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Social innovations in urban food networks: towards food democracy and justice? A tool of analysis

Yuna Chiffoleau, Dominique Paturel

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AESOP 5th Conference on Sustainable Food Planning

INNOVATIONS in Urban Food Systems

Les innovations dans les systèmes alimentaires des villes

5e colloque AESOP sur la planification alimentaire durable

BOOK OF ABSTRACTS

28 - 29 October 2013

Agropolis International

MONTPELLIER · FRANCE

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Realisation of this Book of abstracts :

Clément ARNAL and Coline PERRIN

5th AESOP Conference Organising committee

UMR Innovation, INRA, 2 place Pierre Viala, 34060 MONTPELLIER Cedex 1

clement.arnal@supagro.inra.fr, coline.perrin@supagro.inra.fr

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Posters 109

Introduction

Building upon the first four Sustainable Food Planning Conferences in Almere (2009), Brighton (2010), Cardiff (2011) and Berlin (2012), this 5th AESOP Conference on Sustainable Food Planning focuses on innovations in urban food systems, with specific sessions on flows, land and governance. Our will is to promote discussions between researchers and practitioners from across disciplines, approaches, and national provenances in the global North and the global South.
This event is organised by the two research labs UMR Innovation and UMR Moisa (joint research units from INRA, CIRAD and Montpellier Supagro) in connection with the UNESCO Chair on World Food Systems and the research program SURFOOD (Sustainable Urban Food) funded by the Agropolis Foundation.

Conference theme

Urban food systems have received increasing attention in recent years and there is a growing international community of scholars from a range of different disciplines working in this promising field. Food policies can indeed improve urban sustainability, in particular in relation to issues of health and nutrition, education, economic development, environment and social cohesion. At the same time, conversely, cities and urban regions are gradually emerging as relevant scales and major forces driving the sustainability of agro-food systems and fostering food justice. Community initiatives and public policies are addressing the topic of urban food security in cities of the global North and the global South, albeit in very different contexts and in correspondingly different ways.
This 5th conference will focus on innovations and drivers for change: how can the actors of various value chains supply more sustainable food to cities? Considering that rural-urban dynamics are rapidly evolving, what roles can linkages with rural areas play in food and nutrition security for urban citizens? What processes and actors are best placed to promote the integration of food issues in urban policies? What is the role of consumers? To what extent are the global issues of climate change and biodiversity taken into account in urban food planning? And last but not least, what role does cultural diversity play in new urban food strategies?
The conference will be a platform to discuss conceptual and methodological advances in urban food systems and to draw lessons from both successful and failed experiences to develop policy proposals for more sustainable urban food systems. Participants will emphasize evaluative, systemic, comparative or territorial approaches, in order to cross the traditional disciplinary boundaries within both public policy (agriculture, planning, environment, etc.) and scientific disciplines (agronomy, economics, sociology, geography, urban planning, nutrition, political science, management, etc.). The specific focus on innovation highlights the management of change, the dissemination and the scaling-up of local experiences and knowledge transfers in both directions between North and South. Case studies are welcome, particularly where they evaluate the impact of innovations on urban food systems and provide interesting theoretical or methodological insights that help us to understand urban foodscapes in comparative perspective.

This 5th Sustainable Food planning Conference will feature three parallel tracks on flows, land and governance.

Flows: Reframing Urban Foodsheds

By taking into account the flows of people, goods, materials and knowledge that create urban food systems and reshape rural/urban linkages, systemic approaches help us to rethink or reframe urban foodsheds.
How do long- and short- distance migrations change the demand for food in the current context of a booming urban population at the global scale? How do they impact urban diets and linkages to rural areas? Do promote an innovative entrepreneurship in the food sector?
Considering the various food value chains, can we evaluate the flows of products and define an ideal food provisioning area for the city? Who are the intermediaries shaping these flows? How is it possible to create fair and sustainable markets for local products? Which links exist or could be created between global and local scales, and between the commodity sector and alternative food networks? Are logistical issues different according to the size of the city?
From an ecological perspective, can an analysis of the urban/territorial metabolism of the flows in and out of cities help to save resources and foster closed-loop innovations, for example on food waste management or grey water recycling?
How can we imagine and map urban foodsheds and the various types of flows structuring urban food systems? Can we map different types of food access (diversity, price)? Can we distinguish different types of urban agricultural systems based on various rural/urban linkages?

Land: Farming for the City

Beside landscape, leisure or environmental functions, food production remains an important function of urban agriculture in the context of the "New Food Equation". However, preserving farmland from further urban encroachment remains a major challenge for the urban planning community.
How can farmers who supply the city secure access to productive land in suburban areas? How does land tenure impact urban food systems? Does the urban food issue promote innovations in land-use planning, leasehold agreements and land trusts? Can the farmland that produces healthy food around and for the city be considered a common pool resource? Are farmland protection policies connected to or renewed by urban or community food strategies?
In highly urbanised settings, which farming systems can produce healthy and sustainable food? How do farmers adapt to an urban environment? How do they take advantage of urban sources of income? What is the real environmental impact of urban agriculture practiced on rooftops, in towers, and in containers? How can productive buildings, gardens and public spaces be designed? How can healthy food be produced on wastelands and brownfield sites? Is there an emerging interdisciplinary research field bringing together agronomy and urban planning?

Governance: Towards Food Justice?

Numerous innovative urban or community food strategies have emerged over the last decade. However, the framing of the food issue, the actions implemented and the stakeholders involved are different in each city. Can cross-sectoral and multi-stakeholder governance foster food justice – or even the right to food – in tandem with social, spatial and environmental justice? What are the barriers and challenges to an enhanced participatory governance of urban food strategies?
How can the diversity of local actors beyond the participation of government, market and civil society representatives be integrated into food planning? On the agricultural side, how can urban gardeners, alternative and conventional farmers dialogue in order to improve urban food systems? On the side of the urban population, do food strategies acknowledge the formal and informal initiatives from various ethnic and social groups? Are the various food cultures and the interests of the most disadvantaged urban residents taken into consideration by urban food policies, and how?

To what extent are community gardens and urban agriculture the unwitting agents of urban gentrification?
What is the appropriate scale to set up an urban food strategy: the neighbourhood, city, city-region or bio-region? What arrangements and innovations are needed to better articulate the different policy sectors and levels of government around the food issue and to facilitate the "scaling up" of local initiatives?
How should the time span needed to implement a successful urban food strategy be taken into consideration? Research highlights that innovative policies sometimes stop with the change of mayor, or that cities that are now praised for their food policy have seen it develop over many years or even over several decades. It would therefore be interesting to retrace the history of the various projects related to food in a single city and to compare the trajectories of several cities regarding the urban food question. What factors and actors are necessary for a successful urban food strategy to coalesce?
This session in particular will identify lessons from concrete experiences with the aim of developing policy recommendations for more sustainable urban food strategies.

Scientific committee

- Theodosia Anthopoulou, Panteon University, Athens, Greece
- Christine Aubry, INRA, UMR Sadapt Paris, France
- Mayté Banzo, UMR ADES, Université Bordeaux 3, France
- Sabine Barles, UMR Géographie-Cités, Université Paris 1, France
- Alison Blay Palmer, Department of Geography and Environmental Studies, Wilfrid Laurier University, Canada
- Nicolas Bricas, CIRAD, France
- Gianluca Brunori, Università di Pisa, Italy
- Yuna Chiffoleau, INRA, UMR Innovation, Montpellier, France
- Roberto Cittadini, Labintex INTA - Agropolis International, Argentina
- Nevin Cohen, The New School, New York, USA
- Julien Custot, FAO, Food for cities, Italy
- Benoit Daviron, CIRAD Montpellier, France
- Claire Delfosse, Laboratoire d'études rurales, Université Lyon 2, France
- Marielle Dubelling, RUAF-Foundation, The Netherlands
- Isabelle Duvernoy, INRA, UMR Agir, Toulouse, France,
- Harriet Friedmann, The University of Toronto, Canada
- Laurence Granchamp-Florentino, Université de Strasbourg, France
- Salma Loudiyi, UMR Métafort, Vetagrosup Clermont-Ferrand, France
- Alain Mbaye, Initiative Prospective Agricole et Rurale (IPAR), Senegal
- Jean-Marc Meynard, INRA, UMR Sadapt, Paris, France
- Paule Moustier, CIRAD, UMR Moïsa, Montpellier, France
- Kevin Morgan, Cardiff University, UK
- Joe Nasr, Centre for Studies in Food Security, Ryerson University, Toronto, Canada
- Martine Padilla, IAMM, Montpellier, France
- Coline Perrin, INRA, UMR Innovation Montpellier, France
- Max Rousseau, CIRAD, France
- Joëlle Salomon Cavin, Institut de Géographie et Durabilité, Université de Lausanne, Suisse
- Christophe Soulard, INRA, UMR Innovation Montpellier, France
- Moussa Sy, IAGU (Institut Africain de Gestion Urbaine), Senegal
- Jean-Marc Touzard, INRA, UMR Innovation Montpellier, France
- André Viljoen, The University of Brighton, UK
- Han Wiskerke, Wageningen University, The Netherlands

Organising committee

- Coline Perrin, INRA, UMR Innovation Montpellier, France
- Clément Arnal, INRA, UMR Innovation Montpellier, France
- Christophe Soulard, INRA, UMR Innovation Montpellier, France
- Jean-Marc Touzard, INRA, UMR Innovation Montpellier, France
- Paule Moustier, CIRAD, France
- Nicolas Bricas, CIRAD, UMR Moisa, Montpellier France
- Sandrine Costa, INRA, UMR Moisa, Montpellier, France
- Damien Conaré, UNESCO Chair on World Food Systems, Montpellier, France
- Julie Debru, UNESCO Chair on World Food Systems, Montpellier, France
- Max Rousseau, CIRAD, UMR Art-Dev, Montpellier, France
- Kevin Morgan, Cardiff University, UK

Program

Monday, 28 October 2013

09:00 Introduction
Coline Perrin, INRA, UMR Innovation (Montpellier, France)
Kevin Morgan, Professor at the University of Cardiff (UK)
Catherine Cherbut, INRA Scientific Director for Food and Nutrition (France)

9:30 Plenary session
Nik Heynen, Professor of geography at the University of Georgia (USA)
Abolition Ecology and Urban Hunger in the City

10:15 Coffee break

10:30 - 13:00 Parallel tracks

FLOWS **F1 : Connecting theory and practice (Chairs : Sabine Barles and Harriet Friedmann)**		
Sustainable urban food systems: state of the art and future directions	Géraldine CHABOUD[1], Nicolas BRICAS[2], Benoit DAVIRON[2]	1 Chaire Unesco "Alimentations du monde", IRC SupAgro - France, 2 UMR Moïsa, CIRAD - France
Urban Food Systems in the World of Conventions	Jean-Marc TOUZARD	INRA, UMR Innovation - France
Urbanization and food security in Mediterranean countries: A multidimensional vulnerability approach.	Paolo PROSPERI[1], Thomas ALLEN[2], Iuri PERI[3], Martine PADILLA[1]	1 Institut Agronomique Mediterraneen de Montpellier (IAMM - CIHEAM) - France, 2 Bioversity International - France, 3 University of Catania - Italy
Enhancing Knowledge Flows in Urban Agriculture: Creating Shared Knowledge through Collaborative Research	Debra DAVIDSON[1], Emily KENNEDY[1], Mary BECKIE[1], Chiara TORNAGHI[2]	1 University of Alberta, Department of Resource Economics and Environmental Sociology - Canada, 2 University of Leeds - United Kingdom
Promoting new economic activity in the urban fringe area	Goos LIER	Saxion University of applied science - Netherlands

LAND L1.1 : Urban design & architecture (Chairs : Andre Viljoen and Katrin Bohn)		
The Food Urbanism Initiative - Design Research Results	Craig VERZONE	The Food Urbanism Initiative, Verzone Woods Architectes - Switzerland
Food Urbanism: Analysis of the Bernex Urban Farm Park Competition (GENEVA, SWITZERLAND)	Danielle ALEXANDER	University of Virginia - United States of America
Stakeholders perceptions and acceptance of agricultural production in and on urban buildings in Berlin, Germany	Kathrin SPECHT , Rosemarie SIEBERT, Ulf B.FREISINGER	Leibniz Centre for Agricultural Landscape Research - Germany
The innovation of zero-acreage farming: new challenges for urban networks and policies	Susanne THOMAIER	Technische Universität Berlin - Germany

LAND L1.2 : Gardening the city (Chair : Nevin Cohen)		
Urban Agriculture in the Ruhr Metropolitan Area, Germany – From historic farmland preservation to new urban farmland reclamation on industrial brownfields	Michael ROTH [1], Miryam FRIXEN [2], Carlos TOBISCH [3]	1 Nürtigen Geislingen University- Germany, 2 Plan-Lokal Consultancy - Dortmund - Germany, 3 Die Urbanisten e.V. - Germany
Legalizing urban agriculture? Land-use planning innovations in Detroit (MI)	Flaminia PADDEU	Université Paris 4 Sorbonne - France
Growing food for self-consumption inside or near the cities: production and risks in associative gardens in the Parisian Region and in Montreal City	Jeanne POURIAS[1], Christine AUBRY[2], Anne-Cécile DANIEL[2], Elisabeth REMY[2]	1 AgroParisTech / UQAM - France, 2 AgroParisTech - UMR SAD-APT - France
The emergence of municipal gardens in Greece. New social functions of agriculture in times of crisis	Theodosia ANTHOPOULOU [1], Sofia NIKOLAIDOU [1], Maria PARTALIDOU [2], Michael PETROU [3]	1 Panteion University - Greece, 2 Aristotle University of Thessaloniki - Greece 3 The Greek National Centre of Social Research - Greece
Towards a sustainable food system: the role of urban agriculture in Hanoi households' food security	Gwenn PULLIAT	Université Paris Ouest - France

GOVERNANCE G1 : Cities as rising food policy actors (Chair : Kevin Morgan)		
Transitioning the Food System in the US and Canada: The roles of municipalities in regime transformation	Nevin COHEN	The New School - United States of America
Re-framing the Foodscape: The rise of cities as food policy actors	Ana MORAGUES FAUS, Kevin MORGAN	Cardiff University - United Kingdom
State of the art on barriers and challenges of sustainable food governance of urban regions in France	Marketa BRAINE-SUPKOVA	International Urban Food Network, AgroParisTech - France
From unconsciousness to driver for change: perceptions as barriers and drivers in the meeting between food and the city in Lyon	Caroline BRAND	Université de Grenoble - France
Can local and urban food policy groups lead the charge against food poverty?	Jess HALLIDAY	Centre for Food Policy, City University London - United Kingdom

13:00 Lunch

14:00 Presentation of the SURFOOD program (Sustainable Urban Food Systems)
Nicolas Bricas, CIRAD (Montpellier, France)

14:15 Plenary session
Marielle Dubbeling, Director of the RUAF-Foundation (International network of Resource centres on Urban Agriculture and Food security)
Integration of agriculture into urban planning

15:00 - 17:00 Parallel tracks

FLOWS **F2.1 : Systemic approach of urban food systems and rural - urban linkages (Chairs : Harriet Friedmann and Jean-Marc Touzard)**		
Innovation In the Evolving Urban Food System of Monterrey Mexico	Craig HARRIS	Michigan State University - United States of America
Example of a West African urban food system: an agricultural urban system approach	Ophélie ROBINEAU [1], Patrick DUGUE[2], Christophe-Toussaint SOULARD[3]	1 CIRAD/INRA, UMR Innovation - France, 2 CIRAD, UMR Innovation - France, 3 INRA, UMR Innovation - France
Changing status of wild food from peasant food to fine dining, and potential implications for urban-rural interactions and planning	Ingrid SARLÖV HERLIN[1], Carl HERLIN[1], Richard TELLSTRÖM[2]	1 SLU. Dep. of Landscape Architecture Planning and Management - Sweden, 2 Örebro University, Hospitality, Culinary Arts and Meal sciences - Sweden
Transition to alternative food systems: Planpais-Granada a participative-research and action model in progress	Alberto MATARAN RUIZ[1], Francesca LOTTA[2], Tíscar MELLADO LOPEZ[1],et al.	1 Universidad de Granada UGR - Spain, 2 Università di Palermo - Italy

FLOWS **F2.2 : Mapping urban foodsheds (Chairs : Sabine Barles and Benoit Daviron)**		
Drivers for Sustainable Food Chains - Comparing Innovation and Land Use Potentials of European Metropolitan Regions	Dirk WASCHER[1], Stefano CORSI[2], Ingo ZASADA[3], Guido SALI[2]	1 Alterra, Wageningen UR - Netherlands, 2 University of Milan - Italy, 3 Leibniz Centre for Agricultural Landscape Research (ZALF) - Germany
Urban Food Print: a tool to calculate the land needed to feed Dutch cities	Jan EELCO JANSMA, Esther J. VEEN, Wijnand SUKKEL, Andries J. VISSER	Wageningen UR, Applied Plant Research - Netherlands
Food cells and food nodes. Two new concepts to rethink –traditional- urban and food planning practices. The case of Barcelona's Metropolitan Region.	Sonia CALLAU[1], Josep MONTASELL [2]	1 Barcelona's Provincial Council - Spain, 2 Baix Llobregat Agricultural Park - Spain
Autononomie alimentaire et villes vivrières	Laurence GRANDCHAMP[1], Catherine DARROT[2]	1 Université de Strasbourg - France, 2 Agrocampus Ouest - France

LAND L2 : Technical and agronomic issues (Chair : Christophe Soulard)		
Innovative forms of commercial urban agriculture as contributors to urban food systems? The case of Paris and region	Christine AUBRY	INRA, AgroParisTech, UMR SAD-APT - France
Raised beds versus local soil cultivation in urban agriculture – what's the difference in terms of ecosystem services?	Regine BERGES	Leibniz-Centre for Agricultural Landscape Research - Germany
Adaptation of vegetable system to urban areas in Meknés, Yaoundé and Hanoi	Hubert DE BON [1], Laurent PARROT [1], Joel SOTAMENOU[2], Patrick DUGUE[3]	1 UR HortSys, CIRAD - France, 2 CIRAD - Cameroon, 3 UMR Innovation, CIRAD - France
Alternative strategies for vegetation implementation and integration within the urban context: the case of Bogotá	Monica Andrea HERNANDEZ HUERTAS, André DE HERDE	Université Catholique de Louvain - Belgium

GOVERNANCE G2.1 : Implementing urban food strategies (Chair : Kevin Morgan)		
Growing Green Cities: an Emerging Strategy for Sustainable Regional Food Planning in the Amsterdam Metropolitan Area	Arnold VAN DER VALK[1], Gaston REMMERS[2]	1 Wageningen University - Netherlands, 2 CAH Vilentum - Netherlands
The integration of food system planning into planning practices: Status Quo and future perspectives in Germany	Anna GALDA	Technische Universität Berlin - Germany
Public Sector Food Procurement Practices and local food, environmental and procurement strategies: survey of local authorities in northern England	Mark STEIN	Salford University Business School - United Kingdom
Development of the local food systems in the Pays de Rennes : from a confrontation between local institutions to a shared development plan	Marion DIAZ, Catherine DARROT	Agrocampus Ouest - France

GOVERNANCE G2.2 : Participation: toward food democracy? (Chair : Alison Blay Palmer)		
Uninvited participation in Amsterdam's second Food Strategy	Freek JANSSENS[1], Corrado BOSCARINO[2], Anke DE VRIEZE[3]	1 University of Amsterdam - Netherlands, 2 VU University Amsterdam & Wageningen - Netherlands, 3 Netherlands
Analyser les mouvements alimentaires urbains: le cas de Montpellier	Romain FECHE, Max ROUSSEAU	CIRAD - France
Urban Agriculture in Montreal and the Search for Common Ground	Isabelle MAILHOT LEDUC, Élisabeth ABERGEL	Université du Québec à Montréal - Canada
Sandwell: a case study of community agriculture and food policy development	Angela BLAIR [1], Veronica BARRY [2]	1 Sandwell Public Health - United Kingdom, 2 Ideal for All Ltd - United Kingdom

17:00 Coffee break

17:15 Plenary session

Dr. Mary Njenga, Research scientist in urban agroecosystems and environment at the World Agroforestry Centre (ICRAF) and University of Nairobi (Kenya)

Innovation in urban agriculture for food security, livelihoods and the environment in Kenya

Tuesday, 29 October 2013

08:30 Plenary session

Paule Moustier, Senior researcher and Food Market Specialist at CIRAD, the French research centre specialized in tropical agriculture (Montpellier, France)

Short urban food chains in LDCs: signs of the past or of the future?

09:15 - 11:15 : Parallel tracks

FLOWS **F3.1 : Urban food markets & farmers networks (Chair : Paule Moustier)**		
Reconnecting local agro-food systems with urban markets in the crisis-hit Greece: the potential for farmers' markets and social economy initiatives	Sophia SKORDILI	Harokopio University, Georgaphy Dept. - Greece
Open air food markets around Montpellier: places for community building and re-localisation of urban food systems or just ordinary shopping places?	Coline PERRIN[1], Virginie SANCELME[2], Elodie VALETTE[3], Claire CERDAN[4]	1 INRA, UMR Innovation - France, 2 Master student at UMR Innovation - France, 3 CIRAD, UMR Tetis - France, 4 CIRAD, UMR Innovation - France
Organic farmers' networks and sustainable food quality : the slow rising of a food quality based on territory in Sweden	Camille HOCHEDEZ	Université de Poitiers - France
Tianguis alternatives locales au Mexique, comme les expériences de production et de consommation locale: le cas de Puebla Alternative Tianguis	Rocio GARCIA BUSTAMANTE[1], Susana RAPPO MIGUEZ[1], Ludovic TEMPLE[2]	1 Universidad Autónoma de Puebla - Mexico, 2 CIRAD, Département Environnements et Sociétés - France

FLOWS **F 3.2 : Toward a smart city : managing flows of materials & knowledge (Chair : Benoit Daviron)**		
Enhancing planning workflow with Information Technologies	Corrado BOSCARINO[1], Freek JANSSENS[2]	1 Vrije Universiteit Amsterdam - Netherlands, 2 Universiteit van Amsterdam - Netherlands
Developing the concept of a 'Food-Smart City' in the region of the West Midlands, UK	Adrian MORLEY, Michael HEASMAN, Ralph EARLY	Harper Adams University, Deparment of Food Science and Agri-Food Supply Chain Management - United Kingdom
Reframing the territory of relations between quality production and public procurement	Andrea CALORI	Politecnico di Milano, Laboratorio di Progettazione Ecologica - Italy
Reframing Urban Food Waste as a Renewable Resource	George PHILIPPIDIS, Patrizia LA TRECCHIA	University of South Florida - United States of America

LAND L3.1 : Consumers as lever for change in urban food systems (Chair : Sandrine Costa)		
Completing the equation: The role of educational policies when establishing urban agriculture as part of "The New Food Equation"	Katrin BOHN [1], Andre VILJOEN[2], Regina OTTERS[3]	1 University of Brighton - United Kingdom, 2 Bohn&Viljoen Architects - United Kingdom, 3 Technische Universitaet Berlin - Germany
urban agrarian reform now? An action research update	Debra SOLOMON, Mariska VAN DEN BERG	Urbaniahoeve, Social Design Lab for Urban Agriculture - Netherlands
'Sense of place' for communities as the key to farming for the city	Howard LEE, Lillian MEMIA	Hadlow College - United Kingdom
Pick-your-own farm in a new town : Who needs whom the most ?	Aurore DUPONT, Vincent MORINIAUX	Université Paris 1 Panthéon Sorbonne - France

LAND L3.2 : Farmers' adaptation to urban pressure (Chairs : Christine Aubry and Moussa Sy)		
When food needs can not wait for bureaucratic plans: leveraging potential synergies in Spanish inner cities	Marian Simon ROJO, Jose Antonio GARCIA ROLDAN	Technical University of Madrid - Spain
Constraints to agricultural activities in peri-urban areas. The case of the Pisa region (Tuscany, Italy)	Giulia GIACCHE, Elisa MARACCINI, Rosalia FILIPPINI, Enrico BONARI	Institute for Life Sciences, Scuola Superiore Sant'Anna - Italy
Food production for the city: different farmers strategies in the region of Pisa (Tuscany, Italy)	Rosalia FILIPPINI[1], Elisa MARRACCINI[1], Marie HOUDART[2], Marta DEBOLINI[3], Sylvie LARDON[4]	1 Institute for Life Sciences - Italy, 2 IRSTEA - France, 3 INRA, UMR Emmah - France, 4 INRA, AgroParisTech, UMR Métafort - France
Food production and socio-economic impact of peri-urban agriculture in Casablanca	SAID BERDOUZ	Prince Sidi Mohamed Institute of Agricultural Management and Trade - Morocco

GOVERNANCE G3 : Scales (Chair : Kevin Morgan)		
Smart city and food justice: beyond the rhetoric. Turin as territorial food system	Dansero EGIDIO[1], Barbera FILIPPO[1], Toldo ALESSIA [2]	1 University of Turin - Italy, 2 Eupolis, Politecnico di Torino - Italy
More Than Physical Infrastructure: The Struggle over the Nature and Governance of Regional Food Hubs	Phil MOUNT, Alison BLAY PALMER	Wilfrid Laurier University - Canada
The comeback of the food issue in the city of Lausanne	Françoise JARRIGE	Montpellier Supagro - UMR Innovation - France
Innovation in Municipal Policy; Transferable Lessons from Urban Agriculture Policies in the United States and South America	Tori OKNER[1], Alain SANTANDREU [2]	1 Tufts University - United States of America, 2 RUAF Foundation

11:15 Coffee break

11:30 Round table with local stakeholders

Maurice Bonnand, Vice-President of Saint-Etienne Métropole, « Terres en Villes » administrator (France)

Moussa Sy, Regional Coordinator of the African Institute for Urban Management (Dakar, Sénégal)

Anni Tafilica, Secchi-Vigano Agency, in charge of the urban project Montpellier 2040 (France)

12:30 Lunch

13:45 - 15:30 Parallel tracks

FLOWS **F4 : Logistics & urban food provisioning (Chairs : Benoit Daviron and Harriet Friedmann)**		
Urban food provisioning and city logistics: the wholesale produce market as Food Hub.	Eleonora MORGANTI	IFSTTAR - France
The management of flows in Alternative Food Networks and in the commodity sector: different needs and different solutions?	Amélie GONCALVES[1], Thomas ZEROUAL[2]	1 IFSTTAR-SPLOTT - France, 2 ESCE - France
The challenges of local food networks. Learning from real place experiences.	Juliana LUTZ	Alpen Adria University, Institute for Social Ecology - Austria

LAND **L4 : Urban agriculture in Planning (city to region scale) (Chairs : Nevin Cohen and Mayté Banzo)**		
What is the impact of greenbelt policies on peri-urban farm size? An illustration within Ontario's Greenbelt, Canada	Mikael AKIMOWICZ[1], Harry CUMMINGS[2], Karen LANDMAN[2]	1 University of Toulouse - France, 2 University of Guelph - Canada
Revisiting urban planning to integrate agriculture issues by the means of landscape metrics : a methological proposal	Esther SANZ SANZ, Claude NAPOLEONE	INRA Ecodéveloppement - France
Urban agriculture and planning relations: a case study in Santiago de Chile.	Maria CONTESSE	Wageningen University - Netherlands

GOVERNANCE G4 : Towards food justice? (Chair : Nicolas Bricas)		
Foster food Justice in the villas of Buenos Aires. A territorial approach of the strategies developed to improve the food access for the poorest boroughs in a city.	Chloe REISER, Julie LE GALL	ENS Lyon - France
Social innovations in urban food networks: towards food democracy and justice? A tool of analysis	Yuna CHIFFOLEAU , Dominique PATUREL	INRA, UMR Innovation - France
Just being a consumer ? The role of social and solidarity based economy in a sustainable food system.	Simon Da Cunha[1], Leila Temri [2], Myriam Kessari[3]	1 Surfood - France, 2 Supagro Montpellier - France, 3 Groupe Sup de Co Montpellier Business School - France

15:15 Coffee break

15:30 - 17:00 Parallel tracks

FLOWS F5 : Farmers' adaptation to feed the city (Chairs : Paule Moustier)		
Meeting the needs of a capital city: multifunctional agriculture in Rome	Francesco VANNI[1], Stefano GRANDO[2], Roberto HENKE[1], Livia ORTOLANI[3]	1 INEA - Italy, 2 Laboratory of rural studies "Sismondi" - Italy, 3 AIAB Scientific Board (Italian Association for Organic Agriculture) - Italy
A Recent History of the Fresh Milk Traditional Supply in El Cairo	Annabelle DABURON	CIRAD - France
Exploring the role of innovation in short food supply chain's experiences : the case of Italy	Aurora CAVALLO[1], Francesca GIARE[2], Luigi MASTRONARDI[3], Davide MARINO[1]	1 University of Molise and Cursa - Italy, 2 National Institute of Agricultural Economics (INEA) - Italy, 3 University of Molise - Italy

LAND L5 : Land issues in Urban Agriculture (Chair : Coline Perrin)		
Towards multifunctional land use - the case of urban and peri-urban agriculture in the city region of Zurich	Ingrid JAHRL, Otto SCHMID	Forschungsinstitut für biologischen Landbau - Switzerland
How do new urban farming projects find land in Vienna? A case study about access to land in the periurban districts of Transdanubia.	Jo PFISTERER et al.	University of Natural Resources and Life Sciences - Austria
Making food production land and natural land on the outskirts of cities?	Christine MARGETIC	Université de Nantes - France

GOVERNANCE G5.1 : Short food supply chains (Chair : Alison Blay Palmer)		
Agroecological production systems as strategy of cross-sectorial governance to articulate rural-urban dynamics and promote sustainable territorial development. The case of family-based farmers in settlements of Mato Grosso do Sul in Brazil	Daniela ESPINOSA	Université Panthéon Sorbonne Paris 1 - France
Activating and creating proximities and social capitals in an urban food system: an Ecuadorian case-study.	Claire HEINISCH[1], Pierre GASSELIN[2], Guy DURAND[1]	1 Agrocampus Ouest - France, 2 INRA - UMR Innovation - France
Reframing Food Aid. The intervention research Uniterres-Ecoales in Poitou-Charentes and Aquitaine (France)	Isabelle TECHOUEYRES[1], Aurélie CARIMENTRAND[2], Anne-Elène DELAVIGNE[3], Camilo AVENDANO-CARDENAS[4], Mathilde LAGROLA[5]	1 Anthropology of food webjournal - France, 2 IUT Bordeaux 3- France, 3 MNHN - Paris - France, 4 Université Bordeaux 4 - France, 5 AgroParisTech-MNHN - France

GOVERNANCE G5.2 : Urban agriculture and social inclusion (Chair : Nicolas Bricas)		
Urban Food Justice: a social platform on urban agriculture in the Leeds city region (UK)	Chiara TORNAGHI	University of Leeds - United Kingdom
Community Based Urban Agriculture and resilient food systems from a bottom-up point of view	Marco CLAUSEN	Prinzessinnengarten - Germany
The Labour Aspects of Food Governance in Cities	Edmundo WERNA	International Labour Office, United Nations - Switzerland

17:00 Plenary session

Robert Gottlieb, Professor of Urban & Environmental Policy, Director of the Urban & Environmental Policy Institute at Occidental College, Los Angeles (USA)
Food Justice: An Action Research Agenda.

17:45 Conclusions

Bernard Hubert, President of Agropolis International (France)

Abstracts of the Plenary Sessions

Marielle DUBBELING[1] : Integration of agriculture into urban planning.

[1] *Director of the RUAF-Foundation (International network of Resource centres on Urban Agriculture and Food security).*

Secure access to land is always quoted among the first constraints by urban and peri-urban farmers. Local governments often still tend to see agriculture as a temporal use of urban land until it can be used for other "more profitable uses" In doing so, they overlook the non-monetary benefits and services of urban and peri-urban agriculture in its contribution to more resilient urban food systems, public health, greening, waste management and climate change adaptation. To benefit from all the potential contributions offered by urban and peri-urban agriculture, cities need to include urban agriculture in their strategic development and land use plans in order to regularize the use of land for cultivation. Even a limited acceptance by government can influence the status of urban farmers in two ways. First, it encourages a sense of security that will lead them to make more improvements to their farming system and, secondly it allows urban farmers to access credit and to use their land occupancy as collateral for small loans, thus overcoming the barrier of not having formal "property" (RUAF Foundation, 2013). In addition to the preservation and protection of existing agricultural land, governments could also optimize the use of vacant and non-built land areas up for food production by raising land (m2) / space (m3) rent of agricultural production, as well as support multiple functions and land uses. Innovative mechanisms to do so and to integrate agriculture into urban planning and city development plans exist and include promotion of vertical growing; short-term user right agreements; zoning of urban agriculture areas; multifunctional design of garden-parks and community land trusts that could be applied elsewhere. The presentation will present examples from various cities as well as highlight governance, planning and technological challenges and gaps.

Robert GOTTLIEB[2] : Food Justice: An Action Research Agenda.

[2] *Professor of Urban & Environmental Policy, Director of the Urban & Environmental Policy Institute at Occidental College, Los Angeles - USA.*

Food Justice, for some of us in the U.S., has come to signify organizing to bring about food system change; a focus on equity and disparities; and an entry point for a broader social justice agenda. A food justice action-research agenda will be described that seeks to identify and evaluate and engage in the ways that social movements can bring about change in each of those areas.

Nik HEYNEN[3] : Abolition Ecology and Urban Hunger in the City.

[3] *Professor of geography at the University of Georgia - USA.*

This essay will start from a foundation of both the strengths and weaknesses of Urban Political Ecology (UPE) and Environmental Justice (EJ) for the sake of developing the conceptual framework of "Abolition Ecology". I will do this within the context of urban food systems to more fully consider the politics of food justice. The intention here will be to more centrally locate racialized class ideologies at the intersection of existing discussions about the metabolization of urban nature that I will argue underpins much of food justice politics. While the hybridity inherent to the socio-natural formation of the city and its contradictions, tensions and conflicts has been widely acknowledged, little has yet been done to situate racial struggles for equality within this recognition around discussions of food

systems and urban metabolization. Starting with the organizing logics of Frederick Douglas and W.E.B. DuBois this essay seeks to productively complicate the existing ideas around the metabolization of urban nature seen explicitly through the struggles around explicitly urban anti-hunger politics through the idea of abolition ecology.

Paule MOUSTIER[4] : Short urban food chains in LDCs: signs of the past or of the future?

[4] Senior researcher and Food Market Specialist at CIRAD, the French research centre specialized in tropical agriculture, Montpellier - France.

The paper investigates the specific features of short food chains supplying cities in LDCs in relation with the characteristics in terms of transportation, farmers' strategies and consumer preferences. It is based on author's surveys in Africa and Asia on the origin of food (mostly vegetables) sold in urban markets, traders and consumers' strategies on strategies of supply and distribution. Case studies are presented for Vietnam (based on primary data), Senegal, India and Brasil (based on secondary data and interviews with key informants). Short food chains are defined as chains with zero or one intermediary between farmers and consumers. The results show that, in line with the predictions of spatial economics, short food chains are dominant in the supply of perishable products, e.g., leafy vegetables, in a number of cities of Africa and Asia. This can be put in relation with the bad state of transport infrastructures, cheap labour force and farmers' strategies to get incomes from marketing. The dominance of short food chains diminishes when transport infrastructures to rural areas are improved, and urban development constrains access to agricultural land, along with what has been observed in Europe. Yet there are forms where farmers and consumers are more active in taking advantage of regular interactions, in particular to promote food quality and safety, in a context of growing concerns of consumers for their health. This is the case in Vietnam where shops held by farmer cooperatives have emerged and communicate to consumers on vegetable safety. This is also the case of a scheme of direct deliveries of vegetables to consumers organised by a social-responsibility company buying from producer groups. The examples of organic farmer markets in Vietnam and India, and direct purchases by consumers to chemical-free farms in Senegal and Brasil are also described. The paper concludes with some specificity of short food chains in Asia and Africa, including the importance of health rather than environmental aspects, the wide diversity of types of policy support and of social capital involved in food chains.

Dr Mary NJENGA[5] : Innovation in urban agriculture for food security, livelihoods and the environment in Kenya.

[5] Research scientist in urban agroecosystems and environment at the World Agroforestry Centre (ICRAF) and University of Nairobi - Kenya.

In Kenyan cities, urban agriculture is practiced in backyard farms, open spaces under power lines, along roadsides, railway lines and river banks as well as on institutional land. In informal settlements where space is limited, communities practice low or zero space agriculture such as growing vegetables in a recycled sack. The most interesting part of urban farming is its linkage with waste reuse as a source of plant nutrients. Nairobi, the Kenyan capital city generate approximately 3000 metric tonnes of solid waste daily of which 70 percent is organic and some of it is recovered as feed for livestock or for production of organic fertilizer. The high costs of cooking fuel results in poor households using unhealthy materials such as plastic waste. Further, poor households are opting to cook foods that take a short time to prepare irrespective of their nutritional value. To address the cooking energy poverty poor households are turning to briquette which is made by compressing charcoal dust bound with either biodegradable waste paper, soil, or cow dung into a solid unit that is used like charcoal or firewood.

Abstracts of the Parallel Tracks

(Alphabetical order)

What is the impact of greenbelt policies on peri-urban farm size? An illustration within Ontario's Greenbelt, Canada

Mikael Akimowicz [1], Harry Cummings [2], Karen Landman [2]

[1] University of Toulouse - LEREPS - Toulouse - France

[2] University of Guelph - SEDRD - Guelph - Canada

Introduction

Nowadays, metropolitan areas expand rapidly over surrounding rural land. High amounts of prime agricultural land are then consumed for non-farming purposes. This consumption increases competition for farmland access on the land market and affects peri-urban farming systems (Cavailhès et al. 2012). Nevertheless the proximity to urban areas is also an opportunity for farms to diversify their incomes (Inwood and Sharp 2012, Paul and McKenzie 2013). In this context, land use zoning is a common policy to regulate peri-urban land consumption, which consists of separating one set of land uses from another based on mapped zones (e.g. greenbelt policies).

This is the case of Ontario, Canada where a population increase of 4.4 million inhabitants by 2036 is forecasted, with 2/3 of this population growth settling in the area known as the Greater Golden Horseshoe. Urban sprawl is thus a burning issue in southern Ontario, a region which concentrates 52% of Canadian prime agricultural land. In 2005, the government of Ontario passed a law setting up a greenbelt policy that regulates future development of 1.8 million acres of land (Pond 2009). One of the objectives of this regulation is to preserve farmland. This paper aims to assess the impacts of the Greenbelt on farm size. No research has yet investigated the impact of greenbelt policies on farm size, which will be of interest to the design of future policies concerning the Greenbelt in reaching the initial objectives of the legislation.

Methods

An ordinary least square model is used to estimate farm size drivers in Ontario. This method has been used successfully by Butault and Delame (2005) and Akimowicz et al. (2013). Data is taken from the Canadian Censuses of Agriculture for 2006 (implementation of the Greenbelt) and 2011. The model includes three types of variables: farm structure variables, farmers' characteristics variable, and farm location variables. The challenge of this methodology is to use agglomerated data since Statistics Canada does not provide any access to individual data for deontological purposes. A set of methodological choices (e.g. identification of CCSs part of the Greenbelt) have thus been taken in order to carry out the research.

Results

First, estimations exhibit a R^2 value of approximately 50% both in 2006 and 2011, which is similar to R^2 values in other research such as Butault and Delame (2005) who used a financial farm size variables (e.g. R^2 value of 54%), or higher than in Akimowicz et al. (2013) who used individual farm data (e.g. R^2 value of 37%). The use of agglomerated data has non-surprisingly decreased the variance of the sample due to a lower amount of observations and the use of average values.

Second, the estimated coefficients of the independent variables have similar effects to those presented in the literature. This is particularly true for farm structural variables both in 2006 and 2011. On the contrary, variables about farmers' characteristics do not have a significant impact. The lack of significance of these variables is due to the use of agglomerated data.

Third, the location variables have a very significant impact. The 2006 average farm size in CCSs not included in the greenbelt decreases with decreasing rurality (i.e. -48ha in metropolitan areas, -41ha in agglomerations, and -33ha in low metropolitan influenced CCSs compared to no metropolitan influenced CCSs). Nevertheless, the location of CCSs in the greenbelt modified significantly this trend with an average farm size in metropolitan CCSs larger by 14 ha than in agglomerations. This trend remains constant in 2011. Moreover, results also show that the location of farms in the greenbelt impacts farm size growth since farms located in metropolitan areas grow faster than in agglomerations.

Conclusions

In this paper, we showed that the location of peri-urban farms in the Greenbelt impacts significantly farm size given that the Greenbelt is located in a metropolitan area or an agglomeration. Further research is yet needed to confirm this first results in other regions and to validate the farmers' decision making underlying this process. This paper is connected to the second parallel session "Land: farming for the city" of the 5th AESOP Conference. It provides insights concerning a specific regulation designed to preserve peri-urban farmland from future development, e.g. greenbelt, in order to maintain a peri-urban agriculture that can supply urban centres with local food.

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Keywords: Greenbelt, farm size, farmland, urban sprawl

Presenting author: Dr Mikael Akimowicz, mikael.akimowicz@gmail.com

Food Urbanism: Analysis of the Bernex Urban Farm Park Competition (GENEVA, SWITZERLAND)

Danielle Alexander [1]

[1] University of Virginia - Charlottesville - Virginia - United States of America

Introduction

In 2013, the Canton of Geneva, Switzerland together with local stakeholders selected a winning project for a competition to design a nine hectare agro-urban park, slated to be constructed in 2016 in the urbanized band of Geneva, west of its city center. This paper presents the results up a spatio-functional analysis of the competition, specifically of the seven prized and mentioned entries.

The competition held in 2012 - 2013 to design an urban farm park in Bernex, Switzerland is the first of its kind. It specifically hopes the winning project will implement "test beds for interaction between the urban population and the farming industry" and views the project as having the "capacity...to provide a new, exemplary vision of the relationship between towns and fields". Forty-nine submissions were sent for judging in March of 2013, with Verzone Woods Architects winning the top prize and commission to construct the park. The jury was composed of a team of experts, including agricultural specialists, landscape architects, architects, municipality leaders, urban planners, agronomists, environmental, agricultural, and transportation engineers.

As a part of the research of The Food Urbanism Initiative, an investigation of the competition results aims to uncover the fundamental design intentions of the design research performed under the strict program of the competition.

Methods

Examining the competition submissions and jury's report provides access to a wide variety of attempts by designers to integrate urban agricultural and public planning at this scale with the intent that it becomes a built work. These results demonstrate the potentials of sustainable urban food planning and display design possibilities to integrate viable farming systems in urban centers as essential resources and city infrastructure.

