include impacts on the viability and resilience of smallholder farmers, access to markets processing activities, the flow of goods and services, the generation of labour opportunities, and on the health of vulnerable people in cities and rural communities.

26. It is increasingly recognized that in order to respond to these challenges, more integrated territorial development and balanced urban-rural linkages must be pursued for the benefit of both urban and rural populations (Dubbeling *et al.*, 2016). Sectoral policies will not suffice to eradicate poverty and hunger. Policy measures and incentives will need to be assessed from a food system-wide approach, and

¹⁷ <http://www.milanurbanfoodpolicypact.org/wp-content/uploads/2016/06/Milan-Urban-Food-Policy-Pact-EN.pdf>

to take into account constraints determined by the interplay between geographic, social, economic and institutional factors.

27. While the conceptual shift towards enhanced urban-rural connections is visible in the global policy environment, there is a need to translate these concepts into concrete models of inclusive, multi-sectoral and multi-level governance, in order to improve rural-urban relationships and to ensure the participation of those most affected by food security and nutrition issues; in particular marginalized groups, and smallholder producers.

28. Cities, towns and villages of any size cannot support their inhabitants effectively without mechanisms that facilitate participatory decision-making as well as cross-sectoral collaboration with public entities that have a role in food system governance. Human rights-centred approaches to local, bottom-up efforts to address all modalities of food security and sustainable diets call for new policy tools, and a shift towards “multi-level food system governance” mechanisms that bring innovative forms of participation to the elaboration and implementation of local food policies. The notion of a spatial continuum of urban and rural landscapes connects to the notion of a governance continuum across levels of government, extending from emergency response to longer-term development: in effect, a continuum of “food system care”¹⁸.

29. There is potential for territorial and food system planning to address the issue of insecure land tenure, where lack of clarity in policies limits investments in land improvements and hence, output. Besides land related issues, territorial and food system planning also has the potential for addressing the entire food system in relation to supply, logistics, distribution through wholesale and retail formal and informal traders, public outlets and food waste.

30. The four experiences presented below provide diverse and innovative examples of such mechanisms: in the Medellin-Antioquia region of Colombia an inter-institutional alliance has been put in place to articulate the agro-food system under a single, comprehensive policy. In Vancouver, the region food system approach was translated into a regional food system strategy involving a variety of sectors and institutions. In Nairobi, the city council has partnered with a civil society organization to develop the technical capacity of the local government to facilitate the implementation of its Urban Agriculture Promotion and Regulation Act. In Peru, the national government has partnered with IFAD to implement a territorial development plan that targets the most vulnerable to poverty and hunger.

¹⁸ Food, Agriculture and Cities - Challenges of food and nutrition security, agriculture and ecosystem management in an urbanizing world (FAO 2012)

Key messages emerging from the experiences

- Multilevel institutional arrangements promoted across public sector and multi-stakeholder engagement can successfully contribute to sustainable food security and nutrition challenges, in the context of changing rural-urban dynamics;
- Integrated local planning – such as city-region and territorial development approaches – can ensure synergies and balance between rural and urban areas by supporting the development of stronger local or territorial food systems, facilitating consumer access to local foods for sustainable diets and supporting small-scale food producers and distributors in accessing markets, with particular attention to marginalized and/or food insecure households;
- There is a need to improve the technical capacity of local institutions and governments at all levels – particularly of small cities and rural towns – and to acquire new skills necessary to address the changing dynamics of food systems.

Additional elements for policy consideration suggested by the Technical Task Team

There is increasing attention on the need to:

- harmonize national, sectoral policies and local development strategies so as to reflect context-specific challenges and opportunities;
- acknowledge the central and growing role of local governments – and in particular local authorities of small cities and rural towns - as emerging actors in the food security and nutrition governance arena;
- improve the capacity of local institutions and governments – including that of provincial, sub-national regional governments, and small cities and rural towns - to address issues of inequalities within and between rural and urban areas. To this end, access to disaggregated data, financial autonomy and legitimacy through accountability to citizens, and the harmonization of procedures and legal and regulatory frameworks are highlighted as crucial factors;
- recognize that the existence of dialogue spaces or multi-stakeholder platforms alone does not automatically generate an inclusive, equitable, transparent and accountable process, nor does it automatically produce outcomes geared towards positive food security and nutrition, or to the realization of the right to adequate food; and
- address the issue of insecure land tenure for food system activities, and the lack of clarity in policies. There is a potential for urban and territorial food system planning as a cross-cutting policy component which must involve government departments and community and other stakeholders.

Main responsible entity

Medellin Mayor's Office

Date/Timeframe

From 2016-2019

Source of funding

Public funds

Location

Department of Antioquia, Colombia

Background/Context

Over the last few decades governments have tried the same old formulas for rural development: increase production and productivity of staple food, rural technical advice, free trade policies with foreign countries, finance mechanisms for agricultural and livestock production, and incentives for direct foreign investment particularly focused on extractive industries.

These policies have been ineffective and counterproductive as the increases in production and productivity have not translated into increased revenues for farmers. The vast majority of rural producers have not benefited directly from access to new foreign markets and financial mechanisms have not been capable of including the overwhelming majority of farmers with the greatest need, and in many cases mining areas are the poorest and most violent parts of the country.

Approach/Objectives

The “Good Living Alliance” is an intervention model for the Department of Antioquia, Colombia, which represents the inter-institutional interests of the Mayor's Office of Medellín, the local government of Antioquia, the metropolitan area of Valle de Aburrá and FAO, to coordinate fully the agrifood system under a single comprehensive policy that:

- Minimizes market failures in the fresh and manufactured food sector. These market failures include the high costs of intermediation, information asymmetry, monopolies (unfair competition), and negative environmental impact (externalities).
- Improves growth and competitiveness of companies and specific stakeholders in the agrifood and agro-industrial sectors through grants and financial and non-financial transfers that optimize their cost and expense matrices.
- Favours the conglomeration and organization of social, public, private and academic stakeholders to improve economies of scale and knowledge transfer, and maximizes the financial resources of specific projects.

The “Good Living Alliance” endeavours to:

1. Benefit both rural and urban people from the socio-economic strata that are most in need, with the clear objective of improving their wellbeing.
2. Develop and build associations and networks that improve the social fabric, and optimize productivity and economies of scale.

3. Undertake large scale development projects that deliver greater impact in the region.
4. Ensure that the impact is not only measured on a social level, but also benefits the whole of the natural system in terms of environmental sustainability.
5. Develop projects in conjunction with alliances or associations with private and/or social entities, which provide greater speed, knowledge transfer, process continuity, and better management and risk sharing.

Key characteristics of the experience/process

The project results are geared towards:

- Improving the efficiency of production systems and adding value to the processes undertaken by small and medium-sized producers.
- Improving the efficiency of each of the links in the market chain, in the items and the municipalities chosen to cover local and regional food demand.
- Implementing strategies to optimize the use of natural resources in agrifood systems of the chosen items.
- Implementing information and communication technologies that enable greater efficiency of agrifood systems.

The effects of the project will be achieved by training and technical assistance, continuous backing, funding and infrastructure, all of which help to build capacities to increase production and consumption of safe food, encourage healthy lifestyles and healthy food conditions, promote coordination of family farming with local and/or regional markets by improving the efficiency of the supply subsystem, generating savings in food costs and revenue based on the items in the basic food basket.

Key stakeholders involved and their roles

The inter-institutional coordination of the Alliance is made up of three basic stages in the chain:

- Production and productivity of food in subregions (run by the local government of Antioquia),
- Distribution and transport (run by the metropolitan area of Valle de Aburra),
- Consumption and marketing (run by the Mayor's Office of Medellin).

These three institutions comprise the tripartite commission and are responsible for the following three public objectives:

- Small and medium-sized producer associations
- Logistic and transport companies and businessmen
- Tradesmen, medium-sized outlets and family consumers

To focus on three main intervention objectives: household income and employment training; minimizing intermediation and profiteering; and reducing sales prices while increasing the quality of agricultural products.

FAO as the international organization is participating across the board in the project by providing technical assistance and advice, the exchange of experiences, and monitoring and follow-up of project indicators and results.

Although the different institutions have very specific roles in the projects, it is important to note that the coordination and joint work guarantees the sustainability and success of the project.

The main changes observed that result in improved food security and nutrition

Rural poverty and the lack of food and nutrition security are two sides of the same coin. Rural farmers do not receive much for their produce and consumers pay a higher price for lower quality food because both groups face an agrifood system that is based on a monopoly and profiteering, with disjointed public policies, that have little impact, are short term in nature and are based on a sectoral strategic plan that is practically non-existent and closed to global tendencies.

Therefore, the “Good Living Alliance” seeks concrete results to respond to the inefficiencies of the agrifood chain, based on two key expected outcomes:

- Improvement of 15% in the income of small and medium-sized food producers by improving productivity and the efficiency of the supply chain and production systems.
- Improvement of food security and nutrition of the most vulnerable families with a 15% reduction in the purchase price of food.

Challenges faced and how they were overcome

Institutional coordination along with the overview and scope of each institution make agreement on goals and results more complicated, which is also the case for the methodology on how to manage the project. This has been gradually overcome by periodic meetings involving individuals from the institutions who have different backgrounds and experiences, helping to ground ideas more firmly.

The limited availability of civil servants from different institutions for the project formulation has meant that timeframes are lengthened. This has been overcome thanks to the interest of the participating institutions in providing officers dedicated exclusively to the project formulation.

Lessons learned/key messages

Each institution provides resources for development of the proposal, which demonstrates true coordination that benefits all stakeholders in the agrifood system, preventing isolated interventions that are not sustainable.

Constant project communication and outreach between different stakeholders and on different scenarios has connected more individuals interested in the process, helping to enrich the intervention proposal.

Implementing a regional food system strategy, Vancouver (Canada)

Main responsible entity

Metro Vancouver Board

Date/Timeframe

2011-present

Funding source

The Regional Food System Strategy (RFSS) had no allotted budget for the period between 2011 (when it was adopted) and 2014. With the operationalization of the Action Plan, the RFSS will have an as yet unspecified budget.

Location

Metro Vancouver, Canada

Background/Context

In Vancouver, there are growing concerns about the rising incidence of obesity, food safety, the disappearance of farmland and increasing prices, depleted fish populations, food waste, pesticides, fertilizer, pollution, depletion of local markets, and the large carbon footprint of food. The globalized food system and the rapid population growth have put great pressures on both the resources and local farmers. In British Columbia (BC), 86 percent of food was produced locally in the 1970s; in 2010 only 43 percent is produced locally. However, there is a renewed interest in growing food, preparing healthy meals, and buying locally produced foods. Yet, the average age of farmers in British Columbia is 57 years; only 6 percent of the farmers in BC are under age 35. The discrepancy between the supply of local food and increasing demand requires local government action.

Focus/Objectives

The Regional Food System Strategy (RFSS) was adopted by Metro Vancouver in 2011, with a vision to create “a sustainable, resilient and healthy food system that will contribute to the well-being of all residents and the economic prosperity of the region, while conserving our ecological legacy”.

The RFSS contains five goals which aim to mitigate the negative impacts of food systems services, promote positive developments, include public participation and utilize interdependent synergies at the regional level.

