CHURCHILL FELLOWSHIP REPORT

A study of innovative models of urban agriculture in the US Midwest, Toronto and Argentina

Dr Nicholas Rose

THE WINSTON CHURCHILL MEMORIAL TRUST OF AUSTRALIA

Report by - DR NICK ROSE - 2013 Churchill Fellow

To study innovative models of urban agriculture in the US Midwest, Toronto and Argentina

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Signed 6th January 2015 Dated

Post-Industrial Urban Homestead Act! (PUHA!)

Gretchen Mead, Victory Gardens Initiative, Milwaukee, Wisconsin[1]

A proposal to the City of Milwaukee's 'Tournavation' Challenge, Summer 2012[2]

During the Victory Garden Movement of WWII, citizens using their own effort, knowledge and urban land grew 40% of our city's produce. Communities rallied together to grow, preserve and share fresh fruits and vegetables. Government supported, Victory Gardens provided a means for every person to meet their own needs in times of hardship.

We are again in time of hardship. Inaccessibility of high quality, nutrient-dense foods, economic insecurity, natural resource depletion, and deep apathy related to the out-sourcing of community wealth, leaves the people of Milwaukee subject to multi-generational nutritional starvation and the inability to keep and maintain our beautiful, historic neighborhoods.

These issues can be solved with the implementation of the Post-Industrial Urban Homestead Act (PUHA!). The PUHA! Act will provide land and homes to eager unemployed and/or foreclosing folks. The homes and land will be located in neighborhoods that have: increased foreclosures, excess unused land, and low access to fresh produce. Each homesteader (the PUHA!) will be granted resources for food production infrastructure, such as soil development, rainwater harvesting, and basic tools. PUHA!'s will receive a small annual stipend to ensure their basic needs are met.

PUHA!'s will be chosen based on their ability to successfully G.E.T. Growing:

1) Grow fresh produce
2) Engage (lead) community members in growing their own food on their own land 3) Teach the community how to grow food.

PUHA!'s will be centrally networked for support and education (includes bee-keeping, egg production, composting, project management, leadership support.) Each PUHA! will be granted the land and the home, after five years of successful food growing, and developing their community's ability to grow their own food. Each PUHA! will focus his/her work in small and micro-local neighborhoods, a six to eight block radius - there will be a PUHA! FOOD HUB in every neighborhood.

The City of Milwaukee's Office of Sustainability will collaborate with local NGO partners already working in the PUHA!'s neighborhood, with missions matching Mayor Barrett's proposal request, (food security, sustainable food production, nutrition, and community organizing), such as Victory Garden Initiative and Walnut Way, to over see the success and training of the PUHA! University partnerships with each collaborating organisation will connect a steady flow interns to each PUHA, to ensure education of our youth and adequate labor needed at each PUHA! Homestead and Food Hub.

Say "PUHA!" and change Milwaukee, and our great country.

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[1] Gretchen Mead was a key interviewee of this Fellowship in Milwaukee (28/7 – 1/8/14).

[2] The 'Tournavation' was a Tournament of Innovation that the City of Milwaukee coordinated in 2012, to seek innovative ideas and proposals about how to deal with the housing foreclosure crisis.

Agroecologically-based urban agriculture: An opportunity to establish integrated State policy frameworks

Antonio Lattuca[3]

Agroecology can be conceived as an innovative science which:

- incorporates ethics,
- integrates environmental, technical and social dimensions,
- values local knowledge and mixes it with the scientific,
- generates, by means of social actions that are transformative of society as a whole, conditions to establish equitable ways of living, where the focus is people and where every human being can develop all her or his potential, and
- supports the goal of 'living well' for each community.

From this comprehensive and transformative vision, we can conceptualise Urban Agriculture as all activities developed in the urban and peri-urban areas that:

- focus on producing healthy food,
- integrate city planning,
- establish green spaces that provide social, educational, ecological and aesthetic functions,
- use productive methods that don't depend on external inputs,
- generate forms of production and consumption that contribute to socioeconomic advancement,

and whose goal is the creation of dynamics towards the establishment of sustainable societies.

Where successfully established, agroecologically-based urban agriculture creates socio-productive and cultural spaces in towns and cities, making possible healthier and more equitable lives for inhabitants, and transforming cities into greener, more resilient population centres ready to meet the challenges of climate change.

To achieve those goals objectives, it's necessary that urban agriculture is recognised and valued for its multiple benefits that it.

City planners can incorporate within urban corridors healthy and aesthetically pleasing oases, where residents can connect with nature, producing healthy food using ecological growing methods.

[3] Agronomist, Masters of Science in Agroecology; Coordinator-Developer of the Urban Agriculture Program of the Municipality of Rosario, Member of the Technical Staff of Pro Huerta-INTA-National Social Development, and of the NGO CEPAR. Antonio Lattuca was a principal interviewee during Dr Rose's visit to Rosario

These oases can be for collective use, *Parques Huertas*, community gardens, green corridors, healthy gardens with medicinal plants, eco-gardens in plazas and public and private institutions; and gardens for family use in patios, terraces and balconies.

In the City of Rosario we have been developing a public policy of urban agriculture, with the Municipality working together with the National Institute of Agriculture (INTA)-*Pro Huerta* and the National Social Development Ministry, in which universities, civil society, consumer groups, and a network of urban farmers and gardeners actively participates.

During the past twelve years of collective work, urban agriculture in Rosario has created the necessary conditions to become permanently established as an important movement of ecological and social consciousness, achieving important quantitative and qualitative results.

- The establishment of urban agriculture as an activity permanently inserted within the city zoning plan – *Parques Huertas* – green corridors
- The development of enterprises of agroecological *huertas* as a response to dispossession and entrenched poverty
- The installation of urban agriculture as a permanent activity
- The transformation and advances of enterprises through commercialisation – six weekly markets in different public places, and small-scale plants for processing fruit and vegetables grown locally
- Strategies and proposals for security of tenure of the gardeners
- The development of legal instruments that strengthen the program as a public policy
- Supporting and strengthening gardeners through a legally-constituted urban farming network
- The consolidation of urban agriculture through the incorporation of new social actors into this movement – local, national and international
- The recognition and support of society in its totality for urban agriculture

Today our cities find themselves in a socio-environmental crisis. To meet that crisis effectively, it's vital that we develop and implement public policies that incorporate urban agriculture in the planning of cities.

These public policies must be integrated across and be coordinated by all state instances. While in the first instance the initiative should come from local governments, these should be articulated with provincial (State) and national governments, and bring together civil society, academic, research and all educational institutions, so that urban agriculture can fully develop its potential in the development of our cities.

These integrated public policies must be sufficiently resourced (in financial and human terms), and must be accompanied by a legal framework with adequate laws that prioritise them. This will allow adequate time for the urban farms, gardens and park to become fully and sustainably operational.

Eco-gardens should be established in schools, health centres, hospitals, prisons, plazas and public parks, that function as spaces for inspiration, training and experimentation.

The productive zones and spaces should be accompanied by a system of processing and packing, distribution and commercialisation, with the full participation of consumers; and with a vision of fair trade and in the framework of a social economy, based in the principles of Community-Supported Agriculture.

All this process should be accompanied by a communication plan which reaches the entire population and makes visible all the advantages of these integrated policies, to resolve the social, labour, environmental, food and climate crises that we are currently facing.

Today, the access and the production of clean food without agrochemicals – which is a demand of the whole society – should be regarded as a **universal human right** - and this will enable agroecologically-based urban agriculture to become professionalised, without losing its innovative force, and regarded as a career of the future.

With that in mind, urban agriculture should be incorporated in the curriculum of all educational institutions, and in research and investigation centres; and in that way the 'reductionist' way of viewing urban agriculture as just a policy response for emergencies and only for the poor, will be eliminated.

Some results of urban agriculture in Rosario:

- 67 Hectares Recovered and Preserved
- 22 Hectares Productive – 45 Hectares set aside for recreation and sport
- 250 urban farmers growing clean food for sale
- 140 young urban farmers
- 1500 gardeners producing for family consumption
- Annual production: 98,000 kilos of vegetables, 5,000 kilos of aromatic herbs, all without the use of chemicals
- 10,000 kilos of vegetables and aromatic herbs processed into sweets, conserves, creams and gels
- 400 consumers participating in the Consumer Network
- 40 Schools with gardens to teach students about healthy eating

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Introduction

This Report describes a Churchill Fellowship undertaken from July 18 to September 13, 2014, to study innovative models of urban agriculture in the US Midwest, Toronto and five provinces of Argentina. The specific focus of the study was to explore models of urban agriculture that could generate livelihood opportunities for young people and / or enhance food security for vulnerable and low-income groups. The study involved visits to over 80 organisations and institutions across the regions visited; and interviews with over 150 individuals.

Dr Rose wishes to acknowledge the financial support provided by the Churchill Trust that made this visit possible; and the encouragement and support of its staff at every step along the way. He also wishes to acknowledge the generosity, enthusiasm and collaboration with which he was received at every place he visited. The contribution of every individual was important, and all are mentioned in the Programme of Visits.

Unfortunately it has not been possible in this report to document the work of each individual and organisation, because the work of all is innovative and highly significant. The volume of information captured during this study trip could easily have filled four reports of this length! Hence the organisations and individuals profiled at length are representative of the larger body of organisations visited and individuals interviewed. And in turn those organisations and individuals represent only a fraction of all those working to support urban agriculture, food security and food sovereignty in their local communities, states and provinces. Dr Rose wishes each and every person and organisation he visited every success in the vital work they do for the betterment of their communities and societies.

Most importantly, Dr Rose wishes to acknowledge the support and love of his family: his partner, Julie, and his two boys, Camilo and Jude. To travel and learn in this way is a precious gift indeed, and he will be eternally grateful to his family, and Julie most of all, for allowing him this unique opportunity.

Executive Summary

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Project Description

This Report describes a Churchill Fellowship to study innovative models of urban agriculture in the US Midwest, Toronto and five provinces of Argentina. The focus of the study was to explore models of urban agriculture that could generate livelihood opportunities, especially for young people; and / or enhance food security for vulnerable and low-income groups. The study involved visits to over 80 organisations and institutions across the regions visited, and interviews with more than 150 people.

Highlights

Dr Rose was impressed and inspired in every place he visited. The following are examples of outstanding innovation, passion and creativity:

- VK Urban Farms, Chicago, Eric and Nicky von Kondrat
- Urban Canopy Farms, Alex Poltorak
- Victory Gardens Initiative, Milwaukee, Gretchen Mead
- Keep Growing Detroit, Detroit, Ashley Atkinson
- Earthworks Farm / Capuchin Soup Kitchen, Detroit, Patrick Crouch
- Community Food Centres, Toronto, Nick Saul
- Black Creek Community Farm, Toronto, Verity Dimock
- Pro Huerta Tucuman, San Miguel de Tucuman, Jose 'Pancho' Zelaya
- Urban Agriculture, Municipality of Rosario, Antonio Lattuca
- Programa PRODA, Neuquén, Ariel Zabert
- Pca Dos Chanar, Neuquén, Ignacio Pastawaki

Major lessons learnt and conclusions

Urban agriculture is flourishing; and is a source of connectedness, health and well-being, innovation, creativity, sustainable livelihoods, therapeutic benefits and enhanced food security for low-income populations in both North and South America. There are many opportunities for innovative models, enterprises, practices and policies to be adopted and supported in Australia. Commitment and resourcing from state and federal governments, and from the philanthropic and private sectors, would be extremely beneficial in terms of rapidly expanding and scaling up a relatively small but highly capable urban agriculture movement in Australia. Local governments have a critical strategic role in establishing support planning and policy frameworks to enable individuals and organisations to expand the excellent work already underway in Australia's towns and cities.

Dissemination and implementation plan

Dissemination will be via existing (e.g. Australian City Farms and Community Gardens Network) and emerging ('Fair Food Network') Australia-wide networks; through speaking engagements at food forums and related events; and through publications and writing. Dr Rose will work with colleagues in these networks, and in local governments around the country, to encourage the development of models, policies and resources to enable the expansion of urban agriculture. Longer-term goals include the recognition of urban agriculture in State planning frameworks; and the recognition of, and support for, urban agriculture in Federal food policy.

