



Sustainable urban and periurban food provision

Summary report

SUPURBFOOD 1st International Seminar 26-27 June 2013, Vigo, Spain

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September 2013

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Towards sustainable modes of urban and peri-urban food provisioning



supurbfood
Sustainable urban and periurban food provision

Vigo

June 26-27 2013

Agri-food dynamics in European city-regions and lessons from the South

The SUPURBFOOD project

SUPURBFOOD is the acronym for a research project entitled 'Towards sustainable modes of urban and peri-urban food provisioning'. It is financed by the European Commission's 7th Framework Programme for Research and Technological Development.

Consortium

The project started in October 2012 and will run for 36 months. The project brings together research teams and SMEs in the food and agriculture domain from 7 European countries (The Netherlands, Belgium, United Kingdom, Spain, Italy, Latvia and Switzerland) and the International Network of Resource Centres on Urban Agriculture and Food Security (RUAF), which focuses on food and agriculture issues in urban and peri-urban settings in Asia, Africa and Latin America.

City-regions involved

The European city-regions involved in the project are: City-region Rotterdam (The Netherlands), Metropolitan Area Rome (Italy), City-region Ghent (Belgium), Metropolitan Area Vigo (Spain), City-region Bristol (United Kingdom), City-region Zürich (Switzerland), Greater Riga Region (Latvia).

First International Seminar

In order to contribute to improving the agro-food system's ecological performance researchers, policymakers and SMEs from Europe and developing countries discussed the links between short food supply chains and other flows (e.g. nutrients, water, and urban waste) at the SUPURBFOOD First International Seminar held in Vigo, Spain. With attendance of over 60 people from 14 countries, a North-South dialogue has started on improving the agro-food system's ecological performance



Opening session First International Seminar in Vigo

This report on the dialogue, sharing of experiences, exchange of best practice and joint learning at the SUBURBFOOD First International Seminar aims to inspire participants and other interested readers to developing an integrated approach to urban and peri-urban food provision.

1. Introduction to the project



by Han Wiskerke, SUPURBFOOD coordinator

Background

The background of SUPURBFOOD is constituted by two interlinked processes:

1. The growth of the world population (from 7 billion now to 9 billion in 2050), which will mainly (or only) occur in cities and metropolitan areas (of the projected 9 billion people in 2050, approximately 75% are expected to live in an urban environment).
2. The many challenges involved in creating (a) sustainable, equitable and healthy food provisioning system(s) capable of feeding 9 billion people in 2050. These challenges are for instance food waste (33% of the food produced worldwide is wasted or lost), fresh water use (65% of all fresh water used is used for food production), fossil fuel dependency (7 – 10 calories of fossil fuel are required to produce 1 calorie of food energy), biodiversity loss

including agro-biodiversity, soil erosion, climate change, diet-related ill-health (1 billion people suffer from hunger and chronic malnutrition and 1 billion people are overweight or obese), and social, economic and spatial inequalities in food availability, access and affordability.

Improving sustainability

Given these two interlinked processes, SUPURBFOOD aims to improve the sustainability of agriculture and food delivery in city-regions in Europe as well as in the global South by developing, together with SMEs, innovative approaches to: a) short food supply chain delivery; b) water, nutrient and waste management and recycling; and c) multifunctional land use in city-regions.

Commencement of the project

The project has commenced with two parallel work packages (WPs) that have the following objectives:

1. To describe and analyse agri-food dynamics, policies and governance arrangements in different European city regions (WP2).
2. To enrich the knowledge base for the design of the case studies in European city-regions by documenting and analysing experiences gained in the global South with i) short food chain delivery, ii) water, nutrient and waste management and recycling and iii) multifunctional agriculture in urban and peri-urban areas (WP3).

Aims of the seminar

At this first international SUPURBFOOD seminar the provisional results of these two work packages have been presented and discussed

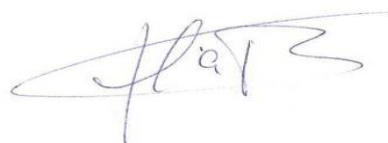
Thereby experiences and best practices have been exchanged about the three central themes – short food chain delivery, water and waste recycling, and multifunctional agriculture – of SUPURBFOOD. This exchange was intended to result in a better understanding of the strengths, weaknesses, opportunities and threats for these three themes and of the implications and challenges for SME practices and activities, policy-making and research.

This could then serve as input for the next phase of the project in which SMEs in collaboration with researchers will develop, implement and evaluate new techniques, strategies, arrangements and/or practices to improve a) the closing of nutrient, water and urban waste cycles in urban and peri-urban agriculture (WP4), b) short chain delivery of food in urban and peri-urban areas (WP5), and c) the multifunctional use of land in urban and peri-urban areas (WP6).

Last but not least, the international seminar was meant to enlarge the SUPURBFOOD network beyond the project consortium and beyond Europe, thereby creating the environment for dialogue and exchange between the researchers, entrepreneurs, policymakers and NGO and CSO representatives from the global North and South.

Continuation of the dialogue

To my experience the first international SUPURBFOOD has been able to meet all of its objectives, something we could not have done without the constructive, enthusiastic and open contribution of the many participants. I sincerely hope that this seminar report, which can only partially reflect the seminar contributions, provides a good representation of the seminar to the participant and a source of inspiration for those that were not present but are interested in the project or its themes.



Han Wiskerke, SUPURBFOOD coordinator



2. Governance and dynamics in European city-regions

by Matt Reed (CCRI, coordinator WP2)

In order to contribute to improving the agro-food system's ecological performance the research project aims at establishing links between short food supply chains and other flows (e.g. nutrients, water, and urban waste).

Common Themes

In the first phase of the research project in case study research European dynamics have been explored regarding the three thematic areas multi-functional land use, nutrient recycling and the shortening of food chains. In the different city-regions active citizens generate 'politics' that can be understood as a way how we organize our lives. In successful city-regions, local and regional governance agencies then react and create support for these grassroots initiatives in terms of politics on regional food provision. However, food remains with a low profile in politics at this level.

Comparison for the three themes on communalities, blockages, opportunities, priorities and best practices shows cities seem to do some things relatively well, but other things less so. E.g. Rome is relatively good for local food compared to Bristol, but Bristol recycles a much higher percentage of waste food than Rome. Although in all case studies citizens are drivers for getting food as political issue at the local agenda political



support at the municipality and regional levels would considerably increase its impact.

Europe's diversity

Reporting on the interviews, the documentary review, social media analysis and stakeholder workshops organised in the seven city-regions enables us to better understanding the dynamics of governance on food issues. The European city-regions are diverse in terms of landscapes and climates, governance styles and histories and each is characterised by local specifics that are hard to ignore.

"If you here speaking about globalisation it is often about making the world as one. Sometimes we see modern societies as homogenous, as uniform. If you look at the diversity of geography, where everybody is, you see some people are on the coast, some people are in industrial zones, some people are in the North, others in the mountains. That has an enormous bearing upon what we are talking about."

There are very different governance styles and histories of people's relationships with the state. There are sometimes things that are very specific and very local and hard to translate to other situations. There are differences in the importance of agriculture, how agriculture is viewed and the importance it is given.

There are differences in how people do shopping, and also difference in the flows of globalisation. Reporting back on the city reports one could say that the current economic and political crisis impacts on the dynamics in the different city-regions.

Multi-functional land use

Although the multifunctional land use is highly diverse issue the availability of land for urban agriculture is a common theme. Urban agriculture is always competing with other land uses, and it is not always winning.

In some cities there is still pressure to build and land is taken to put up office buildings and build shopping malls; in other places it is what do we do with the shopping malls that nobody wants.

"Shopping is not about just going out for getting food for yourself and your family; it is also seen as a civic act. It is seen as taking part, and that your ethical choices, the choices of what you do, is really important. Shopping really is an important common theme. I would suggest that many policymakers struggle with that. That is to say, the choices of you consumption, where you go, how you do it, is actually a significant civic act. And our political systems find that very hard to register."

Food becomes a very difficult theme to integrate into land use planning because it cuts across so many different things. Common themes in this thematic area are the availability of land, the integration of commercial farming, the complexity of regulations, development pressures and the difficulty of integrating food as a theme.

Nutrient recycling

Nutrient recycling people talked about least. Is getting into short food chains more appealing then getting into the business of composting and what happens to all the waste. Generally, people have



taken a very technocratic approach. It is about civil engineering, machinery, the physical infrastructure of the city. There are lots of examples of energy capturing, composting. Markets are heavily regulated. Often city councils are dealing with large organisations. There is a lot of use of technological solutions and little civic participation.

“The only criticism that people raised about these big technological solutions of trucks taking waste, composting bins and energy being generated was that it relied upon people still being wasteful. You can’t feed those big anaerobe digesters at the edge of cities if less people keep throwing stuff away; a kind of built in wastefulness.”

In many cities the question of energy from composting or nutrient recycling just is not an issue. If it is governance in this thematic area is characterized by a technocratic approach, energy capture and composting, regulated markets, technological solutions, and the continuation of the production of waste in society almost seems to become business interest ‘on its own’.

“The EU waste regulations in many of the city-regions are what make people do this. It is one of those examples where an EU directive had an effect all the way across Europe. Now we can be critical on that EU directive, we can see it as very simplistic; all sort of things we can say about it, but it certainly had a massive role in creating the situation.”

Hence, nutrient recycling in most city-regions becomes counterproductive from the point of view of interrelating nutrient, water and waste management and urban and peri-urban food provisioning.

Shortening food chains

Common themes further are how we get people together and is meant by sustainability. Is local always sustainable; should it be organic? Should we have some sort of a certification scheme, what technology should we use? A lot of often quiet minor details were discussed as important in this discussion on sustainability.

However, the flip side of that is an enormous amount of imagination and energy. People are really working hard, poring their hearts and souls into this and trying to find answers.

In general local tends to be seen as be good. And that tends not to be questioned; however, it depends on the context.

“In some of the smaller nations local just means produced in that nation. In some of the bigger nations that is more complex problem. As I always say to people I live closer to France than to I do to Scotland. So where should my food come from?”

People wanting to produce, people wanting to consume, how do we get these people to know one another, get their food in the right place at the right time?

Some of these examples are things like public canteens of how local production could be created around the elderly and children.