Key characteristics of the experience/process

Goals/objectives	Actions
Goal 1: Increased Capacity to Produce Food Close to Home 1.1 Protect agricultural land for food production 1.2 Restore fish habitats and protect sustainable sources of seafood 1.3 Enable expansion of agricultural production 1.4 Invest in a new generation of food producers 1.5 Expand commercial food production in urban areas	<ul style="list-style-type: none">• protected agricultural land through the implementation of Metro 2040;• adopted guidelines to restore and enhance fish habitats;• invested in irrigation and drainage infrastructure to enable farmers to expand food production;• facilitated commercial food production in urban areas;• addressed the deposition of illegal fill on farmland through municipal by-laws and enforcement activities.
Goal 2: Improve the Financial Viability of the Food Sector 2.1 Increase capacity to process, warehouse and distribute local foods 2.2 Include local foods in the purchasing policies of large public institutions 2.3 Increase direct marketing opportunities for local foods 2.4 Further develop value chains within the food sector	<ul style="list-style-type: none">• reviewed policies to include local food in purchasing agreements;• expanded marketing of local foods (leases on city-owned lands for farmers’ markets, municipal services, improved promotion of farm tours and events, etc.);• developed plans to address food related issues and reviewed regulations, by-laws and policies to remove obstacles and to create a more enabling business environment for

2.5 Review government policies and programmes to ensure they enable the expansion of the local food sector	local food enterprises.
Goal 3: People Make Healthy and Sustainable Food Choices 3.1 Enable residents to make healthy food choices 3.2 Communicate how food choices support sustainability 3.3 Enhance food literacy and skills in school 3.4 Celebrate the taste of local foods and the diversity of cuisines	<ul style="list-style-type: none"> • involved educational institutions and hosted annual events; • initiated a programme to increase student capacity to manage and expand teaching gardens, and supported agricultural-related content and programming at the local museum; • developed new curriculum resources to support K-12 teachers and students with the integration of 'food systems' thinking into the classroom.
Goal 4: Everyone has Access to Healthy, Culturally Diverse and Affordable Food 4.1 Improve access to nutritious food among vulnerable groups 4.2 Encourage urban agriculture 4.3 Enable non-profit organizations to recover nutritious food	<ul style="list-style-type: none"> • initiated pilot projects to allow for residential bee-keeping and rearing urban chickens; • did research on how to improve food security in social housing sites; • supported programmes to facilitate food access for vulnerable populations; • created community gardens for residents.
Goal 5: A Food System Consistent with Ecological Health 5.1 Protect and enhance ecosystem goods and services 5.2 Reduce waste in the food system 5.3 Facilitate adoption of environmentally sustainable practices 5.4 Prepare for the impacts of climate change	<ul style="list-style-type: none"> • developed Integrated Stormwater Management plans to manage water flowing from urban areas and the impact on aquatic and terrestrial species, vegetation management, and groundwater recharge; • educated residents and businesses about the disposal ban on food waste through media campaigns and advising on ways to reduce organic and food waste, as part of the regional Organic Waste Ban; • launched initiatives in support of Best Management Practices for stream crossings, and land management for horses and small-lot owners; • developed climate change adaptation strategies that take into account impacts on local food production.

Key actors involved and their roles

The engagement of a diverse group of stakeholders, including local governments, the private sector, non-governmental organizations, community groups, educational institutions, provincial health authorities, food banks and charitable organizations, is promoted by Metro Vancouver, its members and

the action plan. The involvement of these stakeholders is aimed at enhancing the generation of ideas, capacity building and problem-solving, and ultimately, at revitalizing the regional food system.

Challenges faced

The local governments have many competing priorities and obligations. Across the region there is a lack of adequate resources committed to food and agricultural issues and a lack of consistency in terms of where and how agrifood issues are addressed within each municipality, which makes it difficult to coordinate among departments and across the region. The siloed nature of local governments limits the ability of government agencies to work across multiple jurisdictions to capture synergies. The differing levels of political commitment to a food system approach often result in actions being completed when staff- time and funding become available, rather than because they represent a strategic priority.

Lessons/Key messages

To improve urban food systems requires a city-region, ecosystem-based approach. Pollutants, pesticides, exhaust fumes, sewage dumping, etc., do not adhere to political boundaries and erode the natural resources that supply our food. A city-region food system approach requires an understanding of the different and interdependent relationships between agricultural municipalities which tend to be focused on protecting agricultural land and expanding commercial food production, and those with less agricultural land, which can help to bring local food awareness and social benefits to residents through activities such as farmers' markets and urban agriculture. Building an awareness and understanding of the respective roles and interdependence of local governments is key to effectively expanding local food production. Stakeholder engagement is critical, as it allows each community to build on its own strengths to address food issues, while also working together on cross-cutting actions and learning from each others' experiences. There is a need to continue investing in and expanding innovative approaches across the region; and to embark on new initiatives to address the persistent challenges and emerging regional food system issues.

[Developing the capacity of local government, Nairobi City County \(Kenya\) - Mazingira Institute](#)**Proponent**

Mazingira Institute

Main responsible entity

Nairobi City County

Date/Timeframe

2015-2017

Funding source

Nairobi City County, and Mazingira Institute channelling funds for training from Rooftops Canada, Global Affairs Canada and IDRC.

Location

Nairobi, Kenya

Background/Context

In 2010 it was established that the majority of children living in informal settlements in the city are malnourished, which is also the case in other African cities, mainly due to low incomes and lack of employment, making food unaffordable to many.

In 2013, the Nairobi City government was devolved under the 2010 Constitution and became responsible for agriculture in the city. In 2015 the Nairobi City government passed the *Urban Agriculture Promotion and Regulation Act* – developed under Kenya’s Constitution and Bill of Rights, which includes the right to food – within the framework of Kenya’s institutional structures and towards the implementation of the Sustainable Development Goals and sustainable, resilient cities. The focus of the Act is on hunger and poverty alleviation while protecting food safety and the environment.

Focus/Objectives

There is a long history of neglect of the widespread phenomenon of urban agriculture in African cities, and of a legislative history that either restricts or ignores it. Food security itself has not been a priority for local urban governments until very recently. In a similar vein, various related professions such as town planning and urban design, as well as public health administration, have not adequately incorporated these subjects into their curricula for professional training.

This experience is about collaboration between government and civil society in favour of improved governance and food systems management in a primate city of Eastern Africa. The overarching objective was to develop the capacity of the local government towards the implementation of the 2015 *Urban Agriculture Promotion and Regulation Act*, through a two-day Intersectoral Training on Urban Food Systems and Agriculture, in collaboration with the Mazingira Institute.

Key characteristics of the experience

The training course consisted of five modules:

Module 1: Urban Food Production and Agriculture

- a. NCC’s presentation on agriculture and the 2015 Nairobi City County Urban Agriculture Promotion and Regulation Act
- b. Urban agriculture in Africa and globally
- c. Urban agriculture and waste management in the food system
- d. Discussion on implementing the 2015 Act

Module 2: Urban Food Systems Policy and Planning

- a. The urban agrifood system
- b. Urban food systems: a worldwide policy challenge
- c. Local government jurisdictions in the food system
- d. Other stakeholders in the food system
- e. Discussion on Nairobi’s inter-sectoral opportunities and challenges

Module 3: Planning and Design for Urban Food Systems

- a. Challenges in the planning and design of urban food systems
- b. Components of urban food systems that need planning and design
- c. Types of food spaces in Nairobi
- d. The case of the NACHU housing cooperative
- e. Discussion on planning and designing food systems in Nairobi

Module 4: City and Regional Food Economies

- a. Urban agriculture, incomes and poverty
- b. Agro-ecology v WTO and trade agreements
- c. Making the local and regional food economies work
- d. Services and programmes to rescue small farmers from poverty
- e. Discussion on Nairobi City County's food system as a productive sector

Module 5: Urban Food and Nutrition Security

- a. Urban food and nutrition security globally and in Africa
- b. The right to adequate food and nutrition – how urban agriculture helps
- c. Veterinary public health and livestock consumption – learning from Nairobi
- d. Aquaculture, fish and water management
- e. The way forward for Nairobi City County

After the course, and in consultation with an international City Region Food Systems training group, of which Nairobi City and the Mazingira Institute are members, it was decided to add a sixth training module covering Waste Management and Re-use.

Key actors involved and their roles

The process was led throughout by the Nairobi City County's Agriculture, Livestock, Fisheries, Forestry and Natural Resources Sector. Officers from the various departments, including Agriculture, Livestock, and Fisheries, prepared the training materials for officers from their own and other sectors of City government. A task force was established for this purpose.

Staff of the Mazingira Institute collaborated fully with the City staff in preparing the training materials and delivering training courses, as members of the Task Force.

The City of Toronto, Canada, participated in the training course, in the person of the Head of its Food Strategy. Toronto is conducting parallel training at home, and is a member of the City Region Food Systems training group.

Key changes observed with regards to food security and nutrition and sustainable agriculture and food systems

It is too early to assess the impact of either the Nairobi UA Promotion and Regulation Act, or the training course of March 2016, although post-workshop evaluation was favourable. The measurement of food and nutrition security in Nairobi – especially the low-income informal settlements – should be carried out later to assess any changes in key indicators in relation to the 2010 data.

Lessons/Key messages

Urban poverty and hunger need sustained collaborative input from a wide range of concerned institutions, but in particular decisive leadership, of the kind that has been shown by the City County Government of Nairobi.

Territorial development approach, Peru – IFAD**Proponent**

The International Fund for Agricultural Development (IFAD), in partnership with the Republic of Peru.

Main responsible entity

The Peruvian Ministry of Agriculture and Irrigation is the main implementing agency, in partnership with IFAD, with the latter responsible for providing implementation support, supervision and appraisal.

Date/Timeframe

Oct 2016- Dec 2022

Funding source

The bulk of the total project totalled just over US\$70 million and was made up as follows: IFAD loan (US\$28.5 million); contribution from the Government of Peru (US\$38.8 million); project beneficiaries (US\$7.2 million). Total project cost: US\$74.5 million.

Location

The project area encompasses 27 municipal districts in seven provinces in the Apurímac, Ene and Mantaro Rivers Valley (VRAEM) – a geopolitical area in central Peru located in the regions of Cusco, Apurímac, Ayacucho, Huancavelica and Junín. The area is located between the interdependent depressions of the Central Cordillera and Eastern Andean Cordillera and the Amazonian slope of the Andes. It includes a high mountain range of between 3000 and 4500 metres, the Inter-Andean valleys of between 1500 and 3000 metres, a pre-mountain or forest area of between 300 and 1500 metres and part of the Amazonian plain or jungle, of less than 300 metres.

Background/Context

The project area suffers a high incidence of extreme poverty and has largely been excluded from the country's development. This situation was exacerbated by the long-standing conflict that affected Peru in the 1980s. Illicit drug-trafficking is well established in the Apurímac, Ene and Mantaro Rivers Valley (VRAEM), where there are remnants of the guerrilla group Sendero Luminoso, nowadays associated with drug-trafficking. Within the project area, there is a division of approximately 75 percent rural against 25 percent urban population, based on local definitions. 74 percent of the population in the area lives below the monetary poverty line. Of these, 39 percent are extremely poor and 33 percent poor – values that place these districts among the country's most vulnerable. Among those living in the project area, 73 percent are under 29 years of age, and 66 percent are indigenous.

Focus/Objectives

The project is focused around three interrelated objectives:

- Building institutional capacities in the territory, including in local and provincial governments, and supporting initiatives to improve communal goods and properties.
- Developing a sustainable network of associations among potential project beneficiaries to promote and expand opportunities for economic development and social inclusion, providing

support for economic activities by interest groups such as farmers' organizations, together with financial inclusion of families and associations.

- Enhancing connectivity within the territory, focusing in particular on facilitating market access, creating jobs with start-ups or contracting of communal or associational micro-enterprises for the routine maintenance of roads, providing for irrigation infrastructure at community level, and promoting water-harvesting and collection.

Key characteristics of the experience/process

The following complementary approaches are designed to ensure that the project benefits those households most vulnerable to poverty and hunger, while facilitating territorial-wide transformations:

- The territorial development approach combines two main elements: (i) institutional development to promote consultations among local and external agents, and include poor people in production transformation processes and benefits; and (ii) production transformation to link the territory's economy with dynamic markets.
- Focus on participatory, community-driven development through delegation to community organizations to design and implement sub-projects which prioritize approaches to improve the access of poor groups to social, human, financial and physical assets.
- Social inclusion is cross-cutting. Accordingly, working with poor groups' organizations – especially small-scale and indigenous farmers' groups – and recognizing, as well as securing rights to, tangible and intangible assets of these groups, is a priority.

Key actors involved and their roles

- The agency responsible for the project is the Peruvian Ministry of Agriculture and Irrigation, with close coordination and collaboration from municipal and provincial administrations.
- Project implementation will be the responsibility of a project coordination unit, composed of a project coordinator and eight specialists in the following areas: (i) M&E; (ii) financial inclusion; (iii) entrepreneurship; (iv) infrastructure; (v) natural resource management and climate change; (vi) social inclusion; (vii) administration; and (viii) accounting and support staff. Each local agency will have a team made up of a coordinator, an administrative assistant and various specialists.
- In all cases, project implementation specialists will work with local groups on design and implementation, with the latter having primary responsibility for the implementation of sub-projects.

Key changes observed with regards to food security and nutrition and sustainable agriculture and food systems

Foreseen benefits in terms of food security and nutrition include: increased physical assets for farming communities; improved agricultural productivity; more sustainable natural resource management; increased access to affordable food by poor consumers of targeted territories; increased social capital to promote the start-up and development of economic associations of small-scale rural farmers to improve their access to value chains, and to promote their participation in the benefits of territorial development. Over the long term, all this is expected to lead to improved food access and availability in the territory.

Challenges faced

The major challenges relate to: (i) institutional capacity; and (ii) possible trade-offs between targeted approaches to ensure benefits among food-insecure groups (e.g. focusing on poor groups and areas) vs. holistic/multi-faceted approaches to achieve territorial-wide development.