PROGRAMME OF VISITS

Churchill programme of visits, Nick Rose, 21.7.14 – 11.9.14

Date	Name	Organisation / Business / Institution	Website	Focus of work
21.7.14	**Dr Emmanuel Pratt**	Sweetwater Foundation / Aquaponics Center, Chicago State University	http://sweetwaterfoundation.com	Aquaponics, education, high-school / university students
22.7.14	**Dr Emmanuel Pratt**	Englewood Urban Farm / Sweetwater Foundation	http://sweetwaterfoundation.com	Urban farming / education
	Katy Williams	Co-proprietor, Chicago Patchwork Farms	http://chicagopatchworkfarms.com	Urban farming / commercial scale
23.7.14	**Sonya Harper**	Growing Home	Http://growinghomeinc.org	Urban farm / educational / training / commercial
	Nicky & Eric	VK Urban Farm	http://www.vkfarms.com	Urban farm / homestead – livestock / education
24.7.14	**Bradley Roback**	City of Chicago, Economic Development	https://www.planning.org/tuesdaysatapa/2012/**chicago**/aug.htm	Local government / urban agriculture policy / economic development

		Coordinator, Dept of Planning and Development		
	Christian	Growing Power	http://www.growingpower.org	Urban farming / composting / commercial scale / education and training
	Alex Poltorac	Urban Canopy Farms	http://www.theurbancanopy.org	Urban farming / commercial enterprise
	Harry Rhodes	Advocates for Urban Agriculture	http://auachicago.org	Networking / advocacy
25.7.14	**Ben Helphand**	Neighbor Space	http://neighbor-space.org	Urban Land Trust / Community-Managed Open Space
	Dave Snyder	Chicago FarmWorks	http://www.heartlandalliance.org/whatwedo/our-programs/directory/chicago-farmworks-urban-farm.html	Urban farming / food security, training and employment for low-income residents
	Conor Butkus	Family Farmed	http://www.familyfarmed.org	Advocacy and training programs to support local food and family farmers
28.7.14	**Jesse Blom**	Sweetwater Foundation	http://sweetwaterfoundation.com	Aquaponics / teacher training / high-school education
	Matt Ray	Fernwood Montessori School	http://www5.milwaukee.k12.wi.us/school/fernwood	Aquaponics / education / high-school students

	Janice Christensen	River West Currents	http://riverwestcurrents.org	Community garden / Food co-operative
	Andre Curtis	"We Got This Milwaukee"	https://www.facebook.com/wegotthismilwaukee	Community gardening / neighbourhood action
	Stephanie Calloway	CORE El Centro / Milwaukee Food Council	http://www.core-elcentro.org / http://www.milwaukeefoodcouncil.org	Urban farms, farmers market, health and nutrition education, / Food policy, advocacy, networking
29.7.14	**Cesar**	Pete's Community Farm	https://www.facebook.com/petescommunityfarm	Urban farm, commercial scale, educational
	Ryan Schone	UW Extension Urban Farm	https://www.facebook.com/uwex.gardens.farm	Urban farms, community gardens, training and education
	Tim McCollow	City of Milwaukee / Home GR/OWN Initiative	http://www.homegrownmilwaukee.com	Urban Agriculture / Urban Renewal / economic development / community building
30.7.14	**Ann Brummitt**	Milwaukee Water Commons / Great Lakes Commons	http://www.greatlakescommons.org	Advocacy to protect the Great Lakes as a biodiversity conversation zone
	Gretchen Mead	Victory Gardens Initiative	http://victorygardeninitiative.org	Backyard veggie gardens, garden blitzes, volunteering, training and education, community gardens
	Bowen			

	DornBrook	Central Greens Aquaponics	http://www.centralgreensmke.com	Commercial scale aquaponics / high-value micro-greens and herbs
	Antoine Carter	Groundwork Milwaukee	http://www.groundworkmke.org	Urban Land Trust – acquire vacant lands and facilitate community access to them for community gardening and urban agriculture
31.7.14	**Young Kim**	Fondy Food Centre, Milwaukee	http://www.fondymarket.org	Local produce market
	David Garman	UWM School of Freshwater Science, Milwaukee	http://www4.uwm.edu/freshwater	Industry-oriented research into commercial-scale aquaculture
1.8.14	**Steve Ventura / Maj Fischer**	UW-Madison, International Internship Program, Madison	http://internships.international.wisc.edu/contact-us/	International student exchanges
	Tim	Badger Creek Primary School, Madison		School gardens, education, composting
	Steve Ventura	Community Ground Works, Madison	http://www.communitygroundworks.org	Community gardening, community supported agriculture, urban orchard, education garden
4.8.14	**Malik Yakini**	Detroit Black Community Food Security Network / D-Town Farm	http://detroitblackfoodsecurity.org / http://dtownfarm.blogspot.com.au	Community education / advocacy / training / urban farming / food security / commercial sales
		Lafayette Greens	https://www.facebook.com/LafayetteGreens/info	Urban demonstration garden, education, farmers' market

	Cathy	Hope Takes Root	http://hopetakesroot.wordpress.com/about-2/	Community garden, self-organised by neighbours and friends
5.8.14	**Rich Feldman**	Boggs Center	http://boggscenter.org	Community empowerment and leadership facilitation; local, national and international networking
	Tyree Guyton	Heidelberg Project	http://www.Heidelberg.org	Neighbourhood art and education
6.8.14	**Myrtle Curtis**	Feedom Freedom	http://feedomfreedom.wordpress.com	Community gardening, education, empowerment
	Kami Pothukuchi	Wayne State University Farmers Market	http://www.clas.wayne.edu/seedwayne/WayneStateWednesdayFarmersMarket	Farmers market, commercial sales
	Tepfirah Rushdan	Greening of Detroit	www.greeningofdetroit.com	Urban farm, commercial scale, education and training, employment
	Tepfirah Rushdan	Farnsworth St / Yes Farm	http://theyesfarm.blogspot.com.au	Art / Urban Agriculture
	Ashley Atkinson	Keep Growing Detroit	http://detroitagriculture.net	Training and support for community gardeners and urban farmers, building networks amongst gardeners and farmers
7.8.14	**Patrick Crouch**	Earthworks Farm / Capuchin Soup Kitchen	www.cskdetroit.org/EWG	Urban farming / community food security / local produce market / education and training

	Ryan	Acre Urban Farm, Detroit		Small-scale urban farm, CSA
	Noah Link	Peck Produce / Food Field, Detroit	http://www.foodfielddetroit.com	Urban farming / commercial scale
		Perma-Detroit	https://www.facebook.com/perma.detroit?fref=ts	Urban farming / education / semi-commercial
8.8.14	**Greg Willerer**	Brother Nature, Detroit	https://www.facebook.com/pages/Brother-Nature-Produce/152167309159	Urban farming / commercial
	Carolyn and Jack	Rising Pheasant Farm, Detroit	http://www.risingpheasantfarms.blogspot.com	Small-scale urban farming / commercial
	Tyson Gersh	Michigan Urban Farming Initiative, Detroit	http://www.miufi.org	Urban farming, education, training and employment
	Gary Wozniak	Recovery Park, Detroit	http://www.miufi.org	Large commercial-scale urban agriculture, employment and training
11.8.14	**Marc le Berge**	Ontario Ministry of Agriculture and Food	http://www.omafra.gov.on.ca/english/about/localfood.htm	Provincial Government Department, responsible for strategy implementation and performance monitoring
	Becky Parker	Ontario Agri-Food Education Inc.	http://www.oafe.org	Food Literacy programmes, teacher resources

	George Byrd	Programme Lead, Local Food		Focus on Peri-Urban / Urban Agriculture as part of economic development
	Helen Scott	Regional Economic Development Branch		Local food economic development, business support, not-for-profits and youth; Food Literacy, working with 215 agriculture societies & 291 horticulture societies
	Kelly Ward	Brand Services, Foodland Ontario	http://www.foodland.ca	Focus on consumer behaviour research
	Carolyn Kibro	Agricultural Economic Development Advisor	http://www.omafra.gov.on.ca/english/about/localfood.htm	Work with clients in the field to implement OMAFRA programs, e.g. local food processing
	Jaya James	Economic Development Policy Advisor	http://www.omafra.gov.on.ca/english/about/localfood.htm	Policy advice on local food, food processing and aboriginal food literacy OMAFRA
12.8.14	**Kathy McPherson**	Director, Friends of the Greenbelt Foundation	http://www.greenbelt.ca/about_the_greenbelt http://www.**foodshare**.	OMAFRA Farmland preservation, local food marketing and branding

	Opal Sparks	Foodshare Ontario	net	Food security, education and training, food literacy
13.8.14	**Brian Cook**	Toronto Food Policy Council	http://tfpc.to	Food system advocacy, networking, research, writing
	Wayne Roberts	Author, food policy analyst and scholar	http:///wayneroberts.ca	Food policy, food systems
	Kirsten Howe	The Stop / Greenbarn	http://www.thestop.org	Community food centre, food security, community kitchens, empowerment
14.8.14	**Nick Saul**	Founder, Community Food Centres, Canada	http://www.cfccanada.ca	Community food centres, advocacy, financing, partnerships
	Ran Goel	Founder, Fresh City Farms	https://www.freshcityfarms.com	City farms, local direct sales, commercial scale
	Rebecca Le Heup	Ontario Culinary Tourism Alliance	https://ontarioculinary.com	Promotion of culinary tourism amongst the local food producers and businesses of Ontario – regional economic development
	Verity Dimock	Black Creek Community Farm	http://everdale.org	Community supported agriculture, farmer training, food security for low-income neighbourhoods, education and training
15.8.14	**Katie German**	School Grown Program, Foodshare Toronto	http://www.foodshare.net/schoolgrown	Employment and training, commercial scales, food literacy, hands-on learning for high school students
	Hannah	Local Organic Food	http://cultivatingfoodco	Supporting and strengthening the food co-

	Renglich	Co-operative Network	ops.net	operative movement in Ontario
	Ayal Dinner	Greenest City	http://greenestcity.ca	Environmental education, urban agricultural, multi-ethnic low-income communities
	Lynne / Donna	Ontario Public Health Association	http://www.opha.on.ca/Home.aspx	Health promotion and education
16.8.14	**Rhonda Teitel-Payne**	Toronto Urban Growers	http://torontourbangrowers.org	Support, promotion and networking of urban gardeners in Toronto
18.8.14	**Pancho Zelaya, Myrna, Daniella, Martin, Fernanda Rodriguez, Karina Perez, Daniel Perez, Paulo Gutierrez, Lucas,**	Coordinator, Pro Huerta Program, San Miguel de Tucumán, Argentina: And members of his team, agronomists, nutritionists, sociologists	http://www.desarrollosocial.gob.ar/prohuerta/149	Food security, self-sufficiency, small-scale backyard production for low-income families Overview of the program of Pro Huerta-INTA in the province of Tucuman
	Alejandro Rios	Professor of Sociology, National University, Tucumán	http://capydes.com.ar/moodle/user/view.php?id=2&course=1	History and sociology of agrarian policy in Argentina
		Pro Huerta Team, Rio Sali		Local coordination of Pro Huerta program, partnerships and collaborations
19.8.14	**Don Corvolan**	Huertero (Gardener), Tucumán		Market gardening, self-consumption and sale

	Don Javier	Huertero, San Juan, near Tucumán		Small-scale backyard gardening, low-income neighbourhoods
	Maria, Fernanda, Brenda	Barrio Nestor Kirchner, Tucumán		Small-scale backyard gardening, low-income neighbourhoods
20.8.14	**Don Julio Oracio Ruisinola**	Famallá, Provincia de Tucumán		Small-scale commercial market gardening, poultry production
	Local staff	INTA-Pro Huerta, Famallá, Tucumán Province		Demonstration plots, agronomy, trialling seeds and varieties
	Don Graciel	Famallá, Tucumán Province		Back-yard gardening, self-sufficiency
	Students and teachers	Escuela Especial Famallá, Tucumán Province		School garden for children and youth with disabilities, therapeutic gardening
21.8.14	**Don Miguel**	San Miguel de Tucumán		Small-scale market garden, for self-consumption and sale, on vacant lot
	Adrian	San Miguel de Tucumán		Local egg incubator and production
	Staff and Students	Centro Las Moritas	https://www.facebook.com/centroderehabilitacion.lasmoritas	Public rehabilitation centre for young drug addicts – therapeutic vegetable gardening

	Adriana	Pro Huerta, San Miguel de Tucumán	Support for healthy eating, backyard vegetable gardens
22.8.14	**Norma and Marena**	Centro Mutual, Villa Amalia, Tucumán Province	Local health, nutrition and community centre, training and education
	Carlos	Pro Huerta, Tucumán	Agro-ecological production methods, agronomy, training & education
	Staff and volunteers	CAPS – Local Community Health Centre	Health and nutrition education, community garden
	Cecilia Gomez	San Miguel de Tucumán	Small-scale backyard gardening, self-consumption
	Don Romero	San Miguel de Tucumán	Small-scale backyard gardening, self-consumption
23.8.14	**Beatriz Giobellina / Carly**	Pro Huerta, Córdoba	Local markets, support for local sustainable producers
24.8.14	**Beatriz Giobellina**	Alta Gracia	Local markets, direct sales, agro-ecological production, social inclusion
25.8.14	**Jorge**	Córdoba	Secretary of Family Agriculture, Federal Government. Technical and market support for small-scale agro-ecological producers
	Nuria		Bio-diverse small-scale production, local direct markets

	Damian	Piedra Blanca		Family economy, small-scale chicken production for precarious urban residents / self-consumption / income generation
26.8.14	**Beatriz Gobellina / colleagues**	Córdoba		Urban Agriculture Seminar, National University of Cordoba
	Rosa	Córdoba		Bolivian migrant, small-scale (quinta – 3 acres, rented) commercial production, agro-ecology
	Antonio	Córdoba		San Carlos Co-operative – agro-ecological small-scale production, direct sales to public / businesses
27.8.14	**Susana Bartolome / Marcelo Tengalia**	Municipality of Rosario, Social and Solidarity Economy	**http://www.rosario.gov.ar/sitio/desarrollo_social/empleo/menuempleo.jsp?nivel=DesarrolloSocial&ult=D_10**	Secretary of the Social and Solidarity Economy, support for Urban Agriculture, commercialization and marketing
	Antonio Lattuca	Coordinator of Urban Agriculture, Rosario	**http://www.rosario.gov.ar/sitio/desarrollo_social/empleo/agricul.jsp**	Strategic planning and development of network of 5 'Parques Huerta', and network of producers' markets
	Tomasa	Coordinator, Parque Huerta Los Bosques, Rosario	**https://www.facebook.com/agriculturaurbana.rosario**	Training, education, support for families engaged in self-sufficient and small-scale production
	Adela / Marta	Zona Zero, Rosario	**https://www.facebook**	Small-scale self-sufficient production –

			.com/agriculturaurbana.rosario	public median strips, precarious housing area
28.8.14	**Mariana**	Rosario, Municipality of Rosario, Food commercialization	http://www.rosario.gov.ar/sitio/desarrollo_social/empleo/alimentos_presentacion.jsp	Food value-adding and training incubator
	Neli Cantero	Rosario, El Huerterito	https://www.facebook.com/agriculturaurbana.rosario	Community garden / market garden – small-scale self-sufficient production
	Antonio Lattuca / Marcelo Tengalia	Huerta La Tablada	https://www.facebook.com/agriculturaurbana.rosario	4 hectare urban farm, worked by 10 families, near the city centre of Rosario
	Dona Lily	Red de los Huerteros de Rosario	https://www.facebook.com/agriculturaurbana.rosario	Producers market / Urban farmers & gardeners network
29.8.14	**Viviana / Gregorio**	Vivero Ecológico, Rosario	https://www.facebook.com/viveroagroecologicoros	Agro-ecological plant nursery, city centre
	Ida / Archento	Parque Huerta Molino Blanco, Rosario	https://www.facebook.com/agriculturaurbana.rosario	4 Hectare Urban Farm, Rosario, worked by 15 families
	Various	Parque Huerta Hogar Español, Rosario	https://www.facebook.com/agriculturaurbana.rosario	3 Hectare Urban Farm, Rosario, worked by 10 families
30.8.14	**Valeria, Ruben,**	Mercado	http://www.equitativo	