Accelerators

A huge theme is the role of activists. Activists remain a little bit less well understood. They are very important in the stories that are coming out from the city-regions. There is an awful lot of voluntary engagement: people giving up their time. Now some of that is because we are faced with the situation where people don't have a lot of work but also that people are motivated to actually give their time to this course.

"Some of the folks involved in these networks know an awful lot about their city, about their region, about the flows of food, the government structure. They are real, proper experts, who kind-of appointed themselves and educated themselves."

People are trying to talk about the message of social, environmental and local economic, all at the same time, which is quite a challenge. One of the

impressive things about these activists is the development of knowledge.

Opportunities and blockages

Next to box schemes, direct sales by farmers, care and therapeutic farms, buying groups with people organising themselves in different ways like social media or neighbourhood groups a lot of self provisioning is appearing.

- People are tending their allotments; they are returning to their home village, they have informal connections to farmers. People are gaining food not through the roots of the markets that we would typically expect.
- That is partly response to the economic crisis, you can see that very clearly in some of the reports, but also is a revival of older traditions, of different ways of which food arrives on our table.
- Another common factor is the pretty complicated level of governance. Talking not solely on the formal way of organising our lives but how that actually works in practice, what happens on the ground, is really complicated.
- EU procurement directives e.g. are brought up in some reports as blockages and in other reports as opportunities. Different regions and different areas had different levels of success.
- These complexities of the national, regional and local in terms of land use are enormously complicated and often very contentious.



“It comes down how the state is done. You may have a local administration but how the people in charge of that administration do this becomes really important. From the city reports we have some examples where people enforced the rules to the letter and in other places people interpret the rules. And a lot happens between those two things.”

Local politically parties, national political parties don't seem to think this is a big issue. Quick wins are little models, little examples of things that have happened and happen in the city-regions and would be transformative if they would happen in another city-region.

Thereby quick might implicate a lot of hard work: you have to attend your allotment in an organic way, vegetarian's days in canteens, the edible city (people planting fruit trees in cities that people then forage from), the lonely corner shop (Rome); the local shop in many city-regions has disappeared but it can be the actual bedrock of a sustainable food system. Further, there is the importance of public kitchens.

Things missing

Who is include and how is not included in these projects? The evidence based for making these arguments: where is the evidence for the local being good? In those discussions there is an assertion that local is good, and as we saw earlier, local is a bit ill-defined, so that becomes problematic.

“What the state aims to do, is prepared to do, and is able to do is changing all of the time. So the role we can expect local government to play maybe is disappearing. Local governments face a series of cuts. Sometimes it seems the state is interested in the activists that I have talked about because it allows them to continue services that they otherwise would cut. But sometimes it is a changing philosophy of the state and that is something we across the city-regions should discuss.”

Some of the markets are governed by regulations; some of these markets are regulated by ethics, and reciprocity, of sharing. And some of these markets are all mixed up together, and that makes it very complicated to talk about markets, and sometimes it makes it very complicated to talk about SMEs because the SMEs exist in markets that are not quite the same. So there are very few examples of SMEs directly competing with multiple the retailers. There are examples of people using aspects of multiple retailers for aims that we wouldn't necessarily associate with multiple retailers.

Necessity of change

People are anxious to change but you hear a lot of climate change and we lack resources (e.g. run out of water, phosphorus) and people are going hungry, also in Europe. The vulnerability people have to food and food security; that they are actually not far away from going hungry quite often is a really alarming problem. That is another thing

that is informing this necessity of change. If we look for accelerators we can look at things like the EU waste directive that actually has had that transformative effect in so many areas of nutrient recycling. Again, it sometimes can be very simple and simplistic but it has made huge changes.

“The EU directives do have a really important role. That may be contradictory because a lot of what we talked about is local action and the importance of the local, and then I immediately point to something that is transnational. But that is one of the interesting things that falls out when you read these reports. The other thing that is very important that I have noticed is that there is an energy from these activists, there is a dialogue that isn’t reaching the political elite.”

That isn’t being picked up by national discussions; it doesn’t seem to be reflected in party political programs.

“It seemed to me that many of the political elite are very interested in the engineering solutions.”

Policy adaptation

The other thing is how different city-regions have managed and negotiated their way through EU procurement regimes. Where they have been successful that has been

transformative. So when you read the report from Rome, they are in a position that many of the other city-regions would like to be in. Not that they are satisfied: they want more, they want different, they want to improve it. But they are in a different position because they have been able to negotiate their way through some of the EU directives.

Further there was an interesting point of distinction made in Rotterdam between metropolitan agriculture by which we mean the engineering of buildings, bioreactors, the vertical farms, all of those kind of engineering solutions, and urban agriculture, which is linking farms of the edge of cities or further out, or farming actually in cities. Communication, networking, linking up to political elites and local political parties is really important to this.

How the public, private and civic interact is a crucial question and is further explored and discussed during the seminar.



3. Lessons from the South

by Marielle Dubbelling and Henk Renting (RUAF, coordinator WP3)

Urban and Peri-urban Agriculture (UPA) and related urban food policies in many respects are more developed in the Global South than in Europe. In order to provide input for the design of the studies in the European city regions and enhance future North-South collaboration, past and on-going initiatives in cities in developing countries have been reviewed. Best practice cases (and failures to learn from) for the three thematic areas nutrient recycling, multi-functional land use and the shortening of food chains indicate similarities and differences and generates lessons for policy makers, SMEs and researchers.

I. What is UPA?

Agricultural production of crops, livestock, fish, trees, etc. in urban and peri-urban areas for food (such as vegetables, milk, eggs, poultry and pig meat.) and for other uses like flowers, herbs, fodder, agro-tourism, urban greening, water storage.

Besides the agricultural production, also related input supply, transport, processing, marketing and support services are included. These are obviously closely intertwined with the urban system and city region through the use of urban resources, influenced by urban laws and market forces, selling produce and services to urban consumers.

For each thematic area 20 to 30 cases were collected, which was followed by an in-depth study of 8 to 10 cases. From here lessons can be drawn on e.g. successful policies and approaches, important facilitating and hampering factors, adequate institutional models and successful business models and financing modalities.

Role of UPA in food provisioning

UPA and short food chains – often linked to waste recycling and multi-functionality of agriculture – are increasingly seen as a key to sustainable, resilient urban development by local governments in the South. This is illustrated by many cases, such as Rosario (Argentina), Lima (Peru), Belo Horizonte (Brazil), Kesbawa (Sri Lanka), Antananarivo (Madagascar), Casablanca (Morocco) and Bogota (Colombia).

This development is also expressed by the 2013 Mayors Declaration at the ICLEI Resilient Cities Congress in Bonn (2 June 2013), see also www.worldmayorscouncil.org:

“We call on local governments to develop and implement a holistic approach for developing city-region food systems that ensure food security, contribute to poverty eradication, protect and enhance local biodiversity and that are integrated in development plans that strengthen urban resilience and adaptation.”

II. Belo Horizonte – policy integration

In Belo Horizonte (Brazil) a municipal UPA and Food Security programme has been set up, where a range of policy domains and aims (food security, poverty reduction, climate change) are integrated and cover production, distribution and consumption aspects of the city region's food system. Furthermore, Belo Horizonte has a programme to promote organic (peri-) urban horticulture by the urban poor; this includes technical assistance, credit, certification, farmers' markets, support to cooperative food processing enterprises and preferential food procurement from local producers by city government.

Want to learn more about this case? www.ruaf.org

Although it might seem as a new development, the attention UPA receives is logical when looking at the role UPA plays (and has been playing for decades) at household and city level. About 15-20% of the world's food is produced in urban areas; for perishable products this may rise to 60% or more. In the south, UPA is practiced for various reasons, with diverse benefits at household level:

1. Income generation: the cash savings are used for buying staple foods;
2. Dietary improvement: more fresh vegetables and diversified diets;
3. Personal use. The amount poor urban households produce (for) themselves differs widely between areas; e.g. East Jakarta 18 %, Kampala 50 %, Harare 60 %. However,

producing households are more resistant to economic crisis and increases in food prices than non-producing households. This favours the further development of food production at household level in cities.

Benefits of UPA at city-level

At city level there are various other benefits and effects of UPA identified in contrasting cities:

- Productive and safe reuse of urban wastewater enabling year round food production close to consumers and reducing pressure on fresh water resources;
- Reduction of impact of floods and landslides by keeping flood plains free from construction, thereby facilitating water filtration and storage, and reducing erosion;
- Reduction of energy consumption related to urban food consumption: less transport, less cooled storage, less packaging;
- Reuse of nutrients in waste, resulting in reduced energy demand for collection and disposal of waste;
- Management of green infrastructures at lower cost and more efficient compared to open green space;
- Providing leisure and education opportunities.