In the first instance, while some measures to develop decentralized governance systems are already in place, capacity among relevant institutions is often lacking. Similarly, the capacity among organizations

for food-insecure groups to contribute in the design and implementation of initiatives is generally weak. As such, providing training at both sub-national and local level is imperative in the short term; the same applies to longer term approaches to ensuring access to relevant education and training in territorial development, with the latter implying the need to partner with local, national and international institutions with specific human capital and educational mandates.

In the second instance, achieving an appropriate mix between targeted and wider initiatives to develop territories is not straightforward for relatively small-scale projects. Engagement with national and sub-national policy processes, focusing on knowledge management for the sharing of results with similar (complementary) territorial initiatives, and giving priority to learning and training systems are all measures that can facilitate the transfer of relatively targeted local approaches to wider territories.

Lessons/Key messages

1. Individual projects need to find the appropriate mix and complementarity between targeted and holistic approaches. Targeted approaches are required not only to have a pro-poor approach able to reach food-insecure groups, but in a context of limited resources, to focus on those thematic areas in which the project can bring an added value. However, territorial development itself involves considering a holistic approach that integrates the different conditioning elements that underpin the development of networks of communities.
2. Individual projects need to be linked and coordinated to wider development actors, policies and approaches, to properly address the multi-faceted constraints faced by local actors.
3. Territorial development must be grounded in people-centred approaches which target and enable the participation of food-insecure groups.
4. Local actors – especially food-insecure groups – must be placed at the centre of the design and implementation of initiatives aimed at benefitting them, and be represented in territorial governance systems. At the same time, capacity development among these groups, as well as among sub-national and local authorities, will be required to ensure long-term improvements.

II b. Labour and flows of people, goods and services

31. The links between urban and rural areas are typically defined in terms of flows of people, goods, information, finance, waste and social relations across space. These flows are in practical terms the manifestation of the connection between rural and urban areas that emerge from the “functional links” between the broad sectors of agriculture, industry and services¹⁹. Many of these linkages related directly or indirectly to food and nutrition²⁰.

32. The review of evidence from the literature²¹ and experiences, indicates that employment opportunities will emerge in developing regions from increased domestic demand for goods and services as well as from innovation and investment, diversification and differentiation in processing of output and

¹⁹ Tacoli, C., 2015. The crucial role of rural-urban linkages. The Sahel and West Africa Week, EXPO 2015. Available at <http://www.oecd.org/swac-expo-milano/presentationsanddocuments/session-1-insight-tacoli-ii.pdf>

²⁰ Forster, T.; Santini, G.; Edwards, D.; Flanagan, K.; Taguchi, M. 2015. Strengthening Urban Rural Linkages Through City Region Food Systems, Paper for a joint UNCRD-UN Habitat issue of the Regional Development Dialogue, Vol 35 on “Urban-Rural Linkages in Support of the New Urban Agenda.”

²¹ World Development Report 2013, Jobs, World Bank, Washington DC

products and international trade. Opportunities emerge beyond output production in agriculture or industry, extending to the rest of the links of the food system but also the provision of services.

33. Addressing structural constraints remains the key priority for rural areas and smallholder agriculture to improve their capacities to produce more and better output and integrate into the food system. Supporting the creation of employment opportunities and improved working conditions across food systems and across the rural-urban continuum will be particularly important²².

34. Even in the poorest regions of the world, in Sub-Saharan Africa and South Asia, urbanization and changes in food systems are reshaping the economic and social landscape. Food supplies in Africa and Asia are mostly sourced by domestic markets. Rapid urbanization and digital technologies are creating new dynamics and challenges for rural areas and the sector of agriculture. The shifts towards more demand for fruits, vegetables and meats in food demand is providing opportunities for income diversification and decent employment within agriculture²³.

35. Building infrastructure and human capital lies at the heart of resolving structural challenges in rural areas. Many smallholders face chronic economic, social but also legal and regulatory constraints which manifest in low earnings, low savings and investments. This burden is furthered with poor technologies, but also weak integration in the food system in terms of transportation, access to electricity and extension services.

36. Social protection schemes and safety nets are necessary to support skill building of the increasing number of youth entering the labour force, and vulnerable women in agriculture and elsewhere. Such schemes can smooth the transition of youth to productive employment but make mobility of people across sectors and geographic regions less painful²⁴.

37. Outside – as well as within – agriculture, most of the population in developing countries is involved in informal household enterprises both in urban and rural areas, which are frequently part of a diversified family strategy. The productivity of non-farm household enterprises is low, they use mostly self-employed labour, but often earnings per person are higher than in agriculture or from wage employment in urban areas.²⁵ However, providing services and support to these informal organizations and – where feasible and appropriate – supporting their integration into the formal system can provide solutions and also higher incomes including revenues to the state.

38. Internal or international migration takes place for multiple reasons, including out of need, due to limited livelihood opportunities in particular in rural areas. Despite social and economic costs involved in the process, migration can be a poverty reducing and development instrument for both origins and destinations, providing remittance flows to invest in farm and non-farm enterprises. In other instances, where opportunities are not available or the skills demanded not matched with skills supplied²⁶ migrations results in a rise in inequality and food and nutrition insecurity. In sub-Saharan Africa, research showed progress in poverty reduction resulting from migration within rural areas (from agricultural communities to rural towns)²⁷. This contribution can be further enhanced as long as efforts are undertaken to

²² FAO 2016, The future of Food and Agriculture, FAO, Rome

²³ SOFA 2017

²⁴ Kangasniemi M., P. Karfakis and M. Knowles (2017), The role of social protection in inclusive structural transformation, FAO, Rome, mimeo

²⁵ World Bank. 2014. Youth Employment in Sub-Saharan Africa. Washington, D.C

²⁶ ILO, 2016. World employment and social outlook 2016: Transforming jobs to end poverty. Geneva, Switzerland

²⁷ Chrsitiensen, L., Y. Todo, (2014), Poverty reduction during the rural-urban transformation-the role of the missing middle. World Development, 63, 43-58 and Dorosh, P. and J. Thurlow (2014), Can cities drive African development? Economy wide analysis for Ethiopia and Uganda, World Development, 63, 113-123

coordinate flows, manage rural-outmigration push factors by decreasing inequalities between rural and urban areas, reduce economic and social costs, promote decent employment, but also support the matching of skills supplied with those demanded.

39. The interdependencies and synergies between urban and rural spaces and functions are further asserted through the economic dynamics, social links and environmental synergies. Ecology and biodiversity are part of these complex interrelations between rural and urban areas. Biodiversity and strong ecosystems are cornerstones to sustainable food systems, food security and nutrition. As cities and urban areas grow and food production becomes more industrial, there is an increased risk to the sustainability and destruction of the ecosystems that support food systems, and in particular the degradation of biodiversity.

40. Maintenance of relevant functions, which cannot be separated from the discussion of ecosystem services and biodiversity planning and management are an important part of a sustainable food system. On this ground is important to assess models of agricultural and other food production, together with social values and community practices.

41. The selection of experiences presented below provides a glimpse of the vast array of issues related to flows of people, goods and services across rural and urban areas in the context of food security and nutrition. These include: an integrated multi-sectoral national strategy to address the multiple challenges posed by the rapid urbanization in China; a system facilitation approach to improving soil fertility through organic fertilizer value chains in Bangladesh and Nepal; promoting short value chains to offer quality and affordable products to vulnerable neighbourhoods in Argentina; uncovering the hidden yet essential role of informal dairy markets across the urban and rural areas of Somalia; supporting the adaptation of traditional knowledge and practices to contemporary life by engaging vulnerable rural elderly people with urban youth in community peri-urban agriculture and animal husbandry; promoting new stewardship for land planning and management as a way to combine environmental stewardship and rural job creation in a fragile context in the peri-urban area of Milan, Italy.

Key messages emerging from the experiences

Strengthened rural-urban linkages can foster food security and nutrition outcomes through:

- Addressing infrastructure gaps to improve the productivity and sustainability of food systems across the rural-urban continuum;
- Promoting opportunities for rural and urban producers to derive greater value from engagement in local and regional supply chains;
- Promoting income generating opportunities on and off-farm particularly geared towards women and youth, including social and solidarity economy;
- Promoting opportunities for integrated land use, natural resources and circular economy planning across territories;
- Promoting mechanisms to improve efficiency and use of waste and by-products to reduce demand on natural resources and facilitate greater rural-urban synergies;
- Providing legal frameworks and policies in support of innovative mechanisms for social inclusion and preservation of effective informal practices;
- Promoting rural-urban public partnerships for preserving natural heritage and (environmental) resources management as well as joint promotion of economic and social activities.

Additional elements for policy consideration suggested by the Technical Task Team

There is increasing recognition of the need:

- to strengthen capacities in small cities and rural towns to enhance their role in providing employment opportunities, market nodes and administrative, financial, educational social and medical services for the rural population;
- to use urban food policies and spatial planning as tools to promote integrated territorial development and better, more sustainably planned urbanization (reducing urban sprawl in order to protect land for sustainable agricultural production);
- to understand the dynamics of and address distress migration.

An integrated multi-sectoral national strategy, China

Proponent and main responsible entity

Chinese Academy of Agricultural Sciences (CAAS)

Background/Context

The Chinese rural population has migrated to cities in huge numbers since the onset of China's opening-up and reform in 1978. The urbanization rate of the country rose from 17.9 percent in 1978 to 57.4 percent in 2016. The Chinese Government has provided support to hundreds of millions of these migrant populations, and to equally large numbers of the rural population, to improve their food security and nutrition levels.

Focus/Objectives

- 1) To effectively promote public and private investment in agriculture and rural development by way of industry nurturing agriculture and cities supporting the countryside, with a view to increasing the supply of food and its stability.
- 2) To carry out appropriate re-adjustments to cropping structures in the light of the changes in consumption patterns of urban and rural populations, on the pre-condition of ensuring absolute security of the food grain supply, in order to produce agricultural products that meet the demand of consumers.
- 3) To facilitate the voluntary transfer of arable land tenure from migrant populations to specialized farming households, building on the basis of implementing land tenure registration and safeguarding farmers' rights of tenure, so as to increase the income level of both the transferors and transferees, and to avoid abandoning the land.
- 4) To strengthen agricultural infrastructures and promote socialized services for agricultural production, and to ensure that the needy migrant population can engage in part-time crop farming so as to minimize food security risk.
- 5) To provide training and support to farmers, particularly youth, women, and elderly people, in order to strengthen migrants' capacity to obtain employment, to develop specialized food producers and to improve farmers' livelihoods.

Key characteristics of the experience/process

- 1) Increasing investment in agriculture and rural areas in order to facilitate and optimize the allocation of urban and rural productive resources in farm and non-farm sectors, with a view to achieving mutual complementarity between industry and agriculture, and interaction between urban and rural sectors.
- 2) Adherence to the combination of bottom-up and top-down approaches, encouraging context-specific innovative development models and rolling out support policies in accordance with actual need.
- 3) Emphasis on protecting farmers' tenure and rights, safeguarding farmers' production and management rights, and facilitating farmers' production and management through diverse means.
- 4) Enhancing policy design and enforcement. Multiple so-called 'No. 1 Documents' of the CCP's Central Committee have focused on urban-rural integrated development, with the aim of promoting the liberalization and flow of labour, land capital, while at the same time safeguarding farmers' livelihoods after they have transferred their land, through the establishment and improvement of a rural social protection network, and improvements to the regulation of access on the part of industrial-commercial capitals to the agriculture sector.

Key actors involved and their roles

- 1) Ministry of Agriculture and other relevant government ministries and departments, in areas of policy-making, financial allocation/investment, training, etc.;
- 2) Private-sector companies in areas of private investment and the improvement of farmers' access to markets;
- 3) Cooperatives, in areas of farmers' market access and socialized service provision;
- 4) The migrant population, in areas such as enhancing non-farm employment skills;
- 5) Farmers, in areas such as improving food-farming capacities.

Key changes observed with regards to food security and nutrition and sustainable agriculture and food systems

- 1) Food production has increased over consecutive years, reaching 616,239 million tons in 2016, far higher than the 304.77 million tons recorded in 1978. During 2004-2015, food production increased for 12 years in a row;
- 2) Unit food yield has reached 5452.1 kg per hectare, a much higher figure than the 2527.3 kg per hectare in 1978;
- 3) Farmers' incomes have increased rapidly, with rural per capita disposable income reaching 12363 Yuan in 2016, far more than 133.6 Yuan in 1978 (in nominal terms). The urban-rural income gap has been narrowing since 2009;
- 4) As of the end of 2016, over one-third of China's land has been transferred.