To perform this research, planometric diagrams were constructed and overlaid to extract the values of the top seven teams as exemplified by the spatial organization of elements in their design. Key diagrams include circulation maps, topographical changes, farm, market, and greenhouse locations, visual porosity from the edges, canopy cover, water management strategies, access points, and division of public and agricultural space. Coupling the diagrams through an overlay process allowed for synthetic information to be collected, such as the relationship between farm field location and circulation. The jury's report was also analyzed for its written assessments of the top five projects.

Results

The two main features of concern that emerged were farm viability and engagement with the public. The jury was intent on supporting a project that showcased agricultural activity, with a clear functional separation of agricultural and non-agricultural use. Farm viability was achieved through the consolidation of farm fields to ensure efficient production management. Circulation and field organization favored traditional orthogonal and utilitarian field organization, as opposed to curvilinear paths favoring pedestrian circulation of the public space and dispersed farm fields. The latter form of circulation was eliminated in early rounds of judging. This also contributed to the visual identity of the park, as most successful projects maintained wide field views consistent with what would be found in rural areas. Quantifying intended agricultural production types revealed that the more varied the production, the more successful the project, demonstrating a desire for diversity of products and also visual diversity in the agricultural landscape.

The intent to provide a new public space that engaged the surrounding community was upheld by the judges. Topographical diagrams displayed an interest in providing earthworks sufficient to allow for viewing of the fields and the process of production. The most successful projects located the farm buildings close to the Rt. de Chancy, so that farm activity was in the public view. Public space in the park was more often specifically as opposed to flexibly programmed, with program elements taking on the theme of agriculture to engage the audience and assert the agricultural character of the park. Community gardens, demonstration gardens, kitchens, pick your own fields, and sports fields were most common, but nevertheless projects that attempted innovative programs such as skate parks, telescope viewing, and ecological programming made it to the final judging round. Programs were most successful when they were manifested as dispersed yet linked public spaces forming a single park entity, as opposed to consolidating them away from the agricultural program.

Though not asserted as prime to farm viability, certain of the proposals demonstrated greater levels of interest in ecological planning of the park through corridor creation, species support, and recreational ecological programming of the park. These present unique opportunities that while referred to in competition materials, were not recognized as prime to park success.

Conclusions

The prime question asked by this research was: What are the necessary public space linkages in a viable, operating farm required to create a successful urban farm park? It is clear from the analysis that these urban agriculture park proposals favor viability and production over consolidated public park programming, but allow for intermingling of the public to provide experiences that assist visitors in the understanding and valuing of agricultural production. While clear delineation of public and agricultural space is necessary, their juxtaposition firmly roots the identity of the park in its agricultural base.

This analysis intends to learn from the design research performed under the constraints of a competition so as to grow the knowledge base of urban agricultural park design, given that there are so few constructed precedents. It is a unique opportunity in that there are few examples of the analysis of multiple approaches by professions to design the same site.

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2. Rapport du Jury, concours international, parc agro-urbain de Bernex et Confignon, April 2013.
3. www.foodurbanism.org

Keywords: design research, spatial analysis, food urbanism, park design, urban agriculture

Presenting author: Miss Danielle Alexander, dja5hx@virginia.edu

The emergence of municipal gardens in Greece. New social functions of agriculture in times of crisis

Theodosia Anthopoulou [1], Sofia Nikolaidou [1], Maria Partalidou [2], Michael Petrou [3]

[1] Panteion University, Athens, Greece

[2] Aristotle University of Thessaloniki - AUTh Campus, School of Agriculture, Thessaloniki, Greece

[3] The Greek National Centre of Social Research, Athens, Greece

Introduction

Recognizing the multifunctional role of agriculture i.e. production of public goods, apart from food per se, it is placed in the urban agenda; in an agro-urban approach for planning sustainable cities (Pourias et al, 2013). Urban agriculture, having a long history and recorded activity in the Western world, is only recently emerging in Greece. The economic crisis, with rising unemployment and cuts in social benefits, has created a number of "neo-poor" households, especially in urban centers. Since 2011, many Greek municipalities stimulated the development of municipal urban gardens in urban and periurban areas. Their policies were viewed as a relief from citizens through self-production and social inclusion of vulnerable groups while not setting aside the importance of landscaping and environmental management. The growing number of municipal gardens mapped recently in Greece (Anthopoulou et al, 2012) confirms the dynamics of a social request to reconnect with agriculture, highlighting more than ever the nutritional function and value of urban vegetable gardens in the light of the economic and general crisis of the contemporary consumption models. However, amidst the backslapping for these initiatives there must exist a question of sustainability of urban governance and land planning within a policy framework for farming in the city. Using content and discourse analysis we try to provide for the first time an overview of urban agriculture and contribute to building a theory.

Methods

Drawing on concepts and stories of three municipal vegetable gardens in urban centers in Greece we try to elaborate on the emergence of municipal gardens and the social functions of agriculture in times of crisis. Using field research, participant observation in natural settings, as well as key-informants and focus groups with urban farmers we try to investigate the following: motives, expectations and consumption patterns; the nutritional function and the contribution of municipal vegetable gardens to support both economically and socially the households and especially these vulnerable groups. Finally, there is a basic question of the duration and sustainability of these initiatives, of local and regional administrative bodies, through institutional consolidation of urban agriculture (land use) and its integration in urban planning. Discussion is drawn upon results of content and discourse analysis using grounded theory.

Results

Preliminary results (while still ongoing research) reveal that for the bulk of urban gardeners the driving force is "to produce my own food". This fact also disinters the need for fresh, organic and healthy foods in contemporary inconsistent times of food sovereignty and nutritional risks. The “cheapest access to fresh food” (economic reasons) was the second most important incentive given the dramatic impact of the economic crisis and the austerity policy in Greece. In the case of urban gardens located in a more dense urban fabric (such as Athens) a different important motivation was to strengthen the community bond (replenishment of the neighborhood) and claim or protect the remaining open spaces as "green cells of participatory actions” of citizens. Most areas, although municipal, are made available to cultivators for a short time, which undermines their future use due to using more competitive land especially in big urban centers.

Conclusions

The nutritional function of municipal vegetable gardens in Greece seems to be significant but currently it is under investigation (research in progress). The initiatives seem to actually meet societal demands for locally produced food (fresh and organic) and also being promoted as an opportunity for sustainable urban forms (green spaces, leisure). These citizens’ requests are of particular importance when faced with the social and economic deprivation while also further erode the quality of life created by the crisis (FAO, 2010). Even if there is a lack of institutional framework to facilitate urban agriculture, both the current shrunk state of private funds, construction and real estate small financial activity, actually help the initiatives of urban agriculture.

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Keywords: Urban agriculture; municipal gardens; sustainable urban planning; agro-food system;

Presenting author: Dr Theodosia Anthopoulou, antho@panteion.gr

Innovative forms of commercial urban agriculture as contributors to urban food systems? The case of Paris and region

Christine Aubry [1]

[1] INRA AgroParisTech SADAPT - Paris - France

Introduction

The relationship between periurban agriculture and local consumers has been partially studied in the Paris region, mostly through the diverse forms of short supply chains. In this region, innovative forms of agriculture within the city, at least partially business-oriented, are developing. These urban agriculture forms, which have very diverse approaches regarding the soil they grow in, are inspired by experiences that already exist in North America (Cohen,2012).What form do they take, what are their objectives, how do they contribute to the urban food system - may this contribution be claimed or not (Mansfield & Mendes, 2012)?

Methods

We propose here to present an on-going research that combines a literature and documentary review on innovative urban agriculture forms around the world, surveys among project-leaders and a rooftop garden, implemented on the roof of AgroParisTech (a Parisian school of agronomy). The latter will be mobilized here especially in that it allowed us to be considered as interlocutors involved in an innovative project of intra-urban commercial farming

Results

Three forms have been identified so far in the Paris region, with varied objectives and varied implications regarding the access to the city "ground": (i) in two cases, the implementation of "commercial gardens" in soil, part of small-scale multifunctional urban projects (a few thousand square meters less than 2ha): a part of the garden is dedicated to grow crops that will be sold through “local boxes” and / or to a solidarity-oriented restaurant nearby, the other part of the garden is dedicated to associative activities such as collective gardening, educational farm, cultural animation. Supported by organizations that advocate for the movement of transition cities, these projects are in part funded by cities interested in these projects, and very willing to develop them. European projects also contribute to the funding and very secondarily, incomes earned thanks to their own business activity (ii) the conquest of urban rooftops with open-air gardens, claiming “ecological” production systems with a use of local organic inputs (including composts provided by people themselves): products are planned to be sold in short supply chains such as individual boxes, but also to gourmet restaurants. In the projects underway, economic viability is insured thanks to other functions: here again, a part of the roof can be dedicated to social or educational purposes with subsidies pertaining to these projects. Around ten associations or co-op companies are involved in 2013. (iii) Rooftop greenhouse projects, using hydroponic production system and aiming at high production levels and thus economic profitability per se. The leaders of these projects are entrepreneurs having either a skill in construction industry or in business, who enroll technical staff for production. By this time, three companies have been created.

All these projects push forward the benefits, real or assumed, of ultra-short supply chains without any (or almost) need for transportation: crops harvested at full ripeness, fragile species to rediscover, decreased in greenhouse gas emission by avoiding transportation. In the first two cases, the participation to the urban food system appears to be very local (targeted consumers live in the neighborhood, or even in the block of flats nearby) and is focused on the qualitative aspects of products or educational aspects (rediscovery of taste) rather than quantitative aspects. These projects also claim to participate in the education of urban dwellers to nature, and to contribute to other environmental services (biodiversity dynamics in the city, regulating heat islands), which are objects of ongoing research. Rooftop greenhouses consider taking part quantitatively to the urban food system, that they evaluate from references (15-20kg/m²/year of vegetables in greenhouses) and consider a variety of marketing chains, depending on their profitability (boxes, supermarkets collective or institutional catering etc.).

Conclusions

Many questions are raised including the technical constraints for installation (in soil, with issues about sanitary quality, on the roofs - technical adaptation of buildings to such new uses) and the quantification of their possible extension in French cities compared with some American ones). Many technical questions regarding the production, substrates, and the potential contamination by the urban environment are being investigated (Aubry, Bel et al, 2013). The evaluation of the links between these projects and urban dwellers needs now to be addressed as well as the complementary or competition relationships that may arise between these innovative forms of intra-urban agriculture (some highly productive) and professional forms of peri-urban agriculture dedicated to the city food supply, perhaps to the same categories of consumers.

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Keywords: urban agriculture; food supply; innovation; rooftop gardens; short supply chains

Presenting author: Mrs Christine AUBRY, christine.aubry@agroparistech.fr

Sandwell: a case study of community agriculture and food policy development

Angela Blair [1], Veronica Barry [2]
[1] Sandwell Public Health - Oldbury - United Kingdom
[2] Ideal for All Ltd - Smethwick - United Kingdom

Introduction
This paper will use a case study approach to examine the journey taken over more than a decade to develop a healthier food system for Sandwell, West Midlands, UK. It will describe the reasons for success as well as the barriers experienced. This reflective narrative will build on the knowledge and on the ground experience of two practitioners who have worked throughout this time.

Methods
Using a narrative based case study, we will describe the journey of development both of the community agriculture program, and the wider food policy work in Sandwell. This history of the work will be mapped against wider strategic and political changes, with an attempt to understand what might create the grounding for success or failure of such initiatives and policies.

Results
Achievements to date have included the development of a community agriculture program, involving reclamation of derelict land parcels for food production, and community based growing initiatives. There has also been cross-sector work to improve the food environment across the social gradient e.g. food access mapping, work with retailers and caterers, and community cooking, within a public health framework.

Sandwell, as a post industrial borough with multiple deprivation and areas of poor food access, faces many challenges. Levels of cancer, coronary heart disease, diabetes and obesity are all higher than average for the country. Levels of formal education are low and unemployment high. (Sandwell Partnership: 2009) These factors have led to the conclusion that problems must be tackled at many levels, and must include building community capacity, and engagement not only with strategy but also with local people who themselves have a strong knowledge of local barriers and opportunities affecting food and health.

Sandwell's Community Agriculture strategy has been unique in the country for its coordinated approach to food growing. The process of aligning both strategic support and community engagement in the transformation of derelict land is an arduous journey. The local work of Food Policy is also well known. Public Health has continued to develop and contribute to the wider body of research and policy pressure on food issues. For example, the food access mapping study has helped to influence and contribute to the development of a physical accessibility standard for healthy food in the West Midlands (Department for Health West Midlands). This in turn inspired a fresh food accessibility standard linked to housing density in the Core Strategy. In June 2010 Sandwell hosted a national conference, 'Lessons to Take Away' to explore the issues surrounding the influence of fast food outlets and their impact on health and planning law. Sandwell's Hot Food Takeaway Supplementary Planning Document is now in use and gaining momentum. Economic Regeneration has taken responsibility to progress work with the food industry in Sandwell, seeing the potential of this sector to deliver multiple outcomes.

Strong strategic leadership from Public Health has supported the development of this work to date and enabled these lessons to be incorporated into wider policies. However, as changes take place with current NHS reforms, and 'austerity cuts' the way ahead presents new challenges, and a danger that lessons learned will be lost. At times it seems that achievements made are being fragmented, and key relationships and knowledge lost.

Conclusions
This narrative will attempt to give a real world understanding of the skills needed as well as the complexities in which such initiatives must work in order to develop the ground for success. It will also highlight the lessons that can be learned from the story, and the real vulnerabilities to creation of a coherent food strategy.

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Keywords: Community agriculture, public health, community development, economic regeneration, spatial planning

Presenting author: Mrs Veronica Barry, veronica_barry@sandwell.gov.uk

Food production and socio-economic impact of peri-urban agriculture in Casablanca

Saïd Berdouz [1]

[1] Prince Sidi Mohamed Institute of Agricultural Management and Trade - Mohammedia - Morocco

Introduction

This paper discusses some of the results of the study that I conducted in 2012 and in 2013 in the Moroccan-German project action research on "Urban Agriculture as an integrative factor of climate's urban development in Casablanca." The study concerns the characterization and analysis of the agricultural sector in Casablanca at the micro, local and regional levels to identify the socio-economic impacts of peri-urban agriculture and approach to what extent it contributes to the food supply of a population of 3,750,500 inhabitants, 91.88% of the urban and only 8.12% (HCP, 2011) of the rural.

Methods

The study was conducted in two phases:

-The first phase of collecting and analyzing data on the agriculture sector in the Greater Casablanca to estimate regional production of agricultural commodities and narrow selection of farms in the study sample;

- A second phase of collecting and analyzing data for 100 farms representing the size of agricultural area, the existing systems of crops, crop management mode (bour or irrigation) and agricultural areas of the region. Data collection is done on the basis of a questionnaire with closed and open questions. Stratified sampling is adopted to determine the study sample and the SPSS and Excel are used to capture and analyze the data.

Results

The sectorial characteristics of peri-urban agriculture in Casablanca which are described and analyzed are:

- Agricultural land resources and their distribution by municipalities and size of area,
- The presented farmlands, their importance, their common distribution , and their efficiency and regional production of agricultural products,
- Animal production,
- The agricultural added value,
- The creation of employment in the agricultural sector,
- The advantages and constraints to agricultural production in the peri-urban area of Casablanca.

Also a comparison is made between the consumption of the population of Casablanca in agricultural production and regional products.

The study conducted at the agricultural exploitation level has allowed to complete a Sector Study at the regional and local levels. Technical, economic and social indicators characterizing the diversity of the adopted production systems and socio-economic roles of suburban farms in Casablanca have been calculated and analyzed.

Aspects of farm production concern rotations, the driving mode of farming, productivity, livestock structure, types of breeding and endowments of farms inputs in comparison with national standards, etc.

The socio-economic roles of urban agriculture are approached by calculation and analysis of some indicators of agricultural employment, the destination of production (that are sold and consumed on hand), the value of agricultural production, added value production, farm income and related income. Similarly, the susceptibility of farmers to ensure succession and sustainability of farming has been also tackled.

Conclusions

The study characterized the diversity of agricultural production in peri-urban Casablanca and determine the socio-economic indicators at the farm.

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Keywords: Suburban agriculture, agricultural production, gross margin, farm income, farm employment, Casablanca.

Presenting author: Mr SAID BERDOUZ, sberdouz@gmail.com

Raised beds versus local soil cultivation in urban agriculture – what's the difference in terms of ecosystem services?

Regine Berges [1]

[1] Leibniz-Centre for Agricultural Landscape Research - Müncheberg - Germany

Introduction

Urban green areas, the so called 'green infrastructure', play an important role for the provision of ecosystem services in cities which are important for the human wellbeing (Bolund & Hunhammar, 1999). Urban agriculture is part of this infrastructure and, as in many countries, it is a growing phenomenon in German cities.

While in the scientific community the potential benefits – especially the social effects - are widely discussed (Lovell, 2010), the potential environmental impact is still not studied in depth. The question left out so far is on how the various ways urban agriculture is practiced impacts on the ecosystem (Guitart, Pickering, & Byrne, 2012).

One aspect of this is that many urban gardeners grow in raised beds for various reasons, like soil sealing, soil contamination, etc. (Lovell, 2010). But what is the implication for ecosystem services whether the crops are grown in raised beds or if the local soil is cultivated? The answer to this question contributes on the one hand to the scientific discourse and on the other hand it highlights the potential strength and weaknesses of different cultivation techniques with implications for urban agriculture policy.

Methods

Based on an extensive literature review, an assessment matrix is developed, relating the different ecosystem services (TEEB, 2010) to the different ways of cultivation. The assessment is validated based on qualitative experts interviews.

Results

The results show significant differences between local soil and raised bed cultivation methods for some ecosystem services. While some ecosystem services are not influenced by the soil cultivation at all, others are quite sensitive to it. Additionally further research is needed to empirically detect the relationship between soil cultivation and certain ecosystem services, which have not been studied so far.

Conclusions

The study is an important step towards understanding the impact of urban agriculture on the urban environment – by studying its potential impacts on ecosystem services – with a focus on the cultivation practices. The results show that for some ecosystem services the cultivation of the local soil has a more positive impact than raised bed cultivation and the other way around. This opens the question, which ecosystem services are needed most in cities, implying the need for policy and planning to support the one or the other way farming for the city takes place.

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Keywords: urban agriculture; soil cultivation method; ecosystem services; assessment matrix

Presenting author: Mrs Regine Berges, berges@zalf.de

Completing the equation: The role of educational policies when establishing urban agriculture as part of "The New Food Equation"

Katrin Bohn [1], Andre Viljoen [2], Regina Otters [3]
[1] University of Brighton - School of Art, Design & Media Faculty of Arts - Brighton - United Kingdom
[2] Bohn&Viljoen Architects, UK
[3] Technische Universitaet Berlin, Institut fuer Landschaftsarchitektur und Umweltplanung - Germany

Introduction

The "new food equation", as discussed in this paper, means an urban food system that fully incorporates urban agriculture as a significant component within a regional supply system. It also means a food system that aims to create a "fair and sustainable market for local products".

This paper contends that such a "new food equation", as well as the equally important "market for local products" must start in the minds of the local population.

Example: At the local scale of a particular urban food system, a conflict may arise which, if not addressed, could lead to urban agriculture components being omitted from that system: Larger parts of the local population or users of a site may be indifferent to or not appreciate the multiple contributions urban agriculture can make to that food system or maybe cannot (or do not want to) purchase it's produce.

In this case, the question arises of whether and how urban designers and planners may cooperate with educators to complete the new food equation?

This paper discusses the potential of environmental education in providing strategies that may direct the flows of knowledge within a local community in such a way that the benefits of alternative urban food systems become evident, desirable and experienceable for all members of society.

It focuses on the spatial consequences of such educational approaches in the context of Continuous Productive Urban Landscapes (CPUL) to support them.

Methods

The paper will briefly contextualize its contention using recent developments in strategies to implement urban agriculture and alternative urban food systems.

Using the USA and the UK as examples, it will then investigate roles and types of knowledge flows in the creation of urban agriculture and alternative urban food system projects. The paper's focus will be on educational programs involving academic institutions, such as universities and schools.

The main part of the paper will be dedicated to the mapping and evaluation of the Berlin-based live project Spiel/Feld Marzahn. This current university- and student-led food growing project intertwines educational with spatial design aims and agronomy in an attempt to increase neighborhood identity and improve access to local healthy food. It conceptually and practically combines various explicit educational agendas, such as practice-based, project-applied teaching programs for local primary school and nursery children, landscape architecture students and local residents.

The closeness of the project site at the city edge to the rural and agricultural landscape outside East-Berlin, as well as the project's setting within Berlin's largest prefab housing estate, give this case potential within the productive urban landscape debate. Finally, the paper will examine whether and how such focus on education can be beneficial for the spatial design of emerging productive urban landscapes using the example of the CPUL City concept.

Results

Two of the authors have argued elsewhere that Inventories of Urban Capacity ®, i.e. planned assessments of potential productive urban landscapes, must include studies of stakeholder and managerial capacities (Bohn and Viljoen 2010). The paper will present the rationale of this argument, contextualise it as part of the authors' CPUL City Actions plan and critically assess it against other similar action proposals for the implementation of urban agriculture, namely the pioneering Diggable City report, USA (Balmer et al. 2005), the Umrisse einer Stadternährungsplanung, Germany (Stierand 2012) and the Cultivating the Capital report, UK (The London Assembly 2011).

Recognising the importance of the local resident population in the process of creating alternative urban food systems is, in itself, judged as an innovation within the advancement of the urban agriculture case, because the earlier planning inventories often concentrated more on the spatial or infrastructural conditions of suitable sites, as will be seen in some of the context-setting examples.

The paper will then discuss the role of knowledge flows for the creation of alternative urban food system projects. It will base this on comparative case studies in the USA (where the concept of ecological literacy originated in the 1990ies), the UK (where two of the authors are involved in architectural environmental teaching since the year 2000) and Germany (where the concept of environmental education has been applied since the 1970ies). In particular, the paper will draw on and assess the work of the Center for Ecoliteracy in Berkeley, USA, the Edible Campus project in Brighton, UK, and the Grün macht Schule Programm in Berlin, Germany, in relation to facilitating urban agriculture. Each of these projects aim to challenge conventional public perceptions and behavior patterns to open up discussions about the urban environment and a sustainable future, and each focuses on people in education, namely students and school children, as well as local residents.

In different ways, it can be seen in participants of any of these projects that the interest in, appreciation of and willingness to continue with urban agriculture projects increased when taking part in focused environmental education.

Using the case study Spiel/Feld Marzahn in Berlin, the paper will finally map and evaluate the impact of environmental education on the stakeholder capacity of this project and on the spatial design proposals for its integration into a productive urban landscape bridging the spatial gap to the adjacent rural landscape. An argument is made, that educational facilities within productive urban landscapes increase in return the latter's diversity and viability.

Conclusions

There is a significant role for academic institutions in delivering multi-stakeholder and cross-disciplinary educational programs to advance the role of urban agriculture within an alternative food system. This will require developing food-related curricula to include concepts, such as ecological literacy and practices such as wider university – community partnerships.

The paper addresses the following questions in the "Land" theme: How can productive buildings, gardens and public spaces be designed? How can healthy food be produced on wastelands and

brownfield sites? Is there an emerging interdisciplinary research field bringing together agronomy and urban planning?

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Keywords: urban agriculture; Continuous Productive Urban Landscape; environmental education; alternative urban food systems; spatial design of productive urban space

Presenting author: Prof. Katrin Bohn, k.bohn@brighton.ac.uk

Enhancing planning workflow with Information Technologies

Corrado Boscarino [1], Freek Janssens [2]
[1] Vrije Universiteit Amsterdam - Amsterdam - Netherlands
[2] Universiteit van Amsterdam, Amsterdam - Netherlands

Introduction

Despite being geographically bounded, the notion of foodshed, once applied to modern agro-food systems, planning of big events or in global cities can require intensive data analysis and processing. Planners need often to use geographical data on soils, pollution levels, population size, and combine them with price charts, transportation data, agricultural production figures, water supply, waste patterns, and many more data just for scratching the surface of most common planning tasks on food networks. Information Technologies (IT) can support planners with effective tools for data collection, maintainance and processing. Semantic Web and Linked Open Data frameworks can be used for building applications that support the task of charting food flows for planning. They can also be used for evaluating the impact of planning decisions onto existing food networks.

In this work we investigate how IT can improve planning processes (RQ1) and how IT can be used for evaluating drafted policies (RQ2). While there are IT application frameworks for specific analysis of food flows, such as product traceability (Salampasis 2007) or transparency (Hyvarinen 2012) in food chains, and for policy making through changes of individual behaviors (Tartaro 2012), there are no tools that can support the entire planning process. This work can also contribute to the workshop's goals with an evaluation pilot for the proposed approach: an assessment of 2012 London Olympics Food Strategy (LFS).

Methods

At a large scale, institutions such as the EU, USDA or FAO invest a considerable amount of resources in collecting and making food data available according to the Linked Open Data (LOD) standards. For example, the FAO maintains a collection of statistical data about food production from 1954 until the present time. The FAO makes these data available in the Data Cube format: this standard allows both machines and humans to access data from within very complex applications. Geographic Information Systems (GIS) and other visualization tools allow planners to interact and make sense of this huge amount of data.

At a finer level of granularity smaller organizations and even private citizens put a likewise considerable amount of efforts into documenting their activities. The result is a variety of statistics, often of exceptional good quality, but scattered across a multitude of disconnected platforms and presentation formats. We target the task of evidence gathering through which planners seek to characterize the context that embeds local actors, institutional stakeholders or enterprises. In this case study we collect a large number of information sources, both in the Linked Open Data format as well as interview transcriptions, policy documents and other online resources, and we use IT applications for evaluating the LFS and its impact of the food networks in East London.

Results

Whereas general figures of food imports into the London and through Spitalfields Market, one of the major food hubs near the Olympic site, were available, the flows of food from the market to the various restaurants, street markets and, eventually, households, remained obscure.

These flows (see also Sonnino 2006) were not accessible through conventional methods of statistical data collections, but required more personalized methods such as interviewing and observation, and, perhaps more challenging, the combining of the data gathered from such endeavours. When this qualitative methods of analysis were applied at a large scale, the amount of data to be presented to a planner exceeded the type of analysis that could have been performed manually: automatic data processing improved the entire planning workflow.

We found that these activities generate a huge amount of semantically very rich data: textual documents, blog posts, microblog streams, audio and video recordings. We discovered that being able to manage different sources of meaningful information about food flows is a key to effectively supporting complex planning task.

We compared the result of our analysis on these data with the available evaluation of the LFS.

The food and sustainability ambitions of the London Olympics were closely followed by organisations such as the New Economics Foundation (NEF) and the Commission for a Sustainable London 2012 (CSLondon 2012), and various critical reports have questioned the dramatic impact of imposing a temporal, yet all-encompassing, food economy on East London.

Conclusions

We found that Semantic Web and Linked Open Data based applications can improve the planning workflow (RQ1). Planners can use IT resources for charting food flows around a particular area of thematically by selecting planning goals.

The same tools can be used also for assessing food strategies claims (RQ2). We found that the evidence that we collected and the analysis that we performed on the data support and also extend existing policy assessments.

We aim at a methodological contribution that will be relevant for many of the panel participants because we seek to support the collection of strong evidence from a multitude of sources, an unfeasible task if done manually.

We argue that effective tools and methodologies can only emerge from a close collaboration between information scientists and planners (see also Foth 2006) and we aim at stimulating a propitious collaboration between social scientists, urban planners and information scientists around more sustainable food systems.

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Marcus Foth 2006: A research design to build effective partnership between city planners, developers, government and urban neighbourhood communities

Roberta Sonnino 2006: Beyond the Divide: rethinking relationships between alternative and conventional food networks in Europe.

Keywords: Semantic Web; Food data; London Olympics;

Presenting author: Mr Corrado Boscarino, c.boscarino@vu.nl

State of the art on barriers and challenges of sustainable food governance of urban regions in France

Marketa Braine-Supkova [1]

[1] IUFN International Urban Food Network - AgroParisTech - Paris - France

Introduction

In recent years, the topic of food governance of urban areas has gradually gained visibility among different local actors. Without being considered a priority for local public policies, it is indirectly the subject of many initiatives thematic conferences and meetings, including through the questions short circuits, the presence of nature in an urban environment or the preservation of farmland near cities.

In France, national statistics on food governance of urban areas are lacking today. Though, a better understanding of the perception of the food issue by local authorities and other stakeholders involved in spatial planning seems to be a prerequisite to any action in this field. Thus, in the perspective of the municipal elections scheduled in France in 2014, IUFN and its partners wished to conduct a national survey on this topic amongst the selected territorial actors.

This national data collection is the first of its kind in France. Its goal is to propose objective and up to date data on the current state of food governance of urban regions and more broadly on sustainable food issue approach of local authorities. It is a multi-stakeholder project. Initiated by IUFN, it is being conducted in cooperation with some of the most relevant national actors - ADCF (Assembly of Agglomerations of France), ETD, the Eco Mayors network, the Institute for Development and Urbanism of Ile-de-France region (IAU – IDF), AgroParisTech and WWF-France.

Methods

The scope of the survey is national. It covers both local authorities (Agglomerations/ Major cities/ Regional Councils/ Member cities of Mayors Eco Network) and a selection of local actors that can have a more or less direct influence on the integration of the food issue in spatial planning (Planning agencies (National Federation of Urban Planning Agencies - FNAU), Chambers of Agriculture (Permanent Assembly of Chambers of Agriculture - APCA), Consumers).

For each group a specific methodological approach has been developed:

- Local authorities: on-line questionnaire
- Chambers of agriculture and for planning agencies: focus groups approach with a written synthesis
- Consumers: synthesis of the most relevant reports on sustainable food consumption in France

The research questions our survey is willing to answer are the following:

- What place and what importance are given to the food issue in urban governance of French cities?
- What concrete actions/initiatives are being put in place by local authorities around sustainable food issue?
- What barriers and what challenges does this topic represent for local authorities?
- What is the perception of food governance of urban regions by the consumers? By urban planners? By the chambers of agriculture?

Results

The results of our survey will be double - a global report bringing together a synthesis of the conclusions of the two methodological approaches and a specific policy paper destined to local authorities. The documents /or results are going to be finalized in October 2013. Their presentation during the AESOP Forum in Montpellier would then be one of the first occasions of their public diffusion.

Conclusions

This presentation should give a global and up-to-date overview of the state of food governance of French urban regions and contribute concretely to the discussion panel on Governance.

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Keywords: Food governance of urban regions, France, national survey, barriers and challenges

Presenting author: Mrs Marketa Braine-Supkova, marketa.braine@iufn.org

From unconsciousness to driver for change: perceptions as barriers and drivers in the meeting between food and the city in Lyon

Caroline Brand [1]

[1] Université de Grenoble - Grenoble - France

Introduction

In France, the food topic is mainly branded by the national level from an agricultural and economical perspective, a normative sanitary approach and more recently from a nutritional and health approach. But, through diverse devices resulting from national injunctions, through the development of the periurban agricultural policies (Bonnefoy, 2011), and through the grassroot movement, food emerges as a topic nested between diverse thematical spheres, stakeholders' fields, and scales of actions (Brand & Bonnefoy, 2011). At the local level in France, food did not exist as a planning topic for the urban regions until recently.

This paper proposes to analyze the process of emergence of the urban food planning issue (Morgan, 2010, 2013) in a context that will reveal itself quite paradoxical as the city of Lyon is originally particularly linked to the food topic (Sceau, 1995). Which are the permissive elements? How the diverse food issue scenes can be articulated to lead to what is called in the English-speaking context an urban food strategy (Morgan, 2010, 2013)? We wonder how this blinding evidence (Pérec, 1974, Steel, 2009) is partly determined by the lack of perception of the food topic by the stakeholders (Pothukuchi & Kaufman, 2000) and how it gets to their conscience through diverse levels and scopes of action in which the social one, conducted by the city level and a European program are playing a determinant role for creating a red wire between those silos?

Methods

First, we have conducted a series of semi-open interviews with stakeholders that could be involved with the food thematic from the planning scope. Those stakeholders are technicians and elected people from diverse local authorities (city council, urban community, department) and agencies (planning agency, metropolitan cooperation association, chamber of agriculture) acting on diverse thematics (public food, social and fair economy, sustainable development, tourism, urban market strategy, commercial development, environment and agriculture, metropolitan strategy, scheme for territorial coherence) at different scales (city, city-region, department). Through an interview grid devised into three sections (personal approach of the food topic and stake, emergence of the food topic on the agenda (thoughts and actions), perspectives and the ways it could become a planning object or a public policy object), we test the perceptions and the level of consciousness of the stakeholders of that specific question.

The other materials come from the first investigations on the Urbact programme "Sustainable food in urban communities" that is being carried out in Lyon since March 2013. The method used is based on interviews with the stakeholders involved (grassroot associations, local authorities representatives, private initiatives mainly) but also on a participative observation as I am officially involved in this programme as the local expert accompanying the local support group.

Results

If food had constituted a territorial opportunity for Lyon, the first series of interviews have shown that it is not anymore seen as a territorial potential for the making of the urban region (Steel, 2009, Morgan, 2010). It gives precious information on the way food is grasped by the stakeholders. From the initial state of disconnection, the topic progressively moves from the unconsciousness to the consciousness of the public stakeholders thanks to the diversity of the grassroot movement that calls to mind the planners. Because of the societal expectations, some silos are evolving, going through an in-depth and larger thought on the food issue. For instance, the periurban agricultural policies are getting redirected because of the new food expectations toward an agri-food approach that did not exist previously (agri-urbanism, multifunctionnality, green amenities). Those evolutions contribute to develop a new conscience of complementarity with actions or knowledge of other stakeholders.

The actions of the grassroot movements appeared also in the social and fair economy Department of the city of Lyon which engaged into the European programme Urbact at the end of 2012 with an institutionally legitimated focus on the question of food access. The objective is to promote access to sustainable food in the city within a thought on the diverse food sectors feeding the city and on the diverse scopes of the food issue, from production ton consumption. Then, the programme will look at at how the existing practices could be integrated in a more territorial strategic thought and plan that would necessarily be entrenched in a cross-cutting governance.

From that state of consciousness, the various existing devices acting on a food facet in their own silos are entering into a state of interaction. The food issue is particularly revealing itself as a red wire thanks to the European programme Urbact. The inquiry shows how from a disseminated context, a food strategy is emerging now from the food access entrance. This particular topic, nested in a multidimensional perspective is driving the city level to get out of its competence scope and spatial jurisdiction. But this initial ambition is also nested into contradictions inherited from the silos of action that frame the public action in France. Those silos are difficult to overtake even with a global vision of the food issue. Moreover, the participative governance that is set in place in this context presents also difficulties because of some ideological divides between the stakeholders concerned by the topic.

Conclusions

Urban food strategies are largely non existing in the conscience of the French urban stakeholders. The use of the word "food" or "urban food governance" with them is even puzzling. Though, as we have seen in the context of Lyon, diverse silos are acting from their scope but they lack of a coherent and strategical view on that particular topic. One of the challenges for an integration of the food issue in urban policies is the consciousness of a problem or a potential that the urban stakeholders could grasp. In Lyon, a European programme with an original focus on the social access to food in the city is opening the path to a renewed vision of the urban region in which food could come alive again as a territorial opportunity in a new territorial context. Concerning the participatory governance, the hybridity needed is difficult to reach and needs innovative mediation tools. Even with difficulties, doors are opening between the silos and a red wire is starting to circulate through them.

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Keywords: Food planning, urban food strategy, Lyon, perception, consciousness

Presenting author: Miss Caroline Brand, carolinebrand@hotmail.fr

Food cells and food nodes. Two new concepts to rethink –traditional- urban and food planning practices. The case of Barcelona's Metropolitan Region

Sonia Callau[1], Josep Montasell[2]
[1] Barcelona's Provincial Council - El Prat de Llobregat - Spain
[2] Baix Llobregat Agricultural Park -Spain

Introduction

All towns and cities have a periphery around them extending beyond their city limits. Population growth of cities and consumption of land within these peripheral areas have led to physical distance between urban centres and their surrounding territory, and to a loss of the symbiotic relationship between production (agricultural land) and consumption areas (cities), a phenomenon that, for the past 10,000 years, had been intrinsically linked to sedentary lifestyles and to agriculture. In the last 100-150 years, outward expansion of cities towards their production areas has led to a change in their functionality. Thus, peripheral agricultural areas have gradually stopped acting as food producers feeding cities, and have become producers of resources, which cities metabolize and return in the form of waste. Apparently, the low value placed on agricultural spaces goes against the expected value they will have in the not so distant future. According to FAO forecasts, by 2050 there will be a third more people to feed and food production will have to increase by 70%. With this scenario, present and future, we are forced to think about this contradiction and re-consider the validity, or lack thereof, of current land planning and food models. To this end, we've proposed some questions we would like to address in our research: do current land planning models ensure protection of agricultural areas that will have to produce food to feed our cities? Are other alternatives possible? Can we

Methods

From this perspective, we propose a theoretical approach to a new sustainable model of city-region, which includes the food vector in land/urban planning, understood as a fundamental part of the urban metabolism. In this regard, the research develops, firstly, the concept of 'food cells' or 'food-superparcels' as reference units for calculating food needs -or agricultural surface area- of the inhabitants of the 'urban cells' a city comprises. The 'food-superparcel' concept is an extrapolation of the 'super-block' concept proposed by ecologist, Salvador Rueda. Secondly, the research analyses and maps flows between production and consumption areas and proposes distribution by 'food nodes', which include the various currently existing food chains

Results

Theoretical approaches are transferred to a case study of the Baix Llobregat Agricultural Park, which is one of the most iconic agricultural areas of the Barcelona Metropolitan Region, from the standpoint of production and territory.

Conclusions

The results of the analysis are expressed not only from a statistical point of view, but also from an analytical understanding. The theoretical proposals, compared with the extrapolation to our case study, could be extrapolated to other areas of study.

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Keywords: Food cells, food nodes, territorial metabolism, alternative food networks, Metropolitan Barcelona.

Presenting author: Mrs Sonia Callau, callaubs@diba.cat

Reframing the territory of relations between quality production and public procurement

Andrea Calori [1]

[1] Politecnico di Milano, Laboratorio di Progettazione Ecologica, via Bonardi 9 - 20133 Milano - Italy

Introduction

The notion of short chains has been diffusing to identify methods of interaction between producers and consumers that are rooted at the local level. In fact, the ideas and practices of short chains that occur in most part of the contexts tend often to identify them with different forms of direct sales such as farm shops, small local markets or similar activities. The analysis of many experiences in the world shows the interest and the power of a systemic approaches that goes beyond this identification. In this contexts the forms of direct sales become more complex pieces of a mosaic that combines agricultural policies, trade rules, agreements with consumer groups; product certifications, environmental assessments; land tenure, programs for healthy food and more. But to get this it is crucial to promote specific policies for the different actors that are - or can - be involved. Then it is important to have a clear set of georeferenced data about production and consumption, combined with territorial and environmental infos in order to draw a local and self-sustainable perspective. Finally, to move huge quantity of agriculture products a strategic node is represented by public catering (school canteens, hospitals, nursing homes, etc.) that feed daily a large number of people with a small number of actors. A recent research in Region Lombardy is setting the conditions to support a strategic vision to local food systems through the implementation of an integrated knowledge system

Methods

The paper refers to a three-year research that is sponsored by four university departments and that is shared by a number of institutions in Lombardy. The research combines expertises in agronomy, agricultural economy, spatial planning, interaction between actors, waste management and energy cycles related to production and consumption of local food. The base of the research consists mainly of a series of georeferenced database in which a large amount of data are collected and compared to agricultural production, consumption in schools, land use, planning, environment, waste, information on energy consumption associated with the flows of production and consumption, etc.. Data are about all the region (about 10 million inhabitants and 25,000 km2) and they are geo-referenced and readable also at the micro level (single school, single serving of cultivated land, etc..). The data show a huge undiscovered market of organic products and controlled supply chain (integrated pest management, short chains, quality labels, etc..) that is not satisfied by the regional agricultural production. These data show that 38% of the food consumed in the schools in Lombardy is organic or with a controlled supply chain, with a positive trend. To understand if this existing demand could be satisfied with a local production, a number of activities are provided by the research team to interact with local actors that can be involved in a structured way in a kind of local food system

Results

Identify, quantify and assess the current state of the various forms of collective consumption of food (eg, institutional catering, collective purchasing groups, consumer cooperatives, etc.).

Systematize the information on organic and quality agriculture, which are not currently available in a unified data set, to identify the potential in terms of market and quality in relation to consumption places nodes.

Locate main flows and territorial relations between production and consumption assessing the potential and weaknesses: quantities, policies, territorial aspects, environmental implications, main socio-economic dynamics, etc.

Analyze the territorial condition of food production, to increase the awareness of the planners and the decision makers about the relevance of a more qualitative description of the open spaces and of the countryside to do a step beyond the current "urban glasses" of the planners.

Identify the values and conflicts between territorial planning and agricultural or rural policies (e.g. localize where the EU subsides are concentrated to show and to localize where the subsidies are active in a positive environmental condition or in contrast with different planning destinations; etc.).

Show the potential for reuse of organic waste produced by the institutional catering and their ability to be processed into fertilizer for companies in the same geographical area as the basis for the increase of organic matter in soils (short chain of waste). Fostering the connection between actors of supply and demand of food products in the perspective of food territorial pacts, with a particular attention to urban basins of greater concentration of organized demand.

Define shared guidelines for local and regional policies that facilitate the emergence and consolidation of different forms of local production and consumption of local food systems perspective.

Provide a set of publicly available tools for guiding the choices of collective purchases (eg-type specifications for purchases, etc..) And to assess, in general, the sustainability of food production and consumption choices (dashboard of sustainability food).