	Ana, Mariana	Cooperativa, Red de Comercio Justo	**.com.ar/localesventaRACJ.htm**	
	Antonio Lattuca	Compañia Natural, Rosario		Small-scale retail, direct sales of local produce
31.8.14	**Myrian Barrionuevo**	Neuquén		
, 1.9.14	**Ariel Zabert**	Programa PRODA, Neuquén	**http://www4.neuquen.gov.ar/proda/**	Provincial-level urban agriculture, education, training, small-scale commercialization and self-sufficient production
	Marta & others	Huerta Protegida, Programa PRODA, Neuquén	**http://www4.neuquen.gov.ar/proda/**	1 acre community garden supporting 16 families, self-sufficient production, small-scale commercial sales
	Ariel Zabert	Hospital Heller / Programa Proda	**http://www4.neuquen.gov.ar/proda/**	Therapeutic small-scale market garden and composting, for mental health patients of local hospital
	Leandro Bertoya	Provincial Minister for Territorial Development, Neuquén	**http://www.desarrollandonqn.gov.ar/contenido.aspx?Id=NOV-07369**	Provincial Minister, Regional Strategies
2.9.14	**Eduardo Zemán**	Coordinator, Pro Huerta Neuquén		Demonstration garden, school
	Patricia	Huerta Mostrativa, Barrio 16, Neuquén		Demonstration garden, local barrio
	Eduardo Zemán	Local abattoir, Neuquén meseta		Local infrastructure for small-scale producers

	Julian	Neuquén meseta		Community house, low income neighbourhoods
	Erica	Neuquén meseta		Small-scale production / Forum of Family Producers
	Walter and Daniela	Neuquén meseta		
3.9.14	**Ignacio Pastawaki**	Centenario, Neuquén Province		Therapeutic garden for mental health patients
	Ignacio Pastawaki	Chanar, Neuquén Province	**https://www.facebook.com/pcadoschanar.neuquen**	1.5 hectare urban farm, communally worked, education and training, self-sufficient production, small-scale commercialization, food value-adding, wine and cider making
4.9.14	**Myrian Barrionuevo**	Neuquén – Urban Agriculture Dept, Municipality of Neuquén		Local government support for small-scale urban agriculture / self-sufficient production
	Myrian Barrionuevo, Secretary of Small Family Farmers	Cipoletti, Neuquén Province		12 Hectares of private land, leased to the municipality, brokered by Pro Huerta, 25 local families space to grow for self-consumption
5.9.14	**Myrian Barrionuevo & others**	Workshop, Urban Agriculture and family production in Neuquén Province		
6.9.14	**Hugo**	FaSinPat, Zanon, Neuquén		Worker-owned co-operative tile-making factory

9.9.14	**Mariela Piñero, Program of the Self-Production of Foods**	Mar del Plata, Feria Verde AgroEcologica	**https://www.facebook.com/prohuertamdp/timeline**	Small-scale artisanal products, local producers
	Daniel / Amelia	Mar del Plata	**https://www.facebook.com/ProgramaAutoproduccionDeAlimentos/info**	Artesanal home production of preserves and jams
10.8.14	**Marcos & Miguel Cariño**	Mar del Plata	**https://www.facebook.com/ProgramaAutoproduccionDeAlimentos/info**	Small-scale agro-ecological production
11.8.14	**Mariela Piñero & others**	Mar del Plata, Feria Verde del Sur	**https://www.facebook.com/ProgramaAutoproduccionDeAlimentos/info** / **https://www.facebook.com/prohuertamdp/timeline**	Small-scale artisanal producers, local 'green' market
12.8.14	**Jorge**	Granja Orgánica, Mar del Plata	**https://www.facebook.com/ProgramaAutoproduccionDeAlimentos/info**	2 hectare bio-diverse demonstration farm
	Mariela Piñero Dona Estela	Mar del Plata	**https://www.facebook.com/ProgramaAutoproduccionDeAlimentos/info**	Backyard gardening, artisanal home production
		Cátedra Abierta,		Open forum presentation and discussion on

	Soberania Alimentaria, University Mar del Plata	food sovereignty

PART 1: INTRODUCTION, DEFINITIONS, CONCEPTS

Introduction

This Fellowship was particularly focused on exploring models and initiatives in which urban agriculture is being used, consciously and explicitly, to generate livelihood and employment opportunities for its participants; and to enhance the food security of low income and vulnerable populations, i.e. to improve their access to good food. This motivation stemmed from earlier research in Australia[4] (NCCARF, 2012), as well as anecdotal observation and experience, which suggested that urban agriculture as practiced in Australia was – with some notable exceptions (e.g. Cultivating Community, CERES Environment Park, Northey St, Mullumbimby Community Garden) largely restricted to relatively small-scale, inner urban community gardening, in which the participants tended to be relatively affluent individuals (i.e. generally not experiencing or at risk of experiencing food insecurity), who were growing food for their own personal consumption. It was therefore felt that the potential of urban agriculture was not being fully realised in Australia. The aim of the Fellowship was to explore innovative models in the sites selected, with the intention of bringing back to Australia lessons and ideas that could be adopted by groups and individuals already working in urban agriculture here; to support local governments that were already developing and implementing urban agriculture policies and frameworks, and encourage others to do the same; and to make the case to State governments and the Federal government for recognition and resourcing of this movement.

More broadly, as a philosophical and political commitment that has informed both the undertaking of this Fellowship and his advocacy and research work in general, Dr Rose believes that it is only through working together, with a common vision, and a common set of shared values and principles, that we can make the necessary social, economic, cultural and political changes to give ourselves, and more importantly our descendants, a prospect of a decent future. It is not only the food and agriculture system that is at a crossroads; humanity is at a crossroads.[5] It is no exaggeration, to state, having regard to our existing state of scientific knowledge, and observed trends regarding the dangerous and non-linear destabilization of our climate, that our very survival *as a species* is at stake.[6]

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[4] *See* Burton, P, Lyons, K, Richards, C, Amati, M, Rose, N, Des Fours, L, Pires, V & Barclay, R 2013, *Urban food security, urban resilience and climate change*, National Climate Change Adaptation Research Facility, Gold Coast, available at http://www.nccarf.edu.au/publications/urban-food-security-resilience-climate-change

[5] The metaphor of a 'crossroads' in *evolutionary terms* comes from the work of cell biologist Dr Bruce Lipton, *Spontaneous Evolution* and *Crossroads: Labor Pains of a New Worldview*

[6] Official bodies such as the International Panel on Climate Change (IPCC) and the World Bank are already warning of 'severe disruption' to the world's food supply 'within the next decade': http://www.smh.com.au/environment/climate-change/climate-change-may-disrupt-global-food-system-within-a-decade-world-bank-says-20140827-108w8x.html. Meanwhile, critical scholars argue that IPCC reports are inherently conservative and therefore downplay the likely

Since our food and agricultural systems are responsible for so much of the destructive patterns of the present, they also hold the key for constructive pathways forward. In a volatile, uncertain and rapidly changing world, urban agriculture and local food systems are not merely good things to be supporting; they are right and necessary steps that should be embraced wholeheartedly as essential components to a decent present and a livable future.

Stephanie Calloway, CORE / El Centro, Milwaukee

Definitions and concepts

What is urban agriculture?

Urban agriculture is a dynamic and multi-dimensional complex of practices and actions in which an estimated 800 million people worldwide are engaged.[7] It directly provides food to these 800 million people, via production for self-consumption, and to many hundreds of millions more through the sale of surpluses.[8] It therefore forms an integral part of livelihood and survival strategies for a significant percentage of humanity.

The United Nations Food And Agriculture Organisation (FAO) defines urban and peri-urban agriculture (UPA) as follows:

> *Urban and peri-urban agriculture (UPA) can be defined as the growing of plants and the raising of animals within and around cities.*
>
> *Urban and peri-urban agriculture provides food products from different types of*

extreme severity of non-linear climate change: http://guymcpherson.com/2013/01/climate-change-summary-and-update/.

[7] See http://www.fao.org/urban-agriculture/en/.

[8] Note estimates of percentage of food in Cuba generated by urban agriculture, in Russia (the Dachnik PhD research) and in China

crops (grains, root crops, vegetables, mushrooms, fruits), animals (poultry, rabbits, goats, sheep, cattle, pigs, guinea pigs, fish, etc.) as well as non-food products (e.g. aromatic and medicinal herbs, ornamental plants, tree products).

UPA includes trees managed for producing fruit and fuelwood, as well as tree systems integrated and managed with crops (agroforestry) and small-scale aquaculture.[9]

The definition set out below is the result of a collaborative process involving multiple participants in the development of an 'Urban and Regional Food Declaration', undertaken by the Food Alliance in Melbourne, Victoria, from September 2013 to May 2014 (the Food Declaration is included in this report as Appendix [A]) and facilitated by Dr Rose.[10]

According to this definition, urban agriculture is:

A diversity of urban food and non-food growing, processing, exchange and distribution activities in different contexts and scales (e.g. individual / street-level food growing, community gardening, small-to-medium sized social enterprise, and commercial production / market gardens), all of which share the crucial feature of being embedded in urban ecological and economic systems. Urban agriculture is broadly defined to include the peri-urban.

Urban agriculture (and associated urban food production) may include:

- *vegetable and fruit growing,*
- *livestock raising, especially poultry*
- *beekeeping,*
- *aquaculture, hydroponics and aquaponics*
- *value-adding (e.g. making preserves)*

Urban agriculture can exist in many forms and on a variety of sites such as:

- *private gardens*
- *land managed by private institutions / businesses, including rooftops and vertical gardens*
- *privately-owned land, including vacant lots awaiting development or in disuse / abandonment*
- *land owned by public / public-private utilities*
- *publicly-owned land, including nature strips/verges, and street planter boxes*
- *schools, childcare centres, aged care facilities, universities, hospitals and other similar institutions*

Connecting food producers to consumers through produce exchanges, urban harvests, farmers markets and community events around food is strongly emphasised in this definition. As a part of a wider fair, sustainable and resilient food system, urban agriculture is both influenced by, and dependent on, economic,

[9] Link to url … url needed

[10] *See* http://www.foodalliance.org.au/urban-and-regional-food-network-and-charter-and-the-food-profile-assessment-tool/.

social and environmental dynamics. This definition accordingly adopts Mougeot's (1999) notion of urban food production as being 'embedded' within the urban ecosystem, i.e. within the ecological and economic systems that are an integral part of the urban social sphere.

'Urban' here includes food growing in suburban areas, regional centres, cities and towns. It does not include larger-scale irrigated and broad-acre farming; or smaller-scale farming that takes place in a rural setting. While commonly a distinction is made between 'urban' and 'peri-urban' agriculture, with the latter describing intensive market gardening and other forms of commercial-scale horticulture on the fringes of cities and larger metropolitan areas, for the purposes of this document, 'urban' is broadly conceived so as to include the peri-urban or hinterland.[11]

Food security

The FAO defines food security as: "a condition in which all people at all times have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life".

Complementing this high-level and fairly technical definition, the Community Food Security Coalition (United States, 1994-2012) developed a richer, more integrated and systemic, principles-driven concept of 'community food security', which speaks more fully to the perspectives of the individuals and organisations that participated in this Fellowship:

Six Basic Principles of Community Food Security

Community food security represents a comprehensive strategy to address many of the ills affecting our society and environment due to an unsustainable and unjust food system. Following are six basic principles of community food security:

Low Income Food Needs
Like the anti-hunger movement, CFS is focused on meeting the food needs of low-income communities, reducing hunger and improving individual health.

Broad Goals
CFS addresses a broad range of problems affecting the food system, community development, and the environment such as increasing poverty and hunger, disappearing farmland and family farms, inner city supermarket redlining, rural community disintegration, rampant suburban sprawl, and air and water pollution from unsustainable food production and distribution patterns.

Community focus
A CFS approach seeks to build up a community's food resources to meet its own needs. These resources may include supermarkets, farmers' markets, gardens, transportation, community-based food processing ventures, and urban farms to name a few.

Self-reliance/empowerment
Community food security projects emphasize the need to build individuals' abilities to

[11] Mougeot, L.J.A, 1999, *Urban agriculture: definition, presence, potentials and risks*, available at http://www.ruaf.org/sites/default/files/Theme1_1_1.PDF.

provide for their food needs. Community food security seeks to build upon community and individual assets, rather than focus on their deficiencies. CFS projects seek to engage community residents in all phases of project planning, implementation, and evaluation.

Local agriculture
A stable local agricultural base is key to a community responsive food system. Farmers need increased access to markets that pay them a decent wage for their labor, and farmland needs planning protection from suburban development. By building stronger ties between farmers and consumers, consumers gain a greater knowledge and appreciation for their food source.

Systems-oriented
CFS projects typically are "inter-disciplinary," crossing many boundaries and incorporating collaborations with multiple agencies.

Cesar, Urban Farmer, Pete's Community Farm, Milwaukee

Food sovereignty

This conceptualization of community food security has a great deal in common with food sovereignty. Food sovereignty was developed as a concept and a political program by the global small and family farmer organisation, *La Via Campesina* (the Farmer Path, or the Farmer Way) in the lead-up to the 1996 World Food Summit in Rome. Its essence is a call for a democratic food system, locally, nationally and globally, in which the full realization of the universal human right to adequate food is attained by enabling all stakeholders in the food system to work together for mutually beneficial outcomes that prioritise human health and well-being and ecosystem integrity.[12]

[12] *See* the Declaration of Nyeleni for an elaborated articulation of food sovereignty: http://nyeleni.org/spip.php?article290, and further below.

Food sovereignty – and indeed *La Via Campesina* as a global family farmer movement – emerged in the context of the rapid push to globalise trade in food and agricultural products, under the aegis of the World Trade Organisation and a growing number of free trade agreements. Through extensive cross-cultural exchanges amongst family farmers from the late 1980s onwards, a clear position emerged that a nascent globalised food system that privileged the financial interests of large agri-business and food corporations over the basic survival and quality of life needs of producers and local communities posed an existential threat to the latter.[13] Hence food sovereignty has become the rallying cry for all those who seek to preserve and enhance the values and traditions of localised food systems in which food embodies rich layers and culture and meaning, and is far more than a simple commodity to be bought and sold in the marketplace.