Challenges faced

- 1) The out-flow of the rural population, mostly youth, has led to a relative drop in farming labour quality, and has thus exerted considerable impact on agricultural production;
- 2) With industrial-commercial capital entering into agriculture and capital replacing labour, smallholder production has been impacted to some extent;
- 3) In the open-market environment, price fluctuation of the food market has become greater, exerting some impact on agricultural production and consumption in both urban and rural areas.

Organic fertilizer value chains, Bangladesh and Nepal - IIED**Proponent**

IIED (International Institute for Environment and Development)

Main responsible entity

Practical Action and IIED

Date/Timeframe

2016

Funding source

DFID

Location

Bangladesh and Nepal

Background/Context

Organic matter in rural areas of South Asia is often in short supply. Mechanization has replaced draught animals with tractors; livestock rearing is in decline and crop and animal residues tend to be used mostly for fuel and fodder rather than returned to the soil. Meanwhile, government agricultural policies heavily favour chemical fertilizer over organic fertilizer. As a result of all these trends, not enough organic matter is making its way back to the fields to sustain healthy soils.

The production of urban organic waste, on the other hand, has grown significantly in tandem with urbanization and economic development. In fact, the management of municipal solid wastes remains one of the most neglected areas of urban development in many developing countries. While markets (mostly informal) exist for inorganic waste, this is not the case for organic waste. Considering the large amounts of organic waste that are generated, there is a clear potential to use these materials for productive purposes, such as energy generation or for reuse and recycling. Organic waste can be composted and turned into fertilizers for agricultural production, and can help to compensate for shortages of organic materials in rural areas. The conversion of urban organic waste into fertilizer is one of the strategies that is being used to address problems of soil fertility in rural areas of Bangladesh and Nepal.

Focus/Objectives

To improve soil fertility in Bangladesh and Nepal, through collaboration and a system facilitation approach to the markets and mind-sets of actors involved in organic fertilizer and compost value chains.

Key characteristics of the experience/process

Greater use of organic fertilizer and/or other methods of improving soil fertility require coordinated action at many levels. Collaboration can address issues in the organic fertilizer sub-sector and achieve actions beyond the reach of individual actors or interventions. In particular, collaboration is needed:

- with farmers and their communities in order to understand their constraints and help build capacities to produce their own compost;
- with policy-makers to ensure an enabling environment for investors, manufacturers, traders and farmers; and
- with investors and manufacturers to develop the supply side of the sub-sector, including agro-dealers and providers of knowledge and advice.

With this need in mind, collaborative mechanisms were established to drive innovation and coordinated action in both countries. These collaborative mechanisms involved a series of multi-stakeholder platforms combined with action planning and the implementation of a common agenda. Thus they were far more than just a discussion platform, requiring instead, sustained engagement on the part of key partners and stakeholders.

Key actors involved and their roles

Practical Action Bangladesh – implementation role

Practical Action Nepal – implementation role

Practical Action UK – advisory role

International Institute for Environment and Development (IIED) – advisory role and lead in publications

Key changes observed with regards to food security and nutrition and sustainable agriculture and food systems

In Bangladesh, consumers are demanding safe food and this demand is creating opportunities for producers and marketers alike. One of the key changes we observed is a growing awareness by farmers

of the negative impacts of excessive chemical fertilizer and pesticide applications. Most farmers said that they are using organic fertilizer and compost on lands growing food for own consumption. However, due to limited supplies of organic fertilizer, they are not able to do the same for their commercial crops.

At the same time, policy-makers are increasingly cognizant of the need for changes in existing policies to create an enabling environment for organic fertilizer value chains. These include the need to liberalize the licensing policy and remove the requirement for organic fertilizer producers to have their own laboratory for testing samples. In the meantime, collaborative mechanisms bringing together farmers, government officials, NGOs and the private sector have become self-perpetuating.

In Nepal, the Soil Management Directorate of the Department of Agriculture is committed to leading the collaborative mechanism and working with other stakeholders to strengthen organic fertilizer value chains. The country's long-term Agriculture Development Strategy has also highlighted the need for improving soil fertility through organic matter. Upscaling the use of organic fertilizer can contribute to reversing soil fertility decline, and it also has the potential to increase the productivity of Nepal's agriculture, which is the lowest in South Asia.

Challenges faced

Work on organic fertilizer value chains is still at an early stage in Bangladesh and Nepal, and has encountered significant obstacles. The policy environment and input distribution system in both countries still heavily favour chemical fertilizer over organic fertilizer. It has, moreover, been difficult to convince farmers to use balanced applications of chemical and organic fertilizers.

Lessons/Key messages

To break the vicious cycle whereby intensive agriculture in South Asia depletes soil organic matter and increases vulnerability to drought, an integrated approach is required which balances applications of organic and chemical fertilizers and promotes agronomic practices that enhance soil fertility. Research is needed to develop cost-effective agronomic and market-based strategies, adapted to the wide range of circumstances and kinds of farmers. Ensuring that sufficiently large quantities of organic matter are returned to the soil will require policies that raise awareness of soil fertility problems, encourage and support organic matter value chains, simplify licensing procedures and modify unrealistic standards, build capacity among companies, secure sufficient quantities of raw materials from multiple sources, and stimulate demand.

One of the key lessons of this case study is that value chains for commodities such as organic fertilizer do not simply materialize by themselves. They need to be nurtured over time, and require action by multiple stakeholders. These include the private sector, NGOs, government agencies and farmers. Knowledgeable and well-respected civil society organizations have a crucial role to play in facilitating collaborative mechanisms between different actors, and in building momentum.

The Market in your Neighbourhood Programme ("El Mercado en Tu Barrio"), Argentina

Main responsible entity

Ministry of Agro-Industry's Under-secretariat for Food and Drink
Ministry of Production's Under-secretariat for Domestic Trade

Date/Timeframe

Beginning of September 2016 – continuing throughout 2017

Source of funding

Both ministries fund themselves.

Location

Argentina: national coverage

The Programme began in the conurbation of the province of Buenos Aires, and this year, 2017, implementation will begin in the rest of the country.

Background/Context

The programme has been developed to offer the population quality products at affordable prices in the most vulnerable neighbourhoods, given that the situation over the last few years has resulted in a huge disparity in market prices for the same products.

Approach/Objectives

- To offer the general population, and in particular those most socially vulnerable, a variety of food at affordable prices.
- To bring the producer and the consumer closer together and thereby shorten the supply chain.
- To make local fairs and markets places that sell food that complies with health and hygiene standards, at affordable prices, guaranteeing quality, offering variety and consumer information on nutritional value, consumption and purchasing recommendations.

Key characteristics of the experience/process

Fresh and processed food is offered from all the main food groups including dairy products, fruit and vegetables, meat, and cereals, which are varied, high-quality and at affordable prices. There are between 8 and 12 stalls, each selling different food, so there is no competition between the stallholders in the “The Market in your Neighbourhood” Programme.

The improvement in consumer prices is achieved by reducing the number of middlemen, the availability of free space for selling food, the guarantee of sales from advertising the fair at the expense of the State and the Municipality.

Priority is given to producers and/or SMEs of local food.

Formal marketing of food that complies with the health and hygiene regulations in force is also encouraged.

Key stakeholders involved and their roles

Provincial and municipal government, market workers (can be food SMEs or agricultural producers).

The main changes observed that result in improved food security and nutrition

The Market in Your Neighbourhood Programme offers a varied number of items in the basic food basket, which include several different fruit and vegetables of high quality and at an affordable price that comply with food security in several aspects: safety, access to food, and in terms of nutritional requirement it educates and promotes the consumption of fruit and vegetables.

Challenges faced and how they were overcome

Ensure the materials delivered to the stallholders through the municipality are cared for. In just a few cases maintain the frequency, or improve the locations selected by the municipality for market venues.

Ensure that the Market in Your Neighbourhood is not a competition for nearby shops, which is why the markets are only held once a week, as the case may be, and if not weekly it may be fortnightly. Create a good communication circuit to promote the market, some of which have an excellent sales record with participation levels measured at 3,000 purchasers in one day.

Lessons learned/key messages

Backing and monitoring are key for the neighbourhood markets both during and after their launch. Assessment of the state of each location and getting to know the local stakeholders to prioritize variety, quality and production in the area, and agree on benchmark prices of products that benefit both the producer and the consumer.

Informal dairy marketing, Somalia**Main responsible entity**

Terra Nuova, East Africa

Date/Timeframe

Survey conducted from 10 - 20 March 2016

Funding source

Terra Nuova, through EU-funded Development Education “Hands on the Land” project

Location

SOMALIA: Wajaale and Hargeisa - key marketing and production centres in Somaliland

Background/Context

The Somaliland dairy industry is plagued by a variety of problems such as: lack of commercial dairy farms, low productivity due to poor nutrition, weak infrastructure, lack of financial facilities and the ready availability of raw milk to a poor and uneducated population. In urban areas, milk is available to consumers in two forms, either as loose/unprocessed milk or as packed/processed milk. Although there is no reliable data on the proportion of household incomes spent on milk in Somaliland, milk is, on average, consumed twice a day and provides about 60 percent of the caloric intake for both rural and urban populations. Milk is highly valued in the Somali food tradition and is an integral part of pastoral staple food.

Hargeisa is the main centre for the milk trade in Somaliland. The bulk of the fresh raw milk consumed in Hargeisa originates from the agro-pastoral areas of the country. In Somaliland, milk is mainly produced in a traditional system based on nomadic or semi-nomadic, low-producing indigenous breeds of camels, zebu cattle and goats.

Focus/Objectives

The broad objective of the study was to determine the role of the informal sector in the marketing of milk produced in a pastoral/urban interface.

The study focused on exploring opportunities and challenges that exist along the major urban (Hargeisa and Wajaale) milk value chains. It was designed to provide information to understand how actors along the milk chain are interlinked to facilitate the conveyance of milk from the remote nomadic or semi-nomadic production areas to the consumers. The study also explored whether social practices and traditions play a role in the sustenance of the milk marketing system, particularly during production

shock periods such as dry seasons or droughts.

Key characteristics of the experience/process

- Milk marketing in Somaliland is characterized by a uniquely efficient system that contributes to food security in a pastoral milk production environment.
- The players along the milk chain have developed a system that ensures members have access to milk during periods when there are fluctuations in the supply.
- Trading along the milk chain in Somaliland largely operates through a shared culture, values, and trust.

Key actors involved and their roles

Milk marketing in the urban and peri-urban areas of Hargeisa is largely the women's domain, while the transportation of the milk is male-dominated. The milk chain consists of primary rural producers, primary collectors, transporters, and primary and secondary retailers. Women are key, both as primary and secondary retailers and in milk production with regard to the management of small ruminants (goats), while men are central to the collection and transportation of milk to the markets.

Key changes observed with regards to food security and nutrition and sustainable agriculture and food systems

The milk marketing system in Somaliland is efficient and sustainable. Trading along the milk chain in the country largely operates through a shared culture, values, and trust. This is highlighted by a unique system (known as "Hagbed") that is in operation in Somaliland, whereby producers organize themselves in groups of 10-15, with the objective of minimizing operational costs. Members of the group contribute towards the daily milk requirements of their customers. The milk is then sold to customers on behalf of one of the producers in the group at a time. The selected producer retains the money. Then s/he contributes milk to another producer in the group the following day. This operation is repeated until all members of the group have had a chance to sell milk. This indigenous system benefits the consumers in ensuring a relatively regular supply of milk. It also ensures that all actors have an equal opportunity to access customers and a guaranteed income. This "informal" marketing method plays an important role in food security and should therefore be supported by appropriate policies. This can be achieved through lobbying for policies and services that recognize and favour this kind of "invisible" trade.

Another important aspect of the Somaliland milk trade is a service offered by cooperatives to ensure members have access to milk during periods when there are fluctuations in supply. For instance, if a milk trader fails to get milk from her/his regular suppliers, she/he can obtain milk from other cooperative members for sale to her/his customers. Thus, the system is also important in creating strong social and economic bonds among members and in sustaining supply along the milk chain.

It is also important to note that there are no major multinational companies operating in the country. These companies are known to have a monopolistic approach that interferes with indigenous marketing systems. The unique attributes of the Somaliland marketing system would be ignored if multinational companies operated in the country, and it can be argued that their presence might contribute to food insecurity and the marginalization of women who are the backbone of the milk supply chain.

There is an ongoing rapid increase in the urban population of the country, mainly attributable to rural urban migration. Increasing and un-met demand for fresh/raw milk, particularly in the fast-growing urban centres, is reported to be causing an increase in the demand for packaged/processed milk, especially among the middle classes. Although the changing pattern in milk consumption in urban areas has so far not had a significant impact on the consumption of raw milk, the evolving rural-urban population dynamics are likely to influence milk consumption patterns in the long run. This is an aspect that cannot be ignored when formulating milk trade regulation policies in the country.