Conclusions

The organization of a complex set of information concerning The stake is a crucial contribution to a different and sustainable development model in which the right balance between social, economic and environmental aspects are seen through the lenses of agriculture and food. The proposal is that the systemic support for various forms of conscious consumption-oriented and sustainable production and quality can also guide the markets of substantial size, supporting the production in a non-artificial in a new framework for territorial food pacts. To do this we need a more complex vision about these issues and, besides, an adequate capability to interpreter informations and situations in urbanized foodsheds. The research is a contribution toward the creation of this kind of vision and to the support of concrete experiences of sustainable public procurement as a way to empower the possibility of self sustainable urban foodsheds

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Presenting author: Mr Andrea Calori, andrea.calori@iol.it

Exploring the role of innovation in short food supply chain's experiences : the case of Italy

Aurora Cavallo [1], Francesca Giarè [2], Luigi Mastronardi[1], Davide Marino[1]
[1] University of Molise and Cursa - Italy
[2] National Institute of Agricultural Economics (INEA) - Italy

Introduction

The aim of this paper is to explore the role played by environmental, social, economical o institutional innovation in different forms of SFSCs and to highlight the importance of cooperation among institutions, NGOs, governmental and farmers' organizations, enabling the actors involved in alternative food networks initiatives in performing innovative pathways. This article was prepared as part of a research project, involving five research units, looking at several short supply chains in five Italian cities, Trento, Turin, Pisa, Rome and Lecce, exploring more than 40 different experiences of farmers' market, Box schemes, Community supported agriculture, Farm selling, Solidarity-Based Purchasing Groups. These were chosen to highlight the special factors belonging to different sales or purchase models representing the diversity within the overall Italian picture. The five case studies under examination involved 1,200 consumers, 203 producers and 57 technical-economics and socio-institutions exponent . This paper aims at contributing in a conceptual framework to read the innovation potentials at regional level, by highlighting possible different territorial patterns of innovation, in order to identify the role of the geographical proximity to urban and metropolitan areas, and social values (such as shared behavioural codes or sense of belonging) to guarantee a substrate on which innovation can be enhanced.

Methods

Interest in short, or local, food supply chains (SFSCs) has been rapidly emerging in recent years, together with a wide range of various interpretations (Renting et al., 2003, Sonnino and Marsden, 2006, King et al., 2010, Fondse et al., 2012, Berning et al., 2013). The short food supply chain is defined as "a production and consumer model based upon the relation between territoriality, proximity of products and consumer markets, socialisation practices, safeguard of work and correct remuneration for those working in the farm and food sector, and a relationship based on trust between producer and consumer" (Sismondi, 2012). Of the numerous types of short food supply chains developed during recent years in Italy, many come under this definition. Each of these has its own particular trajectory that varies according to the role played by social or economical innovation, as well as at farming or institutional. The paper focus on a neo-institutional approach and self-government systems, that can be used to identify the determinants of the processes of social learning, which, by integrating different resources, lead to the development of operative and strategic processes of innovation, particularly at territorial level. The experiences involved in the project suggest that innovation can be the result of different patterns, different modes of performing each phase of the innovation process within the SFSC's experiences.

Results

In Italy, the first regulations on the subject were introduced nationally only in 2001, with further regulatory developments in 2007, while, at a regional level, the situation is particularly heterogeneous and, to date, 11 of the 21 regions have introduced legislation on the issue. Nevertheless, according to the data there is a significant growth of SFSC's initiatives. There are now 890 Solidarity-Based Purchasing Groups in Italy, 270,497 farms sell directly to consumers, representing 26% of the total number of farms (in 2007, they were the 22.1% of all farms in Italy, and 5% more than in 2000), 1,367 farmers' markets, who over the past two years, have increased by 44%. Taking for granted the various local characteristics linked to specific social and economic conditions or to the role of cooperative organisations, and even to the sensitivities of the local institutional framework, it is worth underlining the function covered by several organisations representing agricultural interests, above all Coldiretti through the Foundation named Campagna Amica - who manage the 80% of the total amount of Italian Farmers' market - the Organic Producers' Association and the Slow Food organisation, which for years has been backing farmers' markets and many information campaigns.

We have defined the innovator in SFSC's as institutions capable of mobilising, in a open and continuous way, a vast number of subjects who, at a local level, are actively searching for useful solutions, identified beforehand by the innovators. Several scholars (Murray et al., 2010) identified the features defining the processes of innovation. In the case of SFCSs, they can be: the presence of extensive networks of subjects cooperating together, sharing values and motivation; the reciprocal trust and repeated interaction that takes place in short supply chain initiatives; self-organisation (Ostrom, 1988) and the hybridisation of roles; attention for common goods that define some types of short supply chain. A key role in the conceptual analysis of short chain initiatives is that played by relational goods. In SFSCs, the relationships taking place when goods are exchanged are the goods themselves. They modify the human capital involved in the transaction, and the relationship is not the instrument used for the economic exchange but rather the goods being exchanged (Uhlaner, 1989). The role played by the market and those of planning is quite diversified across the SFSC's experiences involved in the project, we tried to classify them in an empirical way. The survey conducted shows a wide diversity. While the role played by social innovation is relevant in Farmer market and in CSA experience's, the environmental innovation is higher in CSA typology, and the economic innovation – particularly at farm level – plays a key role in each one of the typologies. The role of institutional innovation - is significantly low in the majority of the case except in the case of farmer's market.

Conclusions

The experiences analysed by the project confirm the role that, by integrating associations, farmers and institutions, SFSCs take in promoting and achieving processes of innovation directed towards sustainability-related goals. These processes can translate into the capacity of requesting and offering innovation: in production models, market relationships, the normative system and public policies, the representative system, forms of interaction between public and private, consumer models. The project showed that is not the territorial capabilities that allow different typology of SFSC's to exploit innovation, otherwise the context conditions that are behind different modes of performing innovation that become integral parts of a territorial pattern of innovation. In order to enhancing innovation understanding this potential for innovation and the dynamics that allow it to take place seems to be fundamental both for the research agenda and for the processes of governance and regulation.

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Presenting author: Dr Aurora Cavallo, auroracavallo@libero.it

Sustainable urban food systems: state of the art and future directions

Géraldine Chaboud [1], Nicolas Bricas [2], Benoit Daviron [2]
[1] Chaire Unesco "Alimentations du monde", IRC SupAgro, Montpellier, France
[2] UMR MOISA, Cirad, Montpellier, France

Introduction
The debate on sustainable urban food systems has grown and the papers giving back a state of the art are rare. Our objective is to present, as far as possible, where we are, which questions have been addressed or neglected and which future research directions are following.

Results
Based on the literature review, the first body of studies provides, principally, diagnostic and assessment tools for evaluating the impacts over the sustainability (in its broader sense) related to the urban supplying organization (logistic, supply point locations, distribution) and material flow issues. Food miles, life cycle analysis, last mile, food deserts, urban metabolism, ecological footprint (etc.) are all concepts and tools that have appeared in order to assess the variables and identify the actor's interactions which that could affect the sustainability of urban food systems. Some of these tools and concepts have, particularly, been used for understanding in to which extent the closeness between the place of production and consumption is likely to tend towards more sustainability.

The analysis of the link between sustainability and localization constitutes a second body of work. Although it is still a matter of controversy, the question of the proximity gives rise to several studies, where arguments in favor of relocalization prevail as local food systems are perceived the best way for constructing sustainable urban food systems. Nevertheless, these studies are often penalized as the definition of local food systems is still confusing and the empirical evidence on their capacity to promote more sustainability remains uncommon. Furthermore, a doubt persists over their ability to feed entire cities. The authors, who referred to the notion of "cosmopolitan localism", defend the necessity of finding a proper balance between the local and the global. The sustainability cannot be reduced only to the relocalization of the production but rather has to be the product of a combination of food models. In other words, it has to be approached through combinations and layouts of diverse elements, whether at the level of nutrients, foodstuff, and technological processes, types of enterprises, supply chains (long and short) or sources of supply food procurement. The knowledge on how the synergies work still underexplored whilst diversities are recognized to be source of resilience.

Finally, the third body of studies covers the food planning and the urban food governance. It is remarkable to see how the cities seize new responsibilities as food policy-makers, through for example, the Food Policy Councils. Becoming urban food strategy-makers, the cities start to use the public catering sector for laying the first cornerstone in the construction of more sustainable urban food systems. However, the governance of sustainable urban food systems deserves to be addressed beyond the urban territory. The articulation of the city with its exterior environment becomes a priority. There is a real challenge for reconstructing the continuum between urban and rural areas and in the manner of thinking how the exchanges with the faraway lands can be made more sustainable.

Conclusions
In conclusion, three guidelines have been identified from the literature review: (i) organization and spatial dynamics, (ii) relocalization and (iii) food planning. As a complementary approach, there is a need to explore in the future the sustainability of urban food systems in terms of combinations and synergies, through a closed-loop approach (flows and cycles) and beyond the urban territory.

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Keywords: supplying organization, relocalization, food planning, governance

Presenting author: Miss Geraldine Chaboud, geraldine.chaboud@supagro.inra.fr

Social innovations in urban food networks: towards food democracy and justice? A tool of analysis

Yuna Chiffoleau [1], Dominique Paturel [1]
[1] INRA UMR Innovation - Montpellier - France

Introduction
Fooding cities takes a new dimension in recent years as far as food emerges as a vector of social cohesion as much as a commodity . In the last thirteen years, new requirements of urban consumers in matter of social have been boosting the creation of new local food networks, as AMAP in France or CSA in United States, as well as the renewing of traditional ones like farmers' markets. Impacts are however often idealized, by actors deeply involved in the initiatives as well as by some researchers supporting them. Some works show indeed that this new movement around food, on the contrary, strengthens social inequalities and disequilibrium, especially in urban areas, as far as producers find their way around the pressure of consumers on one hand, as low-income families are excluded from these networks on the other. Between these two extreme positions, what are or may be the social issues of new or renewed urban food networks?

Methods
The objective of this communication is to propose a grid of analysis to go beyond these assessments, too positive or too static: by combining contributions from economic and network sociology and care theory, the aim is to give a tool to catch the social processes at work over-time in the new initiatives around food and in relation with cities. To test our grid, we consider specific local food networks presented as "social innovations", i.e. participatory multi-actor initiatives trying to solve a societal problem with a more or less assumed ambition of social change. These cases allow indeed to better grasp the social dynamics at work, without positive a priori and in a critical perspective. For this communication, we selected two examples of social innovations around food and in relation with cities, to enrich, from new empirical data, a first grid built through a collective work we coordinated within the French rural network: the first one is a local market promoting short food supply chains with 0 to 1 intermediary implemented in 2008 in the city of Grabels, localized in Montpellier agglomeration in France; the second one refers to the local provisioning of food aid implemented in 2009 from Montpellier and dedicated to the district of Hérault.

Results
We propose a better understanding, through indicators of process, of the way heterogeneous actors may build a "food democracy" which we define not only as a way for consumers to participate to the food system but more, in Hassanein's and Renting's perspective, as a dynamics in which all members of the agro-food system have equal opportunities to develop an active citizenship. Moreover, the cases we chose allow to go further as far as low-income families are still excluded, or at least not visible, in the emerging works about food democracy.

Conclusions
Through dedicated indicators built from empirical data, our grid is an attempt to include a justice issue in the movement towards food democracy, while questioning the impact of urban areas to foster such a challenge.

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Keywords: social innovation; indicators ; low-income families; food democracy; case study

Presenting author: Miss Yuna Chiffoleau, chiffole@supagro.inra.fr

Community Based Urban Agriculture and resilient food systems from a bottom-up point of view

Marco Clausen
Prinzessinnengarten - Berlin - Germany

Introduction
As co-founder of the Berlin based social ecological urban agriculture project „Prinzessinnengarten“, I will focus on the social potential of urban agriculture to affect participants and policy in relation to food matters and urban resilience. I will also address the obstacles encountered when dealing with regulations and land tenure. Bottom-up and community based projects like Prinzessinnengarten are characterized by improvisation, do-it-yourself, temporary strategies, cooperation, diversity, local knowledge, informal spacial interventions and the creation of networks. Successful practices are often of informal and participatory nature, therefore contrasting to professional approaches.

Methods
Prinzessinnengarten is a self-organized urban agriculture project run as a social business. The main purpose of the project isn't the production of food, although we produce local organic food for neighbors and the garden restaurant. More importantly our mission is set on raising awareness on topics concerning the predominant industrial food system, the role cities play in it and the social and ecological costs of our ways of consumption. Through hands-on experiences and informal learning Prinzessinnengarten gives neighbors, school kids, visitors, students and researchers the chance to create and experiment with local answers to global challenges like climate change, loss of biodiversity, food sovereignty, environmental justice. Places like Prinzessinnengarten may not contribute significantly to the food supply, but they can challenge the way we think about food, the city, our neighbors and our surroundings. Through participation consumers become co-producers of food, establishing for example regional economic relations to small-scale producers (CSAs).

Results
Our experience informs us that these practices of space making have the potential to change the way a city is conceptualized and understood by its citizens, with questions engaging with the future of the city, the role communities can play within it and the role of citizens in planning and contributing to sustainable and resilient forms of urbanization. These spaces also catalyze a conversation about the relation between urban areas and a globalized countryside. Food becomes a common language: bridging the gaps between people of different generational, economic, social and cultural backgrounds.
Community based urban agriculture initiatives are often started as informal and temporary strategies from the bottom up, lacking formal recognition and often characterized by uncertain land tenure. In the context of a 'neoliberal agenda' - privatization as an instrument of austerity policies - they are threatened by developments in the real estate market. Political discussions and struggles around land tenure and the preservation of these projects take a lot of resources from initiatives. On the other hand this debates also foster a realization that such spaces can play an important role in city politics relating to planning and food systems.
The recent history of Prinzessinnengarten gives a good insight into the challenges and contradictions we have to deal with as pioneer projects. The advantages and value these places bring to the city of Berlin is undisputed, even by official sources. Our work is appreciated in a neighborhood that is one of the most densely developed and socially most vulnerable. Experts see Prinzessinnengarten as a laboratory for socially and ecologically sustainable forms of urban development. The Berlin Senate has announced the promotion of urban gardening as part of their sustainable urban policy. Despite all these positive remarks and added-value the city still wanted to sell the site, following a policy of privatization of public land. We started a petition which was signed by 30 000 supporters, claiming that urban gardens are more than just ‚sophisticated backyard greenery'. They provide incentives for sustainable and neighborhood-oriented urban development, and give people room to actively shape their environment and the food system they are living in. This campaign was successful, and it has changed the perspective of the political decision makers on the role and the value of this kind of projects.
Initiatives like Prinzessinnengarten create local, national, and international networks of bottom up initiatives. They also develop new forms of interactions between urban agriculture on the one hand, researchers, artists and cultural and educational institutions on the other. On a local level we initiate 'offshoot gardens' in Schools and Universities. Prinzessinnengarten also serves as an inspiration for other initiatives to start similar projects. On a national level our non-profit company "Nomadic Green" works in cooperation with the newly founded association "Common Grounds" on the establishment of a national platform for support and consultancy of urban gardening and urban agriculture initiatives.

Conclusions
My conclusion from a practitioner's point of view on the role of community based urban agriculture and urban gardening initiatives is that these projects might in the near future not substantially change the amount of food we find on our plate as city dwellers, we won't on our own provide urban food justice either. Nevertheless they can serve as pioneer projects, affecting the way we look at the production and consumption of food.
The next steps of the urban agriculture movement should be, to create lasting alliances with other stakeholders in the food system and to integrate urban agriculture and participative strategies into policy and city planning. We believe places like Prinzessinnengarten can be considered and indeed become instruments to catalyze neighborhood based environmental and social engagement on a wider scale.

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Presenting author: Mr Marco Clausen, mc@prinzessinnengarten.net

Transitioning the Food System in the US and Canada: The roles of municipalities in regime transformation

Nevin Cohen [1]

[1] The New School - New York - NY - United States of America

Introduction

Proponents of food system transformation run up against the prevailing notion that the conventional food regime is so entrenched that it is impossible to transition to a more ecologically sustainable, resilient, and just food system. After all, food is produced and distributed by a global web of interconnected elements that are reproduced and practiced by various actors, making the system as a whole difficult to budge. At the national level, political leaders are heavily influenced, if not wholly captured, by the food and agriculture industry. Even when alternative food processes like organics succeed they can be co-opted by industry and replicate the qualities that advocates originally sought to change.

This paper presents the results of a study of eight US and Canadian cities to answer the question of whether and to what extent cities can play a role in fostering the transition from the incumbent food regime to a more just and resilient food system. Using the socio-technical transitions framework developed by Geels and Schot (2007), Smith and Raven (2012) and others, the paper examines the processes by which food issues have become salient and the governance structures, strategies, and policies that cities in the US and Canada have implemented to address these issues. It explores efforts to support niche innovations and to create macro-level changes that put pressure on the incumbent food regime, helping to foster a transition to a more just and sustainable regime.

Methods

This paper is based on research on food systems policymaking in eight large cities in the US and Canada that have implemented food transition policies. The research involved semi-structured personal interviews with advocates, NGO representatives, and government officials in each city, as well as reviews of relevant policy and planning documents. Initial interviewees were identified by contacting food policymakers, and through snowballing, additional key informants were selected. Using a common interview protocol, 37 in-person interviews varying from 60 to 90 minutes were conducted during summer 2012, with follow-up telephone interviews in Fall 2013. Interview notes were organized and coded to highlight important concepts raised by respondents, and themes and patterns in the interview responses were examined to uncover the extent to which the process of food policymaking fits the transitions framework.

Results

Ecological challenges, the global financial crisis of 2007-2008, and political mobilization around issues of disparate access to healthy food and obesity and diet-related diseases have created pressures on cities to shift from being part and parcel of the incumbent food regime to becoming important actors and locations for transitioning the food system. The results of this study show that cities play multiple roles in creating pressure at the macro ("landscape") level and through the support of innovative niches, opening up windows of opportunity to transform the incumbent food regime. Cities have supported novel alternative food enterprises, created new governance structures for citizen participation in food policymaking, and developed administrative and regulatory innovations to improve food systems. As institutional food buyers, cities have attempted to shift the market by establishing social, health, and environmental criteria for the food they procure for municipal feeding programs. Community organizing, education, and entrepreneurship around food systems change is happening in cities because they contain the physical places, social spaces, and communities of activists supporting policy advocacy. City officials and advocates are also helping to create changes in market demand and are raising the political salience of food justice and sovereignty, potentially building a cadre of politically engaged individuals.

Conclusions

Innovations emerging from municipal government and niches supported by cities are re-shaping the food sector, not so much by taking away market share from conventional businesses as by undermining confidence in the regime, demonstrating the possibilities of a different food system, and opening up new avenues for political engagement with food issues that can create lasting change. Moreover, while there are concerns that food systems innovations at the municipal level may avoid deeper challenges to the structural conditions that reproduce existing socio-technical relations and perpetuate social disparities in the food system, activists focusing on food justice have drawn attention to the need for structural changes to alleviate malnourishment and to address the social problems that bottom-up initiatives are attempting to solve. This is very much a food regime transition "in the making" (c.f. Elzen et al 2011:264), not a finished project, yet it is well underway in the US and Canada.

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Presenting author: Prof. Nevin Cohen, cohenn@newschool.edu

Urban agriculture and planning relations: a case study in Santiago de Chile

Maria Contesse [1]

[1] Wageningen University - de Leeuwenborch - Netherlands

Introduction

The relevance of UA for Santiago is both its capacity to produce healthy food and increase green areas. However, land availability, secure tenure, water and soil quality are needed. Planning may be relevant to enhance UA, but in Chile UA has poorly been addressed by planning policies. This coincides with others countries´ where UA is often addressed through food policies, rather than planning (Morgan, 2009; Thibert, 2012). On the other hand, the emergence of UA is having implications to the traditional planning theory and practice.

This research is a contribution as it identified planning aspects that can help for a better performance of UA. Moreover, it also found the need to develop new planning approaches for UA development.

Research questions were:

1. What are the relations between UA and UP in the city of Santiago de Chile, according to urban agriculturists and urban planners?
2. In which respects may UP policies contribute to enhance the development of UA in the city of Santiago de Chile?

Methods

Qualitative methods were used. Semi-structured interviews, a focus group and conversation groups were conducted with actors related to the areas of UA or planning. A case study was conducted with seven UA gardens, which differed in the type of project developer, varying from the most top-down to the most bottom-up approach. Project developers were: ministerial level, municipalities, NGO´s, and self-organized neighbors. The assumption was that projects with state-support were in line with planning policies, while other projects operated in a "planning policy vacuum". For each initiative project developers were interviewed and conversation groups were held with participants. In addition, planning academics and the planner expert from the respective municipalities where initiatives were located were also interviewed. Finally, a focus group session was settled down with both planners and urban agriculturist's project developers. The "policy arrangement theory" was used as an approach to analyse information. This approach allows for analyzing organisation and substance (Arts and van Tatenhove, 2004), where organisation includes: actors and coalitions, rules, and resources. Substance, is conceptualized in terms of 'policy discourse´, which is the narratives of actors involved.

Results

UA emergence is placing food issues into the planning agenda, which so far has focused on other issues (transport, household, etc.) while food planning has relied on the market forces.

Almost all interviewees agreed on UA as a legitimate "green area", implying a transition to a new form of doing and providing "green areas": from the traditional state-assistance model to one where citizens are called to be active; this active role of citizens makes a link between UA and emerging planning urbanism schools, like "tactical urbanism", which calls citizens to play an active role in their city planning.

Interviewees considered UA as opportunistic per se, having the capacity to adapt to any space. Still, some places may be more suitable for UA, and planning helps to identify them. Variables such as: accessibility (10 minutes by walking from public transport stop); number of schools in the surroundings; ages of the surrounding population; and water access, are useful to identify proper places for UA. Moreover, planning helps to detect less polluted areas and to promote buffer zones surrounding UA (i.e. vegetation) that protect crops from pollution. Organizing a system of organic waste composting connected to waste sources and UA, or to recover eroded soils for UA, is another challenge for planners. Finally, innovative planning tools have emerged, like a website platform developed by an NGO where mapping of UA gardens across Santiago are displayed, so citizens can easily access to garden´s proximity, activities, schedules, harvests, etc.

Long-term land tenure is relevant for UA, among other reasons, because a stable ecosystem can develop, enhancing pest control and organic management. But municipalities perceive land tenure as a risk. The need to develop innovative planning policies to make land available for UA for long-term periods, but not definitive, is crucial. Temporary task exemption for idle land that allows UA could be a possibility.

Projects supported by municipalities had bigger space, which was directly related to the number of participants. Also bigger spaces may enhance productivity, but this relation did not seemed straightforward. However, a bigger space requires more effort and money investment, so municipal support becomes crucial, as UA is not competitive compared to peri-urban agriculture and thus, is not economically sustainable yet.

Conclusions

UA emergence is implying transitions in the traditional way to think planning: (1) food and related issues (emissions, waste, healthy food access) are coming part of the UP agenda (2) the traditional planning landscape idea of urban green is changing, placing UA as an alternative green space where citizens become active in the construction of their common space.

UP is relevant for UA development within cities. Planning tools can help to identify suitable land for UA, including criteria that enhance citizens´ participation and UA protection from urban pollution. Mapping can help to spread information to all citizens and authorities about type of available land for UA, enhancing its practice and implementation.

This research found strong relations between planning and UA, making evident the need to cross traditional disciplinary boundaries between agriculture, urban and landscape planning to create new research and public policy fields, that contribute to set up urban food planning.

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Keywords: urban agriculture - urban planning

Presenting author: Miss Maria Contesse, maria.contesseayala@wur.nl

A Recent History of the Fresh Milk Traditional Supply in El Cairo

Annabelle Daburon[1]
[1] CIRAD - Montferrier le lez - France

Introduction

El Cairo city is one of the largest cities in the world (around 20 millions of inhabitants). A big part of the fresh milk supply comes from two ways: the peri-urban farms and the farm inserted inside the urban network. In a diachronic approach, we will try to understand how those family dairy farms have changed during the last decades where major factors of change pressure their traditional activity.

Methods

In order to better understand the farming system, livelihood and adaptive strategy of these families during the recent history, we interviewed, on the one hand, 72 farmers, both in urban and peri-urban context, with a formal questionnaire on technical and socio-economical parameters and, on the other hand, fifteen stakeholders of dairy sector.

Results

Traditionally, the fresh milk supply of El Cairo was assumed both by:

- peri-urban farms: family scale, integrating cropping and breeding activity. A large amount of situations are represented. From the very small breeders renting some land (2 or 3 feddans) and who possess 1-2 dairy animals, to "big farm" with 20-30 feddans owned and a bigger herd (5-10 dairy animals). The main activity of those peri-urban farming systems is mostly based on cash-crops. Milk is mainly produce to cover the family consumption and the surplus is sold and joins the city supply chain. The collective management of the land and of the resources (especially the water with the Nile derivation or collective well) was in the heart of the system. A strong control on the area is a preliminary requirement for a good working of those agro-ecosystems.
- urban farms: this system exists in El Cairo since centuries according to the farmers. In this urban milk production system, breeders usually raise dairy herd in a barn surrounded by buildings or directly located into the ground floor of a building where the family is living. In the common cases of this system, the herd size is around 10-30 dairy buffalos kept attached indoor. The dairy activity was in the past the main economical incomes of those families. Another specifies can be noticed at this stage. Most of those farmers (in urban or in peri-urban context) traditionally prefer to raise dairy buffalos than dairy cattle. It can be explained by the high demand of buffalo milk due to consumers' preferences (taste, high percentage fat content, traditional cheeses, etc.), and also the high milk prices linked to the high fat rate of this product. The transition from the peri-urban system to the urban system can be explained by the city enlargement, converting agricultural land into urban landscape. If this phenomenon probably exists since a very long time, the recent demographical explosion during the last 30-40 years accelerated this dynamic. The city expansion was quite controlled 30 years ago by policies controlling the land conversion rate; at the beginning of the millennium, state control decrease and this conversion dynamic increase. In the recent past, the revolution weak considerably state's land control and anarchy on building is the most common rules those days in El Cairo. This city expansion creates huge changes in the per-urban farmer's organization. The drain and irrigation systems suffer from the urban conversion, decreasing the soil fertility and increasing the necessity, for the crop producers, to find alternative sources of incomes. For the land owners of per-urban lands, the increasing of the square meter price allowed them to change their capital management. For example, the renting contract for agricultural land changed from long term contracts (traditionally 15 years lease, with low prices), to annual contract with high prices (around 5000 EP per year per feddan today). It allowed them to invest in dairy milk production. With the growing of the city, big owners end up "enclosed" inside the city in few decades (sometimes even in few years in the recent past).

At the other side of the social scale, the small farmers who rent land became more and more vulnerable and most of them have no other choice than to stop agricultural activity.

The proximity with the market and the very short supply chain (most of the time direct sale from producer to consumer) was, and is still, one of the major advantages for those urban farms. According to the farmer point of view, the urban farming system was a very lucrative activity a few decades ago. But the political context has changed considerably and impacts those systems in a very rough way.

In the past, the government was helping this animal activity with several policies: feeding price support, animal insurance, effective veterinary services …, and many public policies being based on cooperatives which don't act more. Today, all this public services disappear and let the farmer alone to face modern issues. The feed prices, the land pressure, the milk quality requirement represent major constraints for those urban farmers. To solve this modern equation they develop innovative strategy:

- in reproductive management: sale the dry buffalo and feed only milking animals.
- in feeding system: by using large amount of dry fodder (instead of the green) and by-products of the food industries (residues of oven, fruits residues…).

Conclusions

Unfortunately, the general trend is a very fast decrease of the number of those farmers, especially since the last 10 years. Most of them have no other choice than to stop their activity or to move outside of the border of El Cairo. The future Egyptian policies need to take into account that those producers represent a large source of fresh milk for the El Cairo market and this lack of production will need to be field in the future. In a context of dramatically unemployment in Egypt, the closing down of those farms grow the amount of precarious people.

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Keywords: farming system, urban breeding, El Cairo, dairy production

Presenting author: Miss Annabelle Daburon, daburonanna@gmail.com

Smart city and food justice: beyond the rhetoric. Turin as territorial food system

Dansero Egidio [1], Barbera Filippo [1], Toldo Alessia [2]
[1] University of Turin Dipartimento Culture Politica Società - Turin - Italy
[2] Eupolis, Politecnico di Torino - Turin - Italy

Introduction

Like many other European and Italian towns, Turin urban policies and rhetoric are catalyzed by the "smart city discourse". This discourse is strictly linked to the possibility being financed by some European project, to the diffusion and application of ICT and smart technologies, to a neoliberal approach, connected with economic and financial crisis that changes and reduces the role and the space of agency of local government.

Adopting a critical approach to smart city discourse, we analyze the place occupied by "food" in the smart city agenda. Our reflections comes from a research on Turin smart city and from the active participation to a strategic plan called "Torino smile" in which we proposed a strategic action focused on "city and food". The case of Turin is particularly interesting for many reasons. From the most known Italian one company town, passing through the hosting of mega-events like Winter Olympic Games, Turin now is more and more also (but not only) a destination for cultural tourism, attracted not only by monuments and museum, but also for a way of life and an eno-gastronomic specialization. Our research main question is: how can Turin think about urban food planning, building a territorial food system being capable to keep together many issues that could go in different directions, putting together in a good, clean and right (as Slow Food slogan)? Which are the contradictions and the chances towards this goal?

Methods

We use two main approaches in an action-research perspective. First we analyze actors discourse about smart city and food in Italy and in Turin in particular. We examine critically both the concept of smart city, both other concepts like short food chains (zero km in Italian discourse), alternative food networks, food community, local and/or territorial food system comparing international debate and Italian one. We construct a map of the actors that contributes to food discourse in Turin: local government, universities, Slow Food and other cultural associations, farmer's organization, social alternative movements.

Secondly we analyses this discourse through the lens of a territorialist approach. It is based on the considerations of the territory which emerged as part of the debate in the so-called "Italian territorialist school" (Magnaghi 2005; Dematteis, Governa 2005; Raffestin, 2012). In these approaches, the meaning of territory is much broader and includes more than just a geographical area; territory is considered as an ensemble of complex material and immaterial relations involving the spatial dimension, the relations between actors (at all scales), and between the latter and local resources. This approach helps us to explore the concept of territorial food system, both at the normative, theoretical and methodological level, to build and analyze the map of the actor that can build a territorial food system with a multi-stakeholder governance.

Results

The case of Turin is particularly interesting for many reasons. It has been a one company town, the fordist city for antonomasia, that is deeply changing its economic base and specialization and its cultural identity, also thanks to a deep redefinition of urban structure, reuse of old industrial areas, the material and symbolic transformation linked to Torino 2006 Winter Olympic Games. Turin now is more and more also (but not only) a destination for cultural tourism, attracted not only by monuments and museum, but also for a way of life and an eno-gastronomic specialization.
Rediscovering ancient specialization, like chocolate, but also vermouth, Martini, Lavazza coffee it has become the city gateway for a movement like Slow Food, hosting the most important exposition in Italy about food (the Salore del gusto) and the edition of Terra Madre, a mega-event inspired by a glocal or better "globalization from below approach" which gathered in Turin 5000 farmers representing food communities around the world.

The theme of "food" is of particular importance for Piedmont and Turin not only for relations and the implications that intercept, at different times and in different ways, the urban system and the multiplicity of its actors and its dynamics. The field of food and wine and, in fact, constitutes an important asset of the city with regard to the development of the area in view of tourism development. Moreover, the presence of an actor such as Slow Food, which has its headquarters in the Cuneo area but whose main manifestations (such as the Salone del Gusto and Terra Madre) are (so far) located in Turin, plays a fundamental role in the reflections, even on a local scale, on food, contributing thanks to evolution of the movement to increase the fields of interest both in amplitude (from catering to the overall quality and taste and criticism to the dominant models the agri-food sector), both in the ability to express a critical view of ' organization's economic, social and territorial cohesion. In this context, the issue of food is solid, in the specific context of Turin metropolitan area (because of its industrial history and relapse, even space, it has generated) with another issue of great importance: the consumption of soil (consumo di suolo), the recovery of brownfield sites, the redefinition of some parts of the city and especially its urban fringes. These are issues on which public policies at different scales have been active for some time with different planning but still appear inadequate in the face of enormous pressure of urbanization is "trivial", both agricultural land uses as a simple physical support, perhaps for renewable energy (this is the case of the substitution of crops with photovoltaic systems). To this should be opposed, and in part it is already happening, a speech aimed to recognize and give value to link food and territory from different points of view: values of the multifunctionality of agriculture.

Conclusions

A territorial food system is to be understood not so much in terms of state and therefore not in the sense of a bioregion (as far as trying to close obviously only partially, some cycles may go in that direction). On the contrary, it is very open to a range of relations of exchange of food products (and their implications ecosystem and energy), waste related thereto and cultures of food, with an ever-broader and tend to de-territorialized. With this in mind, thinking about a territorial food system means directing a political process, scientific, organizational and planning, based on creating larger relationships and shared visions and strategies, due to the pervasiveness and essentiality of the theme.

In this sense, the goal of creating a territorial food system is an essential contribution to make a food chain that aims to be more smart, because more inclusive, socially just, resilient, efficient, environmentally and economically sustainable and more secure.

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Keywords: Urban food planning; smart city; Turin; territoriality; territorial food system

Presenting author: Prof. Dansero Egidio, egidio.dansero@unito.it

Enhancing Knowledge Flows in Urban Agriculture: Creating Shared Knowledge through Collaborative Research

Debra Davidson [1], Emily Kennedy [1], Mary Beckie [1], Chiara Tornaghi [2]

[1] University of Alberta - Department of Resource Economics and Environmental Sociology - Edmonton - Alberta - Canada

[2] University of Leeds, Leeds – United Kingdom

Introduction

Enthusiasm for the capacity of urban agriculture to provide livelihood and food security support for the urban poor has not been matched by the production of knowledge that assesses and enhances the feasibility of doing so. Closing this gap will require the development of processes to support continuous learning and knowledge exchange. We report on some initial results of a newly-established collaborative university-community research partnership intended to support such knowledge exchange, by identifying the key knowledge gaps perceived by practitioners and academic researchers, as divulged in a recent workshop. A potential research framework derived from the integration of workshop input is then presented and discussed.

Methods

Researchers from universities in Canada, the United States, the U.K., Australia, New Zealand and Hong Kong, have recently formed a network in order to pursue a commonly held mission: to critically assess, and identify means to enhance, the role of urban agriculture in supporting food security. Because we immediately recognized that the pursuit of such a research mission would depend on the involvement of UA practitioners as the primary holders of experiential knowledge, we expanded our network to include practitioner and local government organizations. As an initial step forward, we held a workshop at Leeds University in May 2013. Both researchers and practitioners in attendance were asked to share, among other things, what they perceived to be key knowledge gaps, or research priorities, to support the viability of urban agriculture. Researchers then collated and analyzed the meeting minutes. We identified key research priorities expressed by researchers and practitioners, and then scrutinized them in terms of commonalities and research capacity, to inform the development of a potential research framework.

Results

Participants identified multiple knowledge gaps (16 from practitioners, 36 from researchers). Some key gaps identified by practitioners include, but are not limited to: the market and livelihood potential of different UA forms; analysis of urban-peri-urban material flows to enhance development of regional distribution networks; innovative agricultural techniques in constrained urban environments; and assessment of UA production potential. Some key gaps identified by researchers include: the relationship between urban agriculture and food security; institutional potential for integrating food and agriculture into urban planning; the multiple sources of food vulnerability; and the ecological impact of different UA forms. There were some interesting divergences between researchers and practitioners.

Researchers, for example, placed more emphasis on the role of climate change, and a focus on personal (environmental) behavior. Practitioners, on the other hand, placed a high priority on the collection of data on productivity and economic benefits for the purposes of soliciting political support.

After undergoing a process of synthesis and critique, a proposed research agenda was developed to address, in a systematic and international comparative manner, what were considered the most critical knowledge gaps, consisting of five nodes: 1) What role can (does) urban agriculture play in contributing to urban resilience and food security in the past, present and future? 2) What is the productive and livelihood-support potential of UA in the context of current urban land and water availability, and climate change? 3) What is the extent of geographical variation in the socio-political viability of urban agriculture? 4) What policy and organizational mechanisms are important to inducing and up-scaling innovation? 5) Who is currently involved in urban agriculture, and how can participation of the urban poor be enhanced?

Conclusions

While academic attention to urban agriculture has grown considerably in the past decade, significant knowledge gaps remain, posing important limitations in the potential for urban agriculture to achieve the goals of food security and community well-being. These gaps may have persisted due in part to the isolated nature of academic and experiential knowledge-generation processes. Collaborative university-community partnerships have the potential to address these gaps, stimulating problem-focused research that benefits from the inclusion of both scientific and experiential knowledge, and ways of knowing. Universities can not only contribute much-needed scientific research, but also play the critical role of knowledge broker.

Keywords: urban agriculture research; collaborative learning; knowledge sharing

Presenting author: Dr Debra Davidson, debra.davidson@ualberta.ca

Adaptation of vegetable system to urban areas in Meknés, Yaoundé and Hanoi

Hubert de Bon [1], Laurent Parrot [1], Joel Sotamenou [2], Patrick Dugué [3]
[1] UR HortSys - CIRAD - Montpellier - France
[2] IRAD - Yaoundé- Cameroun
[3] UMR Innovation - CIRAD - Montpellier - France

Introduction
The vegetable production is a large part of the urban and peri-urban (UPU) agriculture system. Some specificities could be identified from these UPU vegetable cropping systems : short cycles, perishable high value, crops, with intensive production techniques in terms of manpower and inputs. This paper stresses the adaptations made by the UPU growers to look for sources of inputs and an efficient use of them. Focus will be put on the fertilizer nitrogen. Nitrogen is coming from different sources: chemical fertilizer, organic matter, compost, manures and city wastes.

Methods
Three cases are analyzed: the nitrogen balance in vegetable cropping systems in and around Meknes in relation with the sources of nitrogen, use of organic matter in Yaoundé peri-urban agricultural farms and management of city solid wastes, organic matter in vegetable farm in Hanoi.

Results
There is a broad range of agricultural practices concerning the organic matter and management of nitrogen fertilization between the cities but also within the cities in relation with different factors as the location, the type of farming system and the distance between the farm and the organic matter sources.

Conclusions
Some suggestions are made on a more sustainable management of nitrogen in UPU agriculture.

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Keywords: nitrogen, urban and peri-urban agriculture, vegetables, organic wastes

Presenting author: Dr Hubert de Bon, hubert.de_bon@cirad.fr

Development of the local food systems in the Pays de Rennes : from a confrontation between local institutions to a shared development plan

Marion Diaz [1], Catherine Darrot [1]
[1] Agrocampus Ouest - Rennes - France

Introduction

Rennes is the Capital of Brittany, a region well known for its powerful agro-food industry and intensive agriculture. However since 10 years, the number of alternative food networks (AFN) is increasing, as in many French cities, thanks to various organizations initiated first by local producers and then by consumers or local governments. In Rennes from the 2000's, an acceleration of the development of such initiatives was clearly observed, involving progressively more and more actors as local and regional policy makers, Chamber of agriculture and others farming organizations, as well as researchers from many disciplines. In this paper, our analyse will focus on a short period of time in the territorial trajectory corresponding to collaborative reflection about the peri-urban agriculture in the Pays of Rennes leading to the implementation of the local plan of agriculture. In Rennes that bifurcation in the territorial trajectory toward AFN and more generally toward local food systems was characterized by a major phase of conflict leading to a Local Plan for Agriculture. We will explain how that confrontation was transformed into a collaborative process to elaborate the shared basis of a territorial food system. We will especially discuss which ingredients were and remain necessary for a successful collaboration and which are those still missing at the current stage of the process.

Methods

The analysis of the empirical material will be based on a targeted 'inter-ontology crossover' between the Multi-Level Perspective (Geels, 2002) and the Actor Network Theory (Akrich, Callon, & Latour, 2006; Callon, Lascoumes, & Barthe, 2001). We especially use the concept of anchorage to link the MLP and ANT (Elzen, van Mierlo, & Leeuwis, 2012). The results of a participatory prospective workshop about the desirable future of agriculture in the Pays de Rennes, also carried within the same research project, will complete the data and allows us to identify the gaps and the potential forthcoming issues concerning the governance process.

Results

The results show how the governance process progresses from a confrontation between the chamber of agriculture and the local government toward an open forum of discussion and exchanges with the involvement of all the actors concerned by agriculture at the local level. The enlargement of the network is strongly dependent on the legitimacy of the spokesmen, of the translator, of the creation of the hybrid forum to elaborate a set of shared principles and measures to preserve agriculture around Rennes and develop local food system. From a political point of view we could show that this anchorage marks a change of referential of local public policy (Muller, 2005). In very stable political circumstances from the early 80's which guarantees continuity in the orientations of urban planning, the local plan of agriculture is an indicator of transition toward LFS.

However, despite the frame created by the common global principles, two contrasted visions of the future agriculture remain identified, as an expression of different values and models. Several tensions are currently emerging related to the way of understanding the plan. This reveals a controversy about the concrete implementation of the common principles expressed in the plan. This new step in the governance process challenges one more time the regular tandem Chamber of agriculture/local government.

Conclusions

To conclude, we will show that the actors of the Pays de Rennes manage to overcome the oppositions about the peri-urban agriculture thanks opened discussions with all the stakeholders concerned by farming issues. This collaboration leads to an agreement including basic principles from which the local plan of agriculture is created. But this initial agreement raises new and more practical problems that involve a new phase in the process of territorial governance.

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Keywords: actor-network theory; anchorage; hybrid forum; territorial governance; conflict

Presenting author: Mrs Marion Diaz, marion.diaz@agrocampus-ouest.fr

Pick-your-own farm in a new town : Who needs whom the most ?

DUPONT Aurore [1], MORINIAUX Vincent [2]
[1] Paris Panthéon Sorbonne (Paris1) - France
[2] Paris Sorbonne - Laboratoire Espace Nature et Culture UMR 8185 - France

Introduction

Pick-your-own-farms are good examples of new agricultural trends in urban areas. Consumers look for quality products in this new kind of short food supply chains. They cherish the illusionary countryside of a bygone age. Farmers as well as services in charge of urban planning also promote such agriculture. The study deals with the farm of Servigny located in the middle of a New town, Sénart (Seine-et-Marne/Essonne, France). Originally the farm's land was to disappear, due to urbanization. However the hundred-acre farm survived. Today local actors are including it in their projects. Servigny embodies today a local and peri-urban agriculture which is praised and appreciated for its productive and lucrative role and also for the open landscape it creates for the territory.

Methods

The analysis relies on interviews with different actors namely Luc Signolle, the current farmer of Servigny, but also people working in local administrations dealing with agricultural issues. Information also comes from interviews and records, compiled over the years at the farm. The purpose is to understand how the pick-your-own-farm of Servigny was able to develop considering its location within the new town.

A questionnaire was elaborated to understand what motivated customers to visit the farm and pick their own fruits and vegetables.

Results

This research allows a better understanding of the fast changing relationships between the urban world and the rural world. It studies how some farms have chosen to adapt to the food demand and expectations of city dwellers, concerning the fruits and vegetables they consume, and how they have been able to do so.

Conclusions

This study of a pick-your-own farm located in the heart of a new town of the Ile-de-France region, identifies peri-urban consumers profiles, determined by the needs and expectations they express. It presents possible future trends for agriculture in the urban environment.