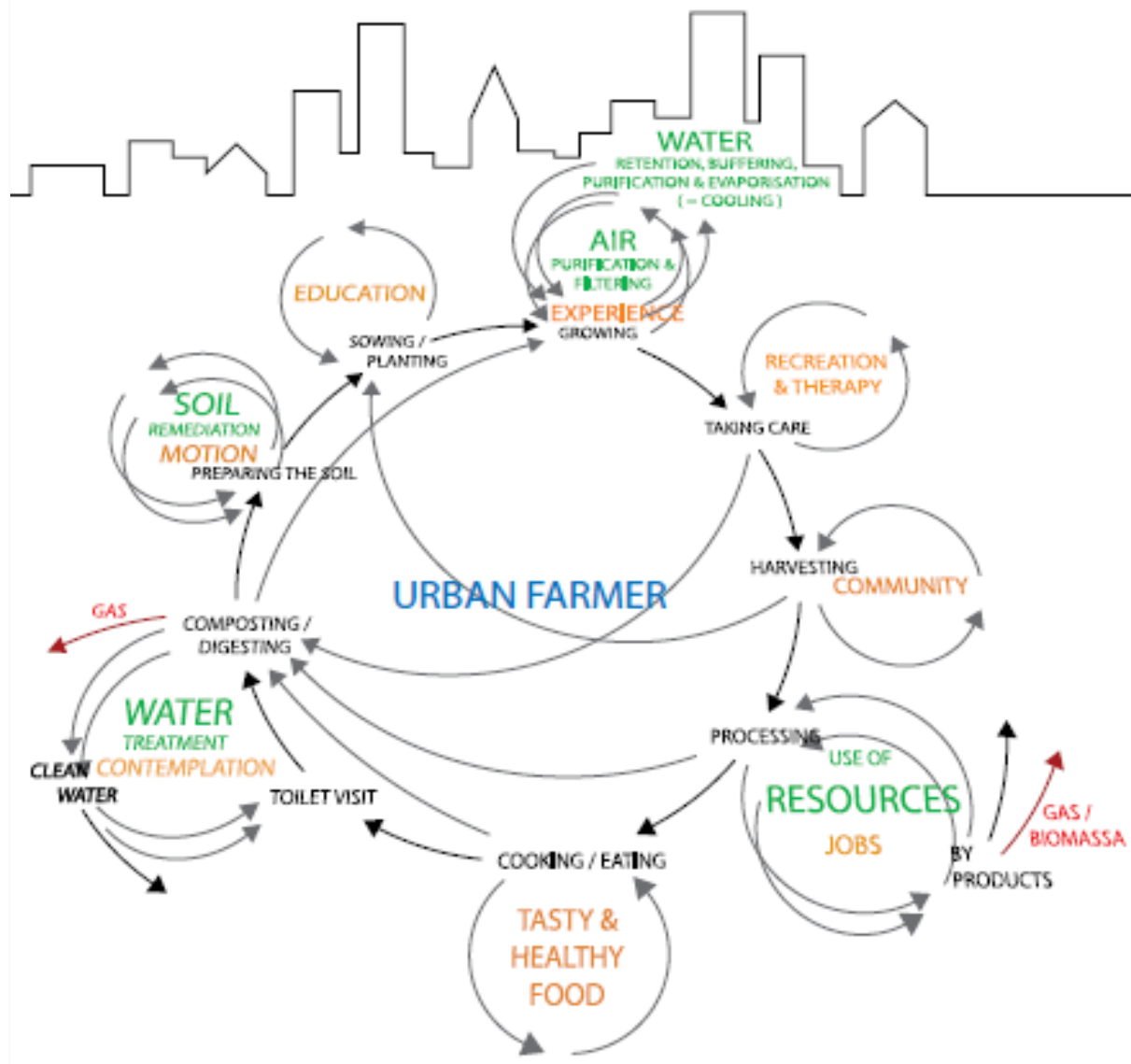


Figure 1: (Re-)building linkages and networks within the city region food system. Source: P. de Graaf.

The interrelated effects of UPA are reflected in Figure 1 and illustrate the need for integrated policies as listed above and shown in the example of Belo Horizonte.

General lessons from case studies

Analysing the case studies from the South, there are a number of general lessons to be learnt. In general we can conclude:

1. Development of UPA and short chains involves the (re-)creation and strengthening of networks and linkages at city-region level, many of which were broken in earlier globalization and specialisation processes;
2. Relevant networks and linkages include: food producers and consumers relationships, (re-)localised processing and distribution systems, (food) waste recovery and reuse, productive activities and ecological sustenance mechanisms, and market & non-market functions;
3. UPA and short chains are driven by initiatives of market parties (incl. producers), government agencies and civil society. Generally, initiatives which build on a balanced and complementary mix of governance mechanisms (e.g. through public-private partnerships, multi-stake-

holder platforms and an increased role for SMEs) appear to be relatively successful and more resilient.



III. Developing Value Chains in Amman, Jordan

For the From Seed to Table (FSStT) project, an agricultural valley (Iraq el Amir) in Amman was selected, where farmers are organised in extended families. The women in these families take care of agriculture and daily household duties and seek to earn additional income through a local not-for-profit cooperative. An important achievement of the project has been the strengthening of farmers' and the association's capacities with respect to management, marketing and networking. The most significant step in the project was establishment of an urban producers' organisation (UPO) as a separate unit (with assigned and independent staff), within the women's cooperative. This UPO consists of one director, one treasurer, one secretary, and 42 members, all of whom are women. This unit manages the business, which consists of all operations related to the production and marketing of one selected type of produce together with the participating farmers. During the whole FSStT project, men played a limited role, and only participated in specific activities such as meetings, the UPFS, and contacts with potential buyers in some cases. There is now a better recognition of the role women can play in society: not only are they leading a business that men are engaging in, but they are gaining new information and support for their role in farming, which is an activity normally led by men when practiced beyond the household level.

Want to learn more about this case? www.ruaf.org

IV. Beijing – multifunctional recreational agriculture as sustainable development tool

Beijing metropolis has experienced rapid economic growth in recent years, resulting in extensive spatial expansion. This rapid urban growth has brought along some new challenges: a sharply increasing disparity between urban and rural incomes (now 3:1), a vast inflow of migrants (some 4 million at the moment), rapid loss of farmland, and a quick deterioration of the urban environment. To help cope with these problems and make the city more liveable and sustainable, the municipal government - in cooperation with other stakeholders - is actively promoting the development of multi-functional recreational agriculture in the peri-urban zones of Beijing. This is done by the following measures: (1) integration of multi-functional PUA into the long-term socio-economic strategic development and land use planning of Beijing; (2) Implementation of a comprehensive programme for the development of PUA and earmarking of a substantial part of the municipal budget for investments in the peri-urban region; (3) establishment of the Beijing Recreational Agriculture Association, which assists entrepreneurs and urban producers in creating agro-tourism facilities, develops guidelines and standards for agro-tourism parks and gardens and monitors their application; and (4) organisation of urban agriculture festivals, exhibitions and certifications.

Want to learn more about this case? www.ruaf.org

In the next paragraphs theme-specific lessons are illustrated and enriched by short case study descriptions (text boxes). For more details consult the RUAF website and/or the SUPURBFOOD WP2 report (for a download see the project website).

Shortening Food Supply Chains

Short Food Supply chains (SFSCs) are a promising approach to generate socio-economic 'tissue' – cohesion, social capital and beneficial social networks and income streams supporting UPA.

They represent an institutional mechanism for building regionalised urban food systems. In early stages of the initiatives SFSCs are often crucial in developing markets for local and organic

food where these did not yet exist. Furthermore, they generate better price margins by excluding intermediaries or valorising distinctive product qualities (e.g. Amman; Rosario). Many SFSCs still mainly concern fresh foods (vegetables, fruits, eggs, and exceptionally dairy) and often focus on a few products. One of the main questions cities deal with is: How to expand this niche to an urban food retail system with more diversified product offer, including transformed, prepared, and conserved products?



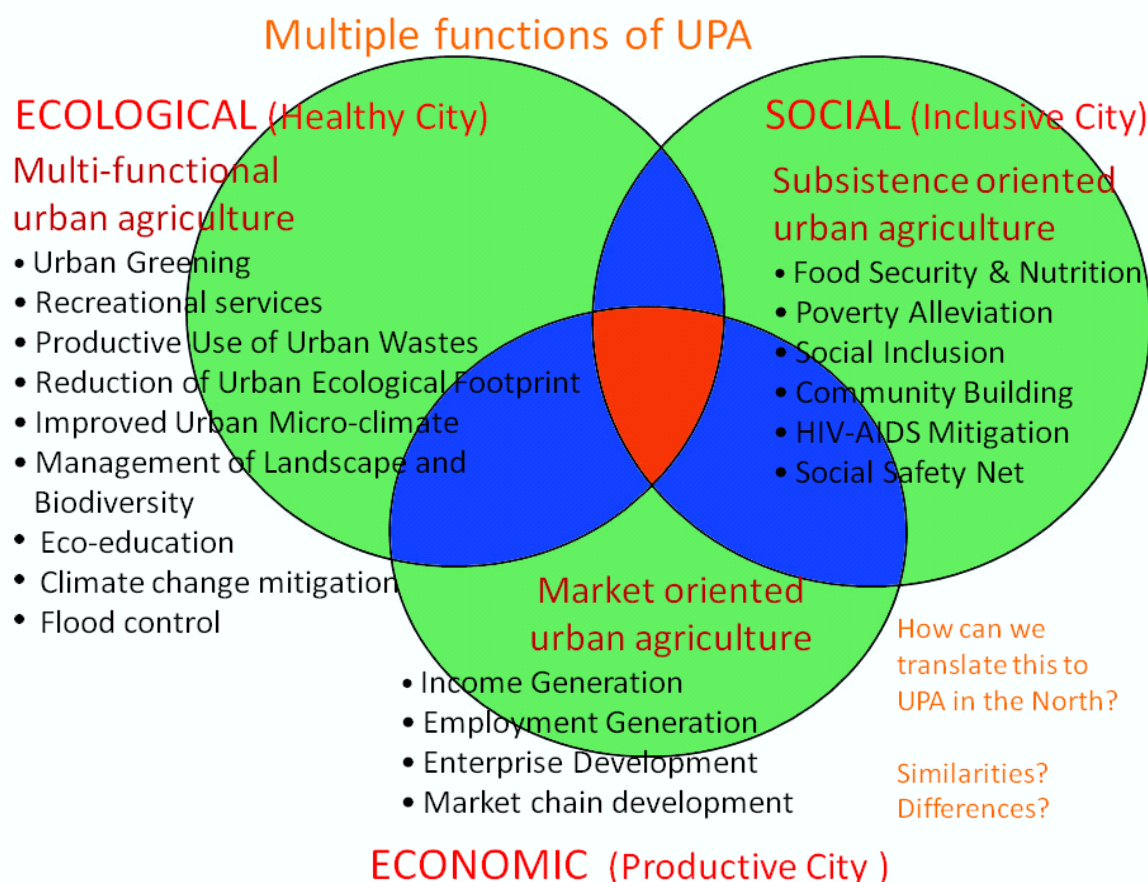


Figure 2: Multiple functions of UPA. Source: RUAF presentation Lessons from the South

In tackling this issue, logistical infrastructures (such as 'food hubs') are of key importance. Product aggregation that leads to a diversified 'basket', and synergies between different SFSC channels has proven to be a success factor in a number of cases (e.g. Rosario; Belo Horizonte; Jinghe, China). The cases have shown that there is a clear role for innovative SMEs with various organizational forms. These can be private initiatives but also social enterprises (e.g. Harvest of Hope, S-Africa) or government-led agro-industries or markets (e.g. Rosario).

Different types of enterprises and business models have been identified; from SMEs or

producer groups selling directly (Amman), to intermediary SMEs assisting farmers with marketing and training (Harvest of Hope), or rolling-out franchise concepts (e.g. Schaduf, Cairo), to mainly government-driven food delivery chains (Rosario; Belo Horizonte).