Nyeleni Declaration

The main contours of food sovereignty were developed during the Nyeleni Forum, held in Selingue, Mali, in February 2007.[14] 500 peasant farmers, pastoralists, fisher folk, agricultural workers, and representatives from grassroots organisations focused on the rights of women, youth and indigenous peoples, engaged in sustained debate over five days and produced the *Declaration of Nyeleni*, which also summarized the 'Six Pillars of Food Sovereignty' as follows:

The six pillars of food sovereignty[15]

- ***Focuses on food for people**: The right to food which is healthy and culturally appropriate is the basic legal demand underpinning food sovereignty. Guaranteeing it requires policies which support diversified food production in each region and country. Food is not simply another commodity to be traded or speculated on for profit.*

[13] Desmarais Food Sovereignty; Desmarais et al…; Holt-Gimenez, Food Movements

[14] See http://www.world-governance.org/article72.html

[15] See http://www.wdm.org.uk/food-sovereignty#sthash.g2nNjElJ.dpuf

- ***Values food providers**: Many smallholder farmers suffer violence, marginalisation and racism from corporate landowners and governments. People are often pushed off their land by mining concerns or agribusiness. Agricultural workers can face severe exploitation and even bonded labour. Although women produce most of the food in the global south, their role and knowledge are often ignored, and their rights to resources and as workers are violated. Food sovereignty asserts food providers' right to live and work in dignity.*

- ***Localises food systems**: Food must be seen primarily as sustenance for the community and only secondarily as something to be traded. Under food sovereignty, local and regional provision takes precedence over supplying distant markets, and export-orientated agriculture is rejected. The 'free trade' policies which prevent developing countries from protecting their own agriculture, for example through subsidies and tariffs, are also inimical to food sovereignty.*

- ***Puts control locally**: Food sovereignty places control over territory, land, grazing, water, seeds, livestock and fish populations on local food providers and respects their rights. They can use and share them in socially and environmentally sustainable ways which conserve diversity. Privatisation of such resources, for example through intellectual property rights regimes or commercial contracts, is explicitly rejected.*

- ***Builds knowledge and skills**: Technologies, such as genetic engineering, that undermine food providers' ability to develop and pass on knowledge and skills needed for localised food systems are rejected. Instead, food sovereignty calls for appropriate research systems to support the development of agricultural knowledge and skills.*

- ***Works with nature**: Food sovereignty requires production and distribution systems that protect natural resources and reduce greenhouse gas emissions, avoiding energy-intensive industrial methods that damage the environment and the health of those that inhabit it.*

Many participants in this research explicitly identified themselves, their organisations and their goals with the global movement for food sovereignty. For example, *Keep Growing Detroit* describes its mission as being to:

> *Promote a food sovereignty city where the majority of fruits and vegetables Detroiters consume are grown by residents within the city's limits…Our organisation's strategic approach to achieving our mission facilitates beginner gardeners becoming engaged community leaders and food entrepreneurs, addressing the immediate needs of the community while promoting sustainable change in our food system…With the support of the Garden Resource Program (GRP) nearly 20,000 residents are choosing to cultivate a garden or a farm, transforming their personal relationship with food. Through the GRP, Keep Growing Detroit provides high quality seeds and sustainably, locally grown [cultivars] to 1,400 family, community, school and market gardens across the city…*[16]

[16] See http://detroitagriculture.net/about

Participants on Keep Growing Detroit's Annual Urban Agriculture Tour, Detroit

Similarly the Cátedra Libre de Soberanía Alimentaria (also known as the Cátedra Abierta de Soberanía Alimentaria - The Free Lecture on Food Sovereignty) is a growing national network in Argentina that promotes open discussion and debate on issues concerning the food and agriculture system in that country. The network operates in several provinces and typically takes the form of a monthly gathering during which an invited speaker presents on a particular topic of interest and relevance to the theme of food sovereignty. During his visit to Argentina Dr Rose was fortunate enough to be asked to present on the findings of his Churchill trip to North America, and about the emergence of a 'fair food' movement in Australia, in four out of the five provinces that he visited.

Agroecology

The last two of the 'six pillars' (above) foreground an approach to food production and land use known as 'agroecology'. According to one of the world's leading experts in the field:

> *Agroecology is a scientific discipline that uses ecological theory to study, design, manage and evaluate agricultural systems that are productive but also resource conserving. Agroecological research considers interactions of all-important biophysical, technical and socioeconomic components of farming systems and regards these systems as the fundamental units of study, where mineral cycles, energy transformations, biological processes and socioeconomic relationships are analyzed as a whole in an interdisciplinary fashion*.
> Miguel Altieri (http://agroeco.org/)

Agroecology embraces, or at least overlaps, with production systems familiar in the Australian context such as 'certified organic', 'holistic management' and 'biodynamic'; however it goes beyond all of these because, as Professor Altieri explains, it also integrates socioeconomic and sociopolitical questions as part of its interdisciplinary analysis and practice. Agroecology thus has a strong affinity with food sovereignty, which is a socio-political movement.

Agroecology is a complex, evolving and multi-disciplinary area. It is concerned with the interconnectedness and inter-relationship of multiple systems:

- agriculture,
- eco-systems,
- landscapes,
- waterways,
- climate, and
- socio-economic and socio-political systems.

It does not propose a 'one-size fits all' approach or model, but rather requires site-specific understandings of particular farms and bio-regions in order to assess whether or not particular technologies or inputs are or are not appropriate, given the goals of farm productivity and resource conservation.

Professor Miguel Altieri's definition makes this clear. Four hundred of the world's leading agricultural scientists[17], and the United Nations Special Rapporteur on the Right to Food[18], have identified agroecology as an important, indeed necessary, approach to 'feeding the world' fairly and sustainably.[19] Most of the interviewees in this Fellowship in Argentina saw their work as being grounded in, and supportive of, the principles of agroecology. In the United States and Canada, by contrast, production was generally described as being 'organic' or 'non-chemical', with little familiarity with agroecology.

Community-Based Food System

While a food system describes all components of food production and manufacturing, a community-based food system, which is the focus of the overwhelming majority of participants in this Fellowship, is characterized as being:

> *…interconnected, place-based, ecologically-sound, economically productive, socially cohesive, food secure and food literate…The concept of a community food system is sometimes used interchangeably with a 'local' or 'regional' food system, but including the word 'community' emphasizes strengthening the existing (or developing new) relationships among all components of the food system. Establishment of a community food system reflects a prescriptive approach to building a food system that holds sustainability – economic, environmental and social – as a long-term goal toward which the community strives.*[20]

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[17] *See* the Internaional Assessment of Agriculture Knowledge, Science and Technology for Development (IAASTD), http://agassessment.org/.

[18] DeSchutter, O. and Vanloqueren, G. 2011. "The New Green Revolution: How Twenty-First-Century Science Can Feed the World" The Solutions Journal, 2(4) pp.33-44. http://www.thesolutionsjournal.com/node/971

[19] *See* http://www.yesmagazine.org/planet/un-only-small-farmers-and-agroecology-can-feed-the-world.

[20] City of Milwaukee Sustainability Plan 2013.

The benefits of urban agriculture and local food

As mentioned, this Fellowship focused particularly on the economic / livelihood dimensions of urban agriculture, and its capacity to meet food security needs of vulnerable and low-income populations. However the benefits of urban agriculture are wide-ranging and multi-dimensional. They include environmental enhancements, health and well-being, community, social and economic development, education and training, and active citizenship. All these benefits will be referenced in the discussion of the research that comprised this Fellowship in the following pages. A list of some of the main benefits of urban agriculture can be found in Appendix B.

Nicky von Kondrat milking one of her goats, VK Urban Farms, Southside Chicago

PART 2: THE CONTEXT OF THE COUNTRIES VISITED

In this section, the relevant historical, political, economic and cultural contexts of the urban areas visited during the Fellowship are briefly outlined.

US Midwest – Chicago / Milwaukee / Detroit

The region of the United States visited during this Fellowship is, in simple geographic terms in relation to its location within the larger US continent, described as the 'Midwest', including states such as Michigan, Illinois, Wisconsin, Missouri, and Minnesota. In political economy and historical terms, it is known as the 'Rust Belt'. This phrase refers both to the history of the region as the former 'industrial heartland of America', with coal mining, steel production and substantial car manufacturing and many other heavy industries; and more especially to its contemporary 'post-industrial' reality, in which the great majority of these industries have closed down or are in substantial decline, with major repercussions for the social and economic fabric of the cities and towns of the region. At the same time, research reveals a 'phoenix rising' phenomenon in at least some rust-belt regions.[21]

Abandoned house marked for demolition, Englewood, Southside Chicago

One notable feature has been the exodus of residents from several cities from the inner neighbourhoods to the outer suburbs, with a number of cities, notably Detroit, losing nearly half their population.[22] This phenomenon, which is very stratified racially (i.e. most of those exiting to the suburbs are white, most of those who remain in the now-declining inner neighbourhoods are African-American), has, as one would expect, led to a sharp rise in levels of poverty and

[21] *See* http://chicagopolicyreview.org/2013/12/16/rising-from-the-ashes-economic-transformation-in-rust-belt-cities/

[22] See Daniel Hartley, 2013, **Urban Decline in Rust-Belt Cities**, www.clevelandfed.org/research/commentary/2013/2013-06.cfm

unemployment, with average incomes declining by as much as 30 percent.[23] Crime levels are high, and these neighbourhoods are marked by a lack of investment in basic infrastructure, such as maintenance of roads and buildings. In terms of food security and equity, many are regarded as 'food deserts', which refers to an urban environment in which there is a proliferation of fast-food and liquor outlets, and a paucity of fresh food outlets.[24]

This is the context in which urban agriculture is developing in the areas that Dr Rose visited on the first leg of his Churchill Fellowship. In many places, the expansion of urban agriculture is in a very real sense driven by the pressing requirement to meet the need for access to good, affordable food; and to generate income to meet other living expenses.

Chicago

Chicago is the third-largest city in the United States (after New York and Los Angeles), with a population of 2.7 million (2013) and a metropolitan population of 9.7 million. Founded in 1833, it is a major national and international cultural, financial and commercial centre. During its 180-year history and expansion it has experienced major waves of immigration, notably from Europe in the second half of the 19th century, and then from the American South in the second and third decades of the 20th century, during what became known as the 'Great Migration' of African Americans northwards in search of employment and a better, more dignified life.

Like other Rust Belt cities, parts of Chicago have been heavily affected by the loss of industry and manufacturing jobs from the 1970s onwards in the era of the globalised economy. In the urban geography of Chicago, the southern neighbourhood of Englewood has been most affected by this dynamic, losing more than two-thirds of its population between 1960 and 2010 (from a peak of 97,000 to 30,000).

In this context urban agriculture has a critical role to play in multiple ways. Dr Emmanuel Pratt is the Chicago Director of the Sweetwater Foundation, which has recently taken over the lease on a 2.5 acre urban farm in Perry St, Englewood. He described what the enterprise aimed to achieve, in the broader context of Englewood, in these terms:

> *It was a really heavy focus on community first, and then weaving in the economics. It's about human infrastructure first, getting people employed in the neighborhood, feeding people in the neighbourhood, and from there bringing in other resources, such as other farmers and entrepreneurs. Anything that [enhances the quality of life] in a neighbourhood like [Englewood] which has lost so much of its population – you see the houses are gone, there's foreclosures all over the place, a lot of shootings…The only way for it to be a sustainable endeavour, is to have real community connections. So we relationships with a local network of churches, with*

[23] Hartley *ibid.*

[24] *See* http://apps.ams.usda.gov/fooddeserts/fooddeserts.aspx for the United States Department of Agriculture's definition of 'food desert'.

the local people who live right across the street; we want to convert the vacant house on the site into an office space / wellness space – we can have meetings, gatherings, workshops, teleconferences, indoor aquaponics and hydroponics, a temporary artist in residency…

Dr Emmanuel Pratt of the Sweetwater Foundation, with fresh produce at Perry St Farm, Englewood, Chicago. The Sweetwater Foundation also operates an educational aquaponics facility on the Southside of Chicago.

In terms of urban agriculture, Chicago has a significant number of innovative individuals and organisations that are engaged in a diversity of activities in various parts of the city. During his week in Chicago, Dr Rose spent most of his time in Englewood on the south side, and Kedzie on the west side which is also an area that has suffered substantial 'urban blight', though not quite as dramatically as Englewood.

Growing Power's Art in the Park Urban Farm, Grant Park, Chicago downtown.

Milwaukee

Milwaukee is located on the western shore of Lake Michigan, and is the largest city in the state of Wisconsin, with a population of approximately 600,000, and a metropolitan population of 1.57 million. Founded in 1818, the city was strongly influenced by a large influx of German immigrants during the middle decades of the 19th century, which amongst other things led to the city becoming a prominent centre for breweries. Traditionally a centre for manufacturing and food processing, with Wisconsin being a major agricultural state, Milwaukee has lost '77,000 manufacturing jobs since 1970, [resulting] in private sector disinvestment in city neighbourhoods, where job losses have been widespread.'[25]

Milwaukee, like many other parts of the United States, has been very hard hit by the home foreclosure crisis that has been unfolding since the housing market peaked in 2007. With the advent of the Global Financial Crisis in 2008 and the resulting sharp rise in unemployment in many parts of the country, the capacity of many homeowners to continue to finance their mortgages has declined rapidly. Homes are both foreclosed and abandoned, and since the City of Milwaukee is the first creditor in line in cases where property taxes are unpaid, this has left the municipal government with a large reserve of foreclosed homes

[25] City of Milwaukee Sustainability Plan 2013.

and vacant lots, where foreclosed and / or abandoned houses have been demolished. This spatial phenomenon is concentrated in socioeconomically deprived areas of the city's inner north, and the population most affected is African American:

> *The City of Milwaukee owns approximately 900 foreclosed homes and 2,700 vacant lots, most of which are located in low-income neighbourhoods. In these same neighbourhoods, poverty and lack of readily available healthy food create systemic food access and health issues. Healthy food can be expensive, and, in certain areas, difficult to find, disproportionately affecting low-income Milwaukeeans. A study of one typical neighbourhood found that two-thirds of corner stores did not sell fresh food. Additionally, more than two-thirds of residents reported inadequate produce consumption and one-third of residents were obese…Milwaukeeans (regardless of income) report unhealthy eating: 69 percent do not consume the recommended number of services of fresh fruits and vegetables daily, 51 percent report no access to healthy food, 37 percent are overweight and 31 percent are clinically obese. These percentages increase for lower socioeconomic groups…more than 80 percent of children who receive one or more meals a day through the Milwaukee public schools participate in the free- and reduced-lunch program, which is an indicator of poverty.*[26]

These statistics form the baseline data for the City of Milwaukee's 'Home GR/OWN' plan for urban renewal of these neighbourhoods, which places urban agriculture at its heart.[27]

Detroit

Once the third richest city in the United States, Detroit is now amongst the most impoverished. Its population reached a peak of 1.8 million in the mid-1950s, and is now estimated to be 750,000. Detroit's prosperity was based on its being a centre of the car manufacturing industry in the United States, hence its nickname, 'Mo-Town', which also refers to the rich musical and cultural legacy of the city, originating in its African-American heritage. However with the rise of alternative and more competitive centres of car manufacturing from the 1960s onwards, Detroit saw most of its industry decline and collapse. Yet, almost as a testament to this recent prosperous past, many of the buildings, now empty shells and in various states of ruin, remain.