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Keywords: Pick-your-own farm - Short food supply chains- New town - Peri-urbanisation

Presenting author: Miss DUPONT Aurore, dupont.aurore@hotmail.fr

Agroecological production systems as strategy of cross-sectorial governance to articulate rural-urban dynamics and promote sustainable territorial development. The case of family-based farmers in settlements of Mato Grosso do Sul in Brazil

Daniela Espinosa [1]

[1] Université Panthéon Sorbonne Paris 1 - Paris - France

Introduction

The world faces many challenges at a global scale. Among them is the fast growing population that is projected to increase about one-third by 2050. This will require a 70% increase in food production (FAO, 2009). Furthermore, it is projected that by the same year 7 out of every 10 people will live in a city (WHO, 2013). The abandonment of arable lands along with the risks for health and reduction of quality of soil due to the use of pesticides and fertilizers of conventional agriculture (Robin M. 2012), represents a major challenge in terms of sustainable food production systems to satisfy the needs of urban population.

In that scenario, agroecology appears as an alternative knowledge to understand and contribute to the solution of these challenges. It has a set of practices and principles that promotes agricultural systems that are bio-diverse, resilient, energetically efficient and socially just (Altieri M. 2004). In order to be effective, agroecology requires the commitment of stakeholders from multiple sectors and an integrated cross-government response. The role of family-based farmers is identified as crucial to ensure food security at a local level.

The research questions are: What strategies do the multiple actors that intervene in the promotion and practice of agroecology use to provide to urban areas products based on sustainable agriculture systems? Do these strategies contribute to a better quality of life of family-based farmers?

Methods

The study has a sustainable territorial development approach and is focused in family-based farmers of four Municipalities of the State of Mato Grosso do Sul in Brazil part of the project: Agroecological, Integrated and Sustainable Production (PAIS) supported by the Brazilian Service of Support for Micro and Small Enterprises (SEBRAE) and Banco do Brasil Foundation. The territorial approach provides tools to identify the actors of the territory, their networks and their common goals in order to achieve sustainable development.

The methodology used for the data collection in the field is based on Ethnographic tools and the principles of Action Research. The collection of information was done by the participation for the length of five weeks in different activities including workshops, institutional meetings, group meetings, technical follow ups, and others programmed in the settlements of the mentioned municipalities. Family-based farmers as well as institutional actors from SEBRAE were interviewed. Further data from related institutions was collected from official web pages and publications in order to have a holistic point of view of the problem of study of this research.

Results

The PAIS project functions with a cross-sectorial governance strategy in which multiple stakeholders from private and public sector have specific roles and responsibilities for its success. They are articulated through a set of policies and agreements that contributes to reach the goal of promoting agroecology as a food security strategy and to create an urban-rural dynamic. Seven specific stakeholders were identified in the studied territory. Some of the results of these strategies are: The food security of the family-based farmers that implement the project is guaranteed. More than 70% of them claimed that do not depend from external supplies for farming. 57% declared to have increased their monthly income in cash. 95% noticed significant benefits in their health and nutrition. Furthermore, participation had been promoted and valued and they all created associations as the easiest way to organize and sale their products.

There are tree markets in the city of Campo Grande to commercialize their products. However, the impact is still insipient. According to CONAB (2012), 98% of fruits and vegetables that the urban population consumes come from the state of Sao Paolo traveling long distances and without certification of organic production. This suggests that the production of family based farmers in MS is reduced and is still not able to fulfill the local market. The lack of work hand is a common complain among farmers as well as the lack of knowledge to control pests and diseases in natural ways. In this last point, it was observed the lack of knowledge and commitment of stakeholders in charge of the technical support to farmers who do not know all the principles of agroecology, jeopardizing the success of the project.

Conclusions

The strategies of cross-sectorial governance with different stakeholders had contributed with several inputs for the better quality of living of family based farmers. However, they still have many limits to create and efficient dynamic between urban and rural areas. There is a lack of awareness from urban citizens of the existence of this option of products from sustainable agriculture. Nevertheless, this experience had been effective to promote the participation, increase knowledge and promote social organization to give an offer of organic products. The public policies had been crucial for that. The contribution to the discussion is to identify how different stakeholders can work together to provide more sustainable food to cities in a rural-urban dynamic that intends to benefit both areas. It also analyses the evolution of the project after eight years of implementation and the limits and challenges that the actors involved face to promote and practice agroecology.

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Keywords: Agroecology, family-based farming, cross-sector governance, sustainable territorial development

Presenting author: Miss Andrea Daniela Espinosa Alarcón, huaodani@hotmail.com

Food production for the city: different farmers strategies in the region of Pisa (Tuscany, Italy)

Rosalia Filippini [1], Elisa Marraccini [1], Marie Houdart [2], Marta Debolini [3], Sylvie Lardon [4]

[1] Institute for Life Sciences, Scuola Superiore Sant'Anna, Pisa - Italy

[2] Irstea - Aubière - France

[3] INRA, UMR EMMAH, Avignon - France

[4] INRA & AgroParisTech UMR 1273 Metafort, Aubière - France

Introduction

The 'Alternative Food Networks' (AFN) are described as alternative models to the dominating agro-industrial one (Deverre and Lamine, 2010; Duram and Oberholtzer, 2010). They are often associated to questions on food security, of degradation of natural resources, and on relations between stakeholders of the agro-food chain (Murdoch et al., 2000; Renting et al., 2003). According to different authors, AFNs may allow consumers to establish better connections with the places of production, the ways of production, and the producers themselves (Ilbery et al. 2005; Marsden et al., 2000). Moreover, the development of the AFNs is considered as a tool for the sustainable development of the international agro-food system (Sundkvist et al., 2005). The phenomenon of periurbanization can be considered as a resource to promote these AFNs, as a foundation on which local food system can take place. Indeed, the fact that farmers choose short supply chain in periurban area is considered as one of the indicators of adaptation of farming systems to the urban spread (Houdart et al., 2012). We investigate who are these peri-urban producers who choose the short supply chain: what do they produce in this way? What are their farm types? What are their strategies? By answering to these questions, our goal is to question the sustainability of the agri-urban systems (Valette et al., 2012), focusing on the urban driving factors and constraints that allow farmers to prefer short supply chains.

Methods

We focus on the periurban area of Pisa (Tuscany, Italy), a coastal Mediterranean area of 500 km2 surface characterized by small scale farming (average farm Usable Agricultural Area 7 ha) and a decrease in agricultural land use and the number of farms in the last 30 years of 11% and 66% respectively. We surveyed a sample of farmers representative of the diversity of the farming systems observed on the area (Marraccini et al., 2012): horticultural, cereal, industrial crop, olive groves and livestock farms. 49 farms were surveyed, representing 5% of the farms following the last agricultural census. The interviews focused either on the farm structure and organization, either on the main advantages and disadvantages of being located in a periurban area.

Results

Most of the surveyed farms (49%) keep a conventional way of commercialization. The other half is divided between farmers integrating short supply chains beside a conventional way of commercialization (39%) and farmers exclusively in short supply chain (12%). Most of the latter farms are little and oriented to olive groves production, whereas the latter are mostly horticultural or livestock farms.

Three main dimensions of the proximity of the city influence the strategies of the farmers, as such the proximity to the consumer, the presence of agri-urban projects (CSA, farmers markets), and the road infrastructures. We identified 3 kinds of strategies for farmers face to supply chains in the periurban area of Pisa. One strategy can be defined as "active": the farmers decide to address all the production or most of it to the nearest urban area. For this reason, there is a choice to invest money in the adaptation of the spaces (health regulations); or in changing the farming system to have productions more suitable for the urban market; also by looking for new commercial relationships, based on individual initiative. These farmers usually revealed having a lot of constraints, especially regarding health regulations and controls that usually are costly, the need of a new organisation or a new procurement of manpower, as well as the need for new commercial partners. These farmers try to overcome the constraints in the long term through participating in modernization measures or accessing to bank credits. Another strategy is more "opportunist" when the farmers simply try to put all the production both in the closest urban area, both in other markets, following the circumstances. They try to maximize the profitability of the farm productions. Farmer don't always try to overcome the constraints and the driving factors have more influence. The third strategy can be defined as "passive" regarding the urban market. The farmers usually try to take advantage of the spatial or commercial connection with the urban market, but only for the few productions not involved in "wider" markets. Usually the trade-off between the cost of urban markets and the gain with other market is against the nearest urban markets. The farmers reveal many constraints, but the driving factors to go to urban markets are not enough strong.

Conclusions

Finally, this research is a first approach of the ways farms may be embedded in the agri-urban system of Pisa, giving us some first issue of reflexion of the sustainability of this agri-urban system.

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Keywords: short food supply-chain; periurban; strategies; driving forces and constraints; Italy

Presenting author: Miss Rosalia Filippini, rosalia.filippini@gmail.com

The integration of food system planning into planning practices: Status Quo and future perspectives in Germany

Anna Galda [1]

[1] TU Berlin - Chair for urban an regional economics - Berlin - Germany

Introduction

What is the current status of introducing food system planning (FSP) into german planning concepts and practices? Which entry points can be identified to integrate FSP into future concepts and plans on the city and regional level in Germany?

In the last years Germany became the urban gardening state (Müller 2011). In nearly all major cities and several medium-sized cities urban gardening projects can be found and urban gardening has been identified by planners as a helpful tool for solving several planning challenges. They use urban gardening as a tool for social inclusion, ecological an health based educational programs for children and socially disadvantaged neighborhoods and as temporary uses for upgrading brown field sites in central locations. Contrarily until today there cannot be found any proof, e.g. the development of food strategies in german cities, that FSP became an objective and instrument in planning research and practice in Germany.

The purpose of the paper is to introduce the research agenda for introducing the concept FSP into german planning practices and herewith to fill the gap of knowledge in german planning departments about food systems. The main objective of the research agenda is to initialize a continuous debate about FSP between researchers and practitioners in Germany. The paper will present first results of expert interviews and evolved assumptions.

Methods

Comparable with the North American initial research by Pothukuchi and Kaufman a structured process of analyzing current knowledge and future fields of action where food is included is needed. It is the main objective of the paper to describe the structure, planned milestones and future steps of such a research agenda for the german context.

Therefore the current status of research was detected with the help of a focused literature analysis. The focus of the analysis lies on two working fields of planners where single food matters planners are already dealing with could be found. They are potential entry points for integrating food system planning into current planning practices. Based on this analysis interviews with experts from different planning departments and institutions which are relevant for the topic have been conducted.

With the results of the literature review and the expert interviews it is possible to evolve assumptions for potential fields of action. It is the second milestone of the agenda for an initial research after detecting the current status of research. These assumptions are going to be verified through a survey in all german major and medium-sized cities in spring 2014.

Results

FSP in Germany is a currently not established field of research and planning practice. Except the pioneer work by Stierand (2008) there cannot be found any publication for the german context dealing with issues of food system planning. Nevertheless food and planning is a relation with several faces which has been broached out in several publications especially around the turn of the millennium.

The objective of these publications is not the food system itself but its single elements like production or consumption of food. For both elements can be identified equivalent fields of action in common planning practices in Germany. For the element of production it is the forgotten field of municipal agricultural policy (MAP - german proper name: kommunale Agrarpolitik) - a concept introduced and documented by Thomas (2001) and proven by Lohrberg (2001). For the field of consumption it is the classic field of local supply which is fixed in the German Basic Law.

The field of MAP hat its origin in the fact, that especially several major cities exhibit huge amounts of agricultural land. This leads to a rash of conflicts between farmers and inhabitants which have to be resolved by the planning departments. At the same time farmers are important stakeholders because next to their primary function of producing food they are responsible for cultivating their land for recreation and to preserve an efficient and beautiful picture of nature and landscape. Especially this aspect becomes important for municipalities because they do not have the potential to care for their land on their own. The relevance of food production decreases because the local supply is ensured by the global food system and food retailers.

The action field of local supply on the other hand only means ensuring the allocation of supermarkets and grocery stores in the region so that every inhabitant has the possibility to reach them in a distance of 500 to 700 meters. Aspects of origin, regional production and conditions of production are not seen as the action field of planners although healthy conditions of living and working - also fixed in the German Basic Law - include availability, accessibility, acceptability and adequacy of food (Koc et al 1999).

Conclusions

In the international discourse about FSP in urban planning a huge dynamic can be noticed. In the german context this misses nearly completely, although there are first singular publications. By putting food related topics on the agenda of german planning departments two objectives could be reached: Planners get to know the model of FSP and start to identify potential entry points for integrating. A flow of information between planning practice and research would emerge and the field of food system planning in Germany be established.

The article will give an exemplary answer to the question „How can the diversity of local actors beyond the participation of government, market and civil society representatives be integrated into food planning?“. The results of the interviews give a first impression about the answers for the german example. A verbalization of assumptions for a survey becomes possible which could give generally accepted answer to the question.

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Keywords: Germany; case study; food system planning; planning practice; initializing research

Presenting author: Mrs Anna Galda, a.galda@isr.tu-berlin.de

Tianguis alternatives locales au Mexique, comme les expériences de production et de consommation locale: le cas de Puebla Alternative Tianguis

Rocio Garcia Bustamante[1], Susana Edith Rappo Miguez [1], Ludovic Temple [2]

[1] Universidad Autónoma de Puebla - Centro de Estudios del Desarrollo Económico y Social (CEDES) - Puebla - Mexico

[2] Cirad, Département Environnements et Sociétés - France

Introduction

Le mot tianguis, vient du nahuatl tianquiztli et signifie le marché. Il a été utilisé pour désigner les marchés intérieurs de Méso-Amérique, durant l'époque préhispanique. Ce mot a été requalifiés dans certains projets locaux baptisés « tianguis biologique local » ou « tianguis alternatif local » impulsés par différents acteurs sociaux - agriculteurs, consommateurs, ONG, universités, entre autres. Les tianguis structurent des marchés physiques qui fonctionnent comme des nœuds sociaux où différents acteurs interagissent autour de la nourriture, des produits agro écologiques et biologiques. Cet article à partir de l'expérience de projets de marché alternatif dans la ville de Puebla, au Mexique, propose d'analyser les déterminants socio-économiques-institutionnels de ce circuits courts alimentaires structurés par les tianguis comme proposition alternative d''approvisionnement alimentaire.

Contexte :

Au Mexique 99 % des producteurs biologiques sont des exploitations de moins de 30 hectares). Parmi eux, 82.77% sont issus des communautés indigènes (Chiapas, Oaxaca, Guerrero, Puebla). Environ 85 % de la production biologique Mexicaine est exportée sur le marché international en plein croissance (20% par an), seulement 15 % de la production biologique est consommée à l'intérieur du pays et uniquement 5 % est vendue en tant que produits biologique.

Dans ce pays, le développement des circuits courts alimentaires qui s'appuient sur des structures d'échanges anciennes croient d

Methods

Les recherches menées dans l'Etat de Puebla, dans le cadre d'une thèse, mobilisent des propositions théoriques de l'anthropologie économique pour expliquer comment l'émergence des circuits courts est ancrée dans le prolongement des racines socioculturelles. Il interroge de fait les déterminants sociaux des échanges commerciaux des collectivités locales en termes de relations de réciprocités (Sabourin et al.2012). En mobilisant les contributions complémentaires de la sociologie (Ronan et al.2011, Chiffoleau et al., 2012) et l'économie institutionnelle (Temple et al., 2011) nous analysons commente les réseaux sociaux constitués par ces circuits courts innovent pour améliorer leur contribution à l'approvisionnement des marchés alimentaires. Ce travail est basé sur expérience de travail sur le terrain, d'accompagnement et d'enquête des différents acteurs qui ont structuré les processus organisationnels.

Les techniques d'enquête mobilisent l'observation participante dans différents espaces de l'action de tianguis: jours de marché, systèmes participatifs de certifications (ou garantie) et ateliers, ainsi que des entretiens avec les producteurs, les promoteurs et les utilisateurs. Une importante contribution de travail sur le terrain a eu lieu lors des visites des systèmes participatifs de garantie, car des interactions importantes entre les différents acteurs impliqués ont été observées s'y sont produises.

Results

Le premier point mis en exergue souligne la fonction du marché comme espace social où se développent certaines subjectivités autour des thèmes de l'écologie, la solidarité, l'alimentation et la santé. En même temps, cet espace s'appuie sur un processus historique qui vient des formes de tianguis culturels de l'ancien Mexique [4] . La réappropriation de ces processus par des projets de commercialisation locaux sur les produits biologiques, solidaires autoproclamés "tianguis biologique local" ou "tanguis alternatif local" structurent le "réseau de marchés et tianguis locaux mexicains.".

La deuxième partie de l'analyse montre que le fondement même des tianguis reste la structuration de circuits courts d'échanges qui relient la production et la consommation locale. Elle constitue un élément socio-économique structurel de l'accès à l'alimentation. Cependant, le tianguis est confronté à une série de difficultés issues de l'éclatement des stratégies d'adaptation par des différents acteurs.

Conclusions

Les Marchés de proximité sont été espaces de construction sociale avec un contenu historique et culturel important, ce qui permet leur permanence actuelle. Le tianguis dans la ville de Puebla, n'a pas eu un développement stable et continu. Ils rencontrent des difficultés d'approvisionnement logistiques (e (production, de transport), d'organisation des transactions et de gestion. Une amélioration de la coordination des efforts entre les différents acteurs représentant les différentes dimensions de l'initiative, permettrait d'augmenter la participation des producteurs et les consommateurs. Il est nécessaire de mettre en place des politiques publiques et programmes qui reconnaissent la valeur et les problèmes de l'émergence de circuits courts alimentaire comme le Tianguis Alternatif de Puebla. Sans celles-ci, la croissance de projets similaires sera soumise à la capacité de résilience des acteurs locaux pour surmonter les obstacles structurels imposés par le contexte.

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Keywords: marché, production et consommation locale

Presenting author: Mrs Rocio Garcia Bustamante, rogarbus@hotmail.com

Constraints to agricultural activities in peri-urban areas. The case of the Pisa region (Tuscany, Italy)

Giulia Giacchè [1], Elisa Maraccini [1], Rosalia Filippini [1], Enrico Bonari [1]
[1] Institute for Life Sciences, Scuola Superiore Sant'Anna - Pisa - Italy

Introduction

Several studies (Fleury, 2001; Branduini and Sangiorgi, 2004; Giacchè, 2012) showed that farming in peri-urban areas present some advantages (e.g. proximity of basin of consumers) and disadvantages (e.g. urban pressure) related to their location nearby the cities. Based on the state of the art we assumed that the peri-urban areas are more submissive to restraints and limitations given mainly from urban planning and regulation, which poorly take into account the agricultural sector (Pareglio, 2009; Tassinari et al., 2013). However, these constraints could be transformed into potentiality in these areas more than in other ones. In this context, our research questions are: which are the main constraints to farming in peri-urban areas? How these constraints can be overcome?

The aim of this paper is therefore to identify the main constraints to farming activities in peri-urban areas. We hypothesise that such constraints are of different types and mainly non-agronomical. Poor literature is devoted to these issues, and mainly focusing on the conflicts between agricultural and urban areas (e.g. Darly and Torre, 2013). This paper is based on a case study in the urban region of Pisa (Tuscany) within the framework of the research-action project DAUME on the sustainability of agriculture in Mediterranean peri-urban areas, which aims to identify policies and projects that attempt to connect agriculture and urbanism, to engender sustainable "agri-urban systems"(Valette et al, 2012).

Methods

We collected the major agronomical and non-agronomical constraints for the farmers to developing agriculture in peri-urban areas and for the local authorities to integrate agriculture into urban project. Otherwise the proximity to urban centres and greater integration of agriculture into urban project could develop them from constraint into potential. We assume that the agriculture proximal to the cities can survive only acting on main non-agronomical constraints.

In 2012/2013 we interviewed 63 stakeholders (farmers, policy-makers, local authorities, technicians, researchers, advisors) thought semi-structured questionnaires focusing on topics related to the project (i.e. public policies, farms, land tenure and integrated projects). The focus of the interview was not on constraints but the actors mentioned them related to the main difficulties for farming or to integrate into the urban system. We decided to extract from the interviews all of the constraints perceived by the actors, in order to analyse them, verified if they were real constraints or not and propose some solutions. The information have been verified when possible by focusing on the other stakeholders involved, on expert knowledge, on the tools used/needed and their implementation. Finally, we classified and quantified the constraints in several types and analysed how to overcome them.

Results

The main distinction that we have made was between agronomical and non-agronomical constraints. The agronomical constraints are those determined by the geo-morphological characteristics (e.g. soil type, irrigation water availability) as well as by the farm organisation (e.g. workflows, land tenure) following Morlon and Benoît (1990). The non-agronomical constraints are those created by the farming system and its relations triggered by the surrounding actors (e.g. commercialisation, administrative rules). The main result we found was that most of the constraints are non-agronomical. By analysing them, we realised that in many cases they were not real constraints but a misunderstanding or a lack of networking or deriving from unclear rules. This is why such constraints may indeed be opportunities. An example of one of the constraints that have been specified is the procurement of school meals with local products. Public bodies are forced to switch to tender for the supply of public canteen through an electronic site managed by the Ministry of Economic and Finance. The actors interviewed perceived that as a constraint because they cannot choose directly their suppliers. Actually the local authorities have a tool to control the supply chain and encourage the adoption of sustainable practices: the tender (Galli and Brunori, 2012). They could elaborate a tender specifying the characteristics of the products and indicating their preferences for local products. So this is an opportunity for the local authorities to express their preference and for the farmers to orient their production to local market. In order to be able to exploit this possibility on the one hand the farmers need to require new skills in terms of interactions with local authorities and of marketing in short supply chain. On the other hand the municipality needs new competencies because it is the Education bureau of municipality that usually draws the tender for the scholar canteen without consulting the Agricultural bureau also because it often does not exist in many municipalities.

Conclusions

This work had a twofold objective. On the one hand it aims to contribute to the classification of the constraints faced by actors working in peri-urban areas. On the other hand it wants to emphasize that it is necessary to develop skills and tools that can help actors to overcome the constraints turning them into opportunities to better integrate agriculture into the urban system. So this contribution is an example of an emerging interdisciplinary research field bringing together agronomy and urban planning.

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Keywords: peri-urban agriculture, agri-urban system, constraints

Presenting author: Dr Giulia Giacchè, ggiulia@hotmail.com

The management of flows in Alternative Food Networks and in the commodity sector: different needs and different solutions?

Amélie Gonçalves [1], Thomas Zeroual [2]
[1] IFSTTAR-SPLOTT, Villeneuve d'Ascq, France
[2] ESCE, Paris, France

Introduction

The main purpose of this research is to provide insights about the compatibility of Alternative Food Network (AFN) with the management of flows recommended by research on urban logistics and applied by some urban policies in Northern countries. The research guiding these policies highlight the need for a more rational and optimized flow of goods in order to reduce their negative externalities, mostly on environment and welfare (Gonzalez-Feliu et al., 2012).

One of the recommended and applied solutions is the use of more collective / collaborative logistics schemes. Hubs for commodities and/or food products (Morganti, 2011) are one of these solutions. They are logistic infrastructures but also a support for new modes of horizontal and vertical coordination. Furthermore, we study the possibility of common logistics solutions for flows of commodities and food products in urban areas and the possible integration of AFN flows with the ones of other supply chains. The originality of our study is to compare the logic of AFNs with the one of more classical supply chains instead of considering them as specific and seeking particular logistics solutions.

Methods

This study is mainly based on interviews of companies involved in short supply chains. For each of the 20 studied organizations, we met a producer and one of its retailers to inquire about their logistics, the management of operations and coordination inside the firm and with its partners, their expectations concerning supply chain performance, and which strategies are applied or considered relevant to improve it. In order to compare the key drivers of logistics schemes, three kinds of supply chains have been interviewed: commodities producers and retailers, industrial food producers and their retailers, and AFN producers and retailers. The framework used to analyse the results is based on the work of Salais and Storper (1993) concerning worlds of production. Their interpretation of the Economics of Convention provides relevant elements about the logic guiding production processes, circulation of flows and coordination inside supply chains. It thus highlights the different key drivers of the studied organizations.

Results

The main result of our study is the demonstration of the fact that logistics is not only a problem for commodities or industrial food supply chains but also for the firms involved in AFNs. In spite of reduced scales and less important flows of goods and information, most of the firms of these supply chains apply strategies to improve the performance of their logistics or try to define what could be the best solution for them. Individual optimization strategies are singled out, like in some commodities or industrial food supply chains. And, like the "classical" chains, they are also guided by a variety of key drivers reflected by the four words of production identified by Salais and Storper (flexible, industrial, professional, and immaterial). There is at least one AFN in each category. This shows the different needs in these chains concerning coordination, resources, circulation of flows and flexibility. The intensity the nature of these needs is determined by the type of product, the concurrence, the uncertainty faced by the firm and the respective power of producer and retailer in the chain. The classical chains are also represented in each world, except the professional one. It shows that the key drivers of logistics schemes for them and for AFNs are partly common, leading to quite similar conventions of performance (in a word, representations and expectations concerning performance). It explains why the need for fast and efficient circulation of flows remains important in some AFNs and why the sought and applied intensity and type of coordination aren't necessarily different to those observed in other retailing supply chains.

It is possible to consider common urban logistics solutions – like city hubs - for commodity, food and the AFNs studied in this paper (short food supply chains in France's Nord – Pas de Calais region with one intermediate), since the need for coordination, flexibility and circulation of flows does not necessarily vary from one to another. For those involved in AFNs, it might make sense to develop strategies concerning not only horizontal but also vertical coordination. This last point, one of the key factors of performance in classical supply chains, is actually rarely made – or even considered as possible to use - in the observed AFNs.

Conclusions

As a conclusion, one can highlight the diversity of key drivers of logistics schemes in AFNs. These organizations embedded in the four words of production (Salais and Storper, 1993) reflect a diversity of needs concerning performance and the way it is achieved (in particular the coordination needed to do so). Expectations of the firms involved in these supply chains are not necessarily different to those of firms involved in other kinds of retailing chains, notably with respect to the speed and reliability of deliveries and the need for optimization. As a consequence, it appears that some AFNs are compatible with the logistics solutions recommended and applied in urban areas, such as hubs. This opens the door to the use of combined solutions for classical chains and AFN flows. The implementation of these new infrastructures and modes of vertical and horizontal coordination appears even more relevant for AFNs whose small firms have few resources to improve their logistics.

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Keywords: City logistics; short supply chains; food and commodities hubs

Presenting author: Miss Amelie Goncalves, amelie.goncalves@ifsttar.fr

Autononomie alimentaire et villes vivrières

Laurence Granchamp [1], Catherine Darrot [2]
[1] Université de Strasbourg - Strasbourg – France
[2] Agrocampus Ouest - Rennes - France

Introduction
Les villes actuelles, lorsqu'elles souhaitent s'inscrire dans une démarche de développement durable, incluent toutes une réflexion sur les stratégies à adopter et les possibilités de combiner les espaces et les usages, de maintenir des activités agricoles professionnelles en même temps qu'elles tentent de satisfaire les demandes des habitants pour une agriculture de loisirs et d'autoconsommation. Dans ce cadre, la prospective peut représenter un outil qui permet de poser de façon élargie les enjeux des politiques urbaines en direction de l'agriculture et de l'alimentation.
A la suite des travaux lancés à Rennes au sein d'Agrocampus ouest (sous la direction de C. Darrot), nous avons voulu tester dans une autre ville française, à Strasbourg, la démarche consistant à calculer le potentiel d'autonomie alimentaire de nos villes.

Methods
Le calcul de l'autonomie ou empreinte alimentaire des villes est calculé en plusieurs étapes : 1) définir les besoins énergétiques des habitants 2) rapporter ces besoins à la surface nécessaire pour les satisfaire compte tenu des rendements 3) Déduire la surface nécessaire pour nourrir chaque habitant (en ha/habitant), puis la surface totale pour la population de l'agglomération 4) comparer cette surface avec celle disponible. A partir de là, 2 scénarios sont établis basé sur l'analyse des variables suivantes : poursuite de la conversion des terres agricoles / ou à l'inverse inclusion d'une partie des trames vertes; les projections démographiques ; les régimes alimentaires (maintenu tel quel / réduction de la consommation de viande) ; la capacité de production (agriculture conventionnelle / conversion au bio).

Results
Les résultats sont exprimés en kilomètres à parcourir sur un rayon autour du centre de l'agglomération pour satisfaire les besoins de la population. Le résultat varie sensiblement entre Rennes et Strasbourg.
Nous analysons les limites de l'application de la méthode élaborée dans le cadre de Rennes au cas de Strasbourg, en particulier en raison de la situation frontalière de cette dernière. Néanmoins, ce calcul met en évidence les spécificités des rapports entre des systèmes agricoles et des systèmes urbains dans les deux cas. La notion de « territoires d'autonomie » permet d'approfondir ces comparaisons.

Conclusions
En conclusion, les résultats montrent que les marges d'autonomie peuvent varier très sensiblement selon les configurations urbaines - ce qui interroge les avantages de la "ville compacte" face à la ville archipel. L'autonomie alimentaire des villes (qui n'est pas l'autarcie mais la capacité de se ménager une marge de manœuvre, ou d'atténuer les chocs sur les marchés alimentaires) amène à reconsidérer les articulations entre les différents espaces urbains et périurbains, et relève de choix politiques.

Keywords: autonomie alimentaire, empreinte alimentaire, relocalisation, prospective

Presenting author: Mrs Laurence Granchamp Florentino, laurence.granchamp@misha.fr

Can local and urban food policy groups lead the charge against food poverty?

Jess Halliday [1]

[1] Centre for Food Policy - City University London - London - United Kingdom

Introduction

Food poverty is a growing reality in England. The economic crisis and changes to the welfare system mean many households must choose between buying healthy food or going hungry/eating food of little nutritional value to pay for other essentials (Cooper and Dumpleton, 2013). The Trussell Trust (2013) reports an 850% increase in food bank use since 2010, but while food banks provide emergency food they do nothing to prevent people from falling into food poverty in the first place.

In local authority areas where food policy groups (food policy councils, food partnerships, etc) exist, they are looked upon to lead a response to food poverty (eg London Assembly, 2013). However the groups were not formed for this: food poverty is implicit in their themes, but their raison d'être is framed around public health and sustainability. Each food policy group differs in composition, governance, mandate, and resources, meaning that their fitness to address food poverty, and possible approaches, vary.

The literature on urban food policy groups/strategies has focused on definitions and frameworks. Much of literature on food poverty dates from the late 1990s or focuses on physical access to food. Policy responses to rise of food poverty since 2010, and actors, entities, and levels to deliver them, have not been studied. The research question is: Are local and urban food policy groups suitable entities to take on food poverty, or are they just 'talking shops' with little scope for action?

Methods

This paper draws on data gathered during observation and analysis of reports from meetings held in London, Bristol, and Manchester, and interviews with 15 members of food policy groups in the three cities.

The paper has two sections. The first section discusses whether the local level is appropriate for addressing food poverty by considering the powers and responsibilities of local government in England, and the powers and responsibilities of the national level. The second section reviews the governance structures and mandates of the food policy groups in London, Bristol, and Manchester. It draws upon the interview data to show the perceived potential and limitations of local food policy groups in addressing food poverty.

Results

The main findings are:

• Actions to address food poverty that are within local authorities' powers and responsibilities include universal free school meals, implementing a living wage, providing food skills training, retaining quality meal services for older people.

• There is widespread understanding that food poverty is exacerbated by national economic policy and welfare policy.

• Food groups feel food poverty is implicitly present in their work themes and have the flexibility to give it more prominence.

• Perceptions of food policy groups' role in addressing food poverty along a scale are (weaker to stronger): convening conversations; advocacy and advising; securing commitments from local policy-makers and lobbying the national level.

• A more formal link between the food policy group and the local authority can enable a stronger role, especially if there is political support.

• Misconceptions are rife about the potential of food policy groups to address directly food poverty

• Lack of resources is a barrier to securing commitments from policy makers at the local level.

Conclusions

The paper concludes that local food policy groups in England do not have the governance structures, powers, or resources to lead a policy response on food poverty. Their most useful activity is securing commitments from individuals and organisations that can take policy decisions at the local level and lobbying the national level, but this requires funding for a project officer. Misplaced confidence that food policy groups can lead against food poverty, and their failure to live up to unrealistic expectations, could lead to disengagement.

The paper contributes to the 'governance' track theme by addressing questions around the appropriate scale for addressing food poverty in England. It highlights the onus placed on the local level to off-set the absence of concerted, joined-up food policy at the national level.

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Trussell Trust (2013) Press release: biggest ever increase in UK food bank use, The Trussell Trust, 24 April 2013.

Keywords: Food poverty; local food policy; urban food strategies

Presenting author: Mrs Jess Halliday, jess.halliday.1@city.ac.uk

Innovation in the Evolving Urban Food System of Monterrey Mexico

Craig Harris [1]

[1] Michigan State University - East Lansing - Michigan - United States of America

Introduction

Monterrey is located in the northeastern part of Mexico, very close to the southern border of Texas. Historically Monterrey is the leading industrial city of Mexico. Although technically the ninth largest city in the country, it is one of the nine cities with between one and two million people that rank after Mexico City. Because of the history of industrialization, foreign direct investment, and proximity to Texas, Monterrey has many of the attributes of a very modern, cosmopolitan metropolis.

Given this background, Monterrey provides an opportunity to analyze an urban food system that has three partially interacting subsystems. First, a sizable working class population in Monterrey obtain most of their food from small neighborhood markets (mercaditos), small neighborhood stores (tiendas), and small neighborhood food service establishments (cantinas). The foodstuffs in these places are the traditional foods of post-colonial rural Mexico – corn, beans, rice, chicken and pork, and some sweets. Second, the sizable middle class, perhaps more than half of the metropolitan population, obtain most of their food from national and international supermarkets (e.g., Walmart) and national and international restaurants (e.g., Chili's, McDonald's). The foodstuffs in these establishments include refined versions of the iconic foods of Mexico (tortillas, chorizo, queso fresco) and also the foods of the cosmopolitan middle class (white bread, shrimp, pastries).

Methods

Third, the small upper class in Monterrey may obtain their food both from the mercaditos (if it is purchased by a hired housekeeper) and from the supermarkets, but also from the emerging small scale alternative food system establishments. These alternative food stores feature artisanal cheeses and baked goods, organic meats and fruits and vegetables, and locally produced poultry and eggs.

This paper uses the urban food system of Monterrey to investigate three questions.

1. To what extent and in what ways do the three subsystems of the urban food system interact with each other? For example, hired housekeepers may purchase traditional Mexican foods in the mercaditos to be served with the meals of their upper class employers. Or foods that are popular in the alternative food subsystem (e.g., organic vegetables) may be added to the offerings of the middle class establishments.

2. What are the influences that are fostering and shaping the emergence and development of the alternative food subsystem? For example, the focus on local food has been fostered by one of the oldest upper class restaurants in the metropolitan area. And some of the stores and restaurants that align themselves with the alternative food subsystem are explicitly trying to incorporate foods from pre-colonial cultures.

Results

3. When food stores and restaurants decide to incorporate alternative food items in their offerings, how do they accomplish that objective? For example, a restaurant chef may have to go to one of the mercaditos to find a dependable supply of free range poultry. Or a grocery store manager may have to spend time in the rural area around Monterrey to find a reliable supplier of organic cactus (nopales).

Through these questions, the overall purpose of the paper is to explore how innovation occurs in the urban food system in an industrialized country like Mexico. Other research (e.g., Reardon) has investigated how national and international supermarkets gain a significant share of the food market in developing countries. The question of how an alternative food system develops in these countries has not been explored in any other published work.

The findings and results of the paper are based on three different sources of information. First, secondary data was obtained from government sources and corporate sources on the stocks and flows of various foodstuffs in the Monterrey urban food system. Second, interviews were conducted with key informants at the mercados and mercaditos, at the supermarkets and restaurants, and at the alternative food system establishments. Third, data was collected by participant observation at the mercados and mercaditos and at occasional Sunday markets for alternative food subsystem enterprises.

Conclusions

The development of the urban food system in Monterrey is still very much in process. Alternative foods are expanding among upper class consumers and are gradually being incorporated into middle class establishments. The middle class in Monterrey continues to grow both absolutely and as a percentage of the total population, so mass consumption continues to expand. At the same time Monterrey is becoming an urban center for some indigenous cultural populations, and their foods are becoming available commercially.

The paper demonstrates the ways in which developments in the three subsystems of the urban food system in Monterrey both restructure existing flows of foodstuffs and stimulate the development of new flows of foodstuffs with alternative attributes like local, fairly traded, organic, environmentally friendly, and healthful. Efforts to develop the alternative food subsystem both tap into parts of the existing working class food subsystem, and stimulate the development of alternative segments in the middle class subsystem. Differentiation within middle class food consumers fosters the expansion of the alternative food subsystem beyond the narrow confines of upper class consumers. In these ways innovation processes operating at the level of individual growers and purveyors result in innovation in the urban food system as a whole.

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Keywords: Alternative food systems, Newly industrialized countries, Mexico, Supermarket revolution, Urban food system

Presenting author: Mr Craig Harris, harrisc@msu.edu

Activating and creating proximities and social capitals in an urban food system: an Ecuadorian case-study

Claire Heinisch [1], Pierre Gasselin [2], Guy Durand [1]
[1] AGROCAMPUS OUEST - Rennes - France
[2] INRA, UMR 951 Innovation - Montpellier - France

Introduction

The short food supply chains (SFSC), as a strong means of reconstructing proximity links between cities and agriculture, are an essential component of the urban food systems (Nahmías & Le Caro, 2012). In recent years there has been an emergence of new forms of SFSC so as to respond to economic, social, environmental and cultural challenges associated with the global food system. These social innovations, that reconnect civil society, the public sector and the market around the question of sustainable food and food justice involve multi-actor governance processes from local to global levels. In Ecuador, the emergence of new forms of SFSC happens in a context of important political changes that are opportunities for their development. Indeed, into their new 2008 constitution, Ecuador incorporated the concepts of food sovereignty and social and solidarity economy, established the citizen power as the fourth power of the state and entered into the continuation of the process of decentralization. In this paper, based on a case-study of a SFSC which is very similar to the Japanese teikei – the "canasta comunitaria Utopía" located in Riobamba, in the Ecuadorian Andes –, we will show (i) why and how poor urban consumers have linked sustainably with agroecological peasants by building a micro-local food system, (ii) how the diverse actors of this micro-local food system are now participating to the implementation of new public policies that support more sustainable urban food systems.

Methods

A SFSC can be analyzed as a dispositive of collective action that gathers together a large diversity of actors (producers, consumers, public actors, NGOs…) around projects and values associated to the food issue that are both the origin and the result of relational dynamics. Therefore, we have developed a comprehensive approach (Olivier de Sardan, 2008) of the emergence and the construction of both the "canasta comunitaria Utopía" at the local scale and its insertion into national networks. We have focused on the analysis of the relations between actors during the trajectory of the dispositive. The concepts of social capital – especially "bonding", "linking", and "bridging" social capital as defined by Putnam (cited by Jacquemain (2005)) – and of proximity – both geographical proximity (Torre, 2009) and socio-economical proximity (Bouba-Olga & Grossetti, 2008) – allow us to analyze the process of activating and creating sustainable linkages between urban consumers and peasants.

Results

The results show that over the last twenty years, through the progressive activation and construction of different types of proximities and social capitals, the "canasta comunitaria Utopía" came through several steps, each of them corresponding to a different collective project. At the beginning the first relationships between a group of urban consumers and local agroecological peasants were based only on geographical proximity and on linking social capital, and on a project of food security brought only by the consumers, in a context of economic crisis. Then, by getting to know each other and progressively building relational and cognitive proximity and bonding capital social, the urban consumers and the local peasants have constructed together a micro-local agro-food system based on logic of producer-consumer reciprocity and urban-rural solidarity, and on a project of food sovereignty, agroecology and social and solidarity economy. Finally the universal character of the project defended by the members of the "canasta comunitaria Utopía" led them to activate cognitive, relational and temporary geographical proximities and bridging social capital beyond the local level. They have linked with national networks, movements and forums gathering together the civil society, local, national and international NGOs, peasants' organizations and local and national public actors. In a context of great political changes in Ecuador, these connections with the national level have allowed the actors of the "canasta comunitaria Utopía" to take part to the formulation of new agro-food policies. For example, we can cite the program of provision of school canteens from peasant's products and the program of "citizen markets" where the urban consumers can access directly to peasant's products at a "fair" price. Both programs are implemented at a territorial level by the local public actors and participate to the progressive implementation of more sustainable urban food systems.

Conclusions

As a conclusion this case study shows why and how "latent" proximities and social capitals within a large diversity of actors, when activated, can then create new forms of proximities and social capitals and progressively lead to more sustainable urban food systems. Not only brings this paper interrogations and reflections on the issue of how supplying more sustainable food to cities, but it also addresses the issue of food justice in the extent that the SFSC that we have studied ("canastas comunitarias") or even mentioned (citizen markets, canteens programs) bring solutions to precarious (small peasants, poor urban consumers) or vulnerable (children) categories of population.

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Keywords: short food supply chains; proximity; social capital; public policies

Presenting author: Miss Claire Heinisch, claire.heinisch@agrocampus-ouest.fr

Alternative strategies for vegetation implementation and integration at the urban context: the case of Bogotá

Monica Andrea Hernandez Huertas [1], André De Herde [1]
[1] Université Catholique de Louvain, Louvain-la-Neuve, Belgique

Introduction

Capital cities at developing countries deal with fast growth that attempts against their sustainable development. Bogotá, the capital city of Colombia, has a housing and public space deficit; nevertheless, terrains are acquired predominantly to solve the housing insufficiency. Professional activity of architecture concentrates on economic utilities as land price rises and determines the projects feasibility; this situation leads to budget reduction for green initiatives, especially for the inclusion of vegetation into the urban landscape. This perspective is driving Bogotá to an aggressive and fast-growing development with a low percentage of vegetation in the city.

Methods

Aspects affected by the lack of vegetation are the air quality and the social interaction in collective and public spaces. For instance, Bogotá exceeded the PM10 levels permitted by the World Health Organization (WHO) during 40% of the days of 2011. Therefore vegetation would aid to reduce the concentration of pollutants and consequently the impact on human health (BECKET, 1998). In the same direction, vegetation would enhance the perception of urban residents and their relationship with the community and the city by promoting social interaction as a preventive measure to interpersonal violence (MATSUOKA, 2008). According to the balance of the Security Observatory in Bogotá, in the first trimester of 2012, interpersonal violence continued to increase at a 4% rate compared to the same period in 2011. However, it is necessary a new perspective based on a sustainable vision of the city. Understanding Bogotá as an urban ecosystem with a capable population to mediate the city's construction towards a sustainable path, leads to the design of strategies for the implementation of vegetation with a positive social, economical and environmental impact (United Nations, 2001).