Despite the variety of models, each model is suited for specific cases and cannot be generally applied or copied to other cities. Evidence shows that the suitability of models depends on farmer types; e.g. low education or skills may require an intermediary (like Harvest of Hope), and food access for the poorest may require government support (like Rosario).

Related, business aims are clearly different per model ranging from revenue generation or profit maximisation, to social enterprises with wider objectives aimed at organization, cost recovery and income creation for beneficiaries.

Developing SFSC business models requires policy, financial and technical support for:

- Improving (market) infrastructure, capacity strengthening and extension (Rosario; Belo Horizonte; Cairo);
- Strengthening producer organisations and networking (Amman);
- Promoting value-chain development, direct producer-consumer marketing, food hubs (e.g. Bulawayo chicken, Zimbabwe);
- Increasing producers' access to financing, including taking the lead in and guaranteeing investments in processing and marketing facilities too risky for individual or collective initiatives of entrepreneurs (PROVE, Brasília, Brazil; Harvest of Hope; Cairo).

Multi-functional land use

In the cases researched, there is a wide range of combinations of UPA with social functions (such as employment creation, integration, care, leisure, education) and ecological functions (such as green space management, flood control, water management, climate change mitigation), see figure 2.

Specific functions within these general categories depend on the contextual setting and the nature of the UPA initiative.

In general, we see that multiple functions of UPA are both an outcome and a resource for development of UPA. However, the exact interaction and mutual reinforcement between the multiple functions and UPA is still a blurred area due to complications like the fact we are dealing with public goods, incomplete markets and information asymmetry. Therefore, one of the issues that needs further development in the course of this project is to better understand how multi-functionality of UPA interacts with socio-economic development and value chain creation.

A first step in triggering the creation of business opportunities is the recognition of the multifunctional nature of UPA by policy institutions and civil society initiatives. Creating economic revenues is key to long term success of the multifunctional nature of UPA. The cases in the south have shown that business opportunities for UPA may result from:

- Marketing of products & services, such as leisure, tourism, or education, resulting in revenue generation and portfolio diversification (e.g. Beijing; Casablanca);
- Cost savings and/or cost recovery for public goods or services compared to state provisioning, such as waste disposal, or green space management (e.g. Rosario);

- Cost avoidance by means of health improvement, flood control, climate change mitigation, etc. (e.g. Antananarivo, Kesbewa);
- Creation of distinctive product quality or reputation, or creation of 'basket' of products & services (e.g. Casablanca).

Although these business opportunities are apparent, they are difficult to turn into secure revenues. A central question to be answered is: *"How to translate social benefits or cost savings into opportunities for producers and SMEs by means of revenues from public funding or access to resources resulting in cost reductions?"*

Investigating successful business models and how to translate these to specific city region contexts is one of the themes for the future course of the project. By further North-South exchange, we aim to formulate an answer to these, and other, questions.

Nutrient recycling

Waste management is a growing problem in cities of the global South. There is increasing attention and growing experience with projects that recover and reuse water, nutrients, organic matter and energy from domestic and agro-industrial waste streams (see figure 3 for the overview of streams).

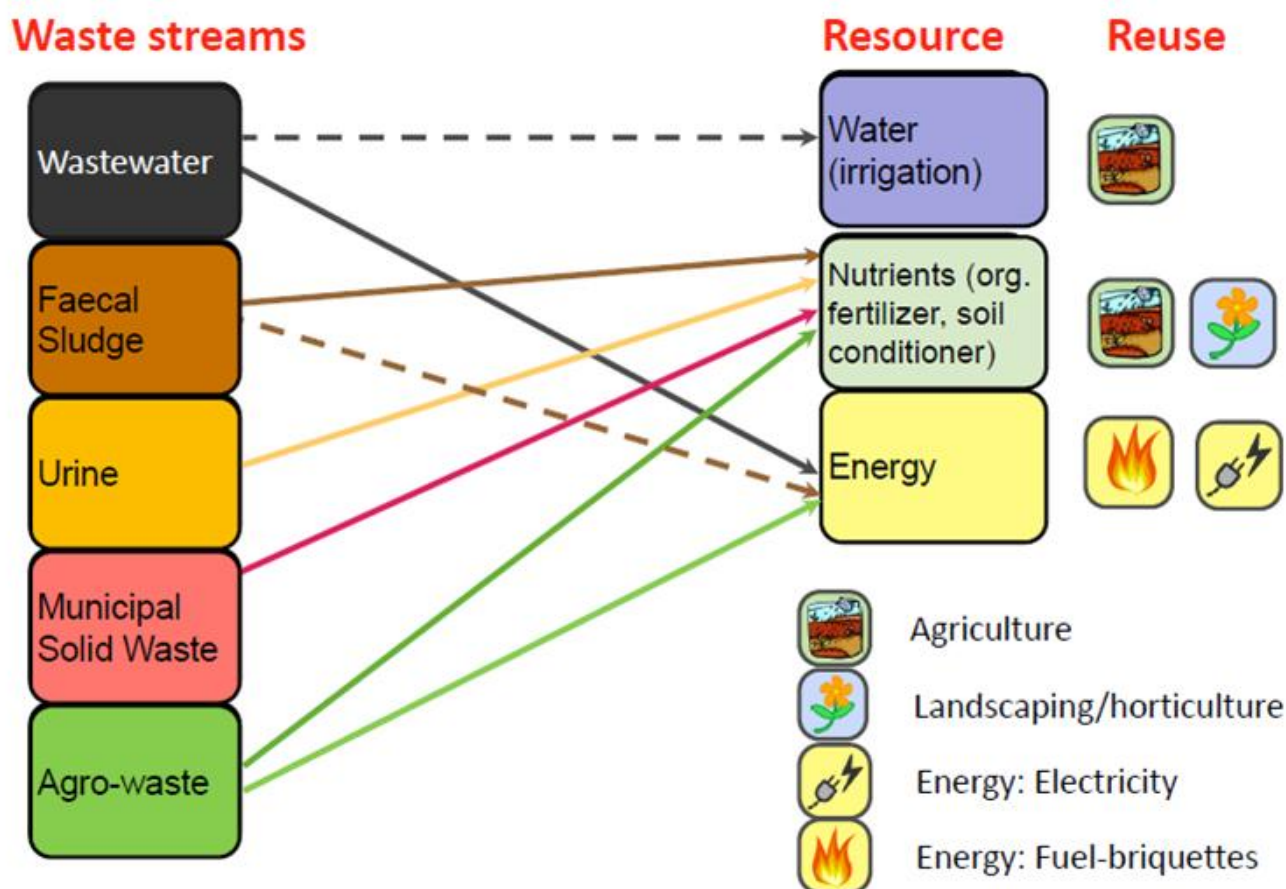


Figure 3: Waste streams & resources. Source: IWMI

“Both public and private entities develop businesses around these issues. However, large-scale applications of systems at city level are still difficult to find.”

One of the main reasons is a lack of market analysis of demand for products. The main challenge is to further develop linkages between waste recycling and safe, productive use of end products. Finding synergies with other sectors and multiple use of waste (water) for energy and fertilizer may generate creative solutions (e.g. Sulabh). There are technically safe options for water and nutrient reuse, but water, sanitation, solid waste management and agriculture are too often still unconnected policy sectors. Policy support for recovery & reuse is key in all models. This may concern support for:

- Creating awareness and/or a market for products and services (Ouagadougou);
- Development of infrastructure (Kolkata);
- Access to land (Ouagadougou; Kumasi); Arrangements regarding licenses or sanitary regulations (Sulabh);
- Waste collection and pre-sorting (Kumasi).

Besides policy support, there is a need for reliable information supply, training of farmers (e.g. increase acceptance of compost) and gaining political support to break through the many taboos and (relevant) health concerns around recycled waste and water. Furthermore, business models

are needed for up-scaling to generate value and reduce costs (or even recover costs for waste management). A study in Kumasi shows that only 17% of the city's organic waste can be reused in entire urban and peri-urban farming. This means that revenue generation is very to achieve due to the limited market; creative business models may solve the issue and attract policy support in return.



One of the ways to finance further research and development of business models is the use of credits/loans and combinations of funding sources.

This is an under-researched option; many of these projects are too big for micro credits and too small for regular finance. There are many interesting localised and often small-scale experiences to learn from in the south. The general challenge is how to upscale and apply these at the level of the city-region.

Connected is the issue of business opportunities; with all three themes there is a considerable range of business opportunities for SMEs. Clear business models as well as entrepreneurial skills and capacities appear as key success factors. A better insight in options to create value or reduce costs is needed in all respects.

However, it should be clear that SMEs cannot create successful business models alone; network creation is essential. The government plays an important role in these networks, but at the same time there is a danger of over-dependence on external support, which makes UPA initiatives vulnerable to government change or imposed budget cuts. In this respect there is a need for clear exit-strategies and options to base policy implementation on market-based organisation forms.

The cases have shown a variety of business types: intermediate SMEs, producer-led SMEs, cooperative initiatives, franchise models, government-led businesses, etc. Cutting across these business types are different business aims: cost saving, cost recovery, revenue generation, profit maximisation, portfolio diversification, social enterprise, etc. These examples have shown that clear business models are important, but they should always be seen in the specific contextual setting and historical conditions which determine

the success or failure of a case. Especially, participatory nature of multi-stakeholder processes can play an important role in success and impacts.



4. Thematic parallel sessions

In thematic parallel sessions the presentations and discussion on agri-food dynamics in European city-regions and lessons from the South were further exchanged between researchers, SMEs, policymakers and NGOs. In these sessions participants from different city-regions in the Global South and Europe introduced each other best practices in short presentations and in so-called 2 to 3 minutes 'elevator pitches', and discussed the findings. Consult also the SUPURBFOOD website for power point presentations, videos of the sessions and some of the case study descriptions.

Although the participants in the parallel session have not specifically addressed what can be transferred to other thematic areas, much of what has been said can be applied to a wide range of projects and hopefully inspire the reader to do so for his or her own project(s).

Recycling nutrients

Thematic parallel session “Recycling and re-use of urban waste”

Chair: Jan-Willem van der Schans, Agricultural Economic Institute, Wageningen University and Research Institute

In this session participants discussed issues related to waste management in cities in the global North and South. In most contexts, waste treatment/management is a highly technical matter. Recycling practices need to consider nutrient

retention and current levels of incineration are removing much needed carbon to build soil structures, especially in the North.