Challenges faced

The challenges include poor milk hygiene, an under-developed transportation infrastructure, inadequate

credit facilities, lack of cooling facilities along the milk chain, poor market infrastructure and nascent milk trade regulation policies.

Lessons/Key messages

In spite of absence of a strong lobby movement on the consumption of locally produced products, the community using the platform of a growing cooperative movement is able to sensitize the population on the benefits of consuming raw milk, especially the economic benefits which trickle down to household level. Milk marketing in Somaliland plays an important role in food security and the provision of balanced and nutritious food. Investing in milk production and trade will therefore improve food provision, and social and environmental sustainability and will safeguard the livelihoods of the majority of the population, given that livestock is the country's main source of livelihood.

[Connecting vulnerable elderly farmers and urban youth through community peri-urban agriculture, Bishkek \(Kyrgyzstan\)](#)

Main responsible entity

Public Fund 'Arysh' / Общественное объединение "Арыш"

Date/Timeframe

2015 – Present

Funding source

Danish Church Aid Central Asia (DCA CA) (at present); local community funding

Location

Bishkek, Kyrgyzstan

Background/Context

Kyrgyzstan is a small, mountainous country in the heart of Central Asia, which is still undergoing demographic, economic, and environmental upheaval following the collapse of the USSR. More and more people continue to move from rural areas to the booming informal settlements around the capital city of Bishkek. However, Bishkek's informal settlements are increasingly becoming a way-station for people of working age to pursue labour migration to Kazakhstan and Russia, leaving the elderly and young behind. The elderly of Bishkek's informal settlements – dependent on remittances and unreliably small pensions – face significant economic and social hardship which is compounded by their structural isolation from meaningful social services.

High on the list of challenges that the elderly of the informal settlements face is access to healthy and affordable food. In this situation, Arysh, a community-based organization with a long history of social mobilization and advocacy in the informal settlements, has come forward to assist the country's neglected community elders. Using an innovative whole-of-community approach, Arysh brings together youth and elders to engage in community gardening through peri-urban agriculture and animal husbandry. Not only has this approach managed to link disparate generations through meaningful labour, but it has also provided a source of readily available and locally produced food for both consumption and sale at bazaars. Additionally, by encouraging knowledge-sharing between the rural elders and their young urban counterparts, Arysh has maintained traditional knowledge which would otherwise have been irretrievably lost. Underpinning these processes is Arysh's longstanding advocacy

with political and governmental structures for land-rights recognition of those who dwell in the informal settlements

Based on the success of their initial work in community agriculture, the DCA provided Arysh with additional funds to expand their resilience building throughout the informal settlements.

Focus/Objectives

- Reduce food insecurity and provide livelihoods generation through community agriculture.
- Through community agricultural practices, foster inter-generational understanding and solidarity, which in turn strengthens community resilience.

Key characteristics of the experience/process

- Intentional community building; recognizing the value of overlooked or structurally marginalized people's knowledge, experiences, and practices; and fostering learning.

Key actors involved and their roles

Public Fund 'Arysh': community organization, fund-raising, and provision of technical expertise.

Key changes observed with regards to food security and nutrition and sustainable agriculture and food systems

Proximal changes: The former rural elderly living in Bishkek's informal settlements now have immediate access to fresh, seasonal foodstuffs which supplement and improve their diet (restricted in the past to pension facilitated purchases). By engaging urban youth from the informal settlements in community agricultural practices, traditional smallholder agricultural practices are passed down through generations.

Distal: Repeated harvests coupled with seasonal celebrations help to ensure greater awareness of the importance of community food security and agricultural-cultural practices. Reaffirming 'traditional' knowledge in a contemporary environment of rapid change and climatic/economic/political/food insecurity builds broader community resilience.

Challenges faced

- Funding for community-level food security interventions and long-term programming remains meagre. While communities are sometimes able to raise funds through their own community savings groups, larger structural barriers (land tenure; community mobilization in socially isolated areas; cheap, subsidized foodstuffs with poor nutritional content; labour-market competition for unpaid community agricultural labour, etc.) to instilling broader community food security remain.

-Both international donor funding and national government priorities tend to focus on large-scale industrial agricultural practices. However effective macro-industrial agriculture may be in providing basic carbohydrate requirements, it does not meet the needs of varied and healthy diets based on fresh and locally available food. As a result, community practices which increase food security are ignored and neglected in policy decision-making practices.

Lessons/Key messages

Food security/sovereignty is not a new or externally imposed concept: self-sustaining communities have been practicing techniques to ensure community food security for countless years. However, in the face of large-scale political and economic structural upheaval, traditional practices – which ensure food security – risk being lost when placed in a 'marketplace of ideas' where modernizing and capital-

technology intensive logic prevails. By supporting the adaptation of traditional knowledge and practices to contemporary life and linking disparate urban and rural generations, community integrity and food security can be bolstered, and greater community resilience encouraged.

Martesana consortium of local authorities, Metropolitan Milan area (Italy)

Proponent

ESTà – Economia e Sostenibilità

Main responsible entity

Martesana Consortium of Local Authorities of the Metropolitan Milan Area

- 12 municipalities in the peri-urban area of Milan, located along a historical artificial water channel called the Martesana, which collects the water from a natural river flowing to the centre of the city of Milan. The partnership with the Land Bank also involves CSOs, farmers, social cooperatives and universities, as well as independent research centres for policy design support.
- Cariplo Foundation: private, grant-making philanthropic foundation, with banking origins, that plays a fundamental role in supporting social, cultural, environmental and research activities in the Lombardy Region (Northern Italy), for sustainable development.

Date/Timeframe

2016-2017

Funding source

Cariplo Foundation and Local Authorities

Location

Italy, around Milan

Background/Context

The Martesana is a peri-urban area that was once characterized by big informatics and telecommunication companies, and multinational corporations that, following the onset of the economic crisis, closed down, which resulted in a profound depression in the local economy. In the wake of this crisis, some of the local authorities began to develop a process for sharing a common vision of the future and a new activism for defining novel institutional competences.

Focus/Objectives

The creation of a new stewardship for land planning and management as a way of combining environmental supervision and rural job creation in a fragile social context.

Key characteristics of the experience/process

Learning to manage issues of land tenure in a fragmented peri-urban context from the point of view of agro-ecology and land ownership.

Key actors involved and their roles

- Local authorities, as decision-maker institutions for land-use planning, and as owners of several tracts of agricultural land.

- Farmers' cooperatives as producers/actors interested in novel and innovative opportunities for strengthening their individual capacities.
- Grassroots organizations of civil society, as consumers/actors engaged in local food systems.
- Young people, eager to become farmers, but who are not landowners, interested in starting up and implementing their entrepreneurial ideas.
- Academics and independent research centres for the analysis and interpretation of land policies as part of the food system.

Key changes observed with regards to food security and nutrition and sustainable agriculture and food systems

- Local authorities are now making public lands available to support the creation of new jobs connected to the local food system.
- The creation of an innovative local school for agriculturalists with entrepreneurial skills, able to manage the land and soil using an agro-ecological approach.

Challenges faced

Land tenure, urbanization and rural transformation with an agro-ecological optic, in the face of a high risk of biodiversity loss.

Lessons/Key messages

- Facilitation activities for establishing networks of communication among the different actors involved in the local food system.
- Role of financial actors in designing new policies of land tenure in a kind of “bank”.
- Establishing the connection between land planning and rural policies for land tenure.

II c. Sustainable food systems for healthy diets

42. A food system gathers all the elements (environment, people, inputs, processes, infrastructures, institutions, etc.) and activities that relate to the production, processing, distribution, preparation and consumption of food, and the outputs of these activities – including socio-economic and environmental outcomes. A sustainable food system is a food system that delivers food security and nutrition for all in such a way that the economic, social and environmental bases to generate food security and nutrition for future generations are not compromised²⁸.

43. It follows that food systems are complex, non-linear, multidimensional and heterogeneous networks of social, economic, institutional and environmental relations evolving over space and time. They are characterized and affected by webs of complex interactions - cutting across borders both within and between countries - and feedback loops, broad constellations of policies, as well as multi-scale power relations and the political economy. These features have strong consequences on the way policies should

²⁸ HLPE (2014) report “Food losses and waste in the context of sustainable food systems” <http://www.fao.org/3/a-i3901e.pdf>

be conceived, and on the way knowledge should be assembled and conveyed to inform them and policy action²⁹.

44. The dynamics of urbanization, increasing incomes and diversified income sources have profound effects on the food system and its sustainability by influencing the diets of all people irrespective of where they reside. Urban food consumption dominates not only in terms of its monetary value but also in how it shapes the food system and the supply chain both globally and locally.

45. Evidence suggests that the development of local supply chains can provide labour opportunities, especially in secondary cities or rural towns that connect primary producers with agro-industry and consumers in urban areas³⁰. This requires on the one hand consumers (both in rural and urban areas), who are able to make informed choices to demand healthy and affordable foods such as seasonal and organic fruits and vegetables, and locally processed foods (thereby providing a market for local food producers), and a food environment that offers a healthy and diverse range of products in both rural and urban areas.

46. More attention should be placed on policies that protect, strengthen and reorient local food systems in order to promote healthy and high quality diets for all. Specific approaches based on territorial and food system characteristics are needed to ensure access to foods that are affordable and convenient, while generating income and employment of small-scale food producers and suppliers – in particular youth and women – and making sustainable use of local biodiversity. This requires a combination of distribution channels. The retail and catering sectors, in particular informal, have a key role to play in facilitating access to healthy and sustainable diets. Street foods and markets are good entry points to promote safe and healthy foods and facilitate short food chains and consumer-producer partnerships.

47. Public catering and social services constitute privileged entry points to simultaneously promote behavioural change among consumers for sustainable and healthy diets, assist vulnerable households and population groups and to provide markets for local food producers and family agriculture. Municipalities and local governments are therefore in a unique position to develop policies that promote nutrition in the context of rural-urban migration and other dynamics.

48. The selection of experiences provided below offers a few insights into some innovative initiatives in support of healthy and sustainable diets, such as: public procurement of organic products for school canteens in Sao Paulo; promotion of indigenous food both as a contribution to the empowerment of indigenous peoples, and as a healthy and sustainable option in Peru; a campaign aimed at strengthening public food policy through greater investments in Andean crops, direct farmer purchasing and agro-ecology/organic production in Ecuador; a grass-root collective action in Montespertoli (province of Florence, Italy) to establish an effective collaboration between consumers and producers and revive traditional food systems based on local biodiversity; a health and child care initiative in Minnesota (USA) that brings together social and production dimensions.

²⁹ Cistulli et al (forthcoming (2017), Social Network Analysis for Territorial Assessment of Food Security and Nutrition Systems (FSNS): A Methodological Approach, FAO

³⁰ SOFA 2017 (forthcoming)

Key messages emerging from the case studies

Sustainable food systems and healthy diets can be fostered through:

- Media campaigns which promote eating fresh, agro-ecological foods by linking urban consumers and rural smallholders;
- Short food supply chains and participatory approaches which establish an effective collaboration between consumers and producers and revive traditional food systems based on local biodiversity;
- Promoting nutrition education and ensuring access to culturally acceptable local foods in child care centres;
- Public procurement that uses organic food in school canteens;
- Promoting indigenous foods/diets for improved health that provides the enabling context to produce indigenous foods, which contribute to mitigating climate change and enhancing resilience;
- Interventions that bring together social (health, child care) and production sectors.

Additional elements for policy consideration suggested by the Technical Task Team

Increasing attention to the need to:

- strengthen the role of small cities and rural towns as conduits for healthy and nutritious food;
- raise awareness and develop the capacity of local governments on nutrition-sensitive agriculture, involving all relevant actors at local, sub-national, regional and global levels;
- recognize the important role of civil society in protecting and increasing sustainability of local diets and food systems, and participation in policy processes;
- harmonize legal and regulatory frameworks in support of sustainable food systems, and healthy diets;
- promote the generation and management of practice-based evidence for sustainable food systems and diets, including local to local networking; and
- retrieve indigenous knowledge and practices as a contribution to local sustainable food systems and diets/preservation and promotion of local/indigenous food and food culture.

Organic school feeding, Sao Paulo (Brazil)

Main responsible entity

Coordinating Body of the Secretariat of Education of São Paulo (Brazil) for School Feeding

Date/Timeframe

To be determined

Funding source

National School Feeding Programme of Brazil

Location

City of São Paulo (Brazil)

Background/Context

Municipal Act No. 16 140/2015 establishes the inclusion of organic food in school feeding in São Paulo. This measure aims to guarantee the human right to healthy school feeding, and to contribute to the transformation of productive systems in rural areas, using institutional procurement as a stimulating tool.