Results

This presentation describes alternative strategies for vegetation implementation and integration at the urban ecosystem of Bogotá. The qualification of alternative is important as it differences these strategies from past governmental initiatives related to the green and blue network reinforcement within the city. At the urban scale, the strategy provides spaces for a learning experience associated to vegetation benefits. In parallel, the strategy at the architectural scale, aims to open productive areas at housing projects for the vegetation implementation. Subsequently, by the moment when urban residents have learn and claim vegetation as an essential part of their ecosystem, they will have the space to do it, to be free to implement vegetation and find new functions for an element considered as purely ornamental before.

At the urban scale, new foodsheds are developed to spread a learning experience associated to vegetation benefits all over the city. The urban food network can acquire a pedagogic character with the implementation of a greenhouse network developed with private and public collaboration. Unemployed agricultural knowledge coming from the country's intern migration can reinforce Bogotá's urban foodsheds. Consequently, people from the rural areas who find themselves as non-productive members of the urban society, could lead in the implementation of sustainable structures for the city.

In terms of the architectural scale, the strategy is to modify the existent construction regulation in order to open productive green areas at housing development projects. Bearing in mind that Bogotá's weather condition allows food production through all year long, this modification promotes spaces for intensive green roofs and vegetable gardens. Social housing in Bogotá has an inherent component for economic productivity in response to the families' economic difficulties. Thus, urban agriculture can be considered as a viable activity for the families and a multiplicative factor for the vegetation implementation in the city.

The strategies benefits are extended throughout Bogotá's outskirts, as they are part of the Bogotá-Region system. As new architectural developments would have a place for vegetation implementation inside the city, there would be a reduction on the invasion of productive agricultural lands at the Bogotá's savannah. On the other hand, an adequate agricultural flow of large scaled production at the rural areas with localized distribution spots inside the city would be implemented.

Conclusions

In conclusion, the actual perspective of development in Bogotá does not include a sufficient percentage of vegetation in the city. The increase of vegetation can act as agent for air quality and social interaction improvement. A new perspective includes considering Bogotá as an urban ecosystem and capable inhabitants driving the city towards a sustainable path. Order and scale of strategies are fundamental over their results at the short, medium and long term for them to be successful and impact the social, economical and environmental aspects.

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Keywords: Sustainable development, Architecture, Social interaction, Vegetation, Urban networks.

Presenting author: Miss Monica Andrea Hernandez Huertas, contacto@mnchernandez.com

Organic farmers' networks and sustainable food quality : the slow rising of a food quality based on territory in Sweden

Hochedez Camille [1]

[1] Université de Poitiers - Poitiers - France

Introduction

This study is a part of a PhD work about organic farmers' networks in the Stockholm metropolitan area and their key role into the creation of sustainable territories at different scales : at the farm level and at the distribution network level, as well as at a municipal level. This paper proposes to analyse those linkages through the issue of « sustainable food quality ». It aims to show the contribution of alternative food networks into the rising of a new definition of food quality based on geographical origin and on sustainability. This is pretty new in Sweden, because in Nordic countries, food quality traditionally relies on the respect of health standards. The idea of « terroir » is slowly growing and is supported by national and European food policies.

2 questions will lead this main issue :

- how can alternative food networks, in association with organic farming systems, redefine food quality on local bases ?
- How is this relocation linked with a process of sustainable development at a farm level ? Our thesis is that organic farmers' networks play a part in defining the « sustainable food quality », which rests on the quality of the products themselves, as well as on the quality of farming conditions and on trust and on the provision of services by networks.

Methods

To answer those questions, the study compares four organic farmers' networks in the Greater Stockholm : farmers' markets in Stockholm, delivery food box schemes in Stockholm and its suburbs, and a food box scheme in a periurban area located in the Roslagen region. Our qualitative approach is based on interviews with networks leaders, with 53 organic farmers involved in such networks, as well as with 26 consumers. This methodology allows us to compare quality as defined by producers, and the one as defined by consumers.

Organic farmers are then studied in their territory. We compare the municipal food policy in three territories (Huddinge, Södertälje and Enköping) in order to highlight the farmers' networks' role in local sustainable food projects.

Thus, we analyse interviews through a matrix of indexes in order to assess the sustainability of the food production system created by the network of organic farmers.

Results

The results put the French approach of food quality into perspective. In the Swedish framework, food quality has no real geographical foundation :

- food quality seems more to rely on networking, because it builds a climate of confidence and provides informations about products directly from the producer. Those two factors are part of the symbolic quality, which is the major benefit of networking.
- This allows us to say that food quality is the result of the network organization more than the characteristics of the product itself. Indeed, networks define rules of direct marketing to connect production areas with local consumption territories and to build marketing efficiency. This is supposed to define a socially and environmentally sustainable food quality.

Municipal food policies unequally support such food networks. Only few organic food networks are acknowledged by municipal food policies. Huddinge is the only municipality to get a real food policy relying on organic food provision for public schools, on a project of local milk label, and on a farmers' market.

Conclusions

Those results lead to 2 main conclusions :

- first, the construction of sustainability of food through local geographical provision remains difficult in Sweden. The study shows that consumers and producers do not perceive food quality the same way. Then, both of them have not clear representation of the local territory.
- Organic farmers appear to be a minor voice within local systems of governance, a situation which undermines the idea of Swedish context as a model for the implementation of sustainable development at the territorial level, and a European pioneer in the development of organic agriculture.

Keywords: sustainable food quality; Sweden; organic farming; networks; governance

Presenting author: Dr Hochedez Camille, camille.hochedez@gmail.com

Urban Food Print: a tool to calculate the land needed to feed Dutch cities

Jan Eelco Jansma [1], Esther J. Veen [1], Wijnand Sukkel [1], Andries J. Visser [1]
[1] Wageningen UR - Applied Plant Research - Lelystad - Netherlands

Introduction

Urban areas almost entirely rely on the import of food and food related goods. This import doesn't necessarily come from the cities' hinterlands, since our urban food system is globally organised (Grewal and Grewal, 2012). As a counterweight to this global food system but driven by different causes, many cities in the global North have developed food policies to foster local food initiatives. One basic assumption related to these policies is that local food production will improve the urban system as a whole, economically, environmentally as well as socially (Morgan, 2009).

Albeit the debate if local food production is more economically and environmentally efficient just started, a more fundamental question is how much land we actually need to feed the city. What is the needed size of the hinterland to fill the city's foodshed? If we know what the city's needs are and what the different needs require in terms of production area, a more focussed food policy could be developed based on what is reasonable to produce locally. Rood et al. (2004) calculated that the overall land use of agricultural production is 0.31 ha per person. This Dutch foodprint is based on our overall consumption, including imported produce like cacao, rice, coffee and plant based oils and also on non-food products like cotton and pet fodder. This figure is a starting point but the principles behind it are too comprehensive to start a discussion on what is reasonable to produce locally under Dutch conditions.

Methods

In order to plan for local produced food we developed an internet based tool to estimate the amount of hectares needed to feed a specified amount of people. The tool (www.stedelijkefoodprint.nl) is simplified, which means that the outcomes are only an approximation of reality. It takes the following produce into account: vegetables, fruit, potatoes, wheat, sugar, meat, milk and eggs (plus the necessary fodder required to feed the livestock). Briefly summarized, this tool:

1. Is based on the yearly average diet of a Dutch person between 19-30 years in the year 2003.
2. Does not calculate the complete diet, but only the produce that can be cultivated under Dutch circumstances (livestock, horticulture and arable farming). Consumption of exotic products like coffee, fruits and rice are not covered by this tool.
3. Does not take into account the acreage needed to produce the plant based oils in our diet, like soy oil in margarine.
4. Calculates with so called model crops. One model crop symbolizes a certain group of produce. For example: the model crop for the produce group of fruits is apple. Production and consumption data of all other fruits are converted to the production and consumption data of apple.
5. Works with average Dutch production data based on conventional agricultural production methods.
6. Functions with processed food that is traced back on one ingredient, like cheese (milk), chips (potato) or bread (grain). Not taken into account are the complex multi-ingredient part of our diet like pizza or cakes.
7. Takes the loss of produce within the food chain (to a certain degree) into account.
8. Takes the necessary concentrate to feed the livestock partly (approximately 60%) into account.

The tool is based on the databases created and described in Jansma et al. (2012) and uses the consumption figures of Hulshof et al. (2004).

Results

The tool estimates that to feed 18 persons one ha of agricultural production is needed. So a city of 100,000 dwellers needs 5,645 ha to be fed. This figure is an under estimation of the reality because of the assumptions made. Rood et al. (2004) come with an overall figure of 0.31 ha per person (or three persons per ha). The big gap between both figures can be explained by the fact that Rood et al. (2004) based their figure on the complete diet, including all imported products and non-food products. Moreover, the agricultural production per ha in the Netherlands belongs to the global top (Worldbank, 2013). In the tool we converted some of the imported products to Dutch conditions and in that way we 'lost' ha.

The tool isn't finished yet. We would like to add different diets (vegetarian) and production conditions (organic or high yielding hydroponic production) in the model. The model could also be adjusted for non-Dutch conditions, like different climate zones or diets.

Conclusions

We see the tool as a starting point in the debate on what could be produced locally. It could help to underpin and plan for a local food provision area for the city. The tool shows that the production of fresh produce (vegetables and fruits) is less land consuming than the production of grains and animal based proteins. This evokes a more focused discussion on the various types of flows structuring the urban food system. Van der Schans and Wiskerke (2012) introduce the 19th century Von Thunen model, in which the pattern of agricultural land use changes with the distance to the urban center. In this model fresh, perishable, high volume and thus less transportable and storable products filled the pattern in the city's fringe. The Von Thunen model reconsidered could help to plan the metropolitan landscape of the 21th century as Van der Schans and Wiskerke (2012) argue.

The tool also underlines the discussion on the diet of the global North. Nearly three of a quarter of the land is needed to produce the animal based protein in our diet. Jansma et al. (2012) argue that more of the daily food basket could be produced locally if consumers behavior changes towards less meat consumption and more in season products.

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Keywords: food print, urban food systems, feeding the city, urban planning

Presenting author: Mr Jan Eelco Jansma, janeelco.jansma@wur.nl

Uninvited participation in Amsterdam's second Food Strategy

Freek Janssens [1], Corrado Boscarino [2], Anke de Vrieze [3]
[1] University of Amsterdam, The Netherlands
[2] VU University Amsterdam & Wageningen UR, The Netherlands
[3] CITIES Magazine, Amsterdam, The Netherlands

Introduction

Food is an issue that affects us all, if not as producers or traders, then at least as consumers. This awareness has incited urban planners to draft food strategies that connect related urban planning agendas such as health, sustainability and poverty (Lang, Barling & Caraher 2009; Wiskerke 2009; Derkzen & Morgan 2012). Nevertheless, despite the universality of the topic that potentially includes a rich spectrum of actors beyond the formal participation of government, market and civil society, food strategies are often the product of a rather top down approach. This has prevented many strategies to firmly ground in the city beyond the specific individuals that carry them forward, and has undermined their sustainability.

This paper argues that successful urban food strategies should include a diversity of actors as stakeholders in drafting the strategy beyond the formal participants. We observe that these 'informal actors' actively engage with the topic, but they do this on-line, on weblogs and microblogs such as Twitter or Facebook (Mossberger, Tolbert & McNeal 2008). The existing procedures for public participation are insufficiently able to take this 'uninvited participation' into account. On the contrary, the large amount and the diversity of stories that exist on-line appear disorganised and chaotic to many urban planners, and are not considered meaningful contributions (Hajer & Laws 2006).

The questions that we seek to answer is this paper are therefore twofold:

• How does the specific trajectory of the creation of an urban food strategy determine the scope of participation, and how does this affect its outcome as a sustainable and widely supported plan?

and:

• How can we assess the information that is contained in the different accounts that exist on-line without constraining them to formal, institutionalised settings, and bring them together to inform the drafting of an urban food strategy in such a way that it will be more widely supported?

The paper takes the city of Amsterdam as a case study. Amsterdam has recently embarked on an ambitious second attempt to create a sustainable food strategy for the city, after the first one had died a silent death (Vermeulen 2007). By following the development of the second strategy and comparing this to both the creation of the first strategy and the drafting of the London Food Strategy the paper identifies the levels of participation of the various actors and the way in which this has informed and directed the outcome of the trajectory. Subsequently, it will propose and tentatively evaluate a method to assess and analyse 'uninvited participation' that takes place on-line, out of sight of the official planners. The paper finally concludes by discussing the value of integrating informal actors in the drafting of the Amsterdam food strategy and, subsequently, urban planning in general.

Methods

This paper is the outcome of an interdisciplinary endeavour in which social scientists and computer scientists collaboratively investigate the trajectory of the Amsterdam food strategy. It is based on original ethnographic research in Amsterdam and London. Textual sources, both official documents and interview transcriptions, have been indexed and made searchable. A set of relevant terms that describe the salient features of the available sources have been selected and annotated with instances of the AGROVOC ontology, a knowledge representation framework for food developed by the FAO. Semantic annotation then enables users (humans) to refer to these terms unambiguously, and it allows machines to 'understand' the terms, making it possible to assess large amounts of seemingly unstructured data.

Next, the paper analyses a specific set of on-line 'uninvited participation' to the drafting of the Amsterdam food strategy. For each type of resource, an automatic semantic annotation method is used for adding explicit semantics to the original source. For example we enhance Twitter streams with concepts from the AGROVOC ontology (Meij et al. 2012). This makes it possible to explore the whole data space, select specific resources for a closer inspection, and thus reveal relevant information for the drafting of the strategy that would otherwise remain concealed because of its informal character.

Results

In answering the first research question, the paper finds that current practices insufficiently include the contributions of informal actors in on-line environments, resulting in less widely supported, and therefore less sustainable, food strategies.

Conclusions

In order to make the food strategy more widely supported, the 'uninvited participation' needs to be acknowledged. This can be obtained by making use of semantic annotation of on-line publications on (micro)logs and websites, as we have demonstrated with concepts from the AGROVOC ontology. Acknowledging the limitations of such a method, we argue that such it nevertheless benefits the creation of sustainable urban food strategies.

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Keywords: urban food strategy; informal participation; e-governance, semantic web, Amsterdam

Presenting author: Mr Freek Janssens, f.janssens@uva.nl

Towards multifunctional land use - the case of urban and peri-urban agriculture in the city region of Zurich

Ingrid Jahrl [1], Otto Schmid [1]

[1] Research Institute of Organic Agriculture (FiBL) – Switzerland

Introduction

Multifunctional agriculture, which includes diverse activities within the context of environmental, social and economic functions of agriculture (Zasada 2011) has become commonly recognised in urban and peri-urban areas. At the same time, issues of food and food production have gained interest by city policy actors (Morgan and Sonnino 2009). In the city of Zurich, Switzerland, food has so far only been marginally addressed by policy, e.g. the place of food is mainly within a multifunctional land use approach that reflects the aim of ensuring diverse services for city dwellers.

An exploratory study on the shaping of multifunctional urban and peri-urban agriculture in the city region of Zurich is presented in this contribution. We attempt to explore the dynamics of multifunctional land use by asking: What are the current approaches, challenges, barriers and opportunities for action seen by different actors in shaping multifunctional land use in the city region Zurich? Furthermore, we ask: What role does food production and provisioning play within the multifunctional concept?

Methods

Within a study, as part of the EU funded research project SUPURBFOOD, 18 semi-structured interviews with key stakeholders from city policy (e.g. city departments dealing with aspects of food, multifunctional land use), market actors (e.g. farmers, farmer representatives), and civil society (e.g. urban gardeners) were conducted. The stakeholders were chosen using a maximum variety sampling strategy (Patton, 1990). The interviews were analysed using the qualitative content analysis approach (Mayring, 2002) with the analytical focus on the different views held by stakeholders on the topic.

Results

Over the last years, a strategy has been pursued in Zurich to condense settlements by building upwards rather than expanding the built area into the surroundings. Although the legal barriers to development of green spaces in the city are much higher than in the past, there are different interests for land within the city and the pressure to release valuable green space land for construction is increasing. The department in charge of green space management in Zurich is eager to ensure open green spaces by buying land from private or other public owners. In addition to city owned agricultural land, that is rented to (mainly family) farmers, there is a long-standing tradition of allotment gardening, while new urban gardening initiatives have arisen in recent years. Existing urban green spaces are considered to be ensured within the current long term land planning (formally outlined in a structure plan), however, many farmers and urban gardeners are anxious in a political environment that they see as being in a state of change. Currently, the realignment of allotment gardens is under discussion within the city administration, with questions of whether to partly open the allotment gardens to the public (providing access to the spaces) or whether to integrate urban gardening initiatives. Allotment garden representatives are reluctant to accept such integration for several reasons including that gardening practices in allotment gardens and gardening initiatives often follow different philosophies. The city currently provides land for urban gardening initiatives in Zurich but the land is often in residual fields. Representatives of urban gardening initiatives wish to be provided with land from city farms. The department in charge of land allocation however sees itself in a critical position because more agricultural land for gardening initiatives means less land for farmers.

The city of Zurich has taken different approaches towards farmed land within the city. The main pillars are (i) the binding requirements for organic farming practices for the city-owned farms and allotment gardeners; (ii) the support and advice for e.g. agri-ecological measures on farms; and (iii) investments funds for farm construction. This approach follows the aim of maintaining attractive open spaces for recreation for city dwellers, enhancing biodiversity though nature conservation measures on farmed land, and communicating “green knowledge” and thereby raising ecological awareness in city dwellers. There are some so-called farm schools and nature schools established within the city region. These *multifunctional* approaches by the city of Zurich are framed along the national goals, where multifunctionality is an important concept in Swiss agriculture.

Implementation of nature conservation measures is mandatory on city agricultural land, but there is a perceived conflict in the decision between production of food and carrying out ecological measures. Although, farmers implement environmental measures, which have the potential to contribute significantly to increasing farm income, farmers (in particular those on private land), they are often not willing to implement such measures fully. Furthermore farmers who rent land from the city are requested to open their farms to the public, such as by hosting school excursions to their farm or by carrying out direct marketing activities.

Farms around the city have diversified and have a long tradition in direct marketing: very often through on farm shops. Although direct marketing does not contribute a huge share to a farm’s revenue, it is still considered to be very important. There is a perceived potential to expand the marketing activities because interest in the local produce of the city dwellers is growing. Farmers however mainly concentrate on conventional marketing strategies at the moment.

Conclusions

The city is currently facing different challenges regarding multifunctional land use: especially with regard to their land based policy, with different interest groups requesting land. Finding ways to harmonise the different interests, and to support collaboration rather than competences, are crucial.

One possibility to enhance the multifunctional concept of farmers would be to combine biodiversity measures with marketing. This might be a possibility for adding further value to farming activities and ecosystem services through a more market-oriented approach, which could be a complementary income source for farmers. In the city region of Zurich there are several fruit trees; some which has

been planted as a special promotion action by the city of Zurich (10000 high-stem fruit trees). A possibility could be that the cultivation of such trees, which are described as very labour intense, could be combined with the marketing of a Zurich high-stem apple cider.

The city policy has so far mainly focused on the framework of how food is produced on city owned land. City policy that also considers food from a consumption perspective by e.g. creating public procurement guidelines in favour of locally procured food, could be one possibility for supporting agriculture in the city region and for enhancing the connection between producers and consumers.

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Keywords: Multifunctionality, urban and peri-urban agriculture, urban gardening, land use policy

Presenting author: Mrs. Ingrid Jahrl, ingrid.jahrl@fibl.org

The comeback of the food issue in the city of Lausanne

Jarrige Françoise [1]
[1] Montpellier Supagro - UMR Innovation - Montpellier - France

Introduction
The city of Lausanne holds a "green estate" of hundreds of hectares. Apart from parks and gardens, the city's forests, farms and vineyards represent a great productive potential. This agrarian heritage is becoming a major tool of the sustainable development policy of the city. The case of Lausanne stands out because of the size, the diversity and the age of its agrarian heritage. Its place and role in the city's governance have changed over time. The issue of "food for the city", was present at the first stages, then faded, and is currently coming back as a matter of primary interest. In this communication we intend to explore the multidimensional drivers of this innovation process. It takes several aspects - family gardens, fair milk, green classes, city wines auction sales - and implies different dimensions of the territorial governance: social and economic issues, political games, public administration management, public-private relationships.

Methods
We develop an analysis combining historical approach, politics and economics to shed light on the public management of this green estate, between path dependency and innovative policy. Research material comes from interviews either with farmers, public officers or local representatives and different other sources of information. We also attended some public meetings and made in the fields observations in several of Lausanne's estates.

Results
We first retrace the historical making of this public agrarian estate and describe its evolution over time. The public holding of these productive areas was initially meant to supply Lausanne's households with firewood, food and wine. The sale of the products of the city's lands also used to bring in some nice revenue. Located either into the city, at its fringes, in neighboring municipalities or even further, some of these productive areas started becoming strategic land stocks for the public mastering of urban design as from the XIXth century. Farmland being used for urban development when it becomes necessary to face the city's growth: a well-known scenario which is mainly concerning the municipal farms located into the city.
If urbanization is still going on nowadays, the city of Lausanne adopted quite early a sustainable development policy. It started with the sustainable management of green spaces and the development of public transport, as well as ambitious housing programs (Agenda 21). As sustainable urban design tends to integrate a wider range of issues, feeding the city is coming back as a relevant issue for urban governance. Urban designers are imagining new urban farming systems integrated to future urban developments (Woods 2012). The city of Lausanne is also valuing its agrarian heritage by the implementation of different types of policies: a network of pathways for outdoor activities, landscape protection, promotion of organic farming, development of renewable energies, green classes for schoolchildren… The green government of the city has emphasized the ecological dimensions. Issues concerning the forests, the vineyard and the farms have been addressed by technical services. The well-being of producers has been taken into account, for example with the support of milk-producers, during the milk crisis, to develop a "fair milk" short sale channel. Today, there is a project of increasing the local and organic part of meals in school canteens. But this matter is under the control of another service, another elected.

Conclusions
Our conclusion is that the food issue is coming back on the scene of local policy in Lausanne connected to a very ancient agrarian heritage. But it is nowadays embedded together with many other issues of sustainable development. And the implementation of a food policy connecting local resources to local needs is suffering from sectorial divisions and the difficulties of administrative management.

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Keywords: urban agriculture, public policy, food issue

Presenting author: Mrs Jarrige Françoise, jarrige@supagro.inra.fr

Just being a consumer ? The role of social and solidarity based economy in a sustainable food system.

Simon Da Cunha [1], Leïla Temri [2], Myriam Kessari [3]
[1] Surfood program - Montpellier - France
[2] Montpellier Supagro – MOISA – Montpellier - France
[3] Groupe Sup de Co Montpellier Business School - Montpellier - France

Introduction

Although governance of social and solidarity based economy (SSE) is diverse, its organizations have one same goal : to extend democracy to economy. Actors of this alternative economy cannot be distinguished only by their willingness to address social needs. They also suggest a different way to do it. The SSE can thus be seen as a relevant field to study new forms of governance.

New forms of actors involvement based on SSE proceedings turn commercial exchange into political engagement (Chiffoleau and Prévost, 2012).

Consumers have then the ability to reach fields they were excluded from such as at the upstream of the value-chain (Dubuisson-Quellier and Lamine, 2004). It remains to be determined to what extend collective action makes a difference in consumers eating habits.

Methods

Using elements of organisation economics and conventions economics (Gomez, 1994), we collected primary data through surveys with SSE organizations in Montpellier. We also interviewed members and consumers of those organizations. We first assessed their level of information of food system and we linked it to the governance's form of the organization they are involved in.

Results

Thanks to our analysis we show that governance plays an important role in urban citizens' information ; the more involved consumers are, the more they know about food system and its issues, even though they might had different expectations in the first place.

Conclusions

Citizens' accountability depends on their involvement in choices that determine production and distribution of their food. In the city, where disconnection with environmental and agricultural issues takes place, SSE governance shapes consumers' choices and contributes to turn consumers into citizens. A new approach of sustainable development could be undertaken, in which collective action is seen has a lever for ecological and economical awareness of urban citizens.

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Keywords: Social and solidarity based economy, governance information, consumption

Presenting author: Dr Myriam Kessari, myriam.kessari@yahoo.fr

‘Sense of place’ for communities as the key to farming for the city

Howard Lee [1], Lillian Memia [1]
[1] Hadlow College - Tonbridge - Kent - United Kingdom

Introduction
The importance of developing urban horticultural production has been reviewed as a vital contributor to food security in and around towns and cities (e.g. Lee, 2012). Many urban food production projects have recently been started in European urban sites but their long term viability needs critical assessment in the light of questions posed for some urban community projects: e.g. the Transition Town movement, see (Richardson et al., 2012). Sustainable urban food security depends upon the longer term survival of community food production programmes: it is therefore necessary to consider what factors can help such projects survive and prosper. Here, it is suggested that the concept of ‘place attachment’ has so far been given only limited consideration by urban food policy planners and could be a key answer. Results are presented for semi-structured interviews of members of a community allotment group and the hypothesis proposed that encouraging a sense of place (or place attachment) will be vital for sustainable food security in urban centres.

Methods
The village of Hadlow, in the county of Kent (UK) is actually close to town status, with approximately 3,000 residents. A Hadlow College research programme is currently underway, to try and understand the factors that affect local food growing projects. As part of this, a series of semi-structured interviews were undertaken with members of a low carbon community (HadLOW CARBON Community, 2013) in the spring of 2013.

Results
The motivation for local food growing activities (individual allotments in the village and one community allotment in collaboration with staff and students at Hadlow College) seemed to have the consistent theme of ‘sense of place’. Interviewees were active in growing food for many personal reasons but the most important was due to a sense of place-attachment to the village of Hadlow.

Conclusions
Sense of place, or place-attachment has been reviewed by several researchers, notably Lewicka (2011). What has become clear is that, whilst sense of place has been historically viewed as a social construction, more recent studies have indicated a closer relationship between physical (geographical) and community components. Indeed, more up-to-date surveys in urban areas have suggested that residents give primary value to biological (ecological) diversity, aesthetics and leisure (including allotment gardens). However the overall picture is not entirely clear, with researchers such as Nogueira, 2009 (for a study of projects in Lisbon) suggesting that horizontal bonds of interpersonal trust and social support/cohesion are equally important, and Cantrill & Senech (2001) in a USA study concluding that interpersonal relations form ”…the cement that bonds people to one place” (p. 187).

For this paper, it is hypothesised that the theme of sense of place has so far not been given enough attention and that it is at the heart of the potential success of farming for the city. Further studies of how we can encourage community cohesion and motivation via a sense of place or place-attachment warrants much greater focus: this theme is suggested as a real and emerging interdisciplinary research field for discussion at this conference and which brings together agronomy and urban planning.

How might urban food growing activities function? They are highly likely to be a blend of individual (green entrepreneurial) enterprises and community groups. If we are to integrate agronomy and urban planning then it will be vital to consider how the urban ‘patch-work’ of available food sites can be managed to facilitate both forms of local food production. Planning will need to ensure that entrepreneurs can operate commercially (the larger, adjacent sites) whilst community groups have access to smaller but convenient plots near to where they live. Thus, a balanced approach to urban land allocation will be essential if we are to secure food security for the many European citizens who live in or close to towns and cities. For the HadLOW CARBON Community it has been interesting to note that across the many projects organised since its start in 2007, community allotment production has persisted as the most successful core theme and is now in its 5th season and continues to expand. It seems likely that such success can only be replicated elsewhere if sense of place becomes a key component of urban food planning.

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Keywords: sense; of; place; food; security

Presenting author: Dr Howard Lee, howard.lee@hadlow.ac.uk

Promoting new economic activity in the urban fringe area

Goos Lier[1], Theo de Bruijn[1], Huib Haccou[1], Bauke de Vries[1]
[1] Saxion university of applied science - Deventer - Netherlands

Introduction

The economy in urban fringe areas deserves special attention. In approaching this matter, there is a relationship with the classical location theory of Von Thünen. In the world of Von Thünen, the invisible hand of the market takes care of the desired location for the production of all kinds of different agricultural crops. Nowadays, there are other products which have a higher added value because they are produced in the urban fringe in the proximity of the city. The connected firms are called urban fringe companies. The markets of the urban fringe economy are, according to the economy theory not perfect. Therefore it is necessary that there is a complex interaction between the markets and government to ensure that the economy thrives in the places where we want it to thrive.

Research question 1 (exploratory) is based on a proposition is: 'When it comes to urban fringe activities, including local food production, it is possible to describe the pattern of the different activities on the basis of the theory of Von Thünen. The difference with the theory of Von Thünen is that it does not involve transportation costs of agricultural products from the land to the city, but the degree of attractiveness of the route from the city to the multifunctional farms for cyclists and walkers'. Is there reason for this proposition.

Research question 2: (exploratory) After following research question 1, is it necessary to distinguish the very big city (over a 1 million habitats) and smaller cities. What is the influence of car transport and a high developed system of public transport.

Research question 3 (explanatory) What kind of strategies can municipalities use to connect 'again' city and the urban fringe/ rural area. It has to do with: economics, sociology, food production and consumption and about policy for the city versus policy for the rural area.

Methods

The cases studies that have been conducted by a research team of Saxion are used for inspiration about the Von Thunen approach.

In the period from September 2009 to July 2012, the EU project Sustainable Urban Fringes (SURF) took place. The SURF project brought together partners and experts from across the North Sea Region to exchange information and develop a common vision towards the sustainability of urban fringe areas. Urban fringes are the areas between urban and rural landscapes. These spaces are often neglected and under threat form growth and expansion and inconsistent spatial planning policy. The project covers four distinct themes.

To answer the question about the strategies a Saxion team observed the developments in the urban fringe area of Enschede for a period of three years. We visited the area a few times, the policy documents have been studied, there have been several interviews with key-figures, Saxion (students, tutors and researchers) has actively participated in subparts of the process and, at last, the urban fringe area of Enschede served as a case study in the SURF-project.

Results

With regard to the research question 1 and 2, the results are limited. The results are based on visiting the areas and studying maps and research reports in a not very structural way. For the municipality of Enschede, there are indications that the location of certain urban fringe companies can be explained in this way. Much further research is needed.

The outcomes concerning research question 3, the results are given in describing the process that occurred in relation to the urban fringe in the municipality Enschede in the period 2000-2013: 'The situation in the year 2000. The valuable landscape in the fringe is under threat by an expanding city. The policy for the landscape is actual in the hand of the national governments, the province and agricultural organizations, but not all in the hand of the municipality. The municipality has hardly any interference with the fringe. At that time there is a land exchange program going on. Initially the aims in the land exchange program are mainly agricultural (world market production). The municipality starts to be an active partner in the land exchange program. Over time nature and recreation functions are getting more important in the land exchange program. The planning framework of the municipality itself is too restrictive for the purposes of the municipality Enschede. A common vision with the stakeholders is developed in an interactive process. This results in the plan Vision for the urban fringe of Enschede (Visie Buitengebied). The vision itself is not enough a driving force. The municipality and his partners develop a project consisting of a program with different subprojects. This is the first time that a fringe project is considered as a real city project. In practice it means there is a budget and there is a coordinator. In it is interesting the way the local agricultural nature organizaton is used in the process (as an equal partner for the municipality). Financing by LEADER is very stimulating. In 2006 all these activities lead to a snowball effect. The coordinator ensures that Enschede can take part in an EU project for urban rural development, EU-project Urbal Interreg IIb. The EU-project is a way of funding for the municipality to work in the fringe. This is also the period that the municipality starts a new way of planning, an inspiring and development driven kind of planning for small private interventions in the fringe (Guide for extra opportunities, Gids Buitenkans). When Urbal is finished the coordinator continues his EU-networking via the project SURF and after SURF there is the project URMA. In the meanwhile all these projects leads to much cooperation with the other municipalities in Twente and Saxion University. Creative methods are used to bring together the different initiatives of the entrepreneurs.

Conclusions

The Von Thunen approach might be useful. It is an interesting way of thinking about the urban fringe especially in a Dutch context of a medium sized and maybe it can, with a few adoptions, be used for a big city. The answer of the question about the strategies is very interesting. Sustainable commitment form the government in combination with a strategy of waiting to grab the opportunities is a very delicate overall strategy used successfully by the municipality of Enschede.

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Keywords: urban fringe area, Von Thunen approach, reconnecting the city and the fringe, sustainable commitment

Presenting author: Mr Goos Lier, g.lier@saxion.nl

The challenges of local food networks. Learning from real place experiences

Juliana Lutz
Alpen Adria University, Institute for Social Ecology - Vienna - Austria

Introduction

Local food networks are regarded as promising innovations that allow for a more sustainable way of organising food supply chains (Brunori et al. 2011), particularly in urban areas. They aim at creating an agro-food system that is based on democratic participation and civic engagement and on new qualities of socio-economic relationships that avoid social inequity and exploitation of both humans and nature (Renting et al. 2012). With this, they induce socio-ecological changes on the local level and they have the potential to foster wider transformations of the dominant food regime. At the moment local food networks perform and develop in niches within the current food regime. In so doing, they face the dominating structures and dynamics of the food regime, that make them struggle with various challenges such as the question of how to sustain, develop and grow according to their self-defined principles and aims, while preventing a later assimilation to the dominant food regime.

By means of an Austrian case study, this paper sheds light on how a specific example of local food networks – an Austrian food hub - approaches these challenges. It is shown how producers, distributers and consumers deal with realising more ecologically sound modes of production and consumption and with setting up more equitable socio-economic relationships that allow for a safe and sustainable livelihood, ameliorating quality of life. Biophysical as well as socio-economic limits and potentials for local food supply are elaborated on. This is to say that the paper aims at depicting crucial points that either strengthen or constrain local food networks from operating, getting organised and scaled up in the way they wish - in rural as well as in urban areas as there are remarkable differences. This should help finding ways and measures that strengthen (Middle-European) local food networks and that foster a sustainable transition of the dominant food regime.

Methods

We present an Austrian case study. Research questions and design were formulated participatory in conjunction with the local food network and the people involved with it. Data were collected by means of qualitative interviews with producers, consumers and distributers, and by participant observation in the food network's activities and international meetings. In terms of theory, we refer to the food regime approach (Friedman 2005), transition theory (Geels 2004) and social ecology (Fischer-Kowalski and Haberl 1998).

Results

We analyse an Austrian local food network situated in a semi-rural area, that is, a rural community characterised by a strong influx by urban people.

Our study shows that farmers engage with the food network not predominantly because of economic benefits (such as better prices) but rather for ideological reasons as they wish to support local food supply and food diversity. Furthermore, producers appreciate the close relationship to retailers and consumers, the cooperation with other producers (transport!) and the fact that they decide in cooperation with the network what and when to sell, how much and at what price. Better prices as well as closer and more equitable relationships do, however, ameliorate conditions for farmers but they do not necessarily change their overall economic performance. Farmers still face a high workload with low returns; huge amounts of produce have to be sold in order to be economically viable; and sufficient outlets for their produce are required, be they small and regional or large and global. Furthermore (and as a pre-condition), farmers need allied producers, distributers and consumers to facilitate transport and logistics and to realise new modes of production and socio-economic interactions. The case study shows that in the Austrian context such allies are more easily found in an urban setting than in traditional rural ones. This is to say that most of the farmers involved in the local food network were encouraged by and still build on their (former) ties to (former) urban people and networks Consumers joining the local food network enjoy the fresh and seasonal food and the gain in food variety. However, they are challenged by the necessity of changing their diet and their habits of purchasing and preparing food. Due to their socialisation with convenience foods and the ready availability of a wide range of processed and packaged food, many consumers struggle with pre-planning their purchase, seasonal cooking and storage. It requires education to adapt to a new lifestyle and it also requires support. It further requires high engagement, money and/or time. This point to the fact that local food networks tend to be exclusive - at least in the Austrian context - in the sense that they attract primarily people who critically reflect the structures and dynamics of the current food regime and people with either enough money and/or enough time. This is mirrored in the fact that local food networks are mainly supported by well-educated urban people (students!) or by people with an urban background who are (or have been) actively involved in various other alternative networks that promote alternative life-stiles and critical thinking. Similar to the farmers, also distributers (retailers) involved in the local food network face a high work load with low returns. They are constantly confronted with the fact that getting organised in more conventional terms (such as buying food from wholesalers) would be economically more viable and might reduce their workload. Still, they appreciate the healthy and fresh food made available, the contact with the farmers and consumers, the reflexive team work and the high degree of self-determination their involvement with the local food networks brings.

Facing these findings, it becomes obvious that being embedded in a specific food regime, local food networks are constrained by and constantly forced and tempted to take over the food regime's inherent patterns of action and communication from which they originally dissociate themselves. To resist such constrains, pressures and temptations requires not only significant changes in the social, economic and ecological performance of the actors involved, but also a reflexive engagement, strong community building and ideological commitment with the smouldering danger of (self)exploitation of labour-force.

Furthermore, local food networks are confronted with biophysical constraints that open up questions such as: How can small farmers produce enough food to comply with the demand of local food networks? How to apply work-intensive modes of production and distribution without exploiting labour-force? How to apply hygiene regulations and other standards created for large, industrial production units? How to set up infrastructure that supports small scale production and processing? Many of these questions are again approached by taking community-action at the expense of high individual working pressure.

Conclusions

Faced with our findings one could argue that local food networks do at least challenge the socio-ecological system they are part of. They do so by firstly inducing behavioural changes in the actors involved: people alter their patterns of production, retailing and consumption. Secondly, they open up new (local) pathways for consumers, producers and retailers to interact with one another. So, if multiplied, strengthened and allied with various other actors and networks, local food networks seem to have the potential to

affect the inherent dynamics and structures of our current food system in the long run (Gimenez and Shattuck, 2009).

Still, local food networks – be they urban or rural - are constrained by problems such as high work load, low wages, missing infrastructure, inadequate hygiene restrictions and underdeveloped technology and logistics. These constrains are partly being balanced by means of strong solidarity-based community building and voluntary engagement. This strengthens local food networks on the one hand and makes them vulnerable on the other hand. Further, given the current socio-economic conditions, the necessity of high engagement restricts local food networks to staying a niche activity for highly motivated people, mostly with an urban background or (former) strong urban ties. This is to say that individual and collective action on the local level is not sufficient. Strengthening local food networks economically and socially would require fundamental structural change. Most important would be measures that foster a de-commodification of food (strengthening its use value rather than its exchange value) and that allow for labour-intensive production and distribution processes via taxing commodities rather than wages. Furthermore, infrastructure and hygiene regulations that serve the needs of small farms and retailers would be needed. Sharing knowledge and creating new forms of logistics that facilitate local food supply are essential for the long-term prospects of local food networks, particularly in rural areas. People would have to become educated and encouraged to form networks of different shapes involving farmers, retailers, consumers and food processors. This is not about pushing entrepreneurship by giving loans. Rather, information and scholarships should be provided to empower citizens to get actively involved in local food networks. Finally, participatory research that enquires and formulates scenarios or 'real utopias' (Wright 2009) for urban and rural food supply via local food networks would be of high use.

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Keywords: local food networks, sustainable transitions, food regime, niches

Presenting author: Dr Juliana Lutz, Julia.Lutz@aau.at

Urban Agriculture in Montreal and the Search for Common Ground

Isabelle Mailhot-Leduc[1], Élisabeth Abergel [1]
[1] Université du Québec à Montréal - Montreal - Quebec - Canada

Introduction

Our paper investigates the recent public consultations around urban agriculture (UA) initiated by the city of Montreal. Public consultations followed a successful mobilisation of community organizations and citizens who managed to get 29,082 signatures to discuss the status of urban agriculture and its integration within the city's development. The various briefs submitted by individuals, organized community groups, agricultural professionals and other experts represent how the encounter of different subjectivities construct the urban landscape and the place of food production within it. By investigating how the public consultations around UA succeeded or failed to channel the demands and visions of these diverse stakeholders, a better understanding of the barriers and challenges to an enhanced participatory governance of urban food strategies can be achieved. Montreal City Hall is currently undergoing a series of police investigations around issues of corruption of elected officials and bureaucrats. This forms the contextual backdrop of our analysis. We will address the following research questions: How do the expectations of the participants in Montreal public consultations construct differing visions of Urban Agriculture and municipal governance? Have recent events created an opportunity for innovative food initiatives? Can the Montreal experience represent an example of food democracy?

Methods

The concept of "food democracy" calls for an engagement of citizens in identifying problems in the food system and setting the agenda for policies (Hassanein, 2003, Allen, 2010). However, even if the deliberation is formally inclusive, access to the process depends on resources, knowledge and connections of actors (Young, 2001). Accountability and responsiveness of municipal institutions also have to be strengthened (Gaventa, 2002). Using content analysis, we will look at various documents, including the briefs, the City's press releases and mainstream media sources, to obtain general understanding of how the different stakeholders perceive and represents "legitimacy" (Parkinson, 2003) in the process of shaping urban spaces and food politics.

Our methodological approach includes a content analysis of the briefs presented during the public consultations in order to draw out key themes and social frames that present a diversity of visions of Montreal's food system and what models of urban agriculture might emerge. We also examine the City of Montreal's response to the briefs by tracing the various reports and follow-up actions taken by the municipal government.

Results

In terms of the consultation process around UA, some clear tensions are emerging: Firstly, in terms of the evolution of the politicization of urban agriculture within municipal politics. The commodification of space and the austerity politics of the past thirty years are incompatible with the development of UA. Until recently, the City was not receptive to groups seeking spaces and funding for UA projects. The petition for a public consultation was a strategy to focus the City's attention on UA issues; secondly, the conflicts between expert and non-expert visions of UA and reflect a disciplining of norms and regulations around food production within city limits –namely in terms of delineating acceptable agricultural practices within the urban commons, most notably around henhouses, beekeeping, public health and animal welfare; there are also clear social conflicts between poor and wealthy neighbourhoods and the various initiatives they are defending, the politics they are advocating and potential struggles around the spaces they occupy; finally, the response by municipal authorities to the briefs, through the creation of a roundtable on urban agriculture, which has failed to meet the more pressing demands from the most vulnerable Montreal communities. It is not yet clear what types of emergent politics are being constructed through this process but what is important to consider are the ways in which the various briefs presented during the consultation process express competing visions of the urban commons as a space for reclaiming nature, food and municipal politics beyond state and market.

Conclusions

In conclusion, these public consultations around UA have brought out actors and interests not traditionally in power and have engaged them in a dialogue with the City, advocating for a more innovative and inclusive urban food system for Montreal and surrounding areas. However, the real impact of the consultations remains uncertain, since there are no clear indications that participants in the consultations might play a role in shaping Montreal's urban planning and food politics. Furthermore, there is no guarantee that their demands will be met since institutional accountability is in question and responsible authorities have lost political credibility. This paper shows that attempts to foster "food democracy" meet disappointing results when participatory mechanisms are viewed in strictly advisory terms. It clearly addresses issues of governance, the implementation of a participatory process and efforts to set up innovative food strategies that might address social justice.