[26] From the 2013 Milwaukee Sustainability Plan, outlining the Base Line for the Home GR/OWN program.

[27] See http://city.milwaukee.gov/homegrownmilwaukee.com

Earthworks Urban Farm / Capuchin Soup Kitchen

Detroit was declared bankrupt as a city in December 2013, and for much of 2014 the residents of Detroit found themselves under the governance of an emergency financial manager, whose decisions overrode those of the Mayor and Councillors of the City of Detroit.[28] The mandate of the emergency manager was to attempt to recover debts owed, and the way this has been achieved, through cutting wages and pension entitlements of remaining public sector workers, has intensified already high levels of poverty and economic decline.[29]

Since Detroit has lost over half its population since 1950, the amount of vacant property and foreclosed houses is astonishing:

> *Detroit has been described as a ghost town, with large sections of the city being allowed to grow wild. More than half of the residential lots in many neighborhoods stand abandoned and urban decay represents a real barrier to any significant recovery. Detroit currently has more than 31,000 empty houses, 70,000 abandoned buildings and 90,000 vacant lots.*[30]

There are competing visions over the future of Detroit, and what 'urban renewal' and 'recovery' means in this post-industrial context. Which means in turn that Detroit is a cauldron of contestation and struggle; and is seen by many as a test case for similar processes that may happen elsewhere. For those who have decades of history living in the city and witnessing its patterns of change over

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[28] *See* http://www.washingtonpost.com/blogs/govbeat/wp/2013/12/03/judge-declares-detroit-eligible-for-chapter-9-bankruptcy/;

[29] See Frederick Reese, 2014, *Detroit's Water Crisis: A symptom of urban shrinkage* http://www.mintpressnews.com/detroits-water-crisis-a-symptom-of-urban-shrinkage/194029/.

[30] Ibid.

time, there are some profound questions and opportunities being raised. Richard Feldman, long-time Detroit resident and organizer with the car workers section of the AFL-CIO trade union, spoke with Dr Rose about the first of the car manufacturers, while standing amongst the remnants of the factory:

> *This is the Packard Automative Plant – a luxury car company that was founded in 1905. The Plant was designed by Albert Cohn, an amazing architect who was able to design a factory using reinforced steel in concrete, allowing it to rise 3-5 stories high, whereas up till then you only had wooden factories. People migrated to work here from the countryside, from the South, and 15,000 people worked and lived here. They were paid well, and what it meant for people to come from the countryside to the city, it was the American dream unfolding. It was the beginning of mass production. This factory is 55 buildings, it used to make Rolls Royce engines for the war effort…It closed in 1955, and that was the beginning of the migration of work and plants from Detroit, to the suburbs and to the South.*

Ruins of the Packard Car Plant, Detroit

Feldman offered some personal reflections on the meaning of the dramatic changes that Detroit has experienced over the past five decades:

> *This is the beginning of the American Dream in 1900, and standing here now we see the pain of the American Dream as it is today in 2014. This is a story of time and place and ideas and lives changing. Here there were 15,000 workers; in the Rouge Plant in the 1930s, there were 95,000 workers. The concept of workers' power was a real thing, and that's what drew me to Detroit in 1970…*

The Boggs Center, Detroit

I don't come here and bring people here just because it's the rise and fall of the American Dream, or the rise and fall of the auto industry. It's also the rise and fall of an epoch in human history, of industrialism, of the enclosure of the commons, of the domination of women, of capitalism. That's what this is about, and that's what makes this generation so important, is that you have a chance to create a new epoch in this country. It's not about just creating a new social or socialist system, something small. It's a whole different world, and that's the writings of Grace and Jim [Boggs].

Long-time Detroit resident and activist for social and racial justice, Malik Yakini, is President of the Detroit Black Food Security Network and D-Town Urban farm, a 7-acre education, training and production site on the outskirts of the inner neighbourhoods.


Malik Yakini, D-Town Urban Farm and Detroit Black Food Security Network, Detroit

Malik lived through some of the city's most tumultuous events of the 1960s and 1970s, and reflected on the meaning of the current historical moment for Detroit, and beyond:

> *We should give up the illusion that the factories are coming back, or new factories will be built, that will employ thousands of people in Detroit. That's not going to happen. [I]t's now quite clear that you can't just have continuous growth. This idea that people will just consume more and more and more, and so we'll have more and more industry, and more and more wealth…you reach a certain point when you can't go any further, and I think we've reached, or are reaching, that point…So…how do we re-imagine creating economies that are going to…create employment, create ownership, create vibrant communities?*

Makr Space, Milwaukee

> *[Y]ou have the rise of this new thinking, what some people call 'New Work, New Culture', about different ways of living and being and relating to each other, and our environment. It's my belief that we will reach a critical mass, when peoples' consciousness will shift, and th[e] old way [of continuous growth] will seem antiquated, and will eventually fade away. Those major changes in human culture occur over time. When I was younger, we used to think that revolution was an 'event', and was something that would occur in a year, or two years, when we had this massive shift in power relationships.*
>
> *Clearly that's naïve. As I, and my contemporary fellow revolutionaries, have gotten older, we've realised it's a much more subtle and protracted process. We're seeing that process occur, but we don't know when that critical mass will be reached. So it's incumbent on those of us who are fighting for social justice to continue to build that critical mass; and at the same time to struggle to take people's allegiance away from the structures that oppress us.*

One of the lessons of history is that when a system falls into crisis, space opens for alternative ideas and practice to emerge and develop. That is what is happening in Detroit. And as Malik Yakini says, where it goes to next is highly contingent, on the actions and intentions of those involved. This is the context in which urban agriculture in Detroit – and similarly in Milwaukee and Chicago – needs to be understood.

Canada – Toronto

In contrast to the Rust Belt of the US Midwest, Toronto has not experienced anything like the collapse of major industries and associated urban de-population and the consequent emergence of a multitude of green spaces across the cities. That said, Toronto (and Canada more generally) has not been immune from the impacts of globalization, and the general historical tendency in the global political economy since the mid-1970s, which has resulted in a considerable polarization of wealth and a marked growth in inequality. Canada's welfare benefits system has come under pressure and there has been downwards pressure on wages and conditions with the embrace of free trade and greater flows of cheaper imported goods.

FoodShare Mobile Good Food Market. FoodShare is one of the longest established social justice food organisations in Toronto, working to alleviate food poverty and raise levels of food literacy.

This means that poverty and food insecurity are rising. A report released in August 2014 concluded that child poverty in Toronto had reached 'epidemic' levels, with '29 percent of children – almost 149,000 – living in low-income families.'[31] Housing affordability is a major reason for growing rates of poverty. At a national level, some four million Canadians – more than 10 percent of the

[31] See http://www.thestar.com/#/article/…[check] 27.8.14, Laurie Monsebraaten

population – are classified as food insecure, while 25% of Canadians are obese.[32] In these and other respects Toronto – and Canada more generally – has strong similarities with Australian urban realities.

Rooftop Farming, Everdale High School site, FoodShare Toronto. As well as learning all aspects of how to prepare the raised beds, germinate seedlings and grow the veggies, the high school students learn about food marketing, packaging and sales, since a portion of the produce is sold by them at farmers markets.

Argentina

With a population of 35 million, Argentina is the second largest country in South America, after Brazil. It is a major agricultural producer and exporter. Argentina's recent history has been turbulent: first, with the military dictatorship from 1976-1983 that left a devastating toll of some 30,000 people 'disappeared', with lasting personal, family and social scars[33]; and more recently with the dramatic near-economic collapse of 2000-2002, that saw unemployment and poverty rates skyrocket to over half the population. The country has recovered economically to some extent since then, however there has been a permanent lowering of standards of living for many millions of Argentines.[34]

In terms of agriculture, a particularly notable feature is the rapid expansion of the amount of arable land devoted to a single crop: genetically modified soybean. According to most estimates as much as 66% of all arable land – 47 million acres - in the country is now used to grow GM soy, at a very high social and

[32] See http://www.thestar.com/#/article/…[check] 12.10.14, Susan Walker

[33] For an account of the 'dirty war' by the *Madres del Plaza de Mayo* – the mothers of those who were disappeared – see http://madresdemayo.wordpress.com/the-dirty-war/.

[34] See http://www.argentinaindependent.com/socialissues/development/want-to-know-more-about-the-2001-2-crisis/ for a range of video and textual resources on the 2001-2 crisis and its legacy.

environmental cost. Large swathes of native grassland and forests have been cleared to make way for the monoculture, which is highly dependent on heavy application of pesticides and herbicides: 317 million litres were applied in 2014, up from 34 million litres in 1990.[35] Much of this staggering quantity of chemicals is applied by air, and because of lax environmental and public health standards, many people on the outskirts of major cities like Cordoba and Rosario, in the poorest neighbourhoods, the so-called *villas de miseria* (misery villages), are being exposed to these toxic chemicals. As a result, rates of cancer, birth defects and other illnesses are rising sharply, by as much as four times the national average in several of the worst affected regions.[36]

San Miguel de Tucumán

Founded in 1565, San Miguel de Tucumán is the largest city in the north of Argentina. As at the 2009 census, the city has a population of 527,607, and the metropolitan area a population of 830,000. It is an important agricultural producing region, with the most important crops by volume of production being sugar cane, rice, tobacco and fruit.

San Miguel de Tucumán was the first city to declare independence from Spain in 1816, and was a centre of political resistance during the military dictatorship. Its recent past has, like many other cities in Argentina, been characterized by rapid and often uncontrolled urban expansion, driven by poor rural dwellers setting up shanty towns (*villas de miseria*) which has seen its population swell substantially in the past decade.

Main road, Nueva Esperanza (New Hope), Tucuman, Argentina

[35] See http://overgrowthesystem.com/argentina-the-country-that-monsanto-poisoned-photo-essay/.

[36] See http://overgrowthesystem.com/argentina-the-country-that-monsanto-poisoned-photo-essay/ for a shocking photo-journalist essay exposing the effects of chemical applications on the soy fields of Argentina.

Córdoba

Córdoba is Argentina's second-largest city, after the capital Buenos Aires, with a population of 1.31 million (city) and 1.53 mn (metro area) as at the 2008 census. Córdoba is known as an important university town, and has a rich cultural tradition in literature, the music and the arts.

Córdoba is located in the *pampa húmeda*, directly in the centre of the soy monoculture. Apart from the deforestation and rural de-population that land use change on such a massive scale entails [ref], the dependence of the soy monoculture on the heavy and increasing application of pesticides, which are sprayed from the air, mean that rates of cancers, birth defects and other diseases are rising sharply in the *villas de miseria* on the outskirts of Córdoba and other cities similarly located on the *frontera sojera,* with recent reports suggesting they are double the national average.[37]

San Carlos Cooperative, Cordoba: An 8-member, family farm-based co-operative, with each member working a few hectares, on the outskirts of Argentina's second city. Half the members are producing using agroecological methods, with the support of the Secretary for Family Farming.

As one manifestation of efforts to transition away from the industrialised soy monoculture, there is a small but growing sector of small-scale producers on the

[37] See http://www.theecologist.org/News/news_round_up/2525411/cancer_deaths_double_in_argentinas_gmo_agribusiness_areas.html

outskirts of Cordoba (*quinteros*) who are growing vegetables using agro-ecological methods. The newly established Federal Secretariat for Family Agriculture supports these producers; and a staff member of this Secretariat took Dr Rose to visit some of these producers during his brief stay in Córdoba. In one notable case, a number of the producers have organised themselves into a co-operative and are selling *bolsones* (bags of produce) direct to the public. This is indicative of a small but emergent demand for chemical-free produce, which will likely expand in the coming years.

Agroecological veggie bags, San Carlos Cooperative. These bags are proving extremely popular, with hundreds sold each week. Demand for healthy, non-chemical produce is growing in Cordoba and elsewhere in Argentina.

Rosario

Rosario is Argentina's third-largest city, with a population of 1.27 million as at 2012. It is an important industrial and exporting centre, especially of major agricultural products such as oils, sugar and meat. Rosario was the birthplace of Che Guevara, and this revolutionary tradition has found expression in its politics, with the City government being ruled by the Socialist Party for the past two decades.

7th week of Urban Agriculture

Rosario is notable in Argentina and indeed internationally for the leadership its City government has shown in the field of urban agriculture. This will be discussed in more detail below in relation to the role of local government in supporting urban agriculture.


Scenes from Parque Huerta Molino Blanco

Neuquén

Neuquén is located in the north of the Patagonian region of Argentina, and with a population of 265,000 is the largest city in Patagonia. The Neuquén province is known for its diversified agriculture, especially cold climate fruits like apples and cherries. More recently it has become a major centre of petroleum production, the so-called *vaca muerta.* The influx of investment and highly paid workers has created a phenomenon of the two-speed economy, mining and non-mining, which is very familiar in Australia. This has caused rents and the cost of living to increase, putting considerable strain on those who do not participate directly in the mining economy.