Similarly, the new Strategic Master Plan of the city of São Paulo defines the composition of the land, offering the opportunity to increase food production in the town. In addition, São Paulo ratified the Milan Urban Food Policy Pact; among recommended actions the reorientation of school feeding programmes and other institutional procurements, in order to provide healthy, local, seasonal and sustainably produced food, is particularly highlighted (Milan, 2015) [i].

Focus/Objectives

To ensure compliance with this Act, giving preference to family farmers and creating favourable conditions that enable the consumption of healthy, local, seasonal and sustainably produced food by the entire municipal school system, by 2026.

Key characteristics of the experience/process

This policy is built on the institutional dialogue with the civil society and the executive and legislative branches, making it an innovative experience in terms of social participation.

To guarantee an effective implementation of the Act, a monitoring committee was established to control policy management and to ensure social participation at this stage of the process.

Currently, about 90 food items are consumed in the city of Sao Paulo. This includes 12 family farming products, such as organic rice. By 2017, it is expected that the city of Sao Paulo will allocate 3 percent of its budget (nearly US\$3 million) to the procurement of organic food products.

Key actors involved and their roles

The executive branch (Municipal Departments of Education, Health, Environment and Labour), the legislative branch (City council with multi-party representation) and the civil society represented by delegates of the main municipal councils involved in this topic.

Key changes leading to an improvement of food security and nutrition

Democratizing access to organic food in schools guarantees an improvement in the nutritional quality of

diets and promotes better health for farmers. On the other hand, organic agriculture provides several environmental services, such as the preservation of water sources and the establishment of protected areas. Another important contribution is the minimization of detrimental external impacts that do not affect the costs of conventional food products. Finally, organic agriculture contributes towards mitigating the impact of climate change, as it makes a rational and sustainable use of natural resources.

Challenges faced and how they were overcome

After facing major challenges of the Municipal Act 16 140/2015 – a noteworthy participative achievement – difficulties in various fields are currently being addressed. One example is the adapting of tender documents for family and organic agriculture, which requires modifying the procedures. Little by little, with the broad participation of civil society, substantial changes have been achieved: the necessary technical discussions have begun; pricing has been discussed reflecting the reality of family agriculture; and a network including other public bodies with similar policies has been coordinated for a beneficial exchange.

With respect to the changes in the food production process in the field, the preferential procurement of agro-ecological family agriculture acts as a major incentive for the agro-ecological transition. In our productive context, which is highly conventional, any divergent approach poses a challenge. To guide this process, the São Paulo Coordinating Body signed the protocol on good practices, developed by the body responsible for protecting the environment, and which is applicable to all city farmers.

Furthermore, with the aim of optimizing the utilization of local production, mechanisms to promote production design and meet large-scale procurement demand will be developed in cooperation with technical assistance and local agencies dealing in rural extension.

Another challenge is related to the diversity of the city's population. The strong presence of migrants, refugees and indigenous people requires developing a school feeding programme that respects the different food habits. Apart from the recommendations of the 2014 Food Guide for the Brazilian Population, educational gardens are still one of the solutions foreseen in food and nutritional education. From this optic, the participatory ownership of the production chain is both feasible, and capable of fostering a context of greater respect for food and adequate eating habits.

Lessons/key messages

The formulation of food and nutrition security policies needs to be a participatory process. Organic food can be made accessible to many people if it is included in public procurement programmes. Cities should promote organic production in rural and urban areas, and community gardens can be a suitable driver. Food and nutritional education is an essential part of this process, and its promotion is linked to the success of a process of this nature.

Finally, we would like to stress that Municipal Act No. 16 140/2015 is pioneer in regulating school feeding in Brazil, as it stipulates that 100 percent of school meals in Sao Paulo will be organically produced. The Act is also innovative as it outsources this challenge to foster a wider intersectoral discussion, enabling the opening of the executive branch and facilitating the approach between hitherto unrelated parties.

[A proposal for food based on indigenous products, Peru – CHIRAPAQ](#)

Main responsible entity

CHIRAPAQ, Centre for Indigenous Cultures of Peru

Date/Timeframe

The process covers the period 1999 -2017, which includes different stages.

Source of funding

Bread for the World

Location

Peru, Ayacucho department, urban fringe of the city of Huamanga and communities from the river basin of Pomatambo, mainly from the district of Vilcashuaman.

Background/Context

The proposal for food based on indigenous products began around 1986 in the city of Huamanga, Ayacucho, during the internal armed conflict that affected Peru from 1980 to 2000.

During this time, indigenous communities were displaced to the outskirts of the cities, including Huamanga in the Andes, and Lima, the capital city of Peru located on the coast. Displacement went hand in hand with poverty, discrimination and malnutrition, mainly affecting children and the elderly, leaving indigenous women responsible for sustainability in households.

Against this background, CHIRAPAQ began its proposal for food based on native products of proven nutritional value, but socially spurned because they were regarded as “Indian food”. The results were immediate, and led to recognition and research by several entities that witnessed a sustained emotional and physical recovery in both children and the elderly members of the indigenous population. This initiative diversified into different food education programmes to take advantage of the original local produce.

In 1999 a second phase was begun, which incorporated agricultural production based on indigenous knowledge of farming technologies, biodiversity, organic fertilizer and the recovery of indigenous flora and fauna. It is this second phase that is ongoing within the food sovereignty framework in the context of climate change and the cultivation of plants that are resistant to climate extremes.

Approach/Objectives

The approach is based on the right to food and identity, which recognizes land rights and awareness of the cultural, economic and social heritage of indigenous women for their economic empowerment and impact on many areas of decision-making.

Some of the objectives from the current proposal on food sovereignty include:

1. Recovering seed diversity and varieties.
2. Recovering, recording and using indigenous knowledge, especially agricultural technology for organic farming.
3. Strengthening family and communal farming.
4. Improving the use of soils in accordance with ancestral indigenous technologies.
5. Recovering native flora and fauna.
6. Having awareness of, strengthening and valuing the contribution of indigenous women in farming knowledge, the development of supplementary production activities etc.

Key characteristics of the experience/process

1. The foundation is based on community knowledge and experience, but this knowledge is often fragmented, and therefore the work consists in trying to recover it from different towns and articulate it as common knowledge.
2. The relationship is horizontal as it is not a case of “teaching” but of moving forward together.
3. Complementarity is maintained, in other words, the exchange between different areas, obtaining from some what is missing from others and vice versa.
4. We are not looking for self-sufficiency but instead autonomy, in other words the capability of developing one’s own capacities and making the proposal sustainable.
5. We are looking to preserve the greatest number of lands in the face of the advance of extractive industries, in particular mining, agro-industry and overexploitation with no land rotation due to the demand for native products for foreign markets.
6. Re-evaluation of indigenous products as food that is highly nutritious and capable of reversing malnutrition.
7. To view the geographical area as a unit, where each element forms part of a whole, which is why it is necessary to recover “indigenous geography” and the natural environment with native flora and fauna.
8. Incorporating new technologies that boost traditional knowledge and that do not undermine it.
9. Focusing on experience as a continuous process, for permanent improvement and research, where the impact of climate change in adjusting the seasons serves as a platform for identifying and experimenting with plant varieties that are better adapted to the changing climate conditions.

Key stakeholders involved and their roles

The communities, as an area of knowledge and production.

Indigenous women, as organizers of the family economy and custodians of knowledge in terms of diversity and seed selection.

The Yachaq (a Quechua term for a specialist or a savant with specific knowledge, understanding, or ability in the use of technologies) are responsible for managing and training members of the community in the construction of irrigation canals, building terraces, preparing fertilizer, developing natural insecticides, etc.

Authorities who are being brought into play to help support food processing initiatives by indigenous women, as well as to construct greenhouses and canopies for plants, are important, but this has still not been translated into concrete support.

The main changes observed that result in improved food security and nutrition

1. Higher yields from farmland, with a greater capacity for storage and food processing.
2. Increase in associated crops, such as maize with beans.
3. Greater diversity in food availability by using agricultural production on family gardens.
4. Incorporation of better nutrition practices, through nutritional education on how to ration food adequately in accordance with age.
5. Improvement in the height and weight of indigenous boys and girls. It was not possible to verify if this equated to improved school performance.
6. Identification of plant varieties called “food of the future”, because of their capacity to adapt to climate change and because they require less water for cultivation.

Challenges faced and how they were overcome

The challenges were constant and permanent. Given that this is a proposal that involves several communities and not a full programme coordinating regions or water basins, the need for money to purchase products necessitates the frequent use of chemical fertilizers. The situation is being remedied by national food fairs, where it is clear to see a greater demand for products that are organic and free from agrochemicals. Nevertheless, these markets and fairs are not held regularly and are not a reliable alternative for indigenous producers.

Another challenge is racism and discrimination, as people treat indigenous products, ways of life and production as something inferior with less value. In the case of food, industrial products benefit from greater prestige. Consequently, a major challenge is to build a domestic market for indigenous products and incorporate this food into state-run food support programmes for educational centres and social programmes.

An added challenge is the pressure on greater food production due to rapid and sustained urban growth, where demand for food is determined by taste and urban perspectives, resulting in the loss of several highly nutritious native products.

Lessons learned/key messages

1. The knowledge and the products exist, the only things required are support and prioritization policies for local, family and communal production.
2. Biodiversity is the best laboratory to respond to the challenge of climate change.
3. It is necessary to massively transform indigenous products in accordance with traditional indigenous practices.

250,000 Families! Mobilizing Responsible Consumption for Sustainability, Health and Equity in Ecuador

Proponents and main responsible entities

Colectivo Agroecológico and the Movimiento de Economía Social y Solidaria del Ecuador (MESSE)

Date/Timeframe

Open-ended, beginning October 2014

Funding source

Largely self-funded. In 2014-15, the AgroEcology Fund and the Swift Foundation financed a public encounter and communication strategy. Canada's International Development Research Centre is presently funding impact assessment.

Background/Context

The *Colectivo* influenced Ecuador's ground-breaking 2008 Constitution, stipulating policy transition from food security (basic caloric needs) to food sovereignty (food as democratic practice). Leaders drafted subsequent legislation, including bills for food sovereignty, agrobiodiversity/seeds, and responsible consumption. Nevertheless, five years on, it was observed that little family-level change has been achieved. In some ways, the food sovereignty agenda has lost ground.

The *Colectivo* concluded that industrialized food had become so influential in national politics that it was no longer realistic to expect government officials to represent the public interest, so in 2012 it decided to place responsibility for the transition in the people's hands, leading to the Que Rico Es! Campaign. In 2014, the *Colectivo* launched its 250,000 Families! Challenge (a sub-campaign, www.quericoes.org), which sought to involve a critical mass of 5 percent of Ecuador's entire population. The *Colectivo* estimated that the present-day combined food and drink investment of these families represented some USD 600 million/year. Participants invest at least 50 percent of their food expenses in "responsible consumption" (i.e. agro-ecological production, direct purchase and Andean crops), or USD 300 million/year.

The Campaign does not necessarily seek to 'educate' these 250,000 families on responsible consumption; rather it believes this untapped resource already exists. As a result, the Campaign is helping to identify and connect these families and inspiring them to share grounded, time-proven experiences, achieved through food fairs, gastronomic events, creative communications and sensorial workshops.

Two years following the start of this initiative, tens of thousands of families have joined. Once dependent on the politics of the state, an increasing number of families are now working together to eat well, healthily and locally - a growing example of responsible consumption and democratic food.

Focus/Objectives

This citizen-led initiative exploits existing positive experience, utilizing it for strengthening public food policy, in particular through greater investments in: Andean crops, direct farmer purchasing and agro-ecology/organic production. Participants strategically have linked up with policy activity in the Ministry of Health (to address concerns over overweight/obesity), the Sub-secretary of Cultural Heritage (promoting national cuisine), and the Ministry of Agriculture's initiative for direct-purchase markets.

Key characteristics of the experience/process

In order to become part of the challenge, participants ask two questions: What does "responsible consumption" mean for me? and How does my family (business or community) practise it? The Colectivo has organized networks of volunteer promoters who record responses to these questions and upload them into database. Different families have richly diverse, yet complementary experiences about what constitutes responsibility.

The campaign promotes eating fresh, agro-ecological food brought in from the countryside for sale in urban areas. Most of these foods are considered indigenous and therefore contribute towards strengthening local culture and social organization of both producers and consumers. Only smallholders, and their cooperatives are permitted to sell directly to the public, minimizing final costs to the consumer. These agro-ecological markets have quickly caught on nationwide; there are now more than 210 such markets in Ecuador. The population learns about the advantages of eating local produce thanks to the media campaign 250,000 Families – we eat healthy, delicious food from our land.