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Keywords: Urban agriculture; public consultations; municipal politics; food democracy

Presenting author: Miss Isabelle Mailhot-Leduc, mailhot-leduc.isabelle@courrier.uqam.ca

Making food production land and natural land on the outskirts of cities?

Christine Margetic[1]
[1] Université de Nantes - Nantes - France

Introduction
In a recent paper (Pierre et al, 2008), we have highlighted that the connection to a territory lies upon how it is shared while under urban and environmental pressures caused by some of the farming practices and upon a search for territorial coherence allowing multiple uses of the land. A common territorial construction based on diverse practices questions the reflection and collective action bodies in urban and peri-urban areas. Indeed, we note that food and nature are two notions that could be used as mobilisation tools in territorial management policies of urban regions, especially in a planning perspective, as the spatial implications of new civic practices are embodied within a territorial strategy directly linked to land use issues.

This presentation aims to analyse how relationships between agricultures and urban development arise around land use and how they are regulated and integrated within planning strategies. It assumes that the connections between agricultures and consumption on the one hand and between agricultures and nature on the other hand make the land a territorial argumentative resource. In this context, what are the place of food production and nature in the representation and the management of farming lands? As multidimensional and multifunctional support spaces, do these original land making contribute to secure a (co)-construction of urban areas policies?

Methods
We will focus on two initiatives that take place in Nantes and Lille urban areas. First, Nantes metropolis promotes an innovative policy to re-conquer fallow lands in partnership with the Chamber of Agriculture of Loire-Atlantique. It aims to solve the lack of farming lands available locally and valorise spaces that were negatively perceived. This policy strongly integrates the challenges raised by short food supply chains. Secondly, for a long time, the Espace Naturel Métropolitain in Lille has relied upon farming lands as natural spaces to compensate the lack of green areas in the city. For example, the Périsseaux plain is representative of the difficulties to meet two objectives sometimes in opposition: the durability of open farm lands dedicated to large cultures and the public dimension.

Results
By favouring negotiation mechanisms, these new public procedural policies create conditions to valorise argumentative resources. The will for a local debate on local production of norms, results in general orientations that have for main objective to integrate interests usually different around a common representation. However, this raises the questions of stakeholders' and actions' time and of the fragility of the emerging governance.

Conclusions
Among the benefits of this communication, we can evoke the formulation of innovative theoretical referents – the notions of "making food production land" or "nature land" – that express discourse production mechanisms. As an argumentative resource, this "making" is first of all an intellectual construction, and shows a new politics of resistance carried by an "ethical" vision of development.

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Keywords: Food production land, Nature land, argumentative resource, Nantes, Lille

Presenting author: Prof. MARGETIC Christine, christine.margetic@univ-nantes.fr

Transition to alternative food systems: Planpais-Granada a participative-research and action model in progress

Alberto Matarán Ruiz [1], Francesca Lotta [2], Tíscar Mellado López [1], Marta Gutiérrez Blasco [1], Carmen Fayos Oliver [1], Adolfo Torres Rodríguez [1], Jose María López Medina [1], Fiorella Russo Cardozo [1], Laura Gándara Fernández [1], Antonio Ortega Santos [1], Sara Venegas Yuste [1], Anaïs Martin Tapia [1], Francisco Javier Toro Sánchez [1]

[1] Universidad de Granada UGR - 18071 Granada - Spain

[2] Università di Palermo - Italy

Introduction

From the 70's the agricultural areas have come under increasing urban development pressure with result of an enormous loss of cultivated land and of communities who have created and care about them. The agricultural crisis must be understood more as a need for a change in the economic model than as a physical exhaustion.

This phenomenon, characteristic of different European States, has been very important also in Spain, especially in Andalucía, one of the agricultural regions in Europe. But most of the production is exported and thus, this represents a weakness for the internal production with important environmental consequences (loss of water and soil resources, erosion, loss of biodiversity, pollution, and so on). Furthermore, from the urban perspective, we have detected a disconnection from the territory as a productive and cultural landscape. The rupture of these relationships - environmental, social, cultural and economic - between city and territory entails the unsustainability of both, the degradation of endogenous resources and the loss of local knowledge, including local varieties and the forms of production and processing. All this questions are evident in the city of Granada and its Vega, the highly productive land with an irrigation system built in the Middle Age by the Arabic civilization. It constitutes an important environmental area, which links the national park of Sierra Nevada with the Genil valley.

Methods

The search of the new model

A new sustainability strategy needs to consider the peri-urban agricultural areas and its relationship with the city. As well as in many other territories it has been articulated through the primary flow: the issue of food related to other issues such as the necessary redefinition of a strong relationship between food production and consumption systems, and also the holistic concept of food sovereignty.

According to this question, the PlanPais Multidisciplinary Group has developed a methodology based on IAP Investigacion Acción Participativa (Participative-Research-Action). We present a team that participates actively, day by day, in the reconstruction process of the relation between city and agricultural areas.

Results

The researching project, after the first process of decoding and gathering the actors involved in Vega de Granada, proposed to become an intermediary in the new ways of consuming agricultural products. Along three years, it has obtain two specific goals: on one hand, a particular evaluation of how the consumption of agricultural products can influence the city development, its cultural estimation and the territorial identity; on the other hand, a research and action based on the promotion of new agricultural food models of organization that can be adapted to the reality of Granada. Therefore an innovative certification system has been developed in Granada, more accessible and based on participation and openness from all the people that are interested in the cycle of food products. At the same time, this project has helped organizing a monthly organic farmer´s market called Ecomercado and different types of groups of food consumers that are part of the short supply chains in Granada.

Conclusions

The issues involved are many, but the agricultural food, in the case of Granada, is the reference to describe a new land model where the community actions and the integration of agriculture producers and consumers, redefines a long term relation of the population with the main resources of the territory. The union of agriculture production and urban space makes necessary to protect agricultural activities. The social movements in Granada are developing a grassroots form of governance based on this agreement between citycents in the city and the countryside.

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Keywords: transition, periurban agriculture, local food systems, participation, short supply chains

Presenting author: Dr Alberto Mataran Ruiz, mataran@ugr.es

Re-framing the Foodscape: The rise of cities as food policy actors

Ana Moragues Faus [1], Kevin Morgan [1]
[1] Cardiff University - Cardiff - United Kingdom

Introduction
In the context of the "new food equation", food is rising up in urban agendas and stakeholders at the local level – public, private, and civil society sectors- are reasserting responsibility for food policy. This process involves an active reframing of the debates on food and sustainability, by distinctively integrating public health, environmental and social justice issues and in accordingly by broadening participation to different types of stakeholders. Consequently, this innovative role of cities is linked to the creation of new spaces of deliberation and participation, which constitute major changes in the relationships between civil society organisations and the local state, veering from confrontation to distinct forms of mobilisation and 'getting things done'.

Methods
This study is based on the research conducted under the European project Foodlinks, which tackles knowledge co-production processes to promote sustainable food systems. Both authors have been actively involved in the community of practice on Urban Food Strategies for two years, sharing knowledge with policy makers, civil society organisations and academics from different parts of Europe, including the two case studies tackled in this paper: Malmo and Bristol. In order to study in depth the emergence of new food policy spaces and their dynamics in these cities, semi-structured interviews were also conducted with policy makers and civil society organisations from both cases. This data was complemented with document analysis and jointly processed with NVIVO (qualitative analysis) software.

Results
In this paper we analyse the case of two middle size cities, Bristol and Malmo, which are developing urban food strategies in two contrasting governance arenas. Malmo, where the agenda is strongly led by the local government; and Bristol, characterised by a historically fertile and active civil society. Based on semi-structured interviews, observant participation and document analysis; we analyse the emergence and development of both processes, paying particular attention to how both cities envisage and implement transitions to a more sustainable and just food system. Steaming from transitions theory structuring usefulness to understand these processes, we also draw on political ecology conceptualizations in order to better characterise the rise of these new ecologies.

Conclusions
This piece of work contributes to theoretical thinking on transitions and political ecology as well as governance implications of the new urban food politics emerging. On the one hand, through the analysis of both cities we merge transition thinking with governance aspects which involves going beyond the exploration of niches in envisaging change. This higher level of analysis also throws light into scaling up and out processes of these niches. On the other hand, this comparative study also unfolds the distinct relationships between the local state and civil society, characterising different framings and negotiation processes as well as raising issues of cooperation, participation and legitimacy in the shaping the urban foodscape.

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Keywords: urban food strategies; food governance; civil society; local state

Presenting author: Dr Ana Moragues Faus, MoraguesFausA1@cardiff.ac.uk

Urban food provisioning and city logistics: the wholesale produce market as Food Hub

Eleonora Morganti
IFSTTAR - Marne la Vallée - France

Introduction

Linkages between food and urban freight transport are increasingly evident in modern communities. The growing demand for food expressed by the urban population relies on urban goods transport schemes (Quack et al., 2009) and requires ad hoc logistics chains, which have specific constraints, such as short lead time and distinct handling procedures.

The food transport system in urban contexts presents a variety of actors who are in charge of logistics operations: producers, wholesalers, retailers, shop and restaurant owners, shippers, etc. They contribute in different ways to the local provisioning system and assure connections at regional and global level. The urban food systems have received increasing attention in recent years, however an in-depth investigation on food and transport interconnections is still missing (Sonnino 2009). In order to achieve a more complete picture of the food transport system at the urban level, this article centres on the critical question: Which are the main logistics actors in the urban food flows system? Looking at the fresh produce chain in two Italian medium size cities, i.e. Parma and Bologna, the study investigates the role of traditional actors i.e. wholesale produce markets as commercial and logistics operators, able to act as Food Hubs (Morley & Morgan, 2009) and to optimize the food delivery operations to the local outlets.

Methods

A qualitative methodology with an explorative approach has been adopted to conduct the study. The investigation was structured in two parts. The first part was dedicated to a bibliographic search and data collection. We analysed official documents, academic and consulting studies, trade press articles and firms' reports. The second part of the investigation was aimed at obtaining direct information from a privileged group of representatives operating in the ambit of food shipping services, food distribution, retailing sector in the city of Parma and Bologna. Twenty three face-to-face individual interviews were conducted, using a semi-structured questionnaire.

Results

According to study on urban good movements (Rosini, 2005; Guibault, 2008), small and frequent deliveries are a common practice in the food supply sector, and strongly impact on the last mile logistics system in urban areas. The small scale distribution of goods, in fact, is one of the most important yet problematic aspects of the supply chain, due to the high atomization of receivers and their increasing requirements (narrowed time-window, cold chain technology).

Many actors play logistics functions in the urban provisioning system. Food deliveries are usually informal logistics activities, most of them directly operated by food suppliers, producers and shop owners, with limited delivery consolidation measures. Shop keepers ask for high frequency and express deliveries of limited number of parcels, in a narrowed time-window. Concerning the logistics, the flow of food products presents inefficiencies, as the lack of coordination at the small distribution scale which undermines the environmental sustainability and increases air pollution. Moreover, these inefficiencies have indirect consequences on the competitiveness of food outlets and on the access to affordable healthy food in urban communities. Within this scenario, the role of wholesale produce market has been renewed as logistic platform, helping to consolidate transport operations and provide food delivery services with eco-friendly vehicles. In the case of Parma, the wholesale produce market plays the role of Food Hub and pursues three goals: reducing air pollution; improving the resources efficiency and cost effectiveness of the transportation of goods while incorporating external costs; and contributing to the access of healthy food in the community, assuring that it is available to small local businesses.

Conclusions

Urban food provisioning and distribution are crucial issues in our modern civilization. The unprecedented pace of urbanization and its effects on cities sustainability make it urgent for local administration to develop urban policies oriented to redesign the food chain on the base of new types of social, economic and environmental relationships amongst food producers, retailers and consumers, within the urban food planning perspective. Among the actors operating in the urban food logistics systems, the wholesale produce markets represent a concrete opportunity to enhance the urban food distribution system sustainability, fostering the consolidation of food parcel deliveries to the food outlets in the urban area. By renewing its role under the Food Hub concept, the wholesale produce market can offer new logistics services, enhance the food provisioning system both in terms of sustainability, through reduced environmental impact and road traffic, as well as in terms of improved suppliers

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Keywords: Urban food provisioning; city logistics; wholesale produce market; food hub.

Presenting author: Dr Eleonora Morganti, eleonora.morganti@ifsttar.fr

Developing the concept of a 'Food-Smart City' in the region of the West Midlands, UK

Adrian Morley [1], Michael Heasman [1], Ralph Early [1]

[1] Harper Adams University - Deparment of Food Science and Agri-Food Supply Chain Management - Newport - United Kingdom

Introduction

This paper will present the preliminary results of an innovative and original urban food systems project to develop the educational role of 12 regional universities in contributing to the support and implementation of 'food-smart cities' in the West Midlands region of the UK. The purpose of the paper is to present the initial findings of how regional universities can begin to contribute through educational support across academic disciplines to broader societal challenges with respect to regional urban food security and food sustainability.

The project aims to develop and quantify the concept of a 'Food-Smart City' and is a collaboration through the organisation Universities West Midlands - representing the region's 12 universities and supported by Vice-Chancellors of the partner universities - to address issues of food security and sustainability within the West Midlands region. The Food-Smart City concept aims to investigate the interface where the natural and 'man-made' merge and interact through sustainable food systems operating both within city or urban limits and the interaction with peri-urban regions and beyond to develop bespoke educational resources to address the challenges facing urban food systems in the West Midlands.

Methods

The Food-Smart City project aims to establish collaborations not only between universities but other key stakeholders, such as food business, civil society and the public sector, that will lead to the creation of long-term partnerships to provide education, research and knowledge transfer, to further the Food-Smart City concept as an achievable proposition to establish a food secure urban region. This paper will therefore present the preliminary results from a regional mapping exercise as part of the Food-Smart City concept that identifies the gaps and the strengths in West Midlands universities to address the food security challenges in the region. To put these results in context the paper will present initial findings from mapping the West Midlands urban foodshed with an emphasis on the food value chains that provide food for the region.

Results

The region – home to more than eight million people – has a rich history in food production and its diverse population bring a mix of different ethnic food styles and cuisines as well as supporting a large conventional food supply. However, the region is also home to some of the poorest communities in the UK and has major challenges with respect to diet-related ill health (for example, obesity rates as high as 30 per cent in some areas). In mapping the urban foodshed the aim is to present the results of different roles within the region's 12 universities to establish the linkages for a cross-regional and collaborative strategy to tackle issues of local food security and sustainability from farm to consumer.

Conclusions

Although the results presented are preliminary, they will be robust enough to start to map the flows of people, goods, materials and knowledge of a major urban region within Europe with an emphasis on how universities across disciplines are equipped to contribute to food-secure urban spaces and cities in the West Midlands.

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Keywords: urban food planning; mapping foodsheds; regional food security; food sustainability

Presenting author: Dr Adrian Morley, amorley@harper-adams.ac.uk

More Than Physical Infrastructure: The Struggle over the Nature and Governance of Regional Food Hubs

Phil Mount [1]

[1] Wilfrid Laurier University - Waterloo - ON - Canada

Introduction

The growth in the number and variety of alternative, local and community food initiatives and networks over the last decade has attracted considerable attention in the global North. Many of these networks emphasize the alternative values and rationales that drive the 'social economy', and an openness and transparency that speak to a fundamental change in their approach to governance. However, these initiatives are diverse and dispersed, typically lack a unified voice, and reflect a variety of core priorities aimed at farmers, consumers or communities. In North America, political and policy support is coalescing around the multiple benefits of increased regional food aggregation, processing and distribution infrastructure. 'Food hubs' are the latest trend, capturing interest and often funding from local and regional governments, trusts and private investors looking to generate regional economic development, sustainable food systems, or profit.

Because the need for this infrastructure is typically accepted across a broad constituency, food hubs may find innovative ways to pull together the (often conflicting) needs of different actors in growing AFN, including farmers, low-income consumers, food safety regulators and local politicians. As a result, this food hub moment presents a unique opportunity to influence the future governance of the regional food system.

Methods

However, the opportunity to introduce the values of the 'social economy' into this conversation often runs into local lack of familiarity with the discourse, and defaults to the primacy of economic impacts as a measure of the feasibility of any proposed food hub. This paper looks at a cross-section of regional food hub feasibility studies across jurisdictions in both Canada and the United States, to get a sense of the various approaches that have been employed to determine the regional needs and objectives, and to measure food hub viability. Through two case studies, this paper will contrast different approaches to conducting a "regional food hub feasibility study", in order to draw out lessons for regions attempting to build food systems that are inclusive, fair and sustainable. As local and regional food systems increase in scale, farmers, consumers, and their communities will be challenged to build food enterprises that collaborate to produce efficiencies, while addressing the food security crisis (Ashe and Sonnino 2013); distribute value equitably, while producing profits that can support ecologically beneficial production and the continual development of necessary infrastructure; encourage production that meets "the needs and expectations of the society at large" (Marsden and Sonnino 2012); and reconfigure networks and learning environments through enhanced social capital.

Results

In regional food systems, communities are increasingly turning to 'social enterprise' models to address the seemingly intractable problem of both providing a fair return to local farmers who provide ecological benefits, while supplying healthy, local food to low income communities (Connelly et al 2011). These community food ventures are taking on diverse forms, including: urban farms growing food for both local businesses and food banks; cooperative or community-owned retail outlets sourcing from local farmers; community farms, providing a solution to the challenge many farmers face in accessing farmland; and food gleaning programs that turn waste produce –from the farm, retail and food service sectors– into food products. However, estimating the viability and transformative potential of these diverse social economy alternatives will not be a simple matter (Holt-Giménez 2011). With continued state withdrawal of funding from social service provision, many networks involved in the re-design of food systems, policies and strategies have hybridized alternatives – situated comfortably in neither civil society, public nor private spheres– that offer a confounding 'post-neoliberal' potential (Mount and Andrée 2013). Despite a label drawn from neoliberal discourse, many social enterprises advocate for a fundamental adjustment to how we 'value' the various elements of the food chain, from ecological impacts to the universal access to healthy food. In this way, the 'social economy' approach challenges the centrality of the market as an organizing principle of society. At the same time, city-regions across North America have come to accept that, in order to build sustainable, resilient food systems, they will have to increase the scale and diversity of their regional food aggregation, processing and distribution infrastructure. But how this takes place – the regional negotiation over food hub development – will have long-lasting effects on the future inclusiveness, fairness and sustainability of the regional food system.

Regional food system interconnections are assumed to be essential preconditions of increased scale (Levkoe 2011; Mount 2012; Sonnino and Griggs-Trevarthen 2013) and sustainable food systems. The diverse priorities –and potentially incommensurate interests of these interconnections– make such ventures a test-bed for innovation in regional governance and alternative-to-market structures. Every city-region has diverse food communities with conflicting priorities: the challenge is to develop food hubs that would accommodate the aspirations – and the often disaggregated networks – of 'ecological entrepreneurs' (Marsden and Smith 2005), community food initiatives, consumers, and even state actors – in their multilevel governance and institutional procurement capacities (Healy and Morgan 2012; Marsden and Sonnino 2012)– and thereby produce innovative enterprises with the potential to both address localized, community-level concerns, while meeting larger regional development goals.

Conclusions

This paper presents a cautionary tale for regions that have developed successful and expanding local food markets, often based on values that prioritize social and ecological benefits of food system localization. In a regional food hub, these communities see a natural next step to meet the needs of many different but important players in these local food systems. Whether and how those diverse needs are met –and therefore the nature of the future governance of the regional food system– will be determined in the first instance by the negotiation that is the food hub feasibility study.

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Keywords: Food hub; social economy; regional food system; feasibility study

Presenting author: Mr Phil Mount, phil.mount.foodsystemsresearch@gmail.com

Innovation in Municipal Policy; Transferable Lessons from Urban Agriculture Policies in the United States and South America

Tori Okner[1], Alain Santandreu [2]
[1] Tufts University - Medford - Massachusets - United States of America
[2] RUAF Foundation

Introduction

The recent interest in urban agriculture in the United States comes decades after institutionalization of urban agriculture by local and national governments throughout South America. Practitioners and policy makers in the United States can benefit from studying the pioneering efforts by their neighbors to the south while in return offering new perspectives on urban agriculture and insight into municipal policy formation. This article will review the institutionalization of urban agriculture in three cities in South America and three cities in the United States with the aim of catalyzing North-South dialogue.

Government engagement in urban agriculture can be motivated by a range of both objective and ideological goals. In the United States, municipalities often enter into a conversation on urban agriculture in response to activities taking place in the community.

While many cities around the country are updating their land use codes to allow for urban agriculture, or offering supportive programming, few have clearly articulated urban agriculture policies. In contrast, South American boasts several successful urban agriculture policies with clearly articulated strategic goals that prioritize principally social, economic, or ecological outcomes.

Methods

The South American case studies are Contagem, Brazil; Rosario, Argentina; and Quito, Ecuador. Each city exemplifies a distinct policy framework and unique portfolio of policy tools. In Contagem, the urban agriculture policy aims to improve food security (social). In Rosario, agriculture is an important component of urban design and land use (ecological). Finally, in Quito, it is a strategy for poverty alleviation and income growth (economic). The departments behind the policy generation and implementation vary, from the Department of Social Promotion to the Department of Planning.

Baltimore, Chicago and Minneapolis are the rare US cities that present a policy framework for the various urban agriculture activities, services, and programs they support. Similar to the cases selected in South America, the policies come out of varying municipal departments and are the result of distinct processes that offer rich lessons for both policy development and implementation. In Baltimore, the emphasis is on improving access to fresh and healthy food, in Chicago, on economic development and employment, and finally, in Minneapolis, sustainable land use.

The strengths and weaknesses of each municipal approach will be evaluated to identify transferable lessons. Data collection will include interviews with policy makers, practitioners, and advocates. Network mapping will demonstrate both municipal interdepartmental relationships and webs of external stakeholders.

Results

Results will include a review of the primary goals articulated in each case study, and the numerous ancillary goals (from nutrition to climate change mitigation) with a focus on the means of implementation. Policy instruments include the use legal, economic, education, and urban design instruments. Contextual analysis, including the structure of city government, economic status of each city, and underlying political constructs that shape the perception and intent of municipal policy, will inform the assesment of each case study. Initiatives will be evaluated according to the local policy framework.

Conclusions

Whether integrated into the existing policy and programming in a piecemeal fashion or articulated independent of other initiatives, the institutionalization of urban agriculture serves to increase visibility, funding, and necessary communication across municipal departments. While there is no single path to institutionalization- successful implementation must reflect the policymaking process and political context of each city- best practices are emerging. There is value in exploring the institutionalization of urban agriculture in South American, and how it contributes to the implementation of successful citywide initiatives, alongside the nascent process in the United States. The evolution of urban agriculture policy and associated scholarship in South America can be useful templates for cities in the United States and innovation in the United States may reveal yet-untested strategies that may benefit urban policy-makers and practitioners throughout South America.

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Keywords: Urban Agriculture; Policy; Institutionalization; Planning, Multi-Stakeholder

Presenting author: Miss Tori Okner, tori.okner@tufts.edu

Legalizing urban agriculture? Land-use planning innovations in Detroit (MI)

Flaminia Paddeu [1]

[1] Paris 4 Sorbonne - Paris - France

Introduction

This paper aims to question the land status of urban agriculture, considering Detroit's case study. Detroit (Michigan), a shrinking city belonging to the United-States Rust Belt, has been enduring a severe deindustrialization crisis for half a century. The city, which used to be the capital of the automobile industry, is now considered as being at the forefront of the urban agriculture movement in the country, which is actually possible due to the immense amount of vacant land available (1/3 of the city territory). After several years of preparation, an amendment to the city's zoning code called the « Urban Agriculture Ordinance » has recently been adopted (December 2012) and started to be implemented (March 2013). This innovation in terms of land-use planning is groundbreaking regarding urban agriculture in the United States. What is at stake in this specific land-use planning innovation? Does it protect existing operations? Does it give the City more control on sprouting alternative urban agriculture practices? Is it a replicable zoning model for other cities facing the same types of initiatives? Does it tackle the issue of the ownership of the land? Technically, what kind of urban farming model does cater to (size, activities etc)? What is not included in the Ordinance and why? More generally speaking, we will discuss what type of model of urban agriculture this new ordinance will lead to in today's particularly economically and socially dull context.

Methods

This paper is based on field work carried out in springs 2012 and 2013. Our qualitative method is based on more than twenty one-on-one semi-directed interviews with protagonists of Detroit's urban agriculture (nonprofit advocates of urban agriculture and actual urban farmers; local institutional experts; local residents). These interviews (including several with the leading thinkers and implementers of the Urban Agriculture Ordinance) have been followed by sequences of observation and readings of grey literature and specialized scientific literature.

Results

Our results show that this urban agriculture ordinance innovates in terms of land-use planning as it helps protect existing illegal operations in both securing existing operations and encouraging new developments of urban agriculture in the future. Through the official paperwork required for the operations, this ordinance could produce reliable, up-to-date data on a local scale concerning Detroit's urban agriculture. It is one of the first political statements in favor of urban agriculture in a timid mayoral political context concerning this issue. It also shows that animal farming has not been accepted by the community yet and that the model of urban agriculture proposed in this ordinance is limited to crops and conveys a certain conception of nature provided by urban agriculture. The question of the ownership of the land is still not solved by this ordinance and stands as an important future stake of urban agriculture.

Conclusions

Finally, this paper explores through Detroit's case study and its brand new Urban Agriculture Ordinance how the urban food issue promotes innovations, specifically in land-use planning. How does this brand new ordinance dealing with urban agriculture: which problems it addresses and which others are left aside? This case study can pave the way for future attempts of land-use innovations related to urban agriculture in other contexts.

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Keywords: Urban agriculture; legalizing; land-use planning; innovation; Detroit (MI)

Presenting author: Miss Flaminia PADDEU, paddeu.flaminia@gmail.com

Open air food markets around Montpellier: places for community building and re-localisation of urban food systems or just ordinary shopping places?

Coline Perrin [1], Virginie Sancelme [2], Elodie Valette [3], Claire Cerdan [4]
[1] INRA, UMR Innovation, Montpellier - France
[2] Master student at UMR Innovation, Montpellier - France
[3] CIRAD, UMR TETIS, Montpellier - France
[4] CIRAD, UMR Innovation, Montpellier - France

Introduction

Open air food markets are a very common phenomenon in France. Every town used to have a farmers' market. With the rise of longer food chains, most of farmers' markets became open air food markets with many resellers and only few producers. In the context of a renewed public interest in local food production, however, do these markets remain just ordinary shopping places or do they play a new role in community building and re-localisation of urban food systems, as stated in North American and British literature on farmers' markets (Brown, 2002) and alternative food networks (Renting et al., 2003)?

The objective of the paper is to understand the dynamics of open air food markets within the urban shoppingscape of a medium size city in the South of France: Montpellier and especially to determine some factors of their emergence and growth or decline. It contributes to fill a gap identified in literature on farmers' markets (Machell & Caraher, 2012).

Moreover, the originality of our contribution is to focus not mainly on the city centre, but rather on periurban localities, where many farmers' markets disappeared in the 1970' with the motorized way of life and the rise of large-scale retail facilities. Which types of open air food markets can be distinguished? What are the role of urban public policies and community initiatives in the emergence or re-emergence of markets in periurban context? Are they places of reconnection between the city and the agriculture of its hinterland?

Methods

Whereas most studies on farmers' markets focus on the shoppers (Zepeda, 2009; Carey et al. 2011), we chose a territorial approach of the role of open air food markets in periurban context, a growing research question in geography (Delfosse & Navarro, 2011 ; Spilková et al., 2013).

The results are based on participant observation on the markets and interviews with sellers, mayors and technical staff of suburban municipalities and farmers' organisations.

The study area is the 31 municipalities of Montpellier metropolitan area plus 3 municipalities bordering Montpellier that do not belong to its political supra-municipal institution. Within these 34 municipalities, 11 open air food markets were localised in the city centre and 21 in the surrounding municipalities. Participant observation and quick interviews with sellers were conducted on these 21 periurban food markets. We gathered some basic characteristics of these markets: location, size (number of stalls), types and origin of the sellers, days of operation, and the range of goods offered. Then, qualitative analysis based on in-depth interviews was conducted on 6 markets selected because they offer a variety of dates of creation, social contexts and demographic sizes of towns or because we had identified in the first step of the research a public action supporting the market.

Results

Regarding the location of the 21 periurban markets, they greatly vary in size: the largest have about 90 stalls, while others comprise less that 10 or even 5 stalls. Half of the markets are less than 20 years old. The most recent markets (less than 5 years) are on the urban fringe: all the municipalities bordering Montpellier have a market. This confirms the conclusion of Spilková et al. (2013) on the impact of the city structure represented by its centrality, population density, and public transport density on the markets. Beyond this urban fringe, all municipalities over 6000 inhabitants have a market, but also much smaller villages. The demographic size is thus not the only factor to explain the existence of a market. The historical context plays a big role.

Regarding now the role of public policies, new markets have been created by municipalities and more rarely by local NGOs. For elected representatives, the weekly open air food market is the best place to meet the inhabitants in an informal way during the elective campaign. Some municipalities support actively their market and try to attract more producers by offering them a free access to the market, by organising tastings of local products, or by offering land to farmers under the condition that they come weekly to the market. They want the market to foster social cohesion.

Regarding our hypothesis that food markets could contribute to the re-localisation of urban food systems, our first results does not show so many links between the markets and the agriculture of the hinterland. Except on very specific farmers' markets, most markets count only few producers, and some producers come from far away, 100 km for vegetable and fruits, even more for meet or cheese. The resellers buy their goods on the wholesale market. City dwellers looking for local products sometimes have difficulties to distinguish resellers from producers, and to know exactly the origin of the products that they buy. There is no other activity offered on the market (leisure, possibility to sit and eat/drink). Rather than places of community building, as on North American or British farmers' markets, periurban open air food markets are for many city dwellers just an ordinary shopping place.

Conclusions

This research confirms the on-going dynamic of open air food markets in French periurban shoppingscape. Around Montpellier, food markets emerged in municipalities of different social status and different political orientations, especially on the urban fringe. They structure the rural-urban linkages by catalyzing flows of food coming from the hinterland. Our maps contribute to define a potential food provisioning area for the city.

However, these open air food markets differ from farmers' markets identified in the literature by the small number of producers. Their role in re-localising the urban food system remains thus limited. In most localities, they seem to be nothing more than another shopping place.

Nevertheless, innovations emerge in some (mostly wealthy) suburban localities, where the municipality explicitly tries to attract farmers or/and consider the open air food market as a tool for deepening social cohesion and fostering community building.

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Keywords: farmers' markets, short food chains, mapping urban food provisioning area, re-localisation of urban food systems

Presenting author: Dr Coline Perrin, coline.perrin@supagro.inra.fr

How do new urban farming projects find land in Vienna? A case study about access to land in the periurban districts of Transdanubia.

Jo Pfisterer [1], Elisabeth Feuerstein [1], Cecilie Foldal [1], Philipp Gehmacher [1], Friedrich Leitgeb [1], Helene Weissinger [1], Andreas Spornberger [1]

[1] University of Natural Resources and Life Sciences - Vienna - Austria

Introduction

Vienna is a city with a long tradition in agriculture. Despite the city's convenient location, fulfilling all requirements for a successful trade policy, agriculture has been a major source of livelihood for a long time. As a result of the growing population, the urban area expanded, quite often at the cost of agricultural land. Today, one sixth of the city area is arable land, but as in many cities there is a conflict of interest between food production sites and the urban encroachment with its demand for building sites for housing or industry. An increasing interest of the population in organic farming and gardening, resulting in several initiatives demanding for arable land, can be observed. The aim of this study was to gain a holistic view of processes, networking, support and obstacles faced when searching for land and establishing such projects. Therefore we decided to investigate how some new urban gardening projects find land in "Transdanubia"- which is an Eastern suburban part of Vienna. In addition, we addressed issues such as motivation, obstacles and threats, support, societal feedback, requirements, networking, supply and demand of space and visions for the future.

Methods

In spring 2013, we asked urban gardeners, urban farmers and representatives of the Viennese municipality in ten semi-structured individual interviews about their own experiences and motivations concerning land finding and initiation of such projects in the city. These interviews were analyzed by a combination of deductive and inductive coding by qualitative content analysis of roughly 110 pages of transcription. Relevant statements in the transcripts were reduced and generalized corresponding to our research questions. With a text sorting technique we finally structured the gained reduced information and formulated our results.

Results

Summarizing our results, we observed an increasing interest for new urban gardening and farming projects. Emanating from engaged citizens, also municipal authorities as well as engaged politicians seem to realize this urge. In the inner city the municipality provides public space within parks or other green areas for community gardens with social integration aspects as a main driving force. Projects, focusing on larger scaled food production require a larger amount of space and are hence associated with outer parts of the city. Having a focus on the periurban region of "Transdanubia" the combination of rural and urban structures could profit by the establishment of projects by providing a new character to these districts seen by representatives of the municipality as well as benefits due to the social aspects of urban farming by helping to forge an identity and a community feeling of new urban development regions.

Although the urban gardening movement in Vienna is still at the beginning we revealed in this study through our interviews with providers of land as well as authorities with key competence in the process of land seeking, an emerging network between municipal authorities, politicians and initiatives easing the access to land. Further we found that political intervention helped to find land in some cases, depending upon complaisance of certain politicians. The interviews showed that the private relationship between land seekers, parties and authorities were a decisive factor how rapidly potential areas can become available. To ensure a long term existence, urban development strategies, like the zoning plan, have to be considered. Speculation on land and conflicts in interest seem to constitute barriers when it comes to land access. Since there is no regulation on the transfer of properties ensuring an agricultural use, old-established farmers, as well as other land owners are waiting for changes in dedication of their land. Leasing possibilities are often only temporary and expensive. Networking between farmers and neighbours facilitates leasing of land, but seems not yet accessible for new initiatives. The city of Vienna owns a large amount of agricultural land, which is administrated by the city council. Recently, an urban farming project, organized as association, managed to receive land from the city. This may serve as a precedent case taking over a role model for new initiatives. Negative experiences during negotiations of lease have impaired the image of early urban gardening/farming projects.

Conclusions

It is probably just a matter of time that the urban gardening trend will be more accepted by farmers and restore their confidence in such projects. But more positive examples are needed to realize and strengthen this. Mediation between landowners and seekers would be an important starting point for further discussions and innovations in administration. Developing a food strategy and consciousness for nutrition, usage of greenery and the value of soil will be challenges for the near future and issues that are implemented by urban farming projects. Taking into consideration all the benefits, perceived also from surroundings, the success for land-seekers strongly depends upon complaisance of politicians by now. Several of the interviewees mentioned that land must be affordable and the city must provide public land for urban farming projects. Regarding the sum of benefits of urban agriculture delivers, it is to be considered as a key issue in the sustainable development of a city.

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Keywords: urban gardening; urban agriculture; land seeking; municipality; support

Presenting author: Mr Jo Pfisterer, jopfisterer1@gmail.com

Reframing Urban Food Waste as a Renewable Resource

Dr. George Philippidis [1], Dr. Patrizia La Trecchia [1]
[1] University of South Florida - Tampa - Florida - USA

Introduction

Can the world afford to continue wasting half of the food it produces - as much as two billion tons annually – in an increasingly populous and hungry world? This issue is particularly pressing in urban settings despite efforts to minimize food waste. Instead of an environmental and health liability, can large volumes of food waste be transformed into resources useful to cities?

While urban planners try to address food security by promoting the development of urban agriculture close to points of major food consumption, much less attention has been paid to the disposal or treatment of urban food waste, which is composted only in small volumes and is often mixed with other household and municipal waste and then landfilled or tossed at unauthorized dump sites. This common practice treats food waste as a mere liability and fails to realize that it can be transformed into a major asset that will benefit city residents and businesses in multiple ways. Our research takes a practical solution-oriented approach by seeking to identify and integrate sustainable technologies and practices within the constraints of today's urban environment in an effort to transform urban food waste to renewable resources, such as energy and fertilizer.

Methods

We have investigated a recent example of the urban waste debacle, the ongoing garbage crisis in Napoli, Italy, which has generated powerful emotions. The apparent inability to address the problem has been viewed as a profound moral, economic, ecological, political, and urban failure. To the dismay of local politicians and citizens, the city has made national and international headlines and has even become synonymous with the piles of uncollected garbage, which creates conditions that threaten the health of the inhabitants. The issue is not unique to Napoli, as it is acute in metropolitan areas around the world.

Despite the disarray in Napoli, most residents do separate their food waste from other household waste. Recent developments in the commercialization of renewable energy technologies may provide some relief. According to recent statistics, the food waste in Napoli totals over 100,000 tons annually. Such volumes can provide the necessary economies of scale for cost-effectively converting the food waste liability into valuable resources. We are researching the use of practical sustainable energy systems for the beneficial transformation of urban food waste in any city.

Results

Initial findings from our research indicate that food waste from commercial establishments and, with more intensive collection logistics even from households, can be collected separately from other waste and brought to a processing facility. There, it can be subjected to anaerobic digestion using commercial processes, which will convert the organic constituents of waste, such as carbohydrates, proteins, and lipids, to methane gas. This is accomplished through the combined action of a consortium of natural microorganisms, which thrive by acting synergistically to eventually break down food into methane.

Waste-derived methane is a prime renewable fuel that will be captured and directed to a power generation station integrated with the anaerobic digestion system. The power station will produce electricity and heat for use within the city. Electricity can be sold to near-by industrial, commercial or municipal entities, such as manufacturing plants, hospitals, and wastewater treatment facilities. Alternatively, electricity can be sold to the local utility company through a power purchase agreement to benefit the citizenry.

The production of electricity is accompanied by heat generation, which can be captured and sold locally by carefully selecting the location of the integrated facility to optimize waste transport, electricity sale, and cost-efficient use of heat. Importantly, the residue remaining after the end of the anaerobic digestion process is largely odorless and has significant value as a natural fertilizer thanks to its inorganic constituents that add fertility to the soil. Hence, the residue can be sold to local urban farmers, thus adding value to urban agriculture efforts, while displacing the use of fossil-based fertilizers. Our analysis shows that in Napoli alone the proposed beneficial use of food waste could generate enough electricity to power 5,000 households and could produce 20,000 tons of natural fertilizer depending on the composition of the food waste.

Such a food waste conversion program faces political, logistical, and financial challenges that can be overcome only through a true public-private partnership. It requires the active participation of city businesses, residents, and government to ensure acceptance by the community at large, address the logistics of collecting and hauling food waste, and secure public financing (such as municipal bonds) and private financing (from development banks) for building and operating such an integrated system.

Conclusions

By integrating existing green technologies, namely anaerobic digestion and methane-to-power conversion, urban food waste can be transformed into renewable energy for use in the city and into natural fertilizer for use in urban agriculture. Such a practical approach can help reframe the flows of materials in the urban food system and enhance urban linkages by creating valuable resources from waste and by fostering a closed-loop system within urban agriculture. The reframing of urban food waste as a renewable resource can contribute to restoring the livability of large metropolitan areas and to enhancing their potential as engines of innovation and economic growth.

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Keywords: Food waste; anaerobic digestion; urban agriculture; natural fertilizer

Presenting author: Dr George Philippidis, gphilippidis@usf.edu

Growing food for self-consumption inside or near the cities: production and risks in associative gardens in the Parisian Region and in Montreal City

Jeanne Pourias [1], Christine Aubry [2], Anne-Cécile Daniel [2], Elisabeth Remy [2]
[1] AgroParisTech / UQAM - UMR SAD-APT Paris - France
[2] AgroParisTech - UMR SAD-APT - Paris - France

Introduction

In industrialized countries, there has been a considerable renewed interest for urban agriculture (Aubry & Pourias, 2013). In Montreal and Paris, among the diversity of forms of urban agriculture, associative gardens is the most developed one so far.

In Paris region, the total area under cultivation by associative gardens might come close to the area under cultivation by professional market-gardeners; an inventory is in progress to give a more accurate view of the extent of collective gardens in the region. In Montreal, in 2012, there were 95 community gardens and 77 collective gardens, which covered around 27 hectares. Associative gardens fulfill a high diversity of function (Wegmüller and Duchemin, 2010). Among those functions, the importance of productions in gardeners' food supply, and, beyond that, for cities food security is an interesting topic for scientific research and for city planners. This food function, that we hereby propose to quantify and qualify, has to be considered in relation with the risks for the consumers that may arise from urban pollution, especially through urban soils which often have a heavy past.

Methods

The food function of these gardens was approached in its quantitative and qualitative aspects. We performed interviewed among 31 gardeners in 7 Parisian associative gardens in 2012, and among 20 gardeners in 5 community gardens in Montreal in 2013. Gardeners were asked about their cropping practices and the importance of the food function of the garden. Then, a citizen science methodology was applied to evaluate the quantity of food produced in the gardens (Gittleman, 2012). Weighing scales and harvest notebooks were distributed among 24 gardeners in Paris in 2012 and 2013, and among 10 in Montreal, and the plots of these gardeners were monitored monthly throughout the growing season. The issue of soil pollution is addressed differently in the two cities: in Montreal, the City undertook measurements of pollutants concentration in soils and products from 2006 to 2009 and measures were taken for the gardens impacted by pollution: some gardens were abandoned; some were decontaminated or remediation plans were implemented. Our study therefore sought to understand how gardeners have adapted their practices to these measures. In Paris region, the pollution issue is less directly addressed by the authorities. We have sought to understand through non directive interviews if gardeners are concerned about it, and how they may adapt their cropping or consumption practices. Meanwhile, work is underway to do analytical measurements in the ANR JASSUR program.

Results

The results (in progress) show a wide range of expectations regarding the food function of associative gardens from the point of view of gardeners. If the total amount of food produced depends mostly on the size of the plots (variable in Paris: from 2 to 200 m² per plot; standard in Montreal: more or less 20m² per plot), it also depends on the time spent by the gardener to take care of its garden and to the other functions he/she attributes to the garden (including relaxation, leisure etc.). Yields are quite similar in the two cities. In Paris, the smallest plots are often the most productive ones. Parisian gardeners very often give a share of the harvest to friends, family or other gardeners, as well as they sometimes transform fresh products for preservation; giving and transforming products being not dependent on the amount of food produced.