The hierarchy of waste treatment defined by the participants is: prevention, re-distribution for human consumption, redistribution for animal feed, composting, biodigestion/biofuel, and finally landfill.

These strategies may compete, and different parties might control different streams. For example, prevention can be implemented in the home, while digestion needs infrastructure and plant. The capital investment needs of each strategy may indicate who controls each waste stream. In relation to the first and second strategies (on waste production directly in relation to human food consumption) there is a need for quality controls so that the functional integrity of the waste product can be guaranteed or verified.

There are central and de-centralised methods for achieving change and the importance of regulations (scale, interpretation, absence) was raised as a key factor.

There are some challenges linked to the perception of waste. In Sri Lanka waste is seen as a precious resource, in Ghana faecal waste is transports in tankers labelled *'this is your shit'* and farmers have no problem handling processed faecal pellets. In the north people have to get over the 'yuck factor', which is disgust at the idea of eating food produced with faecal or ureic waste inputs.

Examples of re-use of organic wastes and wastewater (closing nutrient cycles) in the global South

<i>Case, city, country</i>	<i>Short description</i>
Kolkata, Calcutta, India	Wastewater-fed agriculture
Yaoundé, Cameroon	Planted Sludge Dewatering Beds: Reuse of faecal sludge for forage production pilot
Kumasi, Ghana	Co-composting of faecal sludge and solid waste
Ouagadougou, Burkina Faso	ECOSAN: Reuse of urine as (liquid) fertilizer in agriculture
Sulabh International Social Services, India	Biogas generation at community and public toilet blocks
Waste Enterprisers, Kumasi, Ghana	Faecal sludge to energy (biodiesel)
Balangoda, Sri Lanka	Production of compost from household waste
DeCo!!, Tamale, Ghana	Decentralised composting for sustainable farming and development
Thai Biogas Energy Company, Rayong, Thailand	KIT Biogas project using cassava processing wastewater
Waste Concern, Dhaka, Bangladesh	Low-cost, labour-intensive method to convert solid waste into organic compost
Tamale, Ghana	Agricultural Land Application of Raw Faecal Sludge

For information and contact consult www.ruaf.org

Markets for waste present two challenges:

- We need to work out what are the most effective markets (domestic, municipal, private) or blend of markets and which actors are needed to construct them;
- The absence of a market demand for waste products is problematic in the production and processing of municipal waste.

Public-private partnerships were highlighted as good opportunities. Examples included Rome and Lima. Private partners can provide investment and operational support but the partnerships seemed to be most effective and successful when the public partner was also the user of the waste product.



There are two perceptions of health linked to waste management:

- The technical challenge of making waste safe (elimination of pathogens etc.);
- The social challenge of dealing with public health problems linked to the failure to manage waste (e.g. high incidence of kidney failure in areas of fertiliser over-use – organic fertilisation as a public health strategy).

There are interesting examples of fiscal and regulatory incentives to change practice, e.g.:

- Providing biomass pellets as an alternative to wood for domestic cooking fuel in order to halt deforestation;
- Tax breaks for companies who sort their own waste;
- Waste taxes used for the production of more visually acceptable faecal pellets.

Synergies with short food supply chains are for example the use of use of organic manure, which affects food quality and taste; the use of waste products as substrates for more food production;

and the provision of an additional income stream to food by waste recycling by farmers.

Practical synergies with multi-functionality consist of e.g. Scandinavian farmers taking municipal sludge and growing trees for biomass production in municipal plants, the use of waste water in diluted quantities in fish farming, leisure and landscape enhancement in Madagascar and Calcutta; and civic gardening changing consumer perceptions of 'ideal' shapes and sizes of produce, allowing more out-grades/mis-shapes to become marketable as is in the case in Zürich.

Following-up the practical case experiences new research is needed to assess cost-benefits of the different hierarchical strategies for municipalities (which need to cover costs rather than make profits); to prioritise the redirection of edible food waste to people; to understand opportunities to change (often ingrained) behaviours; to consider the applicability in the north of the many very innovative and efficient local strategies already in place in the South; to explore how waste management can contribute to productive, nutritious and attractive city landscapes; and investigate issues related to nutrient sovereignty.

The big lesson from the South is the opportunity to make better use of the 'faecal resource'. Further, a question to SUPURBFOOD is:

"Do short food supply chain producers less waste than longer chains?"

Short Food Supply Chains

Thematic parallel session “Shortening food chain delivery to urban and peri-urban areas”

Chair: Livia Ortolani and Stefano Grando, Associazione Italiana per l’ Agricoltura Biologica (AIAB), Italy

In this session a box scheme supporting farmers in South Africa, the cooperative marketing of food

products in Jordan and the development of trust by middlemen in the Netherlands were presented (see also text boxes). Since farmers farm and cannot always market their food products themselves they almost automatically depend on the employment of extra people, joining a cooperative or depending on middlemen. The reintroduction of trust in the three (ethically driven) cases seems the crucial element of the successful development of producer oriented short food supply chains.

Examples of Short food supply chains in the global South

<i>Case, city, country</i>	<i>Short description</i>
Harvest of Hope / Abalimi Bezekhaya, Cape Town, South Africa	Vegetable box scheme with 20-25 gardens and 18 producer groups coordinated by social enterprise
Food security program, Belo Horizonte, Brazil	Municipal program stimulating food access to poor groups (markets, restaurants, UPA)
PROVE, Brasilia, Brazil	Federal programme on processing and marketing small-scale family production
Urban Agricultural Program (PAU), Rosario Argentina	Municipal programme stimulating UPA, focus on direct selling (markets, boxes, processing plant)
Canastas comunitarias, Riobamba, Ecuador	Consumer-driven movement providing Access to cheap and fresh products through box scheme
Spring onions cooperative, Amman, Syria	Women’s cooperative marketing spring onions with distinctive quality label
Schaduf, Cairo, Egypt	Sale of hydroponic rooftop vegetables on local markets
Jinghe online farm, Beijing, China	Vegetable box scheme combined with online sale of complementary product range from local cooperatives

For information and contact consult www.ruaf.org

V. Harvest of Hope – an innovative business case in South Africa

Abalimi Bezekhaya (“Farmers of the Home”) is a non-profit development organisation based in township communities in Cape Town. Residents in these townships are encouraged and supported to grow their own organic vegetables to feed their families. Vegetables are now grown in hundreds of gardens in the townships, sustaining thousands of individuals and families. Some of the micro-farmers are producing more than enough to feed their families, and after giving to needy neighbours and selling ‘over the fence’. However, there is little or no access to markets outside the immediate neighbourhood to sell the high quality organically grown produce. Abalimi’s Harvest of Hope marketing project provides a much-needed outlet for excess produce by selling this produce on behalf of the farmers in the form of a weekly organic box scheme; Harvest of Hope contracts with the farmers in advance – guaranteeing to purchase their produce and thus giving them some income security. Members of Harvest of Hope sign up for the box scheme and pay for their weekly delivery of vegetables in advance. Thus Harvest of Hope is a Community Supported Agriculture scheme (CSA) that facilitates the commitment between the micro-farmers and the consumers/members. The objective is to foster growing connections between the farmers and members, and encouraging members to get involved by volunteering or simply coming to visit some of the farms and meet the inspiring micro-farmers.

Want to learn more about this case? www.ruaf.org

In the cases, initiative and success are enhanced by external motivators. In the case of creating access for direct marketing of regional produce to local buyers as schools or restaurants coordination is needed. Restaurants want convenience foods. Washed carrots, spuds etc. They pose a particular problem. Why supermarkets would buy from middlemen like Willem & Drees (text box VII)? And: how to balance paying the middleman and the margin to retain? Should a farmers’ cooperative be considered a middleman?

Supermarkets buy from e.g. Willem & Drees since they want local produce but small local farmers are unable to organise sufficient volume. Further, supermarkets most often have centralised distribution channels, which reduces their flexibility in directly buying local produce to farmers. A threat to short supply schemes are when large scale initiatives result again in distanced relationships between consumers and producers like e.g. the box schemes of Abel and Cole in the Netherlands. They are blurring the trust boundaries: blurring local and organic trust boundaries.

One of the participants brings in that the role of middleman is key. Those schemes driven by consumers tend to fail over time most often due to a loss of interest or burn out. Very few consumers are activists. This is a threat to the sustainability of the chains involved. Further, clients of box schemes change on average every three months. The Cape Town example (text box V) is a third drop off each time. People can’t be bothered to look up recipes and make an effort.



Although in many cases yet not organised participants felt the interrelations between short food supply chains and closing nutrient cycles and multi-functionality are obvious. Waste can be recycled in the countryside and just producing food is seldom enough to make a profit; multi-functionality can generate extra income and can make farms more resilient and economically viable. Besides important as economic motor of farms multi-functionality also is considered as interesting and stimulating societal interactions.

“Urban farming lends itself to recycling. There will always be waste products.”

“Farmers need to be multi-functional in order to be resilient.”

Grants for composting facilities needed in that farmers won't usually have their own facilities to do this. Next discussed was guerrilla gardening, which makes people who are out of the normal circuits of communication more aware of the issues involved. They are more connected at some level.

Further, urban food growing creates awareness about consumers buying their food in conventional supply chains. Even if people buy most of their food from a supermarket increased awareness will help them to see the connections. In relation to recycling there are so many regulations now that make it more difficult to close the cycle (e.g. not being able to feed swill to pigs). Although often difficult to upscale to conventional food chains the many small examples of closed cycles like coffee grounds and mushrooms bring starting points for sustain the agri-food chain.

Health risks of UPA

Contamination of crops with pathogens due to irrigation with contaminated water or unhygienic handling of food during processing and marketing (mainly green leafy vegetables)

Human diseases transferred by rodents and flies attracted by agriculture (tick borne diseases) or by scavenging domestic animals (dysentery)

Contamination of crops due to overuse of agrochemicals (occurs mainly in areas with many years of intensive horticulture) and due to air, soil and water pollution by industry or heavy traffic. Industrial pollution is more threatening and less easily controlled than pollution by agrochemicals

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How to expand the niche of short food supply chains? Is it logistics that is the real problem? Or should we consider the many niches already as a manifesting alternative to conventional larger scaled food chains? Often it is politics to do not consider the alternatives: lobbyists make politicians supporting the status quo.