Neuquén is also known for being the birthplace of the so-called *fábricas recuperadas*, or 'recovered factories' movement, which was one of the features of the grassroots and community response to the severe economic crisis of 2000-2002. The most famous example is the Zanon Ceramic Factory, also known as *FaSinPat* (Fabrica Sin Patron – Factory with no Boss), which the workers managed to keep operational despite the owner seeking to lock them out and close it down during the financial crisis. The factory is still operating today, though with very antiquated plant and equipment as it has been largely frozen out of both public and private sector credit markets.

Fabrica Zanon, Neuquén; also known as *FaSinPat*. The sign reads, Zanon belongs to the People.

Below is the text written by the Coordinator of the Pro Huerta programme in Neuquén, Ing. Eduardo Zeman, regarding the particular characteristics of Neuquén and the role of urban agriculture in addressing its challenges, particularly those of a rapid population increase as a result of the petroleum boom:

> *Neuquén has a number of characteristics that distinguish it from other Argentine provinces. Population growth in excess of 50% of the national average, combined with a reduction in the rural population, means that 54% of the province's*

population is concentrated in the urban and suburban conglomeration of Neuquén, Centenario and Plottier.

These population dynamics have a lot to do with the surge in the petroleum and industrial sectors that has led to a reduction in levels of regional agricultural activity and production. This in turn means it's very important to focus strategies on local food production through urban agriculture and within the framework of food security and food sovereignty.

As regards socio-economics, this growth is not synonymous with development. While the numbers of people living below the poverty line have reduced, this is more due to active and inclusive policies and tools of the Federal government, such as the Universal Child Benefit, than to the trickle down effects of highly asymmetrical economic growth.

In this context, we have also to bear in mind that these population dynamics have overheated the real estate market, which means a reduction in the quantity and quality of land available for growing food, as well as access to water.

Mar del Plata

Mar del Plata is a mid-sized coastal city in the Buenos Aires province. Its main industry is tourism, as its population swells enormously during the summer months, with an estimated seven million annual tourists, mostly concentrated in that time of year. While at first (in the late 1800s) its tourism catered to conservative elites from Buenos Aires, the era of Juan Peron (*Peronism*) and the subsequent rise of an Argentine middle class saw it expand to a mass market national holiday destination. There is also a range of other industries, especially fishing, ship-building, textiles, packaging machinery and food manufacturing.

Agroecology Market, Mar del Plata

With the support of INTA-Pro Huerta and related programs, such as the Program of Self-Production of Foods, supporting artisanal home and small-scale growers and producers, Mar del Plata has a small but enthusiastic agro-ecological and urban agriculture network. A network of 'green' markets operates in distinct locations around the city four days per week for most of the year, coordinated by INTA-Pro Huerta and the *Programa de AutoProduccion de Alimentos*, which is described as:

> *We are a team of students, technical and professional staff of the National University of Mar del Plata and INTA, together with huerteros and small urban and peri-urban producers of Mar del Plata and Balcarce we, implement a program of urban and per-urban agriculture based on the principles of agroecology.*
>
> *We consider agroecology to be a tool that enables greater participation and community organisation, creation of dignified work, care of the environment, generating social economy processes and a higher quality of dignified life for all.*

Mar del Plata also has an active *Cátedra Abierta de Soberanía Alimentaria*, based in the National University, where Dr Rose delivered his final presentation of his Churchill trip to approximately 100 interested persons, on Friday 12th September 2014.

PART 3: THE RESEARCH AND CASE STUDIES

Urban agriculture as connection, health and well being

In whatever form it takes place, urban agriculture serves a fundamentally important role in supporting and improving people's health and well being. This was highlighted time and again during the Churchill Fellowship. While space only permits a couple of case studies, this perspective was universally shared and emphasized, and is one of the principal benefits of urban agriculture. It should be said that health and well being includes not only physical health, but also mental and psychological health, as well as community connectedness and the building of social capital. The word 'connection' was mentioned in almost every interview, in explaining the significance of urban farms.

VK Urban Farms, Chicago

With Vicky and Erick, of VK Urban Farms

VK Urban Farms, is located in East Caufield Park, Westside Chicago. The co-proprietor Nicky, and her husband Erick, a policeman and trained chef, are working two vacant lots adjacent to their home, where houses formerly stood. Their focus is animals, rather than fruit and veg, and Nicky explains why:

> *When I had my children, that's when I decided to get the chickens. I come from the city and I want my children to have culture, but I think there is an irreparable disconnect when you don't have the space to put your hands in dirt, and land to live and look, and grow your own food. You can theoretically learn about it, and think about it, but when you have a tangible connection to your environment, it does something that connects you to your universe and your environment that you can't just do in a book.*

Some of the 15 chickens, VK Urban Farms, Southside Chicago

> *You can grow fruit and veg, and you can know to take care of your environment, theoretically. But when you have a live animal that eats up that ground, and then you're going to eat off of what it gives you, it's a different conceptual reality. So that was why I got the chickens.*

Nicky refers jokingly to her chickens as a 'gateway drug', because goats followed in their wake, and this year two pigs were added. Now their urban homestead includes 15 chickens (10 eggs per day), eight goats, and two beehives in addition to the two pigs. Nicky said how wonderful it is to have goats:

> *I love the fact that we milk every day, and we make cheese every third day. So I make feta and chevre, and farmhouse cheddar. I get a gallon and a half of milk each day. A gallon of milk yields about a pound a half of cheese [so that's about 20 pounds of cheese per week – somewhere in the order of 8 kilos]. We work together with a remarkable woman in Austin, Carolyn Yoder, a remarkable human being. We ship in the hay together for the goats and split the freight charges. We care for each other's goats when we go on vacation. She had a birthing crisis and I had to help her with the midwifery of her goat, which was ridiculously fantastic. We had to reach in and turn the kids, we had a 2% chance of birth and we did it, it was quite lovely.*
>
> *Urban ag people – we have to do everything, we have to midwife, we have to castrate, we have to disbud (burning off the horns), it's a high calling that you have a responsibility for these animals, and you better educate yourself, because there's no-one to call for help*.

Nicky speaks lovingly of how the animals work together, in harmony with the land and the growing of vegetables and fruits:

There's a beautiful symbiosis with all of the animals and the farm. The goats produce a ton of manure, and that's direct feed for the soil, you don't have to age it. It's enough for all of my gardens and a lot of community gardens in the neighborhood. It's the difference between a few tomatoes, and a LOT of tomatoes, and they're delicious! Especially in this city's terrible soil. It's exactly what you need to amend your soil. There's a place for the goat poop to go, which is necessary.

So they feed the garden, the garden feeds us, and the compost goes right back into the composter. They give me all this beautiful milk. I make cheese, and there's a by-product of cheese – whey – which is the most magical thing in the world. You can wash your face with it, it cures acne…what we don't use here, we feed back to the goats and the chickens and the pigs. Between all of the animals there's no waste at all. We have no food waste at all. Everything gets eaten, between the goats, the chickens, and the pigs will eat whatever's left over.

The daily haul of eggs…

Nicky with her 2 pigs, VK Urban Farms, Westside Chicago

VK Urban Farms, Southside Chicago

> *So I came to this block and I asked the neighbors, what would people think if I moved in, and they said 'Oh honey, you'll be fine'. And I felt so much more at home, among black people. They don't look at you funny if you look them in the eye. People would come and knock on the door if it was street cleaning and I hadn't moved my car. It's so much more – it's southern hospitality, and I felt embraced, even though I was the anomaly.*

Nicky and Eric also tapped 66 maple trees from the streets surrounding their property, and boiled up 7 gallons of home-made maple syrup – possibly the first such product from an urban farm in North America. This was a great bonding experience for the community, Nicky says, because it 'started so many wonderful conversations, because people didn't know what maple syrup was. People have conversations that they never would have had otherwise. It really unites people." At the end of the process, which lasted a couple of weeks, they had a big community pancake breakfast.

Products of VK Urban Farms, Westside, Chicago

Nicky is unsure about the future of her urban homestead, because the neighborhood is slowly becoming gentrified, and that could lead to tax rises. It could also lead to the City wanting to sell the vacant lots, which Nicky and Eric are trying to buy, so far without success, to a developer. Main issues for her are the constraints the current rules place on the ability of urban farmers like her to commercialise their produce, when it's mainly derived from animals. So she and Eric are looking for creative ways to monetise some of their labour: "Our plan is farm to table dinners – we started this year with an urban wedding, a 100-person wedding, and those you are allowed to do. You are allowed to feed people with the food we produce here. So that's why we've added the pergola, and why we're doing the landscaping. We're going to put down old pavers from the old City of Chicago streets. We can do events here, and there's a lot of money doing that. That is an idea that we're going to hope to keep things going. And maybe if we make enough money, the City will sell us this land. Having spent over an hour with Nicky, I asked her what the urban farming meant to her:

> *For me it's like the core of my happiness. Being out here and digging in the dirt, it connects me to the most fundamental space in my heart, which is nature. It gives me peace, and it calms me down, I'm not listening to podcasts, or news, or music, or looking at my cell phone. It's just connecting with my environment. And it gives me back something for doing this!*

With one of VK Urban Farm's 8 goats, Westside Chicago

Urban agriculture is becoming a movement, she says, because it speaks to a deep yearning amongst many people for (re-)connection:

> *A lot of people involved in this are younger than me, they're in their 20s and 30s. I think there's a way in which we're so disconnected – we have Facebook instead of actual friends, we have screens instead of human interactions, so that people, especially in that age demographic, are starving for a real experience, in the world.*

Whereas the big, globalised and industrialised food system is premised on a series of disconnections and separations, everything about urban agriculture speaks of connection and healing: communities, minds, bodies and souls. Often this is also expressed through cooking and food preparation, as Nicky notes in relation to Eric:

> *My husband is a city boy, never grown anything in his life. When he first moved here he mowed over my herb garden. He's like if it's green it's grass…No! Watching the transformation in him has been miraculous. Now he loves the gardens, he loves the animals, he's proud to tell people about it. As a trained chef, it woke something up in him, which was even more than I have. For me, it connects me to my universe and myself, but for Eric, cooking for people is his connection to his world. To be able to have it be so real for him, is pretty beautiful.*

Nicky says that urban agriculture is a diverse and grassroots movement and phenomenon, but it's the basic desire for connection that unifies all those who are involved in it:

> *I think the people who stumble upon urban agriculture – because everybody does it for different reasons – and it does seem like a 'stumble upon' thing – you had a neighbor, who had bees, and you got into it; or you took a class in college, on agriculture, and got into it. But it's not being passed down, it's not like a farming technique, so everybody's coming at it from all these crazy different directions. Some people like to brew beer, so they ask, well, where do my hops come from? And you grow your own hops, and then you start growing everything. "But I think it all stems from that same place of just been starving for an actual interaction with your universe.*

Victory Gardens Initiative, Milwaukee

The Victory Gardens Initiative (VGI) is a non-profit social enterprise, with a simple and powerful objective: to get as many people as possible growing their own food. Its mission is expressed as follows:

> *Victory Garden Initiative empowers communities to grow food, reawakening our intimate relationship to human and food ecology; advancing a resilient food culture: from soil, to seed, to plate, to soil. When everyone is a farmer, we will have a socially and environmentally just food system.*[38]

Its vision is transformative and ambitious:

> *Victory Garden Initiative believes that every person, in every household, can connect to their food source through the act of growing it. This act reminds us that*

[38] See http://victorygardeninitiative.org/mission

we are of the earth, that we cannot live without the earth; that our needs are met, not by the economy, but by the earth. Growing food will re-integrate us with deep ecology, guiding our culture towards a sustainable, abundant future, freed from financial inequalities.

Envision our post-industrial world transformed to an abundant and sustainable ecosystem through the reintroduction of food growing into our urban ecology. When fruit trees fill our parks, and nut trees are harvested by our neighbors, when food pantries house vegetable gardens and school children participate in growing their lunches, we will have a secure, sovereign, socially just and sustainable food system.[39]

Gretchen Mead founded VGI in 2008. The conversation started by acknowledging the role of Will Allen, CEO of Growing Power, a Milwaukee-based not-for-profit urban farming social enterprise, as providing leadership and inspiration not only to the black community of Milwaukee, but to the urban agriculture locally and nationally. "He's changed the conversation", Gretchen said. "I could look at Growing Power as a competitor, but I don't really, because their role is very different to ours."

VGI, Gretchen says, exists to:

[E]mpower people to grow their own food, in their own space, as a way of life. It's not just about production agriculture. It's very much a lifestyle change.

Gretchen herself had a strong connection to food through her childhood and youth, which has strongly influenced and shaped her social enterprise work with VGI:

I was very connected to food in a lot of ways. I grew up on a farm, my mom was a farmer. There were a lot of tie-ins to the food movement, that I grew up in. Food was a big part of who we were. We grew our own food. I processed food every fall with my mom, we made pickles. We had a huge wall of preserved foods, and that's how we ate. I didn't really think that much of it. We just grew up that way, playing on the land, harvesting from the forest, that kind of thing.

My dad was a hunter, and worked for a meat-packing company, that no longer exists. Our family was very affected by the growth of the corporate food industry, that eventually [outsourced production] to Mexico. Thousands of jobs were lost in my home town (Debuke, Illinois) as a result.

As is so often forgotten, processes of structural change such as 'globalisation' and 'outsourcing' are not smooth and seamless, but rather are highly contested and conflictual, with traumatic implications for workers, their families and their communities:

As my dad lost his employment working for the meat-packing industry, which at that time was a blue-collar job, but it paid enough [to support] a family, my dad was our breadwinner…As the corporations really started to mess with the workforce, they lost their benefits, they didn't have vacations any more, they were

39 *Ibid.*

on strike for many years…I remember my dad striking to preserve some of his wage. I think he went from making $30,000 per annum in the 1980s, which was $12 an hour, to the time it was all over, by the 1990s, he was making about $6 an hour. And he was working 7 days a week, he would never take a day off. He was in the military reserve, and he was even afraid to take off his two weeks' active duty, because he thought that would be the reason they would fire him. And there was nothing else, because 1000 other people had lost their jobs already in the industry.

And then after he'd been working 7 days a week for years, they just took the whole thing and moved it to Mexico, in 1991. So if you can imagine the Iowa pigs and cows, being trucked all the way to Mexico for processing, and then back to Iowa for people to eat…It seems like an unsustainable system.