Regarding soil pollution, the risks are taken into account in different ways depending on gardeners. When a risk of pollution was suspected due to the history of the site (polluting activities in the past), some gardeners expressed concerns regarding the potential contamination of their crops. Some other did not express any concern. For those who expressed concerns, adaptation of practices was hardly ever observed. Some gardeners had reduced their consumption of the garden crops, mostly because the municipality had prohibited it. In other cases, gardeners adapted their crops: one chose not to grow tubers, which can be questionable on a metrological basis. On the contrary, the desire to have their gardens at ground level (and not in pots, which might be a relatively inexpensive way of dealing with polluted soils) expressed by some gardeners have led the City of Paris to develop ways of replacing the original soil by imported one, a measure that the City is today questioning as for its cost and efficiency. Thus, it seems that regarding soil pollution, the decision to decontaminate garden soils is often a municipal decision, following an institutional process that established standardized procedures. Among gardeners, the level of concern vary greatly: some try to adapt their practices and are willing to know more about the soil of their garden, some do not. In all cases, gardeners usually attributed a food function to their garden. Even when quantities produced are very low, the production can be symbolically important (cropping practices or food recalling memories or cultural knowledge) and/or permit the access to products which cost or scarcity would make inaccessible otherwise (red berries, for example).

Conclusions

The wish to grow food within cities is rising and leads to three statements: (i) the quantitative contribution of gardens to the city food supply is very limited, given the small number of persons involved. Their contribution should rather be seen regarding some groups of people, and economically vulnerable families are sometimes targets for municipal programs (PADES, 2005); (ii), however, urban associative gardens, in their diversity, play an important political role in the emergence of food strategies at city scale, as it can be observed particularly in North American cities, meeting in that other movements such as CSA (iii) finally, these expectations meet concerns regarding access to land (vacant lands are scarce in dense cities and the housing demand and speculation on lands often increase pressure among those vacant spaces) and the quality of soils (pollution risks), even beyond land strategies.

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Keywords: Associative gardens; urban agriculture; food function; risks;

Presenting author: Miss Jeanne Pourias, jeanne.pourias@agroparistech.fr

Urbanization and food security in Mediterranean countries: A multidimensional vulnerability approach

Paolo Prosperi [1], Thomas Allen [2], Iuri Peri [3], Martine Padilla [4]

[1] Institut Agronomique Mediterraneen de Montpellier (CIHEAM) - Montpellier SupAgro (MOISA) - CIHEAM - IAMM - Montpellier - France

[2] Bioversity International - Montpellier - France

[3] University of Catania – Catania - Italy

[4] Institut Agronomique Mediterraneen de Montpellier (CIHEAM) -(MOISA) - CIHEAM - IAMM - Montpellier - France

Introduction

Recurrent food crises and climate change, along with habitat loss and pollution, have put food security and environmental sustainability at the top of the political agenda. Analyses of the dynamic links between food consumption patterns and environmental concerns have received considerable attention from the international community (FAO, 2012; Esnouf et al, 2013). Using the lens of a wide sustainability concept, this paper develops a multidimensional framework for evaluating sustainability in food systems and diets applicable to the Mediterranean countries. This biogeographic interlocked and heterogeneous area, presenting several conditions of vulnerability to food insecurity and unsustainability, is identified as one of the main critical hotspots of environmental unsustainability for intense human activities (Brunori et al, 2009). Furthermore the demographic growth, in urban and littoral areas, increases the pressure on natural resources (CIHEAM, 2012; Plan Bleu, 2013), as modern cities rely mainly on imported food and goods, enhancing GHG emissions (Grewal, 2012).

To tackle such a large set of issues, the identification of multidimensional approaches is key. With regard to food systems, the current analysis of sustainability proceeds towards a multidimensional perspective to achieve food and nutritional security.

Coherently with this framework, a key question for urban food systems is: Are food security outcomes vulnerable to urbanization in Mediterranean countries?

Methods

A coupled drivers/vulnerability approach - derived from natural disaster and sustainability sciences (Turner et al, 2003) - has been applied to the concepts of sustainable food security and diets in order to analyze the main critical phenomena arising in the Mediterranean (Prosperi et al, 2013).

Throughout consensus-based preselected domains, the vulnerability methodology proposes an articulate and sound framework, discerning exposure, sensitivity and adaptive capacities (Turner et al, 2003). The vulnerability approach, through the causal sequence of its components, offers the opportunity to further develop understanding of the elements characterizing resilience of the food systems and to conjointly analyze the role of wealth, connectivity and diversity as vulnerability variables of the urban food system (Fraser, 2005).

Therefore, a DELPHI method is applied to select the final set of indicators from the literature. This multidimensional approach answers to the call for disaggregating sustainability into different aspects of food and nutritional insecurity, varying on the nature and solutions of problems (Esnouf et al, 2013).

Results

The main result is the identification of an innovative conceptual evaluation framework for measuring sustainability in the agrofood system. The framework draws upon two existing approaches: a vulnerability-based assessment method combined with an analysis of detailed empirical drivers relevant for Mediterranean countries. The DELPHI selection process reduces the number of indicators to a reduced pool. Through this participatory technique it is possible to condense a large general cluster of indicators, in a reduced and functional set of metrics referring to national data. Use of a participatory and consensus-based approach, allows implementing assessments beyond subjective solutions.

In the Mediterranean region several interconnected drivers of change, generating vulnerability of the food systems, are identified. In particular, the biogeographic and geopolitical Mediterranean area is characterized by numerous crucial phenomena occurring conjointly. The regional dependence on the international agrofood markets exposes the region to risks of food prices volatility. The nutrition transition phenomenon is highly manifest through the prevalence of double burden effects of imbalanced food patterns. Overweight and malnutrition counteract with socioeconomic problems like unemployment and economic crises. Nutritional choices and health outcomes strongly relate to agrofood economic and industrial orientations rather than to public nutritional and ecological health principles. The consumption patterns are then strictly linked to a productive agrofood system that exploits natural resources particularly rare like water, emitting pollutants into the environment and causing biodiversity loss. Then, habitat conditions are critically threatened by the intensive exhaustion of natural resources due to a joint effect of production and consumption models within the same agrofood system.

The drivers of change are identified in two main groups: environmental drivers are manifest with climate change, water depletion, land and soil degradation, biodiversity losses, and air pollution; socio-economic drivers are expressed in global economical and political trends, food price volatility, income distribution, advances in science and technology, human capital accumulation and nutritional transition.

In particular, in the Mediterranean context, urbanization is a main driver of demographic and demo-spatial dynamics, leading to exacerbated pressure and pollution on water and natural resources, to specific food consumption patterns and habits characterized by changing temporal and spatial references. Demographic imbalances are linked with socio-economic inequalities, the emergence of new urban poverties, the socio-spatial segregation and the spread of unhealthy habits. All this resulting issues affect food security outcomes for Mediterranean urban population such as: supply, access and utilization (Brunori et al 2009;Padilla, 2009;PARME, 2011;CIHEAM, 2012;Salvati et al 2013).

Conclusions

The Mediterranean region presents several factors of vulnerability, linked to food insecurity and environmental unsustainability. The region-specific attributes are multidimensionally identified through a drivers-based framework in order to link scientific concepts with food system-related phenomena and metrics. Use of a participatory DELPHI method helps move beyond subjective evaluation and reach consensus. Recognizing the systemic dimension of sustainability, the vulnerability approach enables to investigate the causal factors dynamics, providing evidence-based knowledge for decision-making.

In the Mediterranean region, urbanization increase is a key driver of change affecting socio-spatial dynamics and consumers' behaviors, generating the emergence of specific vulnerabilities in the urban food systems. The identification of the main drivers of

change of the Mediterranean food system promotes regional decision-making solutions and cutting-edge questions for food security in cities.

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Presenting author: Mr Paolo Prosperi, prosperi@iamm.fr

Towards a sustainable food system: the role of urban agriculture in Hanoi households' food security

Gwenn Pulliat [1]
[1] Paris Ouest University - Nanterre - France

Introduction
The first goal of a sustainable urban food system should be an improvement of the households' food security, in short run as well as in long run. A sustainable food system should allow the households to securitize their food supply. Urban agriculture is one of the food entitlements that urban and periurban dwellers benefit from, and it plays a particular role: as an alternative source of food and, sometimes, income, it allows urban farmers to diversify their livelihoods. Therefore, they reduce the risks they face as well as their food vulnerability.
Investigating the households' scale stresses the individuals' food practices: how do they react to the urban sprawl? How are they taken into account by urban development policies? In what way does the urbanization process impact the underprivileged people's food supply?

The case study of Hanoi shows that small-scale farming practices are not included in the urban project shown in the Master Plan: it involves a "green belt" with high-yields modern farms (especially in order to supply the city with low pesticides products), but does not give attention to the role of farmland in underprivileged households' supply. Nonetheless, urban and periurban agriculture is an important asset that improves households' resilience when facing a shock and may rise their income.

Methods
The communication is based on a track of 100 qualitative interviews with individuals and households in Hanoi (Vietnam), undertaken in 2011 and 2012. It was focused on everyday practices with a special attention given to food security. This fieldwork was completed by around 20 interviews led with representatives of local authorities.

Results
The main result that the paper aims to demonstrate is that, in an emerging city, food security is still a challenge for certain households and may be at stake when a shock occurs: therefore, the role that urban agriculture plays in improving their resilience should not be underestimated by planners and city authorities. Yet, for now, farmland seizures and land conversion are massive and ignore this economic and social aspect of small-scale plots. It may arise the food vulnerability of a part of the urban and periurban dwellers, and therefore let them out of a sustainable food system.

With the farmland seizure and the change in land use, the urbanization process reshapes the urban and periurban agriculture: the small-scale farmers often feel under threat by this process, although the urban market may be an outlet opportunity for their products when they sell some of them. This feeling of being threatened is due to the lack of consideration of their economic role in the family budget, their ability to cope with shock and household's food supply: urban development policies aim to preserve a "green belt" taking part into the city food system, but through the market more than through the own-production. Thus it may lead to higher food vulnerability for underprivileged people. Building a sustainable food system finally requires to give better attention to the way underprivileged people arrange their livelihoods, and therefore their food supply.

Conclusions
This contribution gives a field-based evidence of food strategies, showing the importance of farmland in households' livelihoods. It underlines that a secure access to farmland results in a stronger resilience of urban and peri-urban dwellers. With policies targeted for small-scale farmers to help them valorizing their products, they can participate in the production of healthy food (with low agrochemical products, which in a major concern in Hanoi) and, doing so, even improve their livelihoods.

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Keywords: Hanoi; food securitization; urban agriculture; livelihoods

Presenting author: Miss Gwenn Pulliat, gwenn.pulliat@gmail.com

Foster food Justice in the villas of Buenos Aires. A territorial approach of the strategies developed to improve the food access for the poorest boroughs in a city.

Chloe Reiser[1], Julie Le Gall[2]
[1] ENS Lyon - Yerres - France
[2] ENS Lyon - Lyon - France

Introduction

The economic crisis of 2001 in Argentina revealed the contradiction of its food system: there are starving people in a country able to product food to feed three times its population. This problem was particularly acute for the poor population living in the slums of Buenos Aires named villas. Since 2003, the economic growth is back even though the poverty rate remains high and the villas of the city are still expanding. This change leads to modifications of the food state: there is a transition between a situation of food emergency to a situation of malnutrition.

This research deals with the food access of the inhabitants of various villas in Buenos Aires and with the construction of new links between the formal and informal city, sustained by an interaction of local and governmental actors.

How can the access to food of the population of the villas of Buenos Aires contribute to the reducing of injustices within urban space? Can the access to food and the alimentary governance of these margin neighbourhoods be a factor of connection to the rest of the city?

We have to study the urban strategies, from the top down and from the bottom up, which aim to foster food justice in the villas of Buenos Aires.

The originality of this work is to approach the concept of spatial justice through the idea of food justice regarding socio-spatial innovations. It consists also in broaching the themes of food access and food supply without mentioning agricultural aspects.

Methods

This work fits into the field of Social Geography. Indeed, we take up the topic of alimentary access and food justice with a spatial approach, but also in relation with sociology, anthropology and nutrition.

Our method is principally qualitative. On the one hand, we focused on the community and individual food strategies in the villas. We made a participant observation as a volunteer in a community restaurant of the villa 31, an emblematic villa of Buenos Aires for its downtown location, its story but also its very dense associative network. To complete this qualitative method, we led a quantitative survey, in which we interviewed beneficiaries of the community restaurant we were working. On the other hand, we led semi-directive interviews with the persons in charge of several food and nutrition programs of the Argentinean federal government and the government of the autonomous city of Buenos Aires. These interviews enabled us to understand the global food and nutritional situation of the villas of Buenos Aires and to establish a typology of the different types of public aids in the villas.

Results

The villas of Buenos Aires are characterized by socio-spatial injustices. Yet, at the alimentary level, the inhabitants of the villas are not disadvantaged compared to the inhabitants of the formal city. There is a network of food shops inside the villas which is very similar to the commercial network in the rest of the city. Nevertheless, alimentary availability is not a synonym of food access. Socio-economic injustices like income or education have consequences for food access in the villas and nutritional state of their inhabitants.

But thanks to a system of actors dedicated to improve the food security in the villas of Buenos Aires, the social gap between the formal and informal city can be reduced. Community and institutional strategies are implemented to find solutions to this differentiated food access such as community restaurants or public policies. The initiatives of the population meet governmental and local policies for a better alimentary governance.

However, these food strategies cause other type of injustices at a more acute scale. The lack of dialogue and coordination between the different scales of intervention can lead to an unfair help distribution between social groups within the villa and between the different villas of the city.

Conclusions

Thanks to the development of a commercial network and creative local initiatives inside the villas with the help of the state and the municipal government, the food access of the inhabitants of the villas is improved and contributes to food justice. Food issues can be seen as a starting point to create other type of programs of development (health, education) and reduce socio-spatial injustices within urban space. However, the inequalities persist. The case of the villas of Buenos Aires is particularly revealing concerning the difficulties to set up an urban food planning and an alimentary governance in a fragmented metropolis. To implement such policies, it is necessary to articulate the different strategies between community and institutions and to take into account the different scales from the micro-local to the scale of the urban conurbation. Can Argentina be seen as a laboratory of social innovations in the poorest neighbourhood, to face up new crises in emerging countries ?

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Keywords: Food access ; slum ; spatial justice ; strategies ; governance

Presenting author: Miss Chloe Reiser, chloe.reiser@ens-lyon.fr

Example of a West African urban food system: an agricultural urban system approach

Ophélie Robineau[1], Patrick Dugué [2], Christophe-Toussaint Soulard [3]
[1] CIRAD/INRA (UMR Innovation) - Montpellier - France
[2] CIRAD (UMR Innovation) - Montpellier, France
[3] INRA (UMR Innovation) - MONTPELLIER - France

Introduction

Linkages between cities and agriculture exist since the very beginning of the cities themselves (Chevrier 2001). Urban agriculture is a long-term phenomenon in developing countries worldwide (De Bon et al, 2010; Mougeot 2000; Smit et al, 1996); it is perceived as a way to provide incomes for the urban poor but also to participate to food provision for a continuously growing urban population.

Many studies have been conducted on urban agriculture in southern countries since the 1980s, when the United Nations pointed to its potential role in poverty alleviation and food provision. In Sub-Saharan African, most authors have underlined the fact that public urban planning policies do not include references to urban agriculture: the policy dialogue is beginning but the lack of knowledge regarding urban agriculture is still a problem in proposing appropriate planning policies. Up to now, research has mainly focused on specific types of farming activities or produces, and on the farmers conducting these specific activities. Despite the important literature existing on urban agriculture and on the rural-urban linkages in Sub-Saharan Africa, only a few studies have been conducted at the city and regional scale (Aubry et al, 2012) ; system analyses considering the interactions between cities, their hinterland and urban agriculture are still to be done in order to anticipate future scenarios and draw up appropriate public policies for sustainable urban food systems.

Methods

This paper is based on the results of a research conducted in the frame of a PhD thesis in geography about urban agriculture in Burkina Faso (West Africa).

Using the concept of agricultural-urban system, this paper aims to present a system approach that has been conducted in Bobo-Dioulasso, the second largest city of the country (500.000 inhabitants). Through an analysis of regional, urban, and urban agriculture dynamics, we characterize the forms and dynamics of the agricultural-urban system, with urban agriculture as the main focus of the analysis. The “agricultural-urban system” is defined here as the ensemble of interactions that are established between cities and urban and peri-urban agriculture. Its multi-scale analysis combines the regional, city and agricultural production system scales (Valette et al, 2012).

An analysis of the literature on African cities’ and Bobo-Dioulasso’s history constitutes an important set of data that was used to describe the city-agriculture interactions before the Independence in 1960. Twenty interviews with institutional actors and seventy interviews with urban and peri-urban farmers helped us to understand the more recent agricultural dynamics and the way the agricultural-urban system has been shaped. Then, and analysis of the Urban Master Plan and of different agricultural and urban projects have brought the necessary information about the urban planning and agricultural development policies.

Results

Our results suggest that urban agriculture dynamics are influenced by both the dynamics of the urban system and by the dynamics of the regional agricultural system. Flows of agricultural products are in the heart of these interactions.

But the links between the city and agriculture go beyond this aspect, which explains why Bobo-Dioulasso is often qualified as an “agricultural city”.

One the one hand, at the regional scale, Bobo-Dioulasso boosts the development of regional and urban agriculture (cereals, livestock production and vegetable production) through the demand for food from the urban population. Moreover, the demographic and economic development of this city is due itself to the regional agricultural dynamics : it is a crossroads of regional commercial exchanges of agricultural products, and its industrial development is based on the processing of regional agricultural products. On the other hand, at the city scale, the development of urban agriculture is boosted both by the urban demand for food and by the inputs generated by the processing of rural agricultural production : residues from the trituration of cotton seeds and the malt from breweries (from millet and sorghum) are used to feed urban livestock. Furthermore, synergies exist between urban activities and urban agriculture that enhance the development and the sustainability of urban agriculture (use of urban waste and pig manure to fertilize market gardens, feeding of urban livestock with urban crop residues for example).

Conclusions

Hence, the interactions between urban dynamics, regional dynamics and urban agriculture dynamics are tight. Within the city, interactions between different forms of urban agriculture and urban activities also participate to the shaping of the urban food system.

The results of this study should help design urban food policies that enhance the shaping of a sustainable urban food system. The analytical framework could be used in other urban centers of the world.

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Keywords: Burkina Faso, agricultural-urban system, city-agriculture interactions, urban food system

Presenting author: Miss Ophélie Robineau, robineau@supagro.inra.fr

Urban Agriculture in the Ruhr Metropolitan Area, Germany – From historic farmland preservation to new urban farmland reclamation on industrial brownfields

Michael Roth [1], Miryam Frixen [2], Carlos Tobisch [3]
[1] Nürtigen Geislingen University - Germany
[2] Plan-Lokal Consultancy - Dortmund - Germany
[3] Die Urbanisten e.V. - Dortmund - Germany

Introduction

Despite the long tradition of farmland protection in the Ruhr Metropolitan Area and its ingrained position in planning, we are facing an on-going loss of agricultural land due to residential, commercial and infrastructure developments. On the other hand, after the crisis and breakdown of the coal mining and steel related industries starting in the late 1950s, numerous and large industrial brownfields are available in the area. In addition, future developments (such as demographic change, change of lifestyles and financial crises) might also release spaces for new uses. Thus, our research questions are:

What can we learn from the specific farmland protection activities in the Ruhr Metropolitan Area? Are the farmland protection policies connected to urban development strategies and urban food strategies? Can (and if so, how and to which extent) the new and innovative forms of urban agriculture, e.g. on former brownfields, compensate for the loss of traditional farmland? Which innovative approaches exist in the Ruhr Metropolitan Area to bring agriculture back into the minds of the urban population and to expose them to local agricultural produce? What could be the role of Europe's largest planning school (Dortmund University of Technology, School of Spatial Planning) in the process of linking land-use planning, sustainable urban food systems and farmland protection with urban transformation and regeneration in the Ruhr Metropolitan Area?

Methods

We answer the above-mentioned questions based on an analysis of policies and formal planning documents, an investigation and statistical analysis of empirical data on farmland development and distribution in the Ruhr Metropolitan Area, an analysis of or current urban agriculture projects that have emerged in the area, and a series of creative scenarios for new forms and locations of urban food production in the Ruhr Metropolitan Area, which were elaborated at Dortmund University of Technology, School of Spatial Planning, in several research projects, student and professional workshops and studios.

Results

The Ruhr Metropolitan Area is the largest and most populated urban agglomeration in Germany with around 5.2 million inhabitants and covering an area of 4,435 square kilometres. Being a mainly agricultural region until the early 19th century, since then the Ruhr Area faced a massive industrial development, urban growth and immigration due to the rise of the coal mining and steel industry. Unlike monocentric metropolitan areas (such as Paris, Berlin or London), the Ruhr Metropolitan Area grew more spread out with lower average population densities (around 2,100 inhabitants per square kilometre in the central part) due to the independent development of multiple cities. This processes of urbanisation and suburbanisation led to a large built-up area reaching from Duisburg in the West to Dortmund in the East, with a massive loss of agricultural land and the need to feed an ever growing population. In contrast to the loss of large plots of agriculture land, small scale farming stayed popular especially in workmen's dwellings and miners' colonies.

The loss of agricultural land was counteracted as early as 1912 by developing a concept of regional greenways consisting mainly of agricultural land by Robert Schmidt, the author of the first regional development plan for the metropolitan area between the Ruhr and Emscher River. The Regional Planning Association Ruhr (Regionalverband Ruhr, formerly Siedlungsverband Ruhrkohlenbezirk) started in 1923 to put this concept into practice by buying land and securing it for agricultural uses. In 1966 those regional greenways were legally protected by including them in the Regional Development Plan for the Ruhr Metropolitan Area. As an informal planning type, the International Building Exhibition Emscher Park (1989-1999) has massively contributed to the reinvigoration and valorisation of the regional greenways and their large share of farmland. In addition to the ecological function, an emphasis was put on (agri-)cultural and recreational uses. As one example on the municipal level, the city of Dortmund has set up an urban policy regarding the multifunctional benefits of urban and peri-urban agriculture in the 2005 "Master Plan Agriculture and Nature Conservation", which also covers farmland protection, food production and food provision for the city.

In recent years, a number of innovative projects have emerged, bringing new forms of urban agriculture to brownfields and old industrial areas as well as to deprived neighbourhoods which are affected by job loss due to the closing of industrial plants, by demographic change and migration. Those were mainly bottom-up approaches, but now, the cities' and other regional administrations are facilitating this development, as the potential of urban agriculture for urban renewal, social coherence, environmental upgrading and sustainable food provision has been recognized. The School of Spatial Planning at TU Dortmund played an important role in this process.

Conclusions

The Ruhr Metropolitan Area has an impressive history of urbanised farming systems and a large potential for new forms of urban agriculture on industrial brownfields. Compared to other metropolitan areas in Europe, the availability of spaces for urban agriculture is not that big a problem. The implementation of innovative forms of urban agriculture can both tie up to the history of interwoven urban fabric and farmland, as well as support the on-going process of transformation and urban renewal that is necessary for sustainable development of the biggest urban agglomeration in Europe. The main challenge will be a socio-cultural one: To motivate, include and take along the local population in its social, cultural, economic, ethnic and demographic diversity. Current model projects in the area indicate that, despite the relative time-lag in the development of new urban agriculture projects (as compared to other German metropolises such as Berlin or Munich), this challenge can be handled.

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Keywords: Urban Renewal; Regional Planning; Urban Farming; Agricultural Greenway

Presenting author: Dr Michael Roth, michael.roth@tu-dortmund.de

Analyser les mouvements alimentaires urbains: le cas de Montpellier

Max Rousseau[1], Romain Feche [1]
[1] CIRAD - Montpellier - France

Introduction

La question alimentaire urbaine refait son apparition dans les pays développés depuis quelques années, dans un contexte d'inégalités et d'urbanisation croissante. En témoigne la multiplication des initiatives plus ou moins innovantes et traduisant de nouveaux rapports des citadins à l'alimentation, mais aussi une diversité de demandes par rapport aux insuffisances du système alimentaire conventionnel (SAC) (Allen et al 2003 ; Heynen 2010 ; Alkon et Agyemann 2011 ; Seyfang 2006), ainsi que le développement de nouvelles formes de relations sociales autour de l'alimentation (Brunori et al 2012). L'objectif de cette contribution est de favoriser la compréhension et l'identification des initiatives alimentaires urbaines à l'échelle d'un territoire étroitement délimité.

A partir d'une analyse fine des initiatives alimentaires citoyennes à Montpellier, il s'agira d'analyser la contribution des sociétés urbaines à la construction d'un système alimentaire urbain plus juste. Existe-t-il des connexions et/ou des possibilités de relations, de multi-scalaires et multi-acteurs entre les différentes initiatives de la société civile, mais aussi avec les acteurs intégrés au SAC et les gouvernements locaux ? Quelle sont leur volonté de coopération et leur compatibilité politique en vue de leur intégration à l'organisation alimentaire urbaine ? Et donc, quelles sont les éventuelles sources de blocages à cette plus grande intégration ?

Methods

L'analyse du mouvement alimentaire en formation à Montpellier repose sur une enquête de terrain en cours, dans le cadre de laquelle de nombreux entretiens approfondis sont conduits avec des acteurs de la société civile mobilisés autour des enjeux alimentaires (Food not Bombs, les Amoureux de la vie, les Incroyables Comestibles, les Restaurants du Cœur etc.). L'objectif de l'enquête est de comprendre la pluralité des représentations de la justice alimentaire portée par ces initiatives, ainsi que d'analyser leurs interrelations à l'échelle d'un territoire restreint.

Results

Le principal objectif de ce travail est de contribuer à affiner une typologie des acteurs/ initiatives alimentaires en rupture avec les schémas habituels de l'approvisionnement des villes. Cette typologie fait actuellement l'objet de vifs débats dans la littérature anglophone.

Il est ainsi possible de distinguer trois catégories d'initiatives impliquées dans des actions alimentaires solidaires à Montpellier. À ces catégories correspondent une diversité d'acteurs, mais aussi de répertoires d'action et de représentations. La première catégorie, qui peut être qualifiée de 'réformiste', vise à corriger les effets les plus négatifs du système alimentaire dominant. Parmi les initiatives présentes sur Montpellier, se retrouve ici des organisations/acteurs tels que les 'restos du cœur', la Banque Alimentaire de l'Hérault, 'Le restaurant des plus pauvres' (Cantine de l'Association Saint-Vincent de Paul) ou bien les épiceries sociales et solidaires ('épicerie social' de Grabel) et 'Slow Food Languedoc'.

La deuxième catégorie regroupe les actions dites 'progressistes', qui visent à faire coexister des alternatives alimentaires en parallèle du SAC. Elle est notamment caractérisée par les Amaps ('Amap de la Tribale' et 'Amap'apillions') et les Groupements d'Achats Solidaires. Mais cette catégorie marquée par son éclectisme, regroupe également des initiatives plus singulières comme 'le camion du cœur', 'les amoureux de la vie' ou encore les 'Incroyables Comestibles Montpellier'. La troisième catégorie regroupe enfin les initiatives 'radicales' qui visent une transformation structurelle du SAC. Sur Montpellier, le collectif 'Food Not Bombs' en est particulièrement représentatif.

Conclusions

Peut-on parler de l'émergence d'un mouvement urbain visant la justice alimentaire à Montpellier ? En premier lieu, l'analyse des initiatives locales permet d'affiner la typologie récemment proposée par la recherche anglophone. Par ailleurs, cette typologie ne doit pas être considérée comme figée. Des liens complexes et mouvants existent entre les initiatives montpelliéraines. Cette communication rendra compte des interrelations entre les acteurs et initiatives relevant de ces trois catégories, mais analysera également les limites de leur coopération.

Keywords: Initiatives alimentaires solidaires, Typologie d'acteurs/d'initiatives, Mouvement Alimentaire urbain, Justice alimentaire

Presenting author: Dr Max Rousseau, max.rousseau@cirad.fr

Revisiting urban planning to integrate agriculture issues by the means of landscape metrics : a methological proposal

Esther Sanz Sanz [1], Claude Napoléone [1]
[1] INRA – Ecodéveloppement - Avignon - France

Introduction

The intensive agriculture of urban fringe that formerly provided food for the city is strongly diminishing (Galli and al, 2010). New concerns arise: landscape, ground-water quality, health or food security and sovereignty (Griffon, 2006), are some of the reasons legitimating protection of farmland in urban planning (Vidal and Fleury, 2009).

This paper seeks to examine how local policy can associate per-urban multifunctional agriculture and city planning in a singular territorial project which would be no longer urban nor rural but a resilient model integrating both the ecological and socio-economic realms. We are looking for a framework to define changing agriculture practices and landscapes on urban fringe as a tool for policy makers and stakeholders.

Scientific knowledge provides manifold frameworks for agriculture multifunctionality assessment oriented to environmental evaluation and rural development. But rural agriculture is different from per-urban agriculture which is focused on urban needs. Integrating frameworks considering all the stakes specific to these agriculture forms for supporting planning are lacking. Our premise is that ecologized agriculture practices have additional advantages to comply with urban requirements from agriculture on the edge: quality fresh food production, healthy agricultural practices compatible with urban dwellings, "nature" protection and often reinforced local social links by the means of short circuits commercialization (INRA, 2011)

Methods

We search to construct an operational spatial definition of these wished ecologized forms of agriculture by the means of measurable landscape indicators in order to support public action to designing and monitoring surveying of agri-urban projects. We have placed our research in the terms of resilience thinking which offers to planning theory and practice a paradigm shift. It allows us to think planning as changing, adaptable and adaptive, turning the assumptions of certainty, blueprints, forecasting and equilibrium. Furthermore, resilience methodology enables interdisciplinary work and transdisciplinary co-operation with a common managed terminology to imagine and represent alternative future agri-urban landscapes that visible embody societal values projected in a common future at nested scales. We consider the landscape as an integrating entity between socio-economic and bio-geophysical features of a spatial system (Helming, K. and M. Pérez-Soba, 2011). Landscape can then be approached as a mediator and method for synthesis in territorial projects (Nassauer, 2012).

A critical lecture of methodical contributions and tools to landscape assessment has brought us to examine the Deffontaines' approach of Agro-Physiognomic Units (UAP, unité agro-physionomiques) at landscape level. Deffontaines' landscape definition (Lardon 2012) associates the principles of landscape ecology, developed in France by F. Burel et J. Baudry (1999), to an agronomic description of territory.

Results

Our proposal of a methodology for agri-urban landscape management and planning combines qualitative results from resilience assessment and quantitative landscape metrics to integrate both ecological and socio-economic realms. We focus on three issues to be taking into account for designing agri-urban landscapes meeting with resilient requirements for the purpose of sustainability:

- Landscape functions: environmental and socio-economic analysis of farming activities responding to recognizable societal needs.
- Landscape structure: urban farming spaces characterization responding to societal aesthetic wish.
- Landscape management: policy settings responding to societal values.

We are currently applying this methodology to a study case in Southern France Provence: the Communauté de Communes Pays de Sorgues Monts de Vaucluse (CCPSMV). We have conceptualized the territory of five associated French municipalities describing its external drives and internal system dynamics. We've decided to apply resilience framework on a territory defined by operational administrative boundaries because our research is oriented to policy makers and planners. Actually, the inter-municipality is in France the scale where political decisions concerning per-urban land use are taking and applied without too much electoral pressure. This scale corresponds to the landscape level where we can define a framework based on quantitative indicators to set goals and evaluate results of the political projects. That's also the scale where agri-urban projects could be implemented.

Conclusions

This practical work should allow us to improve the system as a tool for policy makers and stakeholders to integrate multifunctional agriculture management in urban planning. Overall we are looking forward to shift planning paradigm of an ideal static equilibrium to introduce new forms of adaptive territorial managing. We need further to go beyond the reduction of city=urban and agriculture=rural to think about sprawl territory as a complex socio-ecological system producing food for the city. Landscape assessment and design would be the mediator to meet planning with resilience requirements. That's what we've called "Agri-urban Landscape Management and Planning". Our contribution seeks in this way to fill the gap between agronomy and urban planning concerning per-urban agriculture.

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Keywords: agri-urban planning, landscape metrics, ecologized agriculture, per-urban agriculture

Presenting author: Mrs Esther Sanz Sanz, esther.sanzsanz@avignon.inra.fr

Changing status of wild food from peasant food to fine dining, and potential implications for urban-rural interactions and planning

Ingrid Sarlöv Herlin [1], Carl Herlin [1], Richard Tellström[2]
[1] SLU. Dep. of Landscape Architecture Planning and Management - Alnarp - Sweden
[2] Örebro University, Hospitality, Culinary Arts and Meal sciences - Grythyttan - Sweden

Introduction

This paper presents the preliminary findings of an on-going study which addresses the changing perceptions and status of wild food (i.e. food that is occurring, growing, or living in a natural state; not domesticated, cultivated, or tamed) from peasant food and poverty sign to a high status component of fine dining and as a lifestyle marker. The study challenges the fact that free growing plans such as nettles or wild garlic unexpectedly can obtain a manifold higher price than most agricultural crops and which consequence's may this have for our use and perception of land. The study is a part of a new interdisciplinary project; "The role of food and gastronomy for a sustainable landscape heritage" which integrates food studies with landscape studies. Globalisation and large scale production have led to raised awareness, by groups of consumers, of environmental and ethical concerns. During the past decade, a rapidly growing interest in food, particularly by middle class consumer, has triggered an increased demand for products with known origin. In post productive rural Europe, food as well as landscapes are labeled as markers of "traditions and authentic, wholesome, and quality products and experiences". An ideal countryside is hence invented and romanticised for urban societies. This trend towards authenticity has influenced the supply of supermarket chains, towards a commodification of authenticity. Restaurant menus are today more commonly referring to 'locally produced'. Another major trend at successful restaurants is the presence of so called wild food, i.e. wild harvested food. The main research questions addressed in this paper are threefold: 1) What are the major research findings on how cultural attitudes to wild food have been changing during human food history and what are the influences for raising the status of wild food? 2) What are the motives for food entrepreneurs such as chefs or wild food entrepreneurs to use wild food, and how does the foraging and use of wild food relates to perception of landscape and legal rights to the land?

Methods

The main approaches used in the papers are a) a literature review looking widely at the changing perception of wild food in human food history globally, narrowing down to Europe and finally the Nordic countries and Sweden, assessing the wider use of wild food and its entrance into fine dining and b) A semi structured interview with food entrepreneurs (chefs, wild food entrepreneurs etc.) with sub questions, related to their motivation for using wild food; i.e. why wild food is popular today, if popularity is linked to exclusivity, which areas are being used for foraging and how landscape is represented in the choice of wild food, etc. We also finally discuss whether the current interest for wild food is a temporary fashion or can be seen as a more long term movement that could have potential implication for future use and planning of urban and peri-urban green spaces. What is required in the form of "commons" or other types of accessible land? Does harvesting of wild food have a potential role for global food security?

Results

Preliminary studies show that the cultural acceptance of wild food is mainly developed in parallel to a commodification of wild growing plants and that so far, the presence of wild food on restaurant menus can be seen as attributing an added value to the product.

Conclusions

The study contributes to an increased understanding of common links between the ideas of landscape and food and how this can inform planning at the urban rural fringe.

Keywords: wild food, foraging, urban rural interaction, gastronomy, green spaces

Presenting author: Prof. Ingrid Sarlöv Herlin, ingrid.sarlov-herlin@slu.se

When food needs can not wait for bureaucratic plans: leveraging potential synergies in Spanish inner cities

Marian Simon Rojo[1], Jose Antonio Garcia Roldan[1]
[1] Technical University of Madrid - Madrid - Spain

Introduction

Daily news in Spain give a bleak outlook, with increasing amounts of undernourished children, entrenched high youth unemployment rates, social disenfranchisement and economic paralysis. Giving an answer to food needs based in the leveraging of local resources could contribute to unclog the other problems. Relying on local provision of foods and services goes against the prevailing principle that each territory should concentrate in its strengths, specializing in its areas of production expertise. This radical shift is justified by figures emanated from the research, which was focused on the peri-urban areas of medium-sized inland cities with an agrarian tradition and unfolded into three different steps

First. Could the surrounding agrarian areas produce enough food to feed these cities?

Second. How much of these agrarian areas are really connected to local provision of food? Which are the main constraints to develop efficient short food supply chain?

Three. There is no clear strategy for achieving a sustainable food system, but there is a myriad of different initiatives from grass-root groups to local government projects. How could the different types of urban and periurban agriculture be integrated in food system plans?

Methods

The research focused on the peri-urban areas of medium-sized inland cities with an agrarian tradition. It is part of the R+D project "Integration of peri-urban agricultural areas in urban and regional planning from an ecosystems services approach" funded through the Spanish Ministry of Science and Innovation. It explores the possibility of transforming the agricultural sector into a motor for innovate processes in food strategies that are more consistent with available local resources.

The analysis included

1. General overview: A theoretical approach to identify land requirements to feed urban population based on researches about land requirements from University of Wageningen, University of Valladolid and others. These requirements are applied to the urban areas analyzed, using official demographic and agrarian census data, Corine Land Cover database and the national map of harvests and crops.
2. Specific case studies: The in-dept analysis of three case studies includes analysis of data, field work and interviews with relevant actors and stakeholders in order to obtain clues about the ongoing, processes, the projects developed and the handicaps and constraints to rearrange agriculture for local markets.
3. Systematization of information to compose a classification of urban-periurban-rural agriculture based on location, size, function, technology/product, users in order to identify which are better positioned to be integrated into a local food system strategy.

Results

More than 75% of Spanish cities in inland regions, with 50.000-350.000 inhab. could satisfy their needs for vegetable food, using the agrarian land available within a radius of 10km from the city center.

The pressure that was concentrated on agricultural land between 2000 and 2006 was three times higher in absolute numbers than that on natural and semi-natural land. Ninety-nine percent of agricultural land that was lost was transformed into artificial-urban areas. Nowadays huge surfaces that were diverted from agrarian use are urbanized but remain empty, with no buildings and no prospects to be developed in the next years. Only in Madrid there are almost 5.500 hectares of this vacant land, completely underused.

Even if there is not a clear policy to enhance local food production, the three cases show gradual implementation of civic responses from the third sector, mainly at a very small scale. In most cases institutions and stakeholders here is nevertheless, share similar characteristics like inertia and lack of integral vision . Nevertheless there are examples of good practices from all sectors, public, private and the third sector and also from private and public partnerships. A key factor to shifting food system models is landed to local or regional government commitment to the goal of local food production, taking into account all the benefits it imply (health, social, economic and environmental).

Conclusions

Reconnecting urban people to its hinterland and raising public awareness of self-supply food systems are essential when aiming at shifting agrarian production to local markets. It has been repeated once and again: Health, agriculture, spatial planning and environmental departments should coordinate themselves and work together with agrarian sector and the civil society. Local governments can act as facilitators, engaging in the management of land banks. Easier said than done. To make progress into a more sustainable food system all urban and periurban agriculture initiatives may play a role.

The research proposes a system to identify which role fit best to each type of agricultural land, and they cover a wide range of possibilities, from places for education, test, promotion to training, production and commercialization. The possibilities to engage synergies are great, but they are best served by the recognition that is not all piece of land should be deployed in the same way.

Keywords: urban periurban agriculture; medium sized cities; food needs; UA typology, synergic satisfiers

Presenting author: Mrs Marian Simon Rojo, m.simon@upm.es

Reconnecting local agro-food systems with urban markets in the crisis-hit Greece: the potential for farmers' markets and social economy initiatives

Sophia Skordili [1]

[1] Harokopio University, Geography Dept. - Athens - Greece

Introduction

The prolonged recession has shed light to escalating socio-economic and environmental problems associated with the corporate-led agro-food systems in Greece. Among other blames, they have been charged for serious failures in providing urban markets with affordable and good quality food. Food sourcing choices of the urban population have become increasingly confined to the standardized products of a small number of dominant retailers. Corporate retailers are heavily criticized for their relentless squeeze on small retailers and farmers, greed and unethical pricing practices. Under the light of the crisis, hundreds of thousands of households are forced to substitute nutritious food for fewer and cheaper products, living on diets of inadequate nutritional value and quality. The purpose of the paper is to identify the potential for the development of fair and sustainable market channels to provide urban population with affordable and good quality rural agro-food products.

The main research questions can be summarized in the following:

• What are the most suitable areas of development of such networks?

• What are their strong points and weaknesses?

• Which are their linkages / relation to conventional market channels?

• What are the appropriate policy measures to support them?

These are interesting questions with no easy answers. The originality of the paper is that sheds some light in an extremely under-research area that has acquired immense significance under the crisis.

Methods

The paper is based on:

- extensive literature review,
- systematic enquiries of websites of national and local media and farmers and retailers networks,
- a small number of key informant interviews.

Results

The issues of food security and access to affordable and good-quality food are too important and fundamental for citizens' existence to be left to corporate control. All over the country, it is taken for granted, that the revitalization of local agro-food complexes can reshape rural/urban linkages and reconnect agro-food producers with consumers.

Governmental bodies, mass media and activist groups, are very optimistic and often exaggerate on the potential of alternative market channels. They usually focus and reproduce a small number of the same success stories while they are conspicuously salient on the many failures. There is no doubt that Greece has a rich rural tradition. However the inherent uncertainties and instabilities of the agro-food sector, combined with the unfavorable business environment generated by the crisis, put several obstacles for new ventures.

Conclusions

There is an urgent need for the development of alternative market channels to challenge the consolidation of dominant retail chains. Practices of responsible conventional agriculture, with direct links with sales channels in the urban market, are able to create new economic opportunities for thousands of small farmers and retailers who would not survive the expansion of the global food system.

Among others, farmers' markets and social enterprises in agro-food retail sector seem to be the two more promising areas of development.

Alternative networks should be support by policies, at least at the first stages. Policy agendas should have a clear focus on the decisive role of the human factor.

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Keywords: Short value chains, farmers' markets, food social economy, rural agro-food complexes, urban grocery retail markets

Presenting author: Dr Sophia Skordili, skordili@hua.gr

URBAN AGRARIAN REFORM NOW? An action research update

Debra Solomon [1], Mariska van den Berg [1]

[1] URBANIAHOEVE Social Design Lab for Urban Agriculture - Amsterdam - Netherlands

Introduction

URBANIAHOEVE is implementing a spatial planning vision (titled FREE FOOD FOR ALL / URBAN AGRARIAN REFORM NOW) in which a productive and aesthetic form of urban agriculture is embedded into the physical landscape of the city. This vision describes an edible ecological framework (EEF) within the public space - one that endows the co-operatively implemented landscape with a park-like nature - and that envisions an urban agriculture that positively impacts the city at ecological, social, and nutritional levels. The primary question posed by URBANIAHOEVE's FREE FOOD FOR ALL critical spatial practice is to what degree it is possible to co-produce a truly desirable form of urban agriculture that is visually resplendent, provides equitable access to an ever-increasing reserve of natural resources and fosters the use of a wide range of eco-system services.