Policy makers are quite open to alternative food chains but need some help in coming to good conclusions.

“Good policy recommendations are vital.”

“Changing the ethics is central.”

An open and transparent relationship throughout the chain should be based on trust. Food production has a social role.

Further, there needs to be a better distribution of risk within society. It can't just be a burden on the farmers' shoulders. The example of growing strawberries and how the time in which they can be sold is tiny and if there is bad weather... the point is raised that land in city-regions, often among the most fertile ones, should be in use for food first followed by other things.

Short food supply chains are crucial in the beginning, but as the market grows does it still continue to be important? Customers engaging in these chains enjoy the learning opportunities, and appreciate direct trust relationships to regulation. In other words, it is important to retain this way of helping to build and retain trust.

“How to communicate trust amongst those that can't communicate with the ethical middleman directly?”

Logos are element of building trust relationships but transparency is the key. Maybe the social media can help creating such transparency. The motives of organic consumers may well be different. An organic logo is likely to remain of value. One could learn from Europe's many examples of short food chains as well as from the fascinating examples of the Global South.

Regarding box schemes, these experiences learn that consumers are fed up with eating the same each week.

“We can have great ideas, but at the end of the day the consumer has to buy the food. How to change consumer awareness? How to make food more important for consumers?”

Sustainable (and short) food supply chains perhaps could best be based on the idea of openness and transparency, rather than the factors that are usually used. Central in generating this type of food chains is the role of a facilitator or organiser. Next to private enterprises the ethical middleman encompasses a wider range of actors like farmers and NGOs.

This however is limited to the fact that farming is one job, marketing food is another. The importance of a facilitator or organiser therefore may well be a middleman.

Multi-functionality

Thematic parallel session “Multifunctional land use in urban and peri-urban areas”

Chair: Nigel Curry, Countryside and Community Research Institute (CCRI), University of West England, United Kingdom

In this session an overview has been generated of two good practices in the global South and North. For the Global South the cases of an educational farm in Casablanca and agro-tourism in China were presented. For the global North cases were presented on the use of green areas for agriculture and other functions in Zurich and Ghent, a multi-functional market in Riga, community forest project in Vigo, the re-use of a brown field area in Gent for public and private gardens and farmer cooperative work in Rome to try and enable a better use of public land.

These cases are characterised by a huge diversity. The case studies covered a range of different functions from the physical use of land to economic, social and ecological functions. The analysis broadened the definition of multi-functionality from just land use, social and economic and ecological to also technological functions. Cases from China on

agricultural parks and Zurich on the combinations in terms of multi-functional land use and the uptake of land use to communicate messages about food and where it comes from illustrate this. For a successful transferability you need people to buy into the scheme. There is a need for some bottom up impetus (grassroots social innovations) - they are only kept going by the people. A city can't impose something from above. You must let people create it. The idea of community action / involvement was viewed as strength.

Further food is an important vector for enabling and translating wider multi-functional land use benefits in urban contexts - it enables

VI. Rosario – building and institutionalising a municipal urban agriculture programme

Rosario's urban agriculture programme brings together urban farmers, municipal officials, agricultural experts, and representatives of non-governmental organisations. Through this programme urban farmers are assisted in securing and protecting agricultural spaces, taking advantage of value-added agricultural products, and establishing new markets and market systems. Further consolidation of the process was sought by formally incorporating urban agriculture into the City Strategic Development and Master Plan. In this plan, urban agriculture is recognised as a permanent and legitimate use of urban land and promotes its integration into other public activities and projects related to management of green areas, equipment, housing, infrastructure, transportation, etc.

Want to learn more about this case? www.ruaf.org

community capacity and social cohesion (consensus about nonmaterial/ non-physical land use functions). Illustrative is the case in Ghent.

Non-market benefits are important: they can lead to a better city and offer something different and important. However these functions represent a weakness since methods to capture non-market benefits (in terms of capacity building) lack at this moment. Urban agriculture, e.g. in Rotterdam, yet does not impact on the broader food system.

“A major weakness is people in general perceive urban agriculture as small scaled.”

The sector lacks relationships to other policy fields and so far remains disconnected from mainstream agricultural sector. Also the linkages to the CAP and rural development programs lack, despite all rhetoric.

“Another weakness is the often lacking longer-term strategic plan in projects.”

Examples of Multifunctional (peri)urban agriculture in the global South

Case, city, country	Short description
Antananarivo, Madagascar	Multifunctional productive use of food plains
Agro-recreational park Minhang district, Shanghai, China	Agro-tourism planning, combining infrastructural improvement with quality food production and recreational UPA
Beijing, China	Beijing International Urban Agricultural Science & Technology Park: training and leisure combined with UPA
Tianjin, Jj County, China	Xijingyu village tourism
Urban Agriculture Program (PAU), Rosario, Argentina	Productive green spaces, participatory design and social integration as part of municipal UPA program
Dar Bouazza, Casablanca, Morocco	Eco-Solidarity Gardens: an agroecological producers' network linking urban and rural spheres
Lagos, Nigeria	Social cohesion and green space maintenance due to UPA in a small urban community

For information and contact consult www.ruaf.org

Long term planning (25 years) is mostly recognised in projects on community forests since planting trees and benefiting from these plantations take time. Also for the development of food related activities long term planning and security of land access for farmers should be created.

Increasingly in city thinking agriculture gets a more prominent role: food production at the regional scale wins attention among a wide range of stakeholders. Although like for health, recreation and construction in most city-regions departments exist, a focus on food remains absent. Nonetheless the increasing importance given to multi-functional land use seems an opportunity to sustain food production and consumption in the next decades.

In this respect, the Bristol's Food Policy Council is an inspiring example. The establishment of a Food Policy Council helps to maintain the support of a broad range of actors (civic, state, market). Food Councils show the interrelations of food with e.g. health and education, and thus is multi-functional in character. However, multi-functional land use doesn't fit into any of the policy domains. This implies it might not get taken seriously and although its attractiveness as a governance framework is certainly brings along threats.

Since waste is about composting, energy and cooking (waste as means of fuel) it relates to multi-functional land use. Further, environmental concerns very often have been catalyzing the start of short food supply chains, for example to get food miles down, which is a multi-functional concept in itself: short food chains are about education, food security and resilience and about the local economy in the broader sense.



Small & Medium Enterprises (SMEs)

Thematic parallel session “SMEs: issues to address, activities to implement, ways of facilitating exchange of knowledge and experiences after the seminar”.

Chair: Henk Renting, RUAF Foundation (International network of Resource centres on Urban Agriculture and Food security), The Netherlands]

The role of SMEs in food transition, from international supply chains to more regionally orientated supply chains was discussed in this session. Three main conclusions were drawn by the group, laid out below.

Firstly, there is a tension between private interest and public goals. Most SMEs that we study are social entrepreneurs; they are not just in it for profit, but also for benefits to society at large. There can be tensions, for example when you engage prisoners in food production (a very nice social goal). But when you want to serve the restaurant market, they demand prompt delivery. “When there is a fight in jail, my driver cannot get out, and my logistics is screwed up”. Another point is that small scale production can be profitable if it is aimed at high income markets. But this leads to social exclusion. The local food



VII. Willem & Drees

Willem & Drees is a private company that tries and connects local farmers to the main market, based on the principle of trust. They cover 70% of the Netherlands and deal with 120 farmers all over the country with a variety of products of which 80% are organic. Since consumers are more and more interested in local food and coordination between the products to arrive to the market and consumers to buy is difficult Willem & Drees make it possible for small producers to market their products. Illustrative is the case of strawberry producers in which a retailer wants local strawberries distributing these under one product code. Willem & Drees collate the strawberries and deliver to the retailer, which takes out the complexity for the retailer. Prices for the farmers, who maintain different distribution channels among which the one of Willem & Drees, are better.

Want to learn more about this case? www.ruaf.org

movement generally aims access to food by all people, thus also people with lower incomes.

Secondly, food initiatives go through different stages when they scale up, and become more professional. These different stages may require different management styles, different strategic

partners and different ways of finance. Something may start as a social initiative, with volunteers, such as the vegetable box scheme in South Africa. But when it matures, a different way of running the initiative may be more

adequate, e.g. with paid labour rather than volunteers. "Running a business under the umbrella of an NGO may be complicated. You spend more time filling out forms and reporting results than to come up with a market orientated business approach". The same holds for the way the initiative is financed. It may start with subsidies from government or development agencies, and gradually move into a commercial enterprise. When the concept is proven, it may be possible to attract (social) venture capital.



The last aspect that came out of the discussion is that there are hardly any initiatives that focus only on food. Generally, there is a range of activities and services provided by the SMEs (diversification);

e.g. a livestock company sells meat, and treats their waste to make compost which they use for their own farm and sell it to others. "This is a more sustainable business model than the established companies specialising in one single activity or market." But

this approach requires a particular type of management; be a specialist in several disciplines or focus on overseeing different disciplines and look for synergies. It also requires thinking carefully about the business model, which activities can be funded and which activities are provided complementary to improve overall performance? What does the mix between public and private funded activities look like? It may be that asking for public funding inhibits to think in terms of a commercial enterprise.



Policy

Thematic parallel session “Policymakers: issues to address, role of policymaking in facilitating activities of SMEs, synergies and contradictions between policy domains, ways of facilitating exchange of knowledge and experiences after the seminar”

Chair: Marielle Dubbelling, RUAF Foundation (International network of Resource centres on Urban Agriculture and Food security), The Netherlands

“We had nice talks but regarding governance and what is going on in practice for example in Galicia, between what people want and what they need there is a huge gap. Current policy dynamics constrain the urban and rural needs in the region; peri-urban farmers have no support. Politics, politicians and promoted industrialisation of the countryside do not meet standards of food sovereignty, public health, environmental sustainability and beauty. How should people deal with this? In a context in which politicians have a program that goes against all what has been spoken about these days?”

The role policy makers can play to facilitate SME development in short food supply chains, multi-functionality and waste-recycling is diverse but essential. The SUPURBFOOD project will organise feed-back of the issues as raised above into different policy levels.

Food sovereignty as part of urban planning is new and often not yet on the agenda of local politicians. For food sovereignty land access is an important issue, and can be differently organised one should recognise that it is important to think 20-30 years ahead in urban planning.