The campaign relies on mass media and the social media. Forty 8-minute radio programmes and two radio shows once a week (bringing in experts, farmers, chefs, and consumers; both geared toward linking rural and urban areas) are aired over the entire country, an online bulletin is posted periodically, many WhatsApp groups bring together food producers and consumers around food issues. For example, a new smallholder learned of the movement and now has found markets for his Andean product (amaranth, both beige and black) through Facebook and the WhatsApp group he is now part of.

Key actors involved and their roles

Volunteers from urban-based families (“consumers” or “people who eat”), university students and rural people’s organizations, with the support of CSOs and in coordination with selected state-supported programmes (MAGAP’s Direct Purchasing Department, the Sub-secretary of Cultural Heritage, and the Ministry of Health’s Nutrition Promotion Programme).

Key changes observed with regards to food security and nutrition and sustainable agriculture and food systems

Given the limited government interest in agro-ecology and family farming, the initiative seeks to recruit a critical mass of practitioners as a political force. So far, about 10 thousand families have enlisted – representing arguably USD 24 million/year. An IDRC-financed project is studying the impact-to-date of this activity.

Challenges faced

Despite pioneering food sovereignty legislation, little meaningful family-level change has taken place over the last decade. Modern food (estimated as representing USD 20 billion per year in Ecuador) had become so influential in public policy that it was no longer realistic to expect officials to represent the public interest. Families needed to take the responsibility to make change happen.

Lessons/Key messages

“People who eat” live in urban and rural sectors and are involved at multiple levels of education, science, industry and government. While consumers carry some of the responsibility for the ills of modern food, by “eating well” they can utilize food as a means of advancing “public goods”.

Montespertoli Ancient Grain Association, Florence (Italy)**Proponent**

University of Florence

Main responsible entity

Associazione Grani Antichi di Montespertoli

Date/Timeframe

2008-2017

Funding source

Grassroot collective action mostly self-financed by local actors and consumers; limited funds and a favourable public food procurement policy, provided by the Municipality of Montespertoli

Location

Tuscany - Italy - Southern Europe

Background/Context

Montespertoli is a rural settlement located some 30 kilometres from Florence (Italy), which, during the 1950s was considered the granary of Florence. Its bread-making tradition was very well known all over

central Tuscany. However, during the 1960s its importance began to decline with the migration from agriculture towards non-agricultural sectors, and from rural areas towards urban areas. In 2008, a local miller and a baker decided to differentiate the bread produced in Montespertoli by switching to the ancient wheat landraces that had made the local bread so well-known both in Florence and the surrounding areas until the mid-twentieth century. With the help of the University of Florence, they managed to involve a few farmers in cropping ancient varieties, and to enlist another baker. Long forgotten traditional techniques at every level of the production chain (cropping, milling and baking) were reintroduced, assuring the conservation of local agro-biodiversity and soil fertility as well as the production of healthy, high quality bread.

Ancient varieties of wheat require appropriate cultivation techniques. These varieties were cultivated over the first two decades of the twentieth century, when few, if any, chemical and mechanical inputs were available. They are taller than modern varieties, more prone to fungal infections, more variable in both genotype and phenotype and significantly less productive, at least from a purely quantitative point of view. As such, they can be considered a rather different crop from conventional, modern wheat – akin to an innovative minor crop. As with other innovative minor crops, ancient wheat varieties suffer from lack of codified technical knowledge, absence of market data, and uncertain economic perspectives.

Lack of codified knowledge is shared by the subsequent food chain actors: miller, baker, makers of pasta, and even consumers. To preserve all its nutritional characteristics wheat must be stone-ground, a practice since long abandoned. Furthermore, the bread must be made with sourdough and requires specific techniques and longer rising times due to the peculiar technological properties of the flour.

Focus/Objectives

The aim of the food chain is to produce high quality products at a fair price, both for the local community and for the nearby town of Florence, where bread and pasta are sold in selected outlets which assure a fair price policy. Healthy bread and pasta are also delivered to the local school canteen.

Key characteristics of the experience/process

In 2013, a non-profit association was created: the Ancient Grains of Montespertoli Association. The Association has the objective “to protect and help producers comply with the association guidelines and promote ancient grain products”. It also has a political role acting as a stakeholder between the chain and local government levels (mainly the Montespertoli municipality). Issuing specific technical guidelines for cultivation, milling, bread-making and pasta-making, the association regulates the behaviours of chain actors in order to maintain a high level of quality along the chain. This is the set of rules which governs the common values/resource.

In addition, the distribution of the added value generated by the chain is also negotiated within the association, which “makes sure that higher prices paid by consumers are transferred to the farmers”. Indeed, the Association board decided to fix the price of wheat at a level able to ensure that most of the costs incurred by farmers were covered. It appears that the arrangement has worked quite well so far in assuring fair prices to farmers. Lastly, the Association provides processors with a sticker that identifies their products as made from ancient grains of Montespertoli.

Key actors involved and their roles

The Montespertoli bread chain is based on the work of a relatively small number of actors. If we exclude

local consumers, there are no more than 30 actors, among whom 20 farmers, one miller, two bakers, two pastry-makers, one pasta-maker, the local municipality, an agronomist and a small group of researchers from the University of Florence. All of them joined the Association.

The leadership of the bread chain has been jointly exerted by the miller and one of the bakers, at least in the start-up phase. Acknowledgement is also due to the role played by researchers at the University of Florence, who provided the initial inspiration and technological knowledge necessary to switch to the ancient wheat varieties. Similarly, a key role was played by an agronomist who provided technical assistance to the farmers from the start of the initiative.

Key changes observed with regards to food security and nutrition and sustainable agriculture and food systems

The Montespertoli ancient wheat supply chain is a success story. Over 450 hectares are involved in the chain; more than 800 quintals of ancient grain are milled by the local miller and 600 quintals of bread baked by the two bakers of the chains. Quantities have been steadily rising since the beginning of the initiative and have soared in recent years.

Challenges faced

There are two types of concerns with respect to quality assurance: compliance with the technical guidelines and brand reputation. The former is perceived as less relevant because farmers know each other personally and reputation mechanisms operate within the social network. However, a form of participatory guarantee has been put in place. The system is associated with social processes, such as: sharing information, techniques and traditional knowledge, collective seed management and conservation, and socialized prices. Conversely, brand reputation is rather a sensitive issue as it concerns the behaviour of a few retailers outside the boundaries of the local community and of the local food chain. Brand reputation challenges arise when producers of Montespertoli contract with an outside retailer: they have to make sure that whenever and wherever the bread is sold, its distinctiveness and the values that underpin its production are safeguarded, and also that it is sold at a fair price.

Lessons/Key messages

This is a case of a successful grassroot collective action which has managed to revive an ancient tradition providing healthy and quality food to local communities and the neighbouring city. The group of chain actors have allotted themselves a set of simple and effective rules to set the price level, whereby the miller and bakers share the farmers' production risk, assuring the continuity and viability of the whole chain. In return, farmers have agreed to have their fields controlled by other members of the group in a sort of participatory guarantee scheme, and to adopt new farming techniques and practices. A high level of trust and reciprocity over time, as well as the autonomy to decide at least some of the rules, have provided the key ingredients for the successful management of a complex, high quality food chain.

Another key to the project's success was the strong tie with the local university which provided scientific advice, and characterized the nutritional properties of the food produced.

Farm to Head start initiative, Minnesota (USA)

Proponent

IATP (Institute for Agriculture and Trade Policy) through the CFS Civil Society Mechanism

Main responsible entity

Community Action Partnership of Ramsey and Washington Counties (CAPRW) in collaboration with:

IATP

HAFA (Hmong American Farmers Association)

Russ Davies Wholesale Processor

and with the support of:

- United States Department of Health and Human Services and Head Start centres in Minnesota
- Minnesota Department of Agriculture (MDA)
- Minnesota Department of Education (MDE)
- Institute for Agriculture and Trade Policy
- New Horizon Academy

Date/Timeframe

2013-2015

Funding Source

Federal funding

Background/Context

Head Start is a federally funded anti-poverty programme of the United States Department of Health and Human Services that provides comprehensive early childhood education, health, nutrition and parental involvement services to low-income children and their families.

The Farm to Head Start initiatives are a relatively new outgrowth of the more familiar “Farm to School” initiatives operating in kindergarten through grade 12 settings. They aim to ensure reliable markets for small-acreage farmers (who have previously relied primarily on farmers’ markets or direct-to-consumer sales), while providing fresh, healthy foods in Head Start childcare meals, and teaching children where that food comes from.

In 2013, the IATP initiated planning the next iteration of their Farm to Childcare model and were interested in adapting their Farm to Childcare model to include more a culturally responsive content, a stronger family engagement component and a strong focus on serving vulnerable children and families with more limited access to healthy local foods. Head Start’s expertise in these topics made the programme an ideal partner to learn from. Because of their previously established relationship with HAFA, a member-based non-profit organization committed to advancing the prosperity of Hmong American farmers and their families, the IATP was particularly interested in partnering with a Head Start programme that had a large population of Hmong children and families in their community. Coming from an immigrant community, many Hmong American farmers are not able to read and write in English and now rely on HAFA’s support to navigate complex systems they may not fully understand.

Focus/Objectives

Farm to Childcare initiatives have a dual purpose:

- To provide fresh, healthier food options to three- to five-year old children in the childcare centre, orient their taste preferences and build their farm and food knowledge;
- To provide a reliable market to small and mid-size farmer households, and in particular to smaller acreage farmers.

Key characteristics of the experience and stakeholders involved

CAPRW worked closely with HAFA, which supplied food to CAPRW and helped develop culturally responsive content for the curriculum; and with the IATP, which provided training and technical support and experience from implementing Farm to Childcare with the New Horizon Academy.

IATP's Farm to Childcare model and curriculum were adapted. HAFA provided infrastructure and equipment for farmers to wash and pack their produce and store it in a cold, climate-controlled environment until it is ready to be shipped, and coordinated multiple farmers to pool their crops and arrange for the produce to be cleaned and delivered to a processor to be chopped/sliced, etc., and then delivered to be cooked on schedule.

The initial planning for the pilot was the most time-intensive period. CAPRW integrated Farm to Head Start themes easily into their already scheduled staff training and family engagement events. Farm to Head Start curriculum activities – specific to a given local food – were highlighted in the classroom on Mondays and Tuesdays, and that same food (produced with HAFA assistance) was featured in children's meals on Wednesdays and Thursdays.

Incorporating culturally responsive recipes drawn from the cultural backgrounds of the Head Start children—including those from Hmong backgrounds—also helped instil a sense of pride about their communities' food culture. By the end of a two-week period, the children had taken part in at least eight exposures to that season's featured food. Recipes focused on simple menu preparations to make the food visible to the children, and to help keep the food preparation straightforward for cooking staff. Activities designed to teach young children about local foods and farming ranged from maths and science to art and sensory play.

Another major task in this pilot phase was to build the supply chain to connect HAFA's produce to CAPRW's catering company, CKC. A local processor, Russ Davis, introduced internal systems to support purchasing from local producers, and developed a tracking system to provide their customers with transparent information on which farms grew their produce. They also hired a food safety consultant able to do on-farm site visits and provide advice, and to assist local farmers in understanding institutional food safety protocols.

Challenges faced

The biggest challenge for HAFA was that of working within a food supply system that is scaled for much larger producers. It was initially difficult to find a processor willing to work with relatively small volumes.

CAPRW Head Start, CKC Catering and the Russ Davis Wholesale Processor indicated that it was challenging to partner with local farmers like HAFA as this was different from their usual way of doing business.

The project coordinators had to work outside the standard procurement and processing system that is set up for large-scale orders of processed foods. CKC does not usually receive the whole product directly from farmers, but rather from a processing company that does the chopping, peeling or cutting to turn whole foods into useable ingredients that can be measured out and used to prepare meals. In addition, the processor serves as third-party verification for the safety of the food, which lessens caterers' liability. Processing companies, too, are set up to handle large amounts of food and it was difficult to find one willing to take orders for the relatively small amount of product needed for the programme each week.

In organizations like the Minnesota Department of Agriculture (MDA) and the Minnesota Department of Education (MDE)—both of whom are very supportive of Farm to Head Start initiatives—there are bureaucratic constraints that prevent the agencies from working outside their own designated areas. This can be a problem for initiatives like Farm to Head Start, which span across multiple sectors.

Key changes observed/Lessons/Key messages

One of the most positive impacts of this Farm to Head Start initiative has been the development of a supply chain to work with small-acreage farmers and reduce the barriers to entry on their own terms, therefore paving the way for similar initiatives in the future. Flexibility is key to engaging with small farmers.