So that affected my family's ability to support itself. My mom went back to college to re-train, after years of being a stay-at-home mom. My dad is still working in construction, at age 67, with a bunch of 20-year olds.

For Gretchen, the changes meant that she and her brother had much more free time; and one impact was that they turned to the 'SAD' diet – the Standard American Diet - $1 burgers, processed meat and cheese, laden with preservatives:

It makes you sad; and over a period of about five years, I started feeling bad. I noticed physical differences, I was feeling puffy and achy. And I think this happens to a lot of young people when they go to college, I was running around shoving food in my mouth, with no mindfulness whatsoever, not noticing what it was doing to me. But since I was a young mom, and wanted to feed my daughter well, I started paying attention, and educating myself about the bigger issues and impacts of the food system. I changed my diet and felt like a new woman…But when I came to Milwaukee to do a Masters in Social Work, I saw the same symptoms in all my clients. Severe mental health disorders and the only solution was 'Let's medicate these people'. No one was looking at their diet, of eating wheat and sugar, simple carbs and bad meat, several times a day.

Over time Gretchen realised that all the issues she was concerned and passionate about – the environment, health and well being, social justice – were linked by the nexus of food. And that there were so many benefits that came to people, and to communities, through the growing of their own food; and the emergence of a culture of sharing.

Gretchen began growing food herself a couple of years after moving to Milwaukee in 2004; and then got involved with Transition Milwaukee in 2007. VGI was launched in 2009; Gretchen described the epiphany that led to the launch:

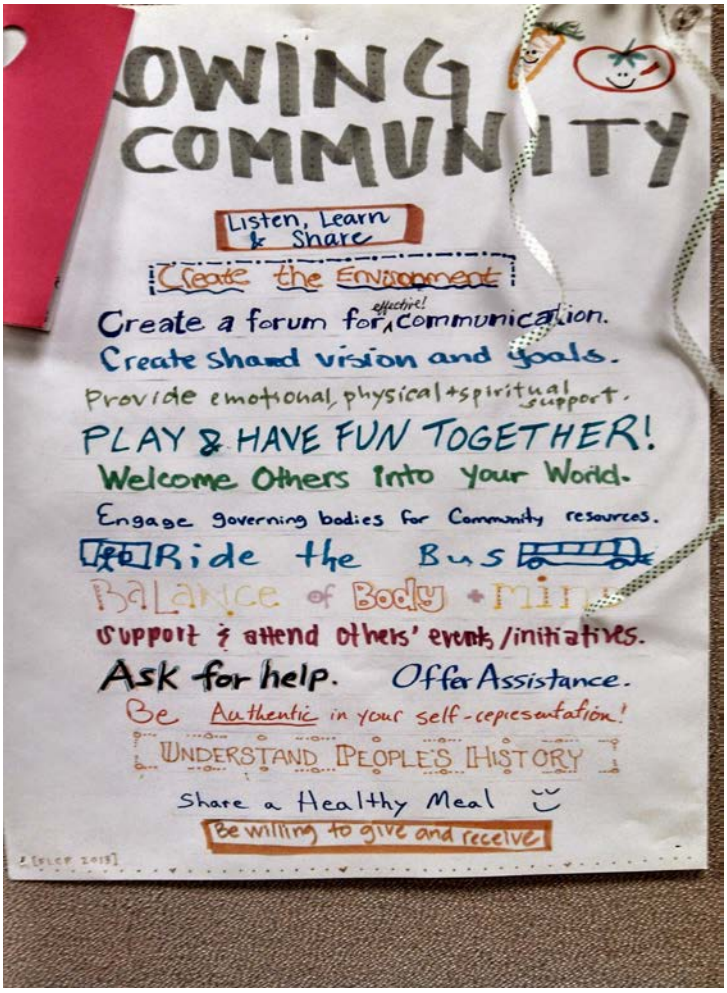
I'd recently started growing my own food, and decided I want to have this group called Victory Gardens Initiative. Then I met people from Transition Milwaukee, and learnt more about Peak Oil, in 2008. A lot of people were reading about Peak Oil and freaking out. That's when it really started to sink in, I was somewhere high up, looking down at Milwaukee, and realised that it was all oil, the whole thing. I felt, I'm here because of oil, our population has soared, our resources have soared, our control over the environment soared…It was a profound moment, and I had a

feeling that this is a big phony world. This isn't real, it's so temporary, we're in a tiny little window of existence, that we think the whole foundation of existence is, but it's only a blip in history.

Then I started to get serious about getting people to grow their own food. I worked with folks from Transition Milwaukee to plan the first blitz.

The first blitz took place on the Saturday of Memorial Weekend in May 2009. 30 volunteers came together and 35 edible gardens were installed. Memorial Day is the US equivalent of Remembrance Day in Australia. And from there it grew and grew:

We put in some gardens in residential homes in Sherwood, an ethnically diverse neighbourhood north of the East side. We did some gardens in schools, and churches. We got great press, people we so excited about it, I got so many emails from other parts of the country. People said, "How did you do that? We tried to do that and failed miserably." The next year, 2010, we did 100 gardens, also on the same Memorial Saturday in May. We had about 100 volunteers.



Growing Community, VGI workshop

And I realised, we have something here, and we needed to get serious about what we were doing next. We needed to be much more strategic, find the right partners, figure out how to bring money in, figure out where the gardens were going to go

ahead of time, organize the volunteers into teams. Develop a volunteer-organising system, develop a garden-organising system. Get enough volunteer in to manage the information. I was doing most of it, but I always had a team of people to help me. I was working as a volunteer, I didn't have a salary for three years. My first payment was 2011 when I received $5,000.

It's immediately apparent that organizing this many people – and it has scaled up a great deal since, with 548 gardens constructed in 2014, with a team of 500 volunteers – requires a great deal of logistics and coordination of people, which Gretchen and VGI have proved especially skillful at undertaking:

The size of the volunteer teams varies a lot. It depends on who wants to work with whom, who has tools, who shows up with cars…We plan ahead of time, but we need to be flexible on the day, because you also never know how many people are going to show up, because volunteers can be unreliable. And I always tell people, be prepared for chaos, it's never going to work out as smoothly as you might think…We have a lot of volunteers, though they're not always consistent.

Victory Gardens Initiative Executive Director Gretchen Mead, with co-workers Colin and Ellie, Milwaukee

In 2011 VGI installed 150 gardens, with 150 volunteers, again just on the one Saturday, Memorial Weekend, in May. A garden is a 4 x 8 foot raised bed, and 'most people order four', sometimes 'we put six in at a community garden site'. As to who pays for the gardens, and where they're located:

It depends on who they are. In Sherwood, and anywhere on the north shore close to the lake, the homeowners can pay for it. In Harambee and other low-income neighbourhoods, we're always looking for grant funding, corporate sponsorship, and / or individual donors. We've put in lots of gardens in Sherwood, hundreds of them, because of my links and networks there. They're our customers and our donor base. Over time VGI has grown to include much of the north shore. In terms of our reach in the inner city neighbourhoods, it depends a lot on our partnerships. For example, the Zilber Foundation prioritises three or four neighbourhoods. And there are other similar partnerships.

In 2012 VGI installed 300 gardens, and that took place over a week, because the trucks delivering the soil had to be spread out over a week. The raised beds would be built first, and installed; and then the soil delivered later. In 2013 VGI

installed 503 gardens, and then 548 in 2014, with a volunteer workforce of over 500.

In terms of follow up, VGI started offering gardening classes from 2011. "We wanted to build community about this, who share this passion for growing food", said Gretchen. "We do a lot of potlucks and have a lot of events at Concordia Gardens in the summer":

> *We have a mentor program now. We pair them together, a mentor and a mentee, an experienced gardener and a novice. They have five or six sessions together. One of the things we've realised is that traditional didactic education is not very welcoming or appropriate for people from the inner city, because many of them are not very literate.*

Gretchen's broader vision for urban agriculture in Milwaukee, and its potential to result in wide-scale system change, was set out in a proposal she made in 2011 to a 'Tournament of Innovation', seeking ideas and projects about how to address the foreclosure problem:

> *[My] proposal was for the Post Industrial Urban Homestead Act. Under that Act, we would partner foreclosed homes and vacant lands with willing young urban farmers, who would grow food on that land for their local community. They would also be supported by a mix of government and grant funding to transition the foreclosed home to be liveable; and to create arable land. And if they worked the land successfully for five years, then, just like the days of settlement out west, when the government gave land to the homesteaders, this farm would become theirs, free and clear, to grow food in perpetuity. It won the contest, but the City never called me again. It's frustrating that the City talks the language of collaboration but in practice is not very collaborative.*

So now Gretchen is working with her Board of Directors to implement the Urban Homestead model on the 1.5 acre site of the Concordia Garden in Harambee, inner north Milwaukee. The site had been vacant for 20 years, until VGI began leasing the land in 2009; and then purchased it from the City of Milwaukee in January 2013 for $1000 of back taxes. The lease was facilitated by Milwaukee Urban Gardens, an intermediary organisation.

Concordia Gardens, Harambee, Milwaukee

Harambee is on the boundary of a neigbourhood that is predominantly black and another that is predominantly white. "It's a fascinating neighbourhood and it's a great project; on the 'edge', to use a permaculture term", said Gretchen:

> *Part of the space is a traditional community garden, with people renting plots. We're working on a community composting project, and picking up compostables from Whole Foods, which is a huge amount of waste. We get paid to pick the compostables up; some of it comes here once a week, and the bulk goes to one of our partners, Purple Cow Organics, who's a professional composter. We benefit because we can fund a full-time position here from the payment, it's one way to supplement a job. And it builds capacity for us.*

VGI has put $50,000 worth of infrastructure investment into the site, with topsoil and compost, underground rainwater harvesting cisterns, the creation of berms and swales, which it would not have been able to do under a lease arrangement. "It's all working", said Gretchen, "so we can keep all the water that lands here on site for growing food."

> *We have a refugee garden here, working with Burmese refugees, to support them to grow their culturally appropriate foods. And we have an orchard planted with a diversity of stone fruit trees, supporting biodiversity and the permaculture guilds that you read about.*

Victory Gardens Initiative Executive Director Gretchen Mead on the porch of the future Urban Homestead of VGI, next to Concordia Gardens in Harambee, Milwaukee

Gretchen described the foreclosed home adjacent to the site of Concordia Gardens, which VGI intends to buy and relocate its office to, as an 'opportunity':

> *Some really good things have happened. We have a partnership with Habitat for Humanity, who have created an entire team of volunteers, whose whole role is to [work] on properties that are about to be foreclosed or are otherwise somehow changing. So they have access to all the materials in the world. They are going to help us with this rehab, they are going to give us materials, and they are also going to bring in some skilled labour. So I'm hoping that we can take a $300,000 project and turn it into a $150,000 initiative.*
>
> *We're going to put our offices in the bottom, and house our interns and fellows up the top. It will take another year and a half.*

Gretchen is on the Steering Committee of the Milwaukee Food Council, which is a collaboration involving representatives from several non-profit organisations, as well as for-profit businesses and academics. Its mission is to:

> [*Create*] *a sustainable, culturally relevant, economically viable, and ecologically sustainable food system for Milwaukee; a food system that's based in those values rather than the economy. Any organisation can come to the table and be a member if they agree that that's the food system they want. It's been around for about 7 years.*

Gretchen is also part of the Steering Group for the Institute of Urban Agriculture and Nutrition. This is a newly-established collaboration initiated by Will Allen of Growing Power, involving academics from University of Wisconsin (Milwaukee), Marquette University, University of Wisconsin Cooperative Extension,

Milwaukee School of Engineering, the Medical College of Wisconsin, CORE / EL Centro, Sixteenth Street Community Health Centre, Victory Gardens Initiative, and the Milwaukee Food Council. Gretchen explained the status as at August 2014:

> *We got some grant money and hired a consultant, who facilitated an excellent visioning session and helped us bring some broad-based community support to the project. [It was so good] to have the leaders of urban agriculture around the City really want to engage. We created the vision and the mission for Institute. Its goal is to utilise academic support to upscale urban agriculture in supporting a healthier and culturally appropriate urban food system for Milwaukee. It's about community-based participatory research, rather than the kind of academic research that comes in studies and then goes away. It's wonderful to work with academics that are trying to create this kind of partnership. But it's really hard also, because there are so many interests, from the institutions and each academic who comes to the table has their own agenda. But I can see that the academics at the table want to really understand what's happening in the community and support it, rather than be the expert who comes in and tells people what to do. So we have created a Community Collaborative Council, with representatives of diverse populations and groups, that is intended to feed and advise the academic agenda of the Institute.*

Urban agriculture as livelihood strategies

The first focus of the investigation was to understand the role that urban agriculture could play in terms of being a source of income generation for those engaged in it. In Australia, the great majority of urban agriculture takes the form of volunteer-based community gardening and / or backyard / front yard gardening, which involves primarily the growing of herbs and vegetables, and the keeping of chickens for eggs, for self-consumption and / or sharing.

Hence there is a considerable divide between these forms of domestic food production, and commercial agriculture that takes place in peri-urban areas and in regional and rural parts of the country. This overlays the 'town / country', 'urban / rural' binary that exists in Australia, one of the most urbanised countries in the world: 95% of our population is clustered in the major urban conurbations, principally in the three centres of Melbourne, Sydney and Brisbane-Gold Coast.

What this Churchill investigation revealed is that there is no reason in principle or practice for such a divide to continue to exist, as regards food production. Rather, as permaculture food forest exponent Angelo Eliades put it recently, there is – or should be – a natural continuum of food production, beginning with production in one's own home, progressing to production at a neighbourhood or community level, which can take a diversity of forms, then to the peri-urban context at a slightly larger scale, and finally to a diverse array of forms and scales of production in regional and rural areas.

Similarly the investigation revealed that there is no reason in principle or practice why urban agriculture cannot be a fully commercial activity, in the same way that peri-urban and regional / rural agriculture is commercial. On the

contrary, the investigation revealed a significant number of instances of individuals and organisations that operate on a commercial basis, with produce being sold locally in a diverse array of market outlets. It also is important to note that, as one would expect, the individuals engaged in urban agriculture have a range of motivations; and that in a number of cases these motivations include deeply-held concerns about food security and equity.