“You need a vision on urban agriculture and use that as a starting point, then develop a strategy, perhaps need experimental space, financial budgets, often about aligning existing budgets in a different way and not finding additional flows of money.”

In some situations policy plays a more prominent role (for example in Zürich) than in others (e.g. in Vigo). During discussions between policy makers and SME representatives there was a general agreement of the pivotal role of policy makers. These functions include:

1. Awareness raising, training and professionalization with the objective to communicate potential societal benefits of urban agriculture more actively among citizens, policymakers, consumers, etc;
2. Providing access to land and other resources;
3. Better legal recognition of UA activities and practices;
4. Establishing close, longer term network relations between UA practitioners and

polymakers to facilitate mutual learning and understanding;

5. More active creation of markets, infrastructure and stimulation of public procurement;
6. More integrated policy and spatial planning approaches;
7. More SME sensitive regulations and support systems.

In order to live up to the expectations and fulfil the above defined tasks, policy makers need a favourable context to work from. In general, a clear vision on urban agriculture within integrated policy-frameworks should be the starting point.

The issue of disintegrated policy fields, limiting regulatory frameworks and contradictory governance systems is mentioned as an important hampering factor.

Designing more experimental space within regulatory frameworks can boost developments and help deal with conflicts around differentiating sustainability and land-use claims. In turn, such experimental space can also stimulate the creation of new coalitions that can better deal with the diverse issues that UA gives rise to. Extra financial budgets for UA and more creative use of available public funding are necessary to further explore UA benefits and potentials.



Polymakers' wish list for SUPURBFOOD

- Sharing on-going experiments with Food Councils in city-regions: what are their expectations, opportunities and limitations;
- More profound insights in the city-region experiences with UA through exchange of case study reports;
- Identification of best practices to take home for inspiration on urban food systems and integrated urban food planning;
- Development of a list of forthcoming events for the UA community.

Research

Thematic parallel session “Research: issue to address, kind of research activities to undertake, how to facilitate SMEs and inform policymaking”

Chair: Han Wiskerke, Wageningen University, The Netherlands

The central question in this session has been what kind of research is needed to facilitate further development of urban and peri-urban agriculture (UPA)? The answer to this question is as diverse as one can imagine, as UPA asks for a multidisciplinary and case specific approach. There is an issue of contextuality in every case, which might bring along common issues that need to be filtered out. Hence ways have to be found to extract the transferability of contextual solutions and adaptations of food systems.

The participants articulated as first priority the construction of a large database with diverse, case studies with “thick-descriptions”, that is a detailed explanation of innovative case studies. Having stressed this general basic point, there is a number of additional issues that research can address when talking about UPA.

Second, in different contexts the costs and benefits related to different models come to the surface. When analysing innovative cases and business models there is the need to look at the economic added value of different models compared to more standard short food supply chains; e.g. what are the incurred labour costs for

the farmer and the costs of logistics from a producer and consumer perspective? And what are the ecological benefits and costs (sometimes not taken into account, such as farmers skills). In addition, alternative SFSCs often require extra organisation, which leads to the question what the additional costs related to different organisational models are (e.g. combining food production with waste recycling).

Third, there is the need to look at the audience short food supply chains serve. One needs to understand the lives and motivation of people: create a typology of customers. The intergenerational and cultural differences are intriguing issues that inform about why a system works the way it works. For instance, in the UK old people go to the farmers markets because they still cook or know how to cook. But at the same time it determines the level of acceptance and economic benefits of local food; so should there be packaging to serve young people with a double income or should there be no packaging to reduce costs and limit environmental food print?

Fourth, attention should be drawn on the relationship between the state, civil society and the market in the context of UPA and short food supply chains. City governments are gaining ground in local food issues (e.g. food councils) at the cost of the power of the nation-state. But city governments are struggling with this new role: where should they situate UPA? Should they integrate it in the policy field of health, education, planning or nature? Fact is citizens demand different things from their local

governments. Multi-level governance is a term that refers to a continuous changing world in which citizens behave differently and markets work differently. How do governments deal with these issues (what drives them), and how can processes of institutional change happen?

Fifth is the issue of land struggle between different stakeholders, such as space in use for housing, recreation, and farming, and moreover the people and interests related to this sectors. Small-scaled farming by especially young people is an often underestimated interest group in terms of serving public interest in city-regions. Many issues relate to UPA: e.g. who owns the land? Who can use it? What is the zoning? What are the risks of changing the zoning (e.g. from agriculture to building)? The role of the researcher is to pose these questions, to make it an open discussion and foster the dynamics of change.

“The sociological imagination theory of Mills can be a useful theory in this respect. Sometimes, the struggle takes unexpected turns and creates new synergies between stakeholders, as has been the case in Rotterdam. This poses the question where competition ends and synergy occurs? We need to look at examples how to overcome competition: how do people innovate? In this respect, the city can be seen as a common resource, which might be approached very well by Elenor Ostrom’s theory on managing the commons.”

Finally, there is a need to develop a model for sustainability for different chains. The parallel with e.g. the GLAMUR project (testing and applying comparative analysis in the different contexts) should be further explored in terms of the analysis of sustainability dynamics in agri-food systems.

“In order to solve the economic crisis in Argentina people had to leave rigid modes of thinking and find solutions to sustain society again. In that situation policies could be implemented that earlier would be unthinkable and unacceptable. People started growing food in cities and thanks to that they could raise awareness among the citizens. Land that was left abandoned, vacant land of which they took advantage for growing food. Legislation followed to regulate land use by farmers. Certification has been based on trust between producers and consumers, which prevents from complying with the law. In the European context of interrelations with urban and rural areas and the experience of creating linkages and cooperate between different interest groups provide good conditions for doing new things.”

If it is about what citizens want from agriculture a broader costs and benefits analysis should be carried out in which costs (negative externalities), prevention of costs (cost-reduction), and agricultural and multi-functional land use are considered.

Excursion

The excursion brought the seminar participants to 'Monte' nearby Vigo. Monte is a multi-functional mountainous zone and covered by trees, bushes and scrub, which for centuries represented an important resource for rural dwellers and has been indispensable to sustain farming practice in Galicia. Over the past decades, the management of Monte has been characterised by top-down implemented mono-forestation. More recently, land use is characterised by the implementation of wind parks and mining activities and with few or no benefits at all to urban and peri-urban citizens. Citizens however increasingly respond to these threats.

Monte and multi-functionality model

A large part of Galician Monte (about 25% of in total 700,000 hectare) is managed by 'Comuneiros', citizens who together own nearby situated Monte and are organised in Comunidades de Montes Veciñais en Man Común (CMVMCs, Neighbourhood Communities for the Common Management of Monte), democratic and autonomous governance authorities. Economic, environmental and social concerns among CMVMCs make these communities increasingly to explore alternative land-use models. More progressive CMVMCs started changing dominant mono-functional forestation into multi-functional land use, with

impact on their multi-functionality performance such as combining food production (animal breeding, mushroom production etc.), timber, health, well-being and biodiversity. Management of Monte and these communities is based on 4 'I's:

- Monte is 'Inalienable': Comuneiros can never sell their share, and neither a government nor any other authority can neglect this ownership;
- Monte is 'Imprescriptible': owners never lose their right on the land, and only expropriation for public needs (the construction of roads, hospitals) can take the rights of the Comuneiros;
- Monte is 'Indivisible': Monte cannot be divided, is and remains a commonly managed unit, and people have to decide together on the objectives and the management of this common property;
- Monte is 'Inembargable': in case of debts of Comuneiros the government or banks cannot confiscate their land.



Land use and governance dynamics

Although these local communities promote biodiversity in combination with projects oriented on productive and leisure activities political recognition and support remains limited, or turns out counter-productive. E.g. regional government authorities continue supporting mono-forestation and large-scaled (foreign owned) enterprises in renewable energy. Different from experiences elsewhere in Europe in Galicia landowners (and also CMVMCs) are excluded from taking advantage in emerging, policy-induced markets for renewable energy.

Opportunities

On the one hand, communities interested in the implementation of economic activities with a strong technocratic orientation have no legal status to organise and benefit from such activities. On the other hand, for those developing an alternative development trajectory governmental support on a land use model in which food production, nutrient cycles and multi-functional land use are integrated so far lacks.

Although the CAP 2014-2020 might bring opportunities regarding the management of Monte, and hence, to urban and peri-urban citizens in terms of improving the quality of life, the application and implementation of the opportunities in the new CAP depend heavily on governance authorities others than CMVMCs and similar grassroots initiatives.



CMVMC Vincios

CMVMC Vincios is a partner in the SUPURBFOOD project and since 1984 operates at 678 hectares of Monte in the metropolitan area of Vigo. Belonging to the municipality of Gondomar, the village of Vincios consists of 2,064 inhabitants, all with access to the CMVMC Vincios and of which 160 are involved as active participants in the community's yearly assembly.

Over the past 15 years the CMVMC Vincios is developing an alternative land use model as the one that became dominant in Galicia over the past decades. The philosophy of the management of Monte by CMVMC Vincios has its roots in the role this sort of land had in peasant society. Until some decades ago, Monte was the most important source of resources for the people living from the land. During centuries it was indispensable to sustain farming which was the main activity of Galician people. It was used for cropping, to feed the cattle, to extract stone from the quarries, to obtain manure.

From 1946 onwards, during Franco's dictatorship, common Monte has been declared public property and municipalities became the new owners. Over 700,000 hectares of Monte in Galicia were aggressively reforested with pine and eucalyptus trees, drastically reducing biodiversity in Monte areas. Since democracy came back in 1975 Monte has been given back to the Galician people.



Nowadays, CMVMC Vincios seeks to promote biodiversity and other historic and cultural features of their Monte. In part of the Monte eucalyptus trees have been removed (and are kept

out of the area). Land fertility is improved by the application of sea weeds (harvested at the beaches close to the mountain). Improving the fertility of the soils is accompanied by cattle pasturing by local farmers who have sheep, goats, cows and horses grazing in the communal lands. Further chestnut, walnut and oak plantations have been created and in an area with pines mushroom are cropped. Between the mushroom and the pine root there is a symbiosis: the mushroom provides minerals and water and the root carbohydrates and vitamins.