Methods

URBANIAHOEVE is a "social design lab for urban agriculture", its' critical spatial practice produces edible ecosystem frameworks. Following the methodology of action research it describes the actual desire for socially and ecologically responsible practices of urban development and site restoration. Since 2010 URBANIAHOEVE has worked in the Netherlands (Amsterdam, the Hague and Maastricht) with neighbours, local initiatives, high schools, housing corporations and municipalities to create edible landscapes, foodscapes, and demonstration gardens that embody more than 25 green and social methodological typologies and could be applied to suit different urban typologies, e.g. the Garden City. Some of the principle characteristics of these typologies include: contiguous plantings in the public space, interaction with and programming of existing food infrastructure facilities, but also food-culture education and critical interaction with municipal bodies.

Results

In this article the founder of URBANIAHOEVE documents 3 intense years of activity running the organisation and developing on site, bottom-up food-system infrastructure with the people that work and live around it. The organisation's experience spans 3 different urban locations, reflecting on the negotiations that take place for the use of public space, and the process of infrastructure creation in relation to municipalities, housing corporations and the private sector. This action research puts in focus the problematics encountered in designing and programming public space as a resource, in sharing expertise and knowledge both with communities and governing apparata, with particular attention to the shifting roles of governance.

Conclusions

In times when true socio-environmental costs remain hidden, the FREE FOOD FOR ALL vision has the potential to promote a deepened dialectical foundation for urban agriculture in the public space; not exclusively a producer of urgently needed urban food-system infrastructure, but as a generator of new notions of socio-environmental relationships, horizontally produced infrastructure, and innovation under austerity.

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Keywords: urban planning; public space; public infrastructure; commons; food

Presenting author: Miss Debra Solomon, debra@urbaniahoeve.nl

Stakeholders perceptions and acceptance of agricultural production in and on urban buildings in Berlin, Germany

Kathrin Specht [1], Rosemarie Siebert [1], Ulf B. Freisinger [1]

[1] Leibniz Centre for Agricultural Landscape Research - Muencheberg - Brandenburg - Germany

Introduction

Rooftop gardens, rooftop greenhouses and indoor farms (in the following defined as ZFarming) have been set up or planned by activists and private companies around the city of Berlin. Those projects promise to meet multiple functions and produce a range of goods that might have positive impacts on the urban setting. In the past years, ZFarming has become a topic of interest across a range of diverse local stakeholders.

This study investigates the underlying expectations, perceptions and acceptance of stakeholders towards agricultural production in and on urban buildings. The objective of this study is to identify the hindering as well as the promoting key factors that influence the acceptance.

Methods

We used the theory of acceptance (see Lucke 1995; Sattler and Nagel 2010; Siebert et al 2006) as a framework to identify the key factors that influence the perception of ZFarming. According to the theory, acceptance is the result of an interrelated decision making process depending on the subject of acceptance (decision maker, stakeholder), the object of acceptance (the specific measure-ZFarming) and the surrounding context (frame conditions, social environment).

The results are based on the qualitative analysis of 38 expert interviews, which we conducted in Berlin in 2011/2012. To achieve a balanced and comprehensive overview, a variety of experts relevant for ZFarming were approached for this study. We selected relevant stakeholders in each of the key expert groups: 1.) Activists & Projects; 2.) Lobby groups & Unions; 3.) Planning & Construction; 4.) Public Administration; 5.) Research and 6.) Sale & Distribution. The method we used was semi-structured interviews. All interviews were recorded, transcribed, and MAXQDA software was used for data coding. We conducted a qualitative content analysis to extract the relevant statements and patterns.

Results

The results show, that perceived benefits and perceived risks are important factors for that new type of food production. It includes

o factors related to the individual experiences and attitudes (subject)

o factors related to the product (object)

o factors related to the context (context)

Examples for influencing factors include perceived health risks (due to urban pollutants), a lack of acceptance on soil-less growing techniques, conflicts with images of traditional agriculture or replacement of peasant agriculture, or general rejection of agricultural production in urban areas.

Conclusions

The perception and acceptance of the innovation ZFarming differs among the different stakeholder groups and it will determine the further development. Stakeholders may not only have difficulties because they see risks associated with that innovation, but the benefits might also not be obvious to them.

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Keywords: urban agriculture; acceptance; innovation; qualitative analysis; ZFarming

Presenting author: Mrs Kathrin Specht, specht@zalf.de

Public Sector Food Procurement Practices and local food, environmental and procurement strategies: survey of local authorities in northern England

Mark Stein [1]

[1] Salford University Business School [Manchester] - Bury - United Kingdom

Introduction

The paper will examine public procurement practices of fifteen local authorities in northern England – purchasing food for school catering systems. It reports original research on local authority policies and practice.

It will examine policies aimed at assisting local and regional farmers to access public sector procurement, while complying with EU procurement law.. It will also assess the impact of the Food for Life Partnership in encouraging local and organic food.

Paper will considers the relationship of procurement practices to local food environmental or procurement strategies, where these exist.

Methods

Paper is based on nineteen interviews with local authority personnel carried out during March April and May 2013 – principally catering and procurement managers – and examination of local authority policy documents

Results

The research showed that local authorities have a strong interest in purchasing from local and regional food producers whenever possible. Reasons for not purchasing locally included the absence of any significant local food production within some local authorities and deficiencies of what local food producers do exist – eg not being able to supply food in sufficient volume or to appropriate standards of safety and traceability. A local authority desiring to source organic food found that organic supplies were not available within the region.

Research examined ways in which local authorities promote procurement opportunities to suppliers. One of these is to engage informally with suppliers prior to issuing tenders. These range from informal discussions face to face or by telephone to formal Meet the Buyer presentations.

Lotting – the division of large contracts into a number of sections – is a widespread technique to open up opportunities to smaller suppliers. So is the separation of distribution and supply – so that smaller suppliers are able to sell their products into the schools while another specialist distribution contractor handles the very burdensome task of distributing the food to hundreds scattered round a large local authority area.

In nine of the fifteen cases there is a clear relationship between public procurement practices and a local food environmental and/or economic development strategy. In one case the local authority carbon reduction strategy focussed on reducing red meat consumption. In other cases carbon reduction strategies focussed instead on reducing food miles – and thereby encouraged local and regional supply.

In only two cases is there a relationship between public procurement and urban agriculture – one where an urban agriculture project was providing limited supplies to a school catering operation and the other where the local authority has tried to develop ties between urban agriculture and school catering . This experiment has had limited success, which is described. This local authority aspires to develop urban agriculture in the city over the next five to ten years.

Parental influence was responsible for two of the most innovative initiatives - a meatfree menu at one school – linked to anxiety that all available meat may not be legitimately halal – and a pilot project to collect organic vegetables from several urban growers and produce an organic soup at one particular school

Conclusions

Local authorities have a strong interest in purchasing from local and regional food producers whenever possible and have developed practices which facilitate this. . But this desire can be outweighed by other considerations – eg volumes required, traceability/safety and requirements for organic. Purchasing from urban agriculture projects has been very limited up till now but there is potential for growth.

Influence of the Food for Life Partnership was assessed where it has made a substantial impact on the local authority. In two cases it has made a very considerable difference in encouraging organic and local food as well as reducing red meat consumption. In a third case it has promoted a shift from frozen to fresh meat procurement, which has reduced costs and promoted local supply. All these initiatives required substantial investment in reskilling catering staff.

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Keywords: Procurement: schools: local supplier ; strategy

Presenting author: Mr Mark Stein, markstein2010@live.co.uk

Reframing Food Aid. The intervention research Uniterres-Ecoales in Poitou-Charentes and Aquitaine (France)

Isabelle Techoueyres [1], Aurélie Carimentrand [2], Anne-Elène Delavigne [3], Camilo Avendano-Cardenas [4], Mathilde Lagrola [5]

[1] Anthropology of food webjournal - 6 allee de cardet - 33370 Salleboeuf - France
[2] IUT Bordeaux 3- France
[3] MNHN, Paris - France
[4] Bordeaux 4 - France
[5] AgroParisTech-MNHN - France

Introduction

This paper is based on the intervention research ECOALES (« Empowerment, Comportements Alimentaires et Economie Solidaire ») in partnership with the Association Nationale de Développement des Épiceries Solidaires. This association has set up in 2012 an innovative short supply channel for fruit and vegetable for solidarity grocery recipients, in Poitou-Charentes and Aquitaine. Objectives are to increase the consumption of fresh fruit and vegetable among food aid recipients and to support farmers temporarily by buying their products at a sustainable price (thanks to public funding) via a pre-order system. This intervention also includes cooking workshops and visits to farms.

The project monitoring in both regions reveals the importance of logistics in the organisation of both collection and delivery of farm products: in fact the role (and personality) of both coordinators hired (one in Poitou-Charentes, the other one in Aquitaine) appears to be a key element for the success of the whole Uniterres project. We will focus on the diverse constraints: creation of a link between grocery stores and farmers, who are spread over a large territory; articulation between support to farmers in a difficult situation and supply in quality fruit and vegetable in sufficient quantity; meeting consumers' expectations, considering seasonal and weather variability and product availability. We'll also assess adaptations and reconfigurations which have been necessary.

Methods

The fieldwork (including participant observation) has followed the lines of a global approach, with the diverse protagonists involved in this intervention: farmers, solidarity food outlet' staff, beneficiaries as well as partners, representing the diverse institutions involved in the project (Aquitaine and Poitou-Charentes Regions, DRAAF - Regional Authority for Agriculture-, MSA -Agriculture Social Security-, Chambres d'agricultures, etc.). The originality of the methodology is the interdisciplinary dialogue with the association of anthropology and economy. Interdisciplinary collaboration, complementarity of perspectives contribute to a finer understanding, through shared bibliography, cross-reference of research problematics, complementarity in data collection, which offer a richer analysis ; coordination for sharing data collection is important for better efficiency, considering the fragile situation of most of our informants.

Results

The analysis enables us to highlight regional specificities which impact the project: types of productions available on each territory, the social status of participant farmers, etc. Three types of complementary results for flow analysis:

1/ The farmers perspective: an innovative aspect for most farmers who so far were involved in non-contractual sales modes (Poitou-Charentes); more or less profitable combinations with direct sales through the AMAP system (Association for the maintenance of small local farming) (Aquitaine).

2/ The customers perspective: fruit and vegetable supply in solidarity food outlets. Several supplying modes co-exist, compete and complement one another, short or long chain supplying modes; such channels meet demands linked to consumption choices in such food outlets as well as the traditional supply organisation mode of food aid ; however problematics related to logistics are also very important : stock capacity, transportation, refrigeration facilities, display and distribution mode, etc.

3/ The logistics element is central in this project for several reasons: sustainability, economy, and also because of the concrete relationship the coordinator has established between consumers (solidarity food outlets) and farmers; as well as among farmers. It also reveals the aspects of relations between farmers and professional institutions generally speaking (the shifting of their affiliation networks), because this type of supplying mode reveals a food system, and more specifically the place of fruit and vegetable in the Poitiers urban area: the flow of people, goods, knowledge, which shape urban foodsheds and impact urban/ rural ties.

Conclusions

This contribution is an original case study assessing the impact of an innovative supplying mode, aiming at developing links between urban consumers and local producers. It also examines the current conditions shaping the creation of fair and sustainable markets (Food aid at local/ global scale). The original methodology, which combines interdisciplinary perspectives (anthropology and economy), offers better understanding of what's at stake, which might lead to an improved development for further food security actions.

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Keywords: food aid; social grocery; short food chain; market gardening; food supply logistics

Presenting author: Mrs Isabelle Techoueyres, i.techoueyres@orange.fr

Zero Acreage Farming: new challenges for urban networks and policies

Susanne Thomaier

TU Berlin, Institute of Urban and Regional Planning - Hardenbergstr. 40a - 10623 Berlin - Germany

Introduction

A growing number of urban farming projects are being started in and on existing buildings, using rooftop spaces or abandoned buildings. This includes soil-based or hydroponic open rooftop farms, rooftop greenhouses as well as indoor farming. These projects are characterized by the non-use of land or "acreage" for farming activities, why we use the expression "Zfarming" (Zfarming) to summarize them. Zfarming does not use any additional land for food production, with land being one of the scarcest resources and food production being one of the biggest "land-consumers" in the future.

This contribution has three main objectives: 1) to illustrate, which sites and buildings are used for urban Zfarming and to discuss the requirements concerning sites and buildings from the perspective of the Zfarming operators and in terms of zoning regulations. 2) to stress the role of landlords and developers - their expectations, motivations and fears. 3) to highlight relevant supporting and inhibiting policies and regulations.

Methods

We have chosen a qualitative approach to gain these insights. The methods are two-fold. In order to understand which spaces are used for urban Zfarming, we analyzed 76 existing Zfarming projects according to a set of different criteria - including sites and building uses. The projects have been identified by intensive web-, media- and literature research. The list is not supposed to be complete. Rather the goal was to show the state-of-the-art of Zfarming in cities of the developed world.

As a complementation to this desk-research we conducted interviews with project operators and landlords in Europe and North America, concerning relevant issues, such as: role of site and building, process management and cooperation, financing, business models, policy and regulative frameworks, future strategic approaches. The interviewees are Zfarming initiators and developers / landlords.

Results

The project analysis shows that Zfarming can have different forms and is realized in various urban settings. Since the identified projects vary greatly in their forms, functions, players etc. it is helpful to create a typology in order to be able to make some more generalized statements. Hence, we have created a Zfarm typology with five main types of Zfarming: Commercial, Social and Educational, Image and Marketing, Urban Living Quality and Innovation Incubator. Based on the analysis, the typology and the interviews we can identify the following key issues in finding the right site and building for ZFarming: the size of the area used for farming, zoning regulations, and the building's capacity to bear weight load. Even if the building is suitable, zoning regulations concerning height limitations, permitted uses etc. might be decisive roadblocks for Zfarming projects. Besides, there are of course several other relevant issues that might influence the choice of the site (depending on Zfarming type), such as access to markets and partners, accessibility of the building/roof, interaction between other building uses and Zfarming. Another really crucial factor for the implementation of Zfarming is the willingness of landlords to support such innovative projects. The interviews have revealed different motivations of landlords to do so: image purposes, retrofitting and "greening" of their buildings, competitions for grants, "open mindsets" towards innovative or creative uses. Also, we can state that especially non-profit landlords and those who have a matching portfolio of innovative uses are likely to support Zfarming projects. As the degree of diffusion of Zfarming varies greatly between different countries, so does the motivation and reluctance of landlords and developers. Once they are convinced of the idea of Zfarming, they usually support the projects by different means (procedural, financial, constructional etc.).

Depending on the respective form and type of Zfarming, the planning process can be pretty complex and full of roadblocks. The interviews have shown that this complexity and the related challenges require and produce new cooperation and alliances between the involved parties. Zfarming calls for innovations in land-use planning, especially concerning zoning codes. In some single cases like New York City, regulations are getting adapted to the specific phenomenon of Zfarming, especially regarding rooftop greenhouses. But such adjustments are still at a very early stage and cannot be translated equally to other national settings, because of differences in planning and zoning jurisdictions.

Conclusions

The paper shows that Zfarming offers multiple new options to reconnect food production and cities without using urban land. It constitutes a new kind of urban land use with inherent novelties compared to ground-based urban farming or non-productive green roofs. Anyhow, the use of the urban building stock creates new, specific challenges. These are mainly concerning by the buildings' prerequisites, land-use regulations and reluctance of landlords and developers. Anyhow, a rising number of landlords acknowledge the potential of Zfarming. The novelty and complexity of the planning and implementation process enhances new networks of actors that have not been cooperating before (or at least not that intensive). A further diffusion of Zfarming projects largely depends from the adjustment of framework settings.

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Keywords: rooftop farming, indoor farming, land-use planning, institutional framework

Presenting author: Miss Susanne Thomaier, s.thomaier@isr.tu-berlin.de

Urban Food Justice: a social platform on urban agriculture in the Leeds city region (UK)

Chiara Tornaghi [1]

[1] School of Geography, University of Leeds - Leeds - United Kingdom

Introduction

This paper draws on the experience of the two-years-long research project "Urban agriculture (UA), social cohesion and environmental justice. An action-research project to inform responsive policy making". Funded by the Economic and Social Research Council the project experimented with the construction of a social platform (named Urban Food Justice) to facilitate dialogue and foster learning between grassroots groups, third sector organisation and local policy makers, and to influence public policy in the field of urban agriculture.

The project built on 1) the acknowledgment that UA (often advocated as a drive for social cohesion or environmentally sound and healthy behaviours) is indeed a field full of socio-environmental injustices that academics have just started to explore (Engel-DiMauro 2012, McClintock 2013; Atkinson 2013; Tornaghi, forthcoming); and 2) the nonetheless existing experiences based on agroecology, food sovereignty and food commons, which challenge global food regimes, rethink urban food systems and indeed re-imagine what future cities might look like. The way towards the establishment of socially just food systems promise to be a long and winding road, where a number of problematic issues urged to be dealt with. The social platform aimed to be a way to approach these themes in workshops where specific, contextual understanding of these problems could be confronted, opinions exchanged, alternatives explored, and action plans developed.

Methods

The platform was built on three pillars which constituted respectively 1) the starting assumption on how human-nature relations are constructed; 2) which theoretical and praxis knowledge have been taken into account and 3) how these relations have been investigated during the project.

1) Political ecology assumes that human-nature relations are constantly developed and redeveloped as results of agency-structures dynamics. In this view, political opportunities and power dynamics play a great role in shaping food systems, beliefs, habits and needs, land management, ecosystems and adaptation. In this perspective, urban metabolism is not simply the results of nutrients flows in an urban environment, but the outcome of interactions which are culturally-socially-politically shaped.

2) A post-disciplinary perspective imply opening to non-academic spheres of knowledge production, (i.e. practitioners/policy makers) as well as inter-weaving disciplines with innovative research tools. It enables an exploration of the cultural, socio-economic and political background of emerging urban agricultural practices, understanding the institutional configurations in which they emerge and addressing the challenges of sustainable policy arrangements.

3) Being based on action-research methods, the project aimed to explore not only urban agricultural projects and their problematic, but to actively become, in the making of the research, a vehicle of change in policy design and policy making.

Results

Following a phase of preliminary, more traditional research, the platform has been launched in September 2012. This promised to be particularly challenging in a context (Leeds) where there was no general (nor institutional) understanding of the role of food in the key mechanisms of the global economy, urban poverty, carbon emissions and climate change policy and obviously no ongoing public discussion in relation to food sustainability, food justice or food planning.

Nonetheless, the platform has been an extraordinary learning and training ground. This paper aims to present the challenge and learning lessons of this experience.

The activities of the platform (seminar presentations, fields visits, practical demonstrations and groups discussions) have been organised around 9 themes, partially co-defined with local urban agriculturalists. These were: 1) Envisioning urban agriculture; 2) Land access; 3) Soil quality and soil rehabilitation; 4) Food for free and edible landscapes; 5) Gardening, health and wellbeing; 6) Urban metabolism, agroecology and food security; 7) The economic viability of urban agriculture; 8) Urban food planning; 9) Urban food justice.

Each event has been participated by 40/60 people, including council officers from 9 different departments; large environmental organisations; community gardens coordinators from primary schools, social housing estates, NHS funded projects; food and gardening-related grassroots initiatives; small businesses and a number of individuals and allotment holders.

The platform had a key role in supporting the coalescence of a number of actors into the umbrella organisation Feed Leeds, and has been the breeding ground for the start up of 4 initiatives, which can be considered the crucial building blocks of an alternative urban food system:

i) the construction of a Local Food Hub;

ii) a network for the exchange of volunteers between community food growing projects and social services;

iii) a soil quality network;

iv) and a multi-partner project on urban agroecology, based on the integration of research, education and policy implementation.

Conclusions

Four main lessons, relevant for the questions of this track, can be learned from this experience, and will constitute the core of this paper:

1. A reflection on the appropriateness of urban agriculture as an entry point in developing public discourses on sustainable food systems, and on its particular promises, constraints, and limits;
2. a reflection on the 4 key initiatives that have been generated out of this experience (mentioned above), their scale of action, and the perspectives for their upscaling;
3. a reflection on procedural justice and the role of this methodology to involve marginal/vulnerable groups, provide opportunities for empowering and visibility and to draw prospectives for their active role in shaping the food system;
4. a reflection on the role of an innovative research methodology – the social platform-, as a device for social change, at the crossroad between research, public policy, community building and activism.

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Keywords: Urban agriculture; action research; social platform; socio-environmental justice; urban agro-ecology

Presenting author: Dr Chiara Tornaghi, chiara.tornaghi@gmail.com

Urban Food Systems in the World of Conventions

Jean-Marc Touzard [1]

[1] INRA - UMR Innovation - Montpellier - France

Introduction

The economics of conventions is a research program of institutional economics that analyzes how agents with bounded rationality are referring to different kinds of judgments ("conventions") in order to solve problems of economic coordination (Favereau, Lazega 2003 ; Eymard-Dvernay 2006). This theoretical framework has been mobilized to address issues of quality in food chains or agri-food systems (Sylvander 1995; Chiffoleau, Touzard 2013) and to propose a typology of food systems (Colonna et al. 2013). Previous works in economics of conventions also referred to "ideal forms of cities" expressing different kinds of justification and coordination for economic actions (Boltansky, Thevenot 1991). The aim of this paper is to show how economics of conventions could be fruitfully used in order to analyze Urban Food Systems (UFS). We will show that UFSs rely on compromises between different "quality conventions" and "city conventions", allowing or questioning the urban coexistence between a variety of food systems.

Methods

This paper is an original proposal to comprehensively analyze urban food systems from the point of view of economics of conventions. The approach is primarily theoretical and analytical. The "economics of conventions framework" is first presented, showing how it can be applied to three systems that describe ideal or concrete socio-economic forms: food systems, urban systems, urban food systems. This analytical approach leads to question how UFSs can be constituted by (stabilized) combinations of Food Systems in Urban Systems. The work is based on a literature review covering theoretical and empirical contributions (Economics of conventions, food studies, urban economics). The proposed analytical framework will be highlighted by observations carried out in the city of Montpellier (first insights from Surfood Project)

Results

The first contribution of the paper is to show how the economics of conventions provided an analytical framework for food systems, urban systems and UFSs:

- The diversity of Food Systems (FS) is first specified referring to conventions of quality of food, following the line of previous works carried out by the author: Domestic FS, local FS, agri-industrial FS, Differentiated quality FS.
- Similarly, we present the different representations of city by economics of conventions. Domestic city, market city, industrial city, civic city, city of opinion, City of inspiration…
- A precise definition of UFS is then presented: the set of operations and flows that feed the city (its residents, workers and visitors), stabilized by institutions and conventions that can fit into sectoral regulations or urban (local) regulation. A UFS may be composed of a plurality of food systems that questions the trade-offs between different quality conventions and city conventions.

Then two points are specified to understand the functioning and dynamics of a UFS:

i) Rethinking the different possible articulations between sectoral, corporate and local (urban) regulations (autonomy or heteronomy of UFS);

ii) specifying different concrete ways of coexistence between food systems within a UFS (competition, confrontation, connections, complementarities ...).

These two points put in question the construction of urban food governance and its ability to integrate a variety of food systems.

Conclusions

The communication provides an original analytical framework of Urban Food Systems, coming from Economics of Conventions. It draws attention to the diversity of justifications and modes of coordination that can stabilize a UFS. It raises new questions of research on the conditions of food governance (Touzard, Temple 2012), taking into account the co-evolution, sometimes conflicting, between a variety of food systems in cities.

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Keywords: Economics of conventions, food systems, city,

Presenting author: Mr Jean-Marc Touzard, touzard@supagro.inra.fr

Growing Green Cities: an Emerging Strategy for Sustainable Regional Food Planning in the Amsterdam Metropolitan Area

Arnold van der Valk [1], Gaston Remmers [2]
[1] Wageningen University - Amsterdam - Netherlands
[2] CAH Vilentum - Amsterdam- Netherlands

Introduction
The purpose of this paper is an analysis of the contribution the 2022 Floriade horticultural exhibition can make to the sustainable spatial development of the metropolitan landscape in the Amsterdam region. The paper focuses on a SWOT-analysis of sustainable food planning in the Amsterdam metropolitan region against the backcloth of spatial planning documents in force. The analysis builds on a historical account of the unfolding of food planning and spatial planning in the Amsterdam metropolitan area over the last decade. The core question is: how to conceive of 'sustainable metropolitan food planning' and the role of spatial planning in the case of Amsterdam metropolis?

Methods
'Growing Green Cities' is the motto of a comprehensive regional planning effort in the Amsterdam Metropolitan Area paving the way towards the World Horticultural Exposition 'Floriade 2022'. This happening is situated in the new town of Almere which is rapidly developing into a twin-city to old Amsterdam. The Floriade organisation focuses in on regional food systems planning and green space -perceived as major ingredients of the quality of life.
The major sources of information are interviews with stakeholders and participatory observation in the genesis of the 2013 Amsterdam Food Strategy-in-the-making and the initial preparations of the 2022 Floriade. The data stemming from interviews and observation are triangulated with an analysis of policy documents. The theoretical frame in use is transition theory.

Results
The Amsterdam metropolitan region is a successful competitor on the global economic stage, due to extra qualities such as proximity of green space to business centres, heritage and a vibrant food scene. In the 2011 spatial strategy 'Amsterdam 2040' the municipality of Amsterdam' stresses the need to stem the tide of low density town extensions and opts for a continuation and intensification of the current compact cities policy in combination with a transformation of open space in use for conventional agriculture into a metropolitan landscape.
Metropolitan landscape as perceived on the regional scale offers a rich amalgam of sustainable eco-effective greenhouse horticulture, sustainable (urban) agriculture, recreational uses, ecological corridors and infrastructure. The genesis of Floriade 2022 is perceived as a commercially viable laboratory revealing the strengths and opportunities of the current and future food system and a complementary strategy for land use landscape and business development. The making of Floriade trajectory is embedded in regular planned development projects thus making a promise of multiple environmental societal and economic interest. Amsterdam and Almere still face the challenge to accommodate 100.000 people and the accompanying services and jobs when the rest of the Netherlands is stagnating or losing inhabitants. The organising city of Almere has expressed the wish to reap the fruits of Floriade at a regional metropolitan level. Think: jobs, shared knowledge, infrastructure, recreational facilities and public relations. Almere will take the lead in the establishment of an international think tank, a network of scientists and practitioners representing a wide array of relevant disciplines.

Conclusions
Conclusions:
- sustainable food planning produces novelties which are currently clustering into niches-in-the-making. Floriade can make a difference under the current laissez faire regime in spatial planning.
- the metropolitan planning regime can take up novelties and niches exposed in the sphere of food procurement in the Amsterdam metropolis if they will persist.
- the food hype originating in the alternative world of food is gradually evolving into a mainstream phenomenon which will profoundly influence the outlook on food, environment, land use and landscape.
- food is transcending the silos of public government in the Netherlands and rapidly develops into a connective tissue - very much in the way spatial planning has done some decades ago.

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Keywords: regional food planning; metropolitan landscape

Presenting author: Mr Arnold van der Valk, a.vdvalk@chello.nl

Meeting the needs of a capital city: multifunctional agriculture in Rome

Francesco Vanni [1], Stefano Grando [2], Roberto Henke [1], Livia Ortolani [3]
[1] INEA (Istituto Nazionale di Economia Agraria) - Italy
[2] Laboratory of rural studies "Sismondi" - Italy
[3] AIAB Scientific Board (Italian Association for Organic Agriculture) - Italy

Introduction

The relationships between cities and surrounding countryside have always been influenced by the competition for soil use, and in particular by the residential use of rural areas. From the Eighties onward, new roles for rural areas and agriculture emerged, with agriculture delivering a range of new agricultural and non-agricultural goods and services which are commonly identified with the multifunctional role of the primary sector (van Huylenbroeck and Durand 2003).

Following the literature on these issues (Heimlich and Brooks 1989; Pascucci 2008), three typologies of peri-urban farms can be identified. Traditional farms are those included in the metropolitan area without any significant change in the farmer's behaviour and outcome. Adaptive farms react to the urbanisation process through a process of labour deactivation: renting external services or moving part of the labour force off-farm (part time farming, pluri-activity). Finally, reactive farms build new relationships with local and further markets, differentiating their production and diversifying income sources.

This paper focuses on success stories of reactive peri-urban farms in Rome. The main objective is to investigate empirically the links between multifunctionality and peri-urban agriculture, identifying the reasons laying behind success stories in the context of a large metropolitan area and in a general framework of a post-productivist view of the process of adaptation and reactivity of peri-urban agriculture.

Methods

The paper analyses the multifunctionality role of Roman agriculture with the objective of exploring the underneath process of adaptation and reactivity of peri-urban farms. The analysis is based on the available statistical data derived by the census, and by primary data collected through semi-structured interviews with farmers.

The paper is organized in three steps, as follows. Given the publication of the new agricultural Census, the first part of the paper describes the features of Roman agriculture highlighting its multifunctional role and the on-going process of diversification. This section sheds light on the evolution process of Roman agriculture and in particular on the differentiated (quality products) and diversified (alternative sources of income) farms. The second step identifies and quantifies farms according to the three typologies described above, namely traditional farms, adaptive farms and reactive farms.

In the final part of the paper, three cases of successful reactive farms are investigated, to establish the main internal and external determinants of their success. The three investigated farms represent successful examples of reactive farms as they have been able to cope with the further expansion of the city and the evolving market conditions. They are mainly engaged in primary production, but they also deliver new and diversified services to the city, while experimenting new sustainable paths.

Results

Multifunctionality is one of the key-words for identifying the new paradigm of agricultural development which is defined as "post-productivism" (Wilson 2007). The process of modernisation of the primary sector has led to an increasing "industrialisation" of agriculture characterised by intensification of production and standardisation of output, with alarming effects of environment and on small-scale agriculture. The post-productivist paradigm does not imply a dominant model, but rather the co-existence of different models of agriculture: small and large scale farms, food and non-food products, non-marketable services, local markets and international trade flows, all addressing different and specific demands expressed by the contemporary society.

From our empirical analysis, it emerges that peri-urban agriculture can be read through the key of agricultural post-productivism, as a specific component of the primary sector that fills in the gaps left empty by the urbanisation process, redefining the relationships between production and consumption and among different actors playing within a limited territory.

Statistical analysis shows Rome as a very interesting case of peri-urban agriculture. According to the data, it is the largest "agricultural municipality" in Italy and one of the largest in Europe, with the highest agricultural area and a relevant number of farms. The last agricultural census (2010) revels interesting and sometimes surprising signs of vitality, as the total and utilized agricultural area are increasing in the last decade, as well as the number of farms.

Agriculture in and around Rome assumes specific features which are the results of intense and multidirectional interactions between the urban structure of the metropolitan area and the countryside. In the perspective of diversification and multifunctionality, farms provide services and new non-agricultural products to the urban population; moreover, even the food supply reaches the urban population in new and specific ways (direct sales, farmers markets, open gates, public procurement, purchase groups) that are developing alongside the survival of traditional local-based food chains (street markets, corner shops supplied by peri-urban farmers).

Conclusions

Peri-urban agriculture is a specific and interesting form of agriculture in which the multifunctional role of agriculture is at the same time enhanced by the relationships between agricultural and urban actors and adapted to the specific needs of a metropolitan area. In this context, most of the Roman farms seem to find their own way of reaction to the increasing urban development and activated new activities and functions in order to diversify sources of income which can be read as a form of post-productivist model of development whose main feature is the multifunctional role of agriculture. From the analysis of the case studies it emerges that successful farms combine food and non-food activities meeting the specific needs of the local urban population and developing new products and new services which, in turn, can represent the engine for future local endogenous development based on virtuous relationship between agricultural and non-agricultural links.

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Keywords: Multifunctionality, Land use, peri-urban farming, ecosystem services, short food chains

Presenting author: Dr Francesco Vanni, vanni@inea.it

The Food Urbanism Initiative - Design Research Results

Craig Verzone
The Food Urbanism Initiative - Verzone Woods Architectes - Rougemont - Switzerland

Introduction

This presentation briefly overviews the 3-year Swiss National Science Foundation research project entitled The Food Urbanism Initiative and presents the most pertinent FUI research results emanating from landscape and urban design on both small and large urban sites in Lausanne and Geneva, Switzerland.

The Food Urbanism Initiative (FUI) opens research under the hypothesis that urban design strategies integrating well-conceived and carefully designed food production models and facilities will provide new urban quality. In testing this hypothesis, the FUI team addresses two fundamental research questions.

- How can urban design and public space making integrate, encourage and facilitate urban food production?
- What types of urban food production affect urban design and improve urban quality?

The primary objective of the FUI research is to uncover and develop the synergies between urban design and urban food production so as to achieve new urban quality. The proposed pilot project design and the refinement of a new urban quality assessment tool test the following theoretical hypothesis via a design as research approach:

When combined with carefully articulated urban design, architectural and/or landscape architectural measures, urban agriculture will provide "new" urban quality.

Methods

FUI landscape and urban design projects at the micro and meso scales are intended to set forth a series of future visions that examine and assess site parameters while generating new spatial solutions. These projects act as a concurrent set of investigations addressing FUI research questions and frame two distinct urban design tactics. The first consists of the renovation of a large swatch of urban fabric, a principal "organ" of the city, often including a major piece of infrastructure. The second consists of the aggregation of smaller scale interventions, disseminated across the city, which not only benefit local communities but which in their collective dimension function as a network of improved urban quality, instigating a process of urban acupuncture.

Results

Part 1 - Proposed Pilot Project - Large site: an urban renovation project on a large scale site (circa 10-30 ha.)

The proposed large-site pilot projects serve as different studies for their corresponding cities. One, at the center of the Lausanne on a large railway yard of 20+ hectares within a zone undergoing long-term transformations is deployed as an experimental test study. The second pilot project, set within an agricultural swath bisecting a wide band of future urban development along the western edge of Geneva is the winning project for an international design competition and is slated to begin construction in 2016. The obstacles identified and the guidelines established through the two projects are intended to serve as a basis for the future planning process in the case of the Lausanne project and for the development of a full-scale 9 hectare pilot project in the case of the Geneva project.

It is to be noted that food production will be considered as one among many other objectives in aiming to achieve new urban quality in these projects and will be balanced with other imperatives relating to spatial configurations and notions of urbanity. As food production is not typically deployed as an objective in urban planning, the projects aim to identify the advantages and trade-offs necessary for its inclusion.

Part 2 - Proposed Pilot Project - Small sites & systems: a systemic approach to small scale interventions

This strategy takes the incremental value of the small-scale site and considers the potential for a systemic approach, for example, a collection of neighborhood orchards, scattered across the city could bring value to not only adjacent neighborhoods but also to the city as a whole organism. The purpose in this systemic approach is not to select a specific perimeter to design, but rather to catalog the different typologies of small sites which might support potential interventions with city-wide repercussions.

There is a clear acknowledgement that not all of the sites can or should be dedicated to food production, but rather that a series of similar sites can be matched with a production typology and a management technique in a way which might address the needs of various co-beneficiaries while contributing to urban quality. Small sites are inventoried and classified according to common characteristics, such as slopes along road sides, or adjacent building conditions to name but a few. The objective is to bridge the gap between the particular interests of "bottom-up" initiatives and the city wide "top-down" interests of the public administration. By combining site/productivity typology pairing with urban systems analysis FUI tests if "particular sites have particular potentials", but also FUI prepares recommendations aimed at the city administrators, associations and private citizens describing how to make decisions regarding the sites carrying greatest potential within the city.

Conclusions

Through the visualization of diverse proposed design interventions in the city, both large-scale and small-scale, this presentation aims to advance current research in the food planning field with its project-based testing and design-as-research approach.

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Presenting author: Mr Craig Verzone, fui@vwa.ch

Drivers for Sustainable Food Chains - Comparing Innovation and Land Use Potentials of European Metropolitan Regions

Dirk Wascher [1], Stefano Corsi [2], Ingo Zasada [3], Guido Sali [2]
[1] Alterra, Wageningen UR - Wageningen - Netherlands
[2] University of Milan, Milano, Italy
[3] Leibniz Centre for Agricultural Landscape Research (ZALF) , Müncheberg, Germany

Introduction

This paper derives from the first phase of EU FP7 Project "FoodMetres" (www.foodmetres.eu) and addresses the following research questions: What can be considered as sustainable boundaries of a metropolitan foodshed?

What is the agricultural resource potential of such metropolitan foodsheds? To which extent does it cover the metropolitan food demand? Which type of innovation can help to reduce the impact of food consumption on the ecological footprint? The paper puts forward a spatial-analytical approach that combines ecological footprint analysis with land use change assessment and knowledge on the impacts of food chain innovation on social, environmental and economic dimension of the agro-food sector.

Based on the existing work by Wascher et al. (2008), Zasada et al. (2013), and Corsi et al (2013), we have developed an approach to delineate metropolitan foodsheds in the case study areas (CSA) of Berlin, Milano and Rotterdam. Taken the food demand of a city into consideration, the required amount and location of 'local hectares' of agricultural areas meeting these demands are identified as the starting point illustrating the challenge of feeding an urban population. Drawing from this important background information for explaining the challenge of feeding an urban population, our approach contrasts the food demand with the regional supply as a function of the specific site and farming conditions, showing the food provision capability inside the metropolitan system.

Methods

By means of methods such as obtain a general overview on Metropolitan Agrifood Systems (MAS) through the determination of quantities and surfaces for the nutrition in the metropolitan area. In this first stage we have to focus on literature review about: the definition of a diet for each CSA, divided by product category (e.g. legumes, cereals, vegetables, dairy products, meat, eggs,…); calorie need in the CSA (kcal per capita * population) as a proxy for food demand. local food supply has been calculated based on region specific figures for utilized agricultural area (UAA), crop cultivated and their yields.

Apart of this, we have applied the Rural-Urban-Region (RUR) delineation (Zasada et al. 2013) for the five European Foodmetres CSA as well as the spatial continuous (100x100m cell grid) mapping of urban, peri-urban and rural areas (additionally differentiated into high and low population density) within each of the Case Study regions. In parallel we applied the spatial correlation based on the LISA (Local Indicators of Spatial Association) that has been developed by Luc Anselin (1995).

Results

Spatial analysis is the first step in the geographical definition and quantification of the MAS. In addition, the comparison between various European metropolises has allowed us to define the methodology highlighting the common factors and the major differences in the structure of the MAS.

The result of the analysis is a spatial indicator that can be adapted according to the different spatial features and modified with the development of the project and a spatial cluster map. We will show spatial differences in availability and amount of agricultural land use areas in the metropolitan regions for each of the CSA Rotterdam, Milano and Berlin. Examples for food chain innovation will be given and explained in the context of the spatial areas with special emphasis on the expected changes for ecological footprint.

Conclusions

Based on the spatial analysis results in the three metropolitan regions, the paper puts forward suggestions for potentials of increasing the regional supply for certain commodities with special emphasis on emerging examples for food chain innovation of different type, such as efficiency-oriented clustered food production or rather community-based small-scale solutions. In this sense, the paper addresses the sessions theme, specifically the issue of flow – in this context interpreted as the relationship between urban demand and existing vs. potential foodshed supply.

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Keywords: spatial analysis, ecological footprint, urban food consumption, food chain, innovation

Presenting author: Mr Dirk Wascher, Dirk.Wascher@wur.nl

The Labour Aspects of Food Governance in Cities

Edmundo Werna

International Labour Office, United Nations - Geneva - Switzerland

Introduction

The presentation will focus on the research question "what are the barriers and challenges to an enhanced participatory governance of urban food strategies?", with particular attention to the labour aspects. It will argue that labour is still overlooked in regard to governance, and this needs to be taken into account for a proper system of urban food governance and food justice.

Methods

Overall, the presentation is based on research and feedback from practical operations carried out with the support of the ILO.

Results

In regard to production in urban areas, UPA (urban and peri-urban agriculture), while governance has dealt with important issues such as investments and land planning and tenure, it hardly covered the labour and livelihood aspects - apart from the obvious statement that the expansion of UPA will generate jobs. But what kinds of jobs? To whom? Are they decent? How to make them decent? How to make the most of UPA for the benefit of the urban poor in terms of income-generation? The presentation will address these and related issues and the link with urban governance, also providing illustration about a Guide that the ILO is producing. In regard to food distribution (urban food markets), the presentation will explain the labour-related challenges faced by urban vendors, how they have (or not) been addressed in urban governance systems (particularly in the South), with illustration about an initiative to address them. Finally, in regard to consumption, the presentation will explain the challenges faced by urban workers (again particularly in the South) to obtain the necessary quantity and quality of food for them and their families, with suggestions to address the problem within the framework of urban governance.

Conclusions

The conclusion of the presentation will reiterate that and how labour needs to be taken into account in urban food governance, with practical suggestions on how this can be achieved, linking with the idea of incorporating a municipal decent work agenda into food governance.

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Presenting author: Dr Edmundo Werna, werna@ilo.org

Posters

An analysis of 4 city food policies within Eating City project	**Isabelle LACOURT, Lenny MARTINEZ**	Risteco - France
Linking H'Mong beef to high-end market	**Tuan TRINH VAN**	CASRAD - Vietnam
Actors and processes of food sovereignty in the Milan area: a first overview of themes and paths	**Alberto GRAGLIA**	Politecnico di Milano - Italy
A local approach to the world: the role of social movements in the global governance of food	**Andrea CALORI, Judith HITCHMAN**	Reseau International Urgenci - France
Food versus City: Urbanization, food security, space	**Charlotte MALTERRE**	ETHZ - ONA G34 - Switzerland
Sharing Land to Feed the City - The UPA Practice in Beijing, China	**Jing ZHANG**	University College London - United Kingdom
Regenerative "metro-agro-ecology" - A case study on the Athenian urban landscape	**Konstantinos CHRISTODOULIDIS**	Faux Paradis - Greece
Territorialized food solidarity: improvement elements in Ille-et-Vilaine	**Marie MOUIHI, Marion CHRETIEN**	Agrocampus Ouest - France
Greenways planning in Bobo-Dioulasso (BURKINA FASO): integrating urban and periurban agriculture, forestry and contribution to climate change	**Moussa SY [1], Baguian HAMIDOU [2]**	1 Regional Coordinator of the African Institute for Urban Management, Dakar, Sénégal, 2 Municipality of Bobo-Dioulasso - Burkina Faso
Urban agriculture and food sovereignty in Havana, Cuba – How recent agrarian reforms influence urban agriculture	**Sarah SCHNEIDER, Christian R VOGL, Friedrich LEITGEB**	University of Vienna - Austria
Reshaping urban food production: the case of Plymouth, SW England	**Wendy MILLER**	Plymouth University - United Kingdom
Food-Flow-City	**Juliane , BRANDT, Georg BOCK, Christoph BRAND**	Technische Universität Berlin - Germany