Making the transition from selling at farmers' markets to institutional markets has been challenging for small farmers. They had to go through additional food safety training, and shift their mind-set from harvesting whatever produce happens to be ripe, to planning ahead and planting crops to be ready for harvest at a specific time. These vulnerable farmers eventually transitioned from an uncertain market to one that they will be able to count on and plan around, ultimately creating a more stable overall economic situation for them.

Standard procedures and bureaucratic constraints from different institutions need to be revised and overcome to ensure effective inter-institutional and inter-sectoral collaboration. Joint programming is needed to help prevail over these obstacles. The alignment of values and commitment which has guided partner relationships has been essential to the success of the implementation of CAPRW's Farm to Head Start pilot initiative.

III. KNOWLEDGE GAPS AND AREAS FOR FURTHER RESEARCH

49. Much investment has already gone into advancing research in order to understand and document the profound transformations outlined in previous sections of this document. While progress has been made with regards to analysing a number of connections (for example, between urbanization and diet change and urban area expansion and loss of crop land), more investment in research is needed to further our understanding of the interplay between urbanization, rural transformations and food security. Specifically:

- The future vision for food systems within a context of changing rural-urban dynamics is not well understood. It is likely that food demand will be mostly driven and shaped by urban populations, though a significant share of production will remain rural. It is not known to what extent the changing dietary patterns and the demand for processed or fresh foods, will be able to mobilize rural areas and local agriculture, and what the ideal conditions are for this to occur;
- There is no agreement on the expected evolution of economy-wide structural transformation, although there is recognition that it will probably look very different from the classical model of today's agricultural-based economies. The possibility that agriculture and downstream links of the food system will play a larger role in employment generation as today's low-income countries develop, is a topic that requires additional evidence;
- There is a need to frame the emerging and critical issues related to youth employment, inter or intra-national migration, women's participation in the labour force, and the sustainable use of natural resources and ecosystem services within the wider context of the social and economic transformations taking place across spaces and territories, in developing as well as in developed countries.

50. Further research is also needed to assess:

- the impact of agricultural and trade policies on both urban and rural food consumption and local agricultural production;
- the role of small cities and rural towns in linking producers to wider markets, and in providing local opportunities for income diversification; and
- the impacts of urbanization and rural transformation on lower income groups (smallholders, landless, net food buyers, informal sector traders, low-income urban consumers).

IV. POLICY IMPLICATIONS

51. Based on the analysis of the experiences illustrated in the matrix below (page 53) and the analysis of the key messages presented under each of the three thematic areas, seven categories of policy implications can be identified to guide CFS discussions, as well as to facilitate linkages to both existing policy tools /recommendations and ongoing CFS workstreams.

52. While the categories identified are not new ‘per se’, the range of issues and dimensions they cover are intended as providing a rural-urban linkages lens into the design/adjustment of food and agriculture related policies/investments that meet the needs of people across the rural-urban continuum.

1) Integrated approaches

53. A strong theme emerging from the review of the experiences relates to the need for policies and research that address inter-sectoral linkages, to analyse interacting systems and the implications for rural and urban areas. Considering the greater dynamism, connectivity and interdependencies across rural and urban areas, in particular among the related agri-food sectors but also in the growing non-farm sectors, this need is arguably greater than ever before.

54. There is substantial experience to support the adaptation of integrated approaches to respond to the challenges brought about by changing rural-urban dynamics. With the agreement on the Sustainable Development Goals (SDGs)³¹ (particularly 1, 2, 11 and 10), and the 2030 Agenda, the Second International Conference on Nutrition³², the signing of the Milan Urban Food Pact³³, the New Urban Agenda³⁴, the proclamation of the UN New Decade of Action on Nutrition³⁵ – and the lessons learned from ongoing work related to urban-rural linkages, ‘city-region food systems’ and territorial approaches³⁶ – there is an evident need for integrated approaches which address the specific food security and nutrition challenges and opportunities arising from urbanization and rural transformation. These processes require strong, inclusive governance, bringing together different sectors and relevant stakeholders, and the integration of actors in local, national and international levels. The former processes are referred to as horizontal policy integration, while the latter are described as vertical.

See for example: Medellin, Vancouver, Quito, Peru, Toronto

2) Institutions and capacity development

55. The majority of the experiences reviewed included a strong element of capacity development. While decentralization processes are occurring in many countries, institutional capacity at local level is still limited in most places.

56. Institutions operating in rural and urban areas will have to learn to act together across sectors and institutional backgrounds. They will need to work in close collaboration with other institutional levels in

³¹ [Sustainable Development Goals](#)

³² [Second International Conference on Nutrition](#)

³³ [Milan Urban Food Policy Pact](#)

³⁴ [UN Habitat III Zero Draft of the New Urban Agenda 18 June 2016](#)

³⁵ <https://www.unscn.org/en/topics/un-decade-of-action-on-nutrition>

³⁶ As a result of the growing awareness of the need to address rural-urban linkages in a more integrated and holistic way, there are a number of initiatives which are covering this topic in different ways. Examples include:

- **FAO’s Food for the Cities Program**, www.fao.org/fcit/fcit-home/en/
- **City-region food system Collaborative Platform**, www.cityregionfoodsystems.org
- **IIED’s Reframing the debate on urbanizations, rural transformation and food security**, <http://pubs.iied.org/17281IIED.html>
- **International Panel of Experts on Sustainable Food Systems (IPES) Workstream on ‘The Role of Cities in Building Sustainable Food Systems’**; <http://www.ipes-food.org/reports>
- **IFAD’s work on territorial approaches**, rural-urban linkages and inclusive rural transformation, <https://www.ifad.org/pub/thematic>

similar contexts. Capacity development and knowledge management of local practices will therefore be essential. There are implications for procedures, regulations and legislation – often evolving from globally and centrally driven sectoral processes – that may need to be reviewed and harmonized. Institutional capacity for vertical integration will also be needed.

See for example: Nairobi, UN Habitat, Lusaka

3) Nutrition education and consumer awareness

57. Nutrition education and consumer awareness stands out as a recurrent theme across many of the experiences reviewed, both in developed and developing countries. The role of consumers in shaping demand and therefore evolving food systems - including urban-rural linkages - has been underestimated to date. Whether or not they are vulnerable, they are the first to be affected by unhealthy diets and lifestyles, and must be able to make informed decisions. Raising awareness of the relevant institutions on their possible role in protecting and improving food security and nutrition – and in particular on nutrition-sensitive food and agriculture - of both rural and urban population groups (leaving no one behind) is equally important.

4) Inclusion

58. The vast majority of the experiences reviewed also showed a sharp focus on economic and social equity issues. While increased commercial opportunities in farm and non-farm sectors, public and private investment in agri-food sectors, more exacting quality standards and increased consumer awareness all translate into new opportunities for rural and urban people, not all will be in a position to benefit.

59. Marginalized individuals and groups, individuals lacking necessary skills and capacities, and those working in poorly connected, degraded and/or informal settlements in rural and urban areas risk being further excluded from the potential gains associated with rural transformation and urbanization. In particular, vulnerable individuals in rural and urban areas often include individuals employed in informal sectors, newly established settlers (including refugees and displaced people), landless or land-scarce households, female-headed households, youth and children, the elderly, the disabled, and the sick, and low income and resource-poor households. Each of these individuals/groups are made more vulnerable by crises which include natural disasters, civil unrest, and the outbreak of disease.

60. From a policy perspective, identifying vulnerabilities of groups and individuals, understanding how they differ in rural and urban areas and how they are likely to evolve in the context of ever-changing rural-urban dynamics, is essential to designing policies to address their needs (SDG 10). It is also fundamental to include these populations in the policy-making processes, and in the design on implementation strategies at local, national, regional and international levels.

See for example: Slovenia, Bishkek, Argentina (Pro Huerta and “the market in your Neighbourhood”), Bogota colectivo SALSA, Kenya Home Grown School feeding, Minnesota Farm to Headstart initiative, Peru indigenous food

5) Innovation

61. One of the recurring traits of the experiences reviewed is the element of innovation. Innovation encompasses technological changes, including information and communications technology (ICT), as well as social innovation.

62. In a context of rural transformation and urbanization, these innovations will be key in promoting connectivity, mutually beneficial information flows and in providing rural and urban people with opportunities to leverage emerging economic, political and social spaces to advance their livelihoods. From a policy perspective it is important to promote interventions in support of bottom-up social innovations that are based on the capacity of local communities to share knowledge, value local entrepreneurship, and develop social networks and social capital – all of which will in turn help those communities to develop new knowledge, and ideas and projects that are culturally acceptable, environmentally sustainable and technically feasible.

See for example: Slovenia, Bishkek, Santiago ICT platform, Bangladesh-Nepal, Tuscany 100,000 gardens, Tuscany Parco Agricolo Fluviale, Milan Martesana consortium,

6) Infrastructure/Investments

63. One of the gaps emerging from the review of the experiences relates to the absence of an investment component. Most experiences highlight insufficient/unpredictable funding as a major constraint. Investments in infrastructure targeted to local needs bring among the highest returns to development and poverty reduction and contribute to employment creation both in and out of agriculture. From a policy perspective, infrastructure is a high priority in support of positive rural-urban linkages. However, this should not be limited to connecting rural areas to large urban centres but should also be extended to supporting small cities and rural towns which will play an important role in the future (both in demographic and economic terms) development of their rural regions.

Cross-cutting



7) Information

64. Another gap emerging from the review of the experiences relates to the need for rigorous evaluations to understand the impacts of the interventions presented in this document. Information and decision support systems are needed to tailor inclusive policy interventions.

65. Unfortunately, many countries lack localized data and information; others have the information but it is not organized in such a way as to support spatial analysis of food systems in all its components. Furthermore, the lack of disaggregated and localized (fine-scale) data and the growing mobility of people between/within rural-urban areas makes it difficult to identify and target interventions to the most vulnerable. Existing analytical tools and methodologies are often ad hoc, and there is a need to develop indicators for rural-urban food systems that are able to capture their multi-dimensional nature, generate sound and comparable evidence on the various aspects (labour, flow of food, flow of services, use of natural resources), and diversity of food systems. The information generated should be shared widely among stakeholders, from citizens to policy-makers for a transparent decision-making. Lastly, it is important to develop standard and accepted analytical methods that will allow for cross-country comparisons.

Cross-cutting

Rural-urban linkages

Experience/ Policy approach	Health Nutrition	Environment Climate change	Resilience to risks and crises	Social and economic equity	Capacity development Consumer awareness Education	 Cross-cutting issues Thematic areas 
Medellin - FAO - "Good living Alliance"	X	X	X	X	X	Governance, food systems and territorial planning
Nairobi - Mazingira Institute, Training for sustainable, resilient cities	X	X	X	X	X	
Vancouver - Regional food system strategy	X	X		X	X	
Peru - IFAD - Territorial development		X	X	X		
Quito - FAO - Integrated territorial planning	X	X	X	X	X	
Toronto - FAO - Integrated food planning	X	X		X	X	
Bolivia - FAO - National Food production support company	X	X	X	X		
UN Habitat - Integrating rural-urban linkages into National Urban Policies					X	
Bishkek - Social innovation/inclusion	X	X	X	X	X	
Slovenia - Social innovation/inclusion				X	X	
Blangladesh Nepal (IIED) - Organic fertilizer value chains		X				Labour, flows of people, goods and services
(Global) Mercato Metropolitano	X	X			X	
Lusaka City Council - training for responsible waste management	X	X		X	X	
Argentina - ProHuerta programme	X	X	X	X	X	
China - National strategy	X		X	X		
Milan Martesana consortium		X	X	X		
Argentina - "The market in your neighbourhood" programme	X	X	X	X	X	
Santiago - FAO - ICT platform		X	X		X	
Tuscany - 100,000 gardens initiative	X	X	X		X	
Kenya - Home grown school feeding WFP	X		X	X	X	
Tuscany - Parco Agricolo Perifluviale		X		X	X	Sustainable food systems for healthy diets
Somalia - Informal dairy markets	X		X	X	X	
Rome - Multi-functional farms	X	X			X	
Sao Paulo - Organic school feeding	X	X		X	X	
Peru - Indigenous food	X	X	X	X	X	
Bogota - Colectivo SALSA initiative	X	X		X	X	
Ecuador - 250,000 families campaign	X	X		X	X	
Montespertoli Ancient Grains Association	X				X	
Ljubljana - Short value chains	X	X			X	
Italy - "Friendly countryside" initiative	X				X	
Minnesota - Farm to Head start initiative	X			X	X	

Addressing food security and nutrition