These projects follow a general plan that has been designed by engineers of the CMVMC and has been approved by the assembly. In the next 20 years a series of projects will be promoted by the governing committee on a yearly base. The management of the Monte in Vincios generates benefits of social, economic and environmental nature. A large part of the economic benefits are invested in Vincios itself: among others in the local school (meals, transport, excursions and books), a music school, a sport school and leisure centre. Further a large drink water reservoir is located in the area.



Constraints

Although the Serra do Galiñeiro (the mountains in which the CMVMC Vincios is located) provides an outstanding sport, recreation and nature area and serves as Vigo's largest green lung the supply of these public goods is poorly recognised at regional level, and landscape, nature and water qualities in the area endangered by plans for a wind park and mining activities. Land expropriation is among the tools the regional government applies to control and regulate citizens' interrelated democratic and property rights.



The ways forward from here

The SUPURBFOOD First International Seminar has put forward many issues SMEs, policy makers and researchers struggle with in relation to urban and peri-urban farming (UPA). Throughout the different sessions interesting cases have been put forward which gave rise to new questions and issues. How to make a selection and deal with these questions?

The strategy for the next phase in the project consists of case studies and the development of research questions in the SME experimentation phase. Although for the three themes different questions will be addressed exchange between the themes is the central focus in this next phase. Most SMEs deal with issues that cross cut the themes thus learning will increase when exchange of knowledge is enhanced (Figure 4).

In this next phase researchers, stakeholders and politicians will look further into the interrelations between short food supply chains, multi-functionality and waste recycling. SUPURBFOOD takes a multiple perspective: from the SME, policy, research points of view. Thereby, the experiences and input from the Global South are vital and central to the further development of theory and practice on UPA.

Among the issues that will be addressed in the next phase of the project are:

- How to approach the notion of ‘business models’ and how to theorise this in relation with their relevant setting?
- Create or expand networks that cross cut legal and regulatory frameworks, including relevant interrelations with broader policy frameworks such as the CAP;

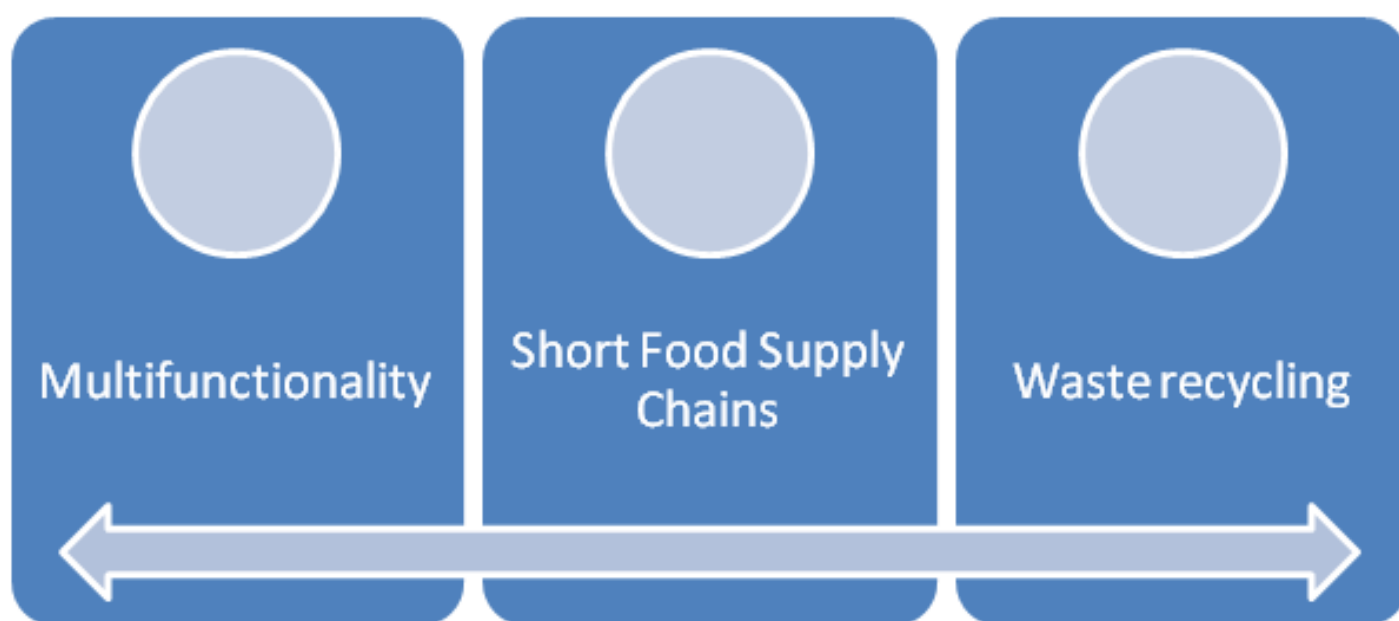


Figure 4: SUPURBFOOD project methodology: Interaction of themes in a multi-level process

- Create consumer awareness and engagement on UPA activities;
- Continue to take stock of policies and their analysis;
- Effective mechanisms to finance UPA such as exploring co-funding opportunities;
- Develop models for integrating UPA in various aspects of local development, such as poverty alleviation, social housing programmes;
- Closing resource loops at larger scales, potentially even at city-region level;
- Create a database of innovative cases and initiatives concerning UPA, e.g.: What are promising cases in efficiency increasing logistics?

In the months and years to come there will be ample opportunity to engage in the themes and actions within the SUPURBFOOD project at city-region level (Figure 5). All who like to contribute or follow the project might have a look at the contact details in the next section.

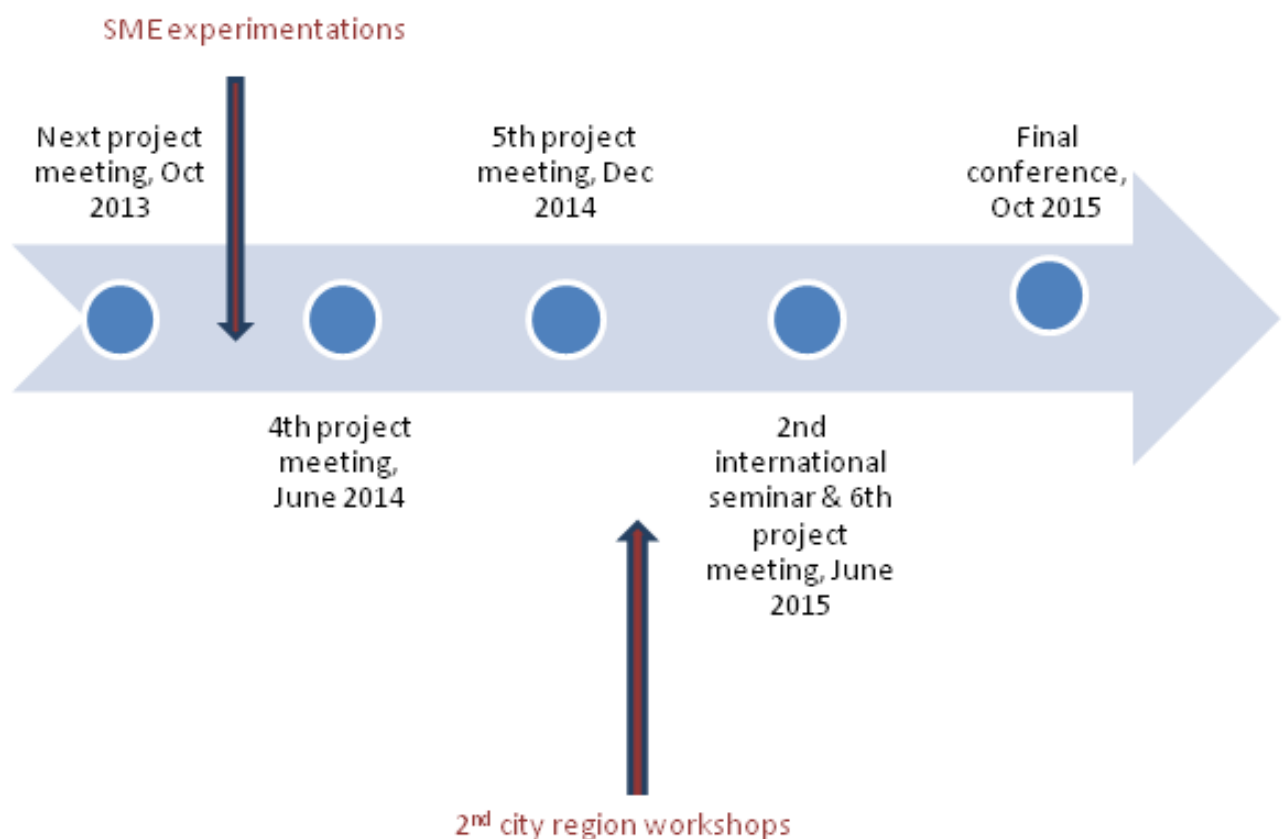


Figure 5: Time-line / planning of the SUPURBFOOD project and stages

Contact information project

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Funding: 7th Framework Programme KBBE

Project number: 312126

Duration: November 2012 – October 2015

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First international seminar report

Paul Swagemakers (UVigo), Els Hegger (WUR);
photos of seminar by Blanca Tena Estrada (UVigo)

For further information

Contact your local coordinator – links to consortium
partners can be found at www.supurbfood.eu

Subscribe and/or consult the website to be
informed about the project, seminars and other
dissemination events organised.

The SUPURBFOOD consortium

Research institutes

- Wageningen University (WUR)
- Associazione Italiana per l'Agricoltura Biologica (AIAB)
- Ghent University (UGent)
- Vigo University (UVIGO)
- Countryside and Community Research Institute (CCRI), University of Gloucestershire
- Countryside and Community Research Institute (CCRI), University of West England
- Agricultural Economic Institute (LEI-WUR)
- Research Institute of Organic Agriculture (FiBL)
- Nodibinajums Baltic Studies Centre (BALTIC)
- RUAF Foundation (International network of Resource centres on Urban Agriculture and Food security)

SMEs

- F3 Consultants Co-operative CIC
- Uit je Eigen Stad (UjES)
- Maschinenring Zürich
- Comunidade de Montes Veciñais en Man Común (CMVMC) Vincios
- Willem & Drees BV
- Pico Bio AG
- Agricoltura Nuova Società Cooperativa Sociale Agricola Integrata
- Roomer BV
- The Community Farm
- Kalnciema Quarter (Kalnciema iela Ltd)