Below are some examples of individuals and initiatives that have developed innovative models to generate livelihood strategies through urban agriculture.

Urban Canopy Farms, Chicago

Urban Canopy Farms (UFC) was founded by Alex Poltorak, who came to the United States as a religious refugee in 1989. After graduating as an engineer, he was awarded an MBA to work in the Chicago public school system, and was struck by the fact that 50% of students didn't graduate. He felt that a major part of the reason for that was diet: that either the students were hungry and not eating enough, and / or their diets were based sugary processed foods. So he decided that he wanted to make access to good food the focus of what he wanted to do in the next stage of his life.

Alex has an engineering background, as do many of his co-workers. In the short history of UFC to date, no one has been a 'legitimate farmer'; and this provides a huge learning opportunity:

> *We know we're going to make a lot of mistakes. So the question is, how do we develop systems in which we can learn from them? We work on getting better, every year.*

Reflecting on his motivations for starting the business, Alex said:

> *From there I continued to try to strategise and think about the food system and why it was messed up. I thought about why those kids don't have access to healthy food – affordability, information, knowledge, equity, and sustainability – all these things played on my mind.*
>
> *So I founded the Urban Food Canopy as a 'for purpose' business, to try to address some of these issues directly in our neighbourhoods. It is also a 'for profit' business, because we want to hire people and pay them a wage, and pay ourselves a wage. It's a social enterprise. Our mission, our vision and our values drive what we do.*
>
> *It hasn't been easy. We've tried a number of approaches, and while most have worked, some haven't, and we've tried to learn from them. We call it 'failing successfully.'*

He volunteered at the Plant Building, which is a centre of innovation in Southside Chicago, in 2010. It was there he discovered the practice and potential of rooftop farming, realizing that the city had an abundance of growing space on roofs. The first phase of the business was to demonstrate some forms of growing food on roofs, more as a way of attracting visitors to the Plant than as a serious business venture. As one of the Plant's first 'tenants' (paying 'rent' by being a tourist

attraction rather than paying commercial sums of money), Alex grew potatoes in coffee roasting bags; raspberries, peppers and tomatoes in different types of containers; and greens hydroponically, 'with mixed success'.

Alex Poltorak and the Urban Canopy Farms team, Southside Chicago

Alex had to make a decision in mid-2013, when the Plant's owner decided that he needed to pay a commercial rent if he wanted to remain and use the space. Alex ran a Kickstarter crowd-funding campaign to keep the rooftop farm viable and pay for some hydroponic infrastructure and soil, raising $12,000. At that time the produce was being sold to three community-supported agriculture members, to some local restaurants, juice bars, and through both winter and summer farmers' markets. The winter markets were supplied through UFC's 700 square foot indoor farm, where trays are used to grow wheatgrass and other micro-greens: high-value, niche products. The production and sale of these high-value products were found to be a common strategy for urban farmers seeking to become or sustain commercial viability in the centres visited in the US.
These products have a distinct advantage over hydroponic produce, as Alex explained:

> *The restaurants, juice bars and other customers prefer the wheatgrass and the microgreens to be living when they receive them, as if they were coming straight out of the ground. Unlike hydroponic production, where the greens are dead as soon as they come out of the water. So if people take it home they have another two weeks to use it. It's a way of becoming more sustainable: if this product is still alive, it doesn't have to be refrigerated or stored. We can compost the growing material, and then wash and reuse the trays.*

Even though wheatgrass is seen traditionally as a high-value niche product, that is generally not accessible to lower- and fixed-income groups, Alex explained how they structure their pricing in different neighbourhoods and outlets to try to address this basic inequity of access:

> *We apply a bit of a Robin Hood mentality in marketing and pricing our products, especially ones like wheatgrass. So in a city farmers market in a high-income neighbourhood, we'll sell it for $4 a shot. But when we sell it one of the local food desert farmers markets that we're establishing, we'll sell it a $1 a shot. We cover our costs from the sales in the city market, to allow us to make this good, highly nutritious food affordable for food desert markets, where often the customers have never heard of wheatgrass.*

Alex also explained how UFC adopt an innovative pricing strategy for their produce:

> *While the wheatgrass and the microgreens have a fixed price, for most of the produce we have a system we call, "Pay what you think is fair". We have a philosophy, which is that we ever see anyone who looks their hard up on their luck, or struggling for money, or hungry, then it doesn't really matter what the price is, provided it's not an abuse of us, in the sense that we're not there to give our food away for free. That's hardly ever happened. Mostly people have a deep appreciation of what we're doing, so that I've had someone say, "Man, I'm so glad you guys are here. Here's an extra $20." And that gets paid forward, to other people.*

The vacant parking lot in Southside Chicago that Alex Poltorak is re-purposing with Urban Canopy Farms

Patchwork Farms

Patchwork Farms is a for-profit urban farming enterprise jointly run by Katie Williams and Molly Medhurst, who

> *[S]hare a passion for serving their community by growing and selling delicious and nutritious fruits and vegetables…We started Patchwork Farms as a way to earn a*

living doing the work we love while producing one of the most fundamental needs for our friends and neighbours – healthy food.[40]

Patchwork Farms

Katie Williams explained how she and Molly got involved in urban farming and what her motivations are:

> *We independently farmed for a few years outside of Chicago, in our early 20s. Even though we were growing food for a community of people, I didn't feel like I was part of their lives, because I was working long hours and far away from the people who bought the produce. So it was important for us not only to grow food for a community, but also to be a social member of that [community].*
>
> *Molly comes from an agricultural background, but I don't. I dropped out of college because I found it frustrating, and then got involved in farming to learn some practical skills. And I really loved it, so I've stuck with it ever since.*

Patchwork Farms is now (as of July 2014) in its fourth year of operation. Their main half-acre site is in the west-side neighbourhood of Humboldt Park, an area that, like Englewood, has been economically depressed and associated with high levels of poverty and gang violence, although is now experiencing gentrification. Katie and Molly have been living in Humboldt Park for eight years. Katie explains how they obtained the site:

> *It was a vacant lot. I tracked down the landlord and asked him if we could use the site as an urban farm. He said, "How much do you want to pay?" And we said, well, actually we can't pay anything. And because he's a nice guy, he lets us have the site for free.*

[40] See http://chicagopatchworkfarms.com/about/.

For Katie and Molly, the main criteria in site selection and the business model were that the site would:

- have foot traffic,
- be convenient for their local customers,
- be in a locality where the customers could pay a price that would sustain Patchwork Farms as a business ("greens for $2 a bunch, not $1 a bunch),
- have a certain length of security of tenure, i.e. not going to be developed for five years, to allow Katie and Molly to recover the investment they were going to put into the soil.

For contamination reasons, they've had to purchase large quantities of soil on which to grow their crops. As with most urban farming, they adopt a diversified model of production, which includes chickens (eggs are sold separately), hoop houses to extend the growing seasons and allow for over-winter seeding, and mushrooms, as well as "many as possible" leafy green and root crops, perhaps up to thirty or forty through the season. They are also considering setting aside a portion of the site as an educational community garden area. "We try to make it all valuable", Katie said.

Humboldt Park site of Patchwork Farms, Chicago

2014 is the first year that Katie and Molly are dedicating themselves entirely to urban farming as a livelihood strategy, i.e. without taking on other paid

employment (which they have done in each previous year and which they do over winter).

They now operate two sites, one at Humboldt Park which has 30 community-supported agriculture (CSA) subscribers; and one on the Southside, at the Plant Building, which has 20 CSA subscribers. At the Plant Building, the not-for-profit Plant Chicago rents the growing area (around a quarter-acre) to Patchwork Farms on a barter arrangement, under which the 'rent' is paid to Plant Chicago in the form of educational workshops that Katie and Molly run.

The CSA subscriptions are for a season, and Katie explains their pricing structure:

> *The first year we started, our prices were deflated [discounted], because it was a risky [proposition] for our customers to invest in. And we've maintained that pricing structure as the lower end of a sliding scale. Everyone gets the same box, with the same varieties and the same volume, but you can choose on the scale to pay what you think the produce is worth and what you can afford. It works well, and it enhances affordability. We have people in our CSA who are in school or otherwise pretty broke, and can't pay much. For the spring and fall seasons, we recommend that subscribers pay from $15 - $25 a week for the 7-8 weeks of those seasons. For summer, we recommend $20 - $35 a week. We have some people paying more than $35, which helps keep it affordable for those who struggle to pay even the lower pricing.*

For Katie and Molly it was an education taking their produce to some of the farmers markets in affluent neighbourhoods:

> *We noticed that our prices were low in just about everything. What we decided to do was raise our prices at the farmers market, and maintain our old prices for the CSA. It's a tricky question because we don't want to charge more than what we could pay at a farmers market.*

Katie acknowledges that she and Molly have built up a lot of knowledge over the years they have been farming, around horticulture, soil fertility, mushroom production and many other topics:

> *That's why we're seriously considering the mentoring programme for a community garden at our Humboldt Park site. People come to us almost every day and ask for advice. Our CSA waiting list for the west side is very long. It seems like more and more people in Chicago are getting excited about growing veggies, and we can support that from our site.*

Katie and Molly are genuine pioneers with their model of for-profit small-scale urban farming in the mid-west region:

> *We organised an Urban Farms Summit in 2012, and we were surprised at how few urban farmers there were in our region. There might be 1-2 in Minneapolis, one in particular is called 'Stone's Throw Urban Farm'. And there were two women in Chicago, who started this year, they called it 'Dirt Doll'.*

> *We organised the Summit because we wanted to get urban farmers together, we wanted to know who's out there, and what are you doing? We wanted to try to identify unique challenges, what were the advantages of urban farming, and share innovations, and discoveries and questions. Quite a few people attended, people interested in urban agriculture, but we didn't find that many people actually* ***doing*** *it. My feeling is that there still aren't many of us, urban farmers operating on a for-profit basis.*

In Katie's view, the biggest barrier to the further expansion of urban agriculture is the pervasive soil and environmental contamination:

> *We could be so much bigger if we could find land that we could just grow on. But we haven't been able to find that land, and we're not going to buy any more soil. It's expensive – for Humboldt Park we bought close to $3000 worth of soil. That's a lot, where you're talking about the sort of people going into a business where they're not going to make any money, ever!*

But Katie and Molly want to keep farming in Chicago:

> *It's gotten better every year, and now we're doing OK financially. There's more things we could be doing to grow our enterprise. There are more creative ways we could take advantage of the land. We could start working other sites. We're thinking about taking on another partner next year, to start restaurant sales as a specialty niche. This year we hired a part-time employee, because we got an acre of land outside the city. I'd love to farm a full acre in the city, that would be really fantastic – provided someone could give us the soil! Which is actually another barrier to for-profit businesses like ours. I feel like there's a lot of money and support behind the non-profits, people who have a larger vision than us. It could happen if some non-profits have remediated sites, and then pull out for whatever reason, and we could take those sites over…*

Food Field

Food Field is the second-biggest urban farm in Detroit, after the D-Town farm (see above), which occupies seven acres. Approximately two of its four acres is under cultivation.

According to its website,

> *Food Field is an urban farm on four acres in central Detroit. Since 2011 we've worked to transform this abandoned school site into the ultimate small-scale farm with organic produce and permaculture, chickens and ducks, a fruit orchard, honeybees, aquaponics and more. Our goal is a sustainable business that's economically viable while building the health of our land and community.*[41]

Co-founder Noah Link explains how the four-acre site originally belonged to an elementary school run by a convent, which was then abandoned, and the land reverted to the State of Michigan. Noah and his business partner Alex Bryan purchased it through the Detroit Land Bank, for approximately $4500, or $1125

[41] http://www.foodfielddetroit.com/.

per acre. They tested the soil for contamination, and the tests came back negative, so they have been progressively planting up the site since 2011.


Noah Link, Food Field

A major challenge in the initial phase was removing the substantial volumes of rubble and building materials that were left on the site after the demolition of the school and the convent. They tried to bring in people from outside the city with larger tractors, but 'everyone ran into problems', so Noah and Alex ended up doing the bulk of the work themselves by hand and using a small tractor tiller to break up the larger rocks and formations of concrete and bricks. They brought in compost from outside to improve the soil, and aren't making their own compost on site. "Most of the food waste goes to the chickens", Noah explained.

Food Field has extensive and diverse production:

> *We've got a fruit orchard, about 110 trees in total. Some apples, some cherries, pears, plums and this year we just planted some peaches. Most of the trees were planted in 2012, though some are new this year, we lost a few to disease. There was also some bark damage due to the critters that live out here, rabbits and moles. The orchard will start reaching maturity and greater yields in a couple of years' time.*
>
> *With veg, some of our bigger crops are tomatoes, garlic, sweet potatoes, salad greens, hot peppers, carrots, beets, cucumbers did well this year – in the hoop house and outside, some basil in the hoop house, fava beans and snap beans, kale and swiss chard. I haven't done broccoli this year because I've found it takes up too much space and doesn't yield that well.*

The majority of the most usable areas of the site are now under cultivation. Noah has access to city water which he uses to irrigate the crops and the orchard as required.

The hoop houses are particularly important infrastructure, allowing Noah to get an early crop of tomatoes and then a summer crop. It's also very good for potato growing throughout the year.

At the time of the visit, Noah had just completed construction of a shipping container dwelling with solar panels, because there is no connection to electricity on the site. As far as he was aware, no special approvals were required from the City of Detroit, and certainly no one from the City had come to inquire about the construction.

Food Field Detroit

Noah has a flock of 43 chickens. He has considered goats but doesn't think they're worth it. He is considering getting some sheep in a year or so, but would need to invest in the construction of a barn to house them. He said he wanted to get pigs in 2014 but wanted to wait until he was actually living on the farm; and in any case it wasn't a good year for pigs because there was a disease affecting many herds killing piglets.

Noah has just added catfish to the farm to a 7000-gallon pond, which could stock up to 2000 fish if the farm had sufficient energy to oxygenate the water properly. Currently there are 350 fish stocked. Noah will harvest the fish at two pounds.

In terms of sales,

> *We have a CSA that we run as a co-operative with three other farms: Buffalo Street Farm, Singing Tree Gardens, and Fields of Plenty. They're all for-profit smaller urban farms. Right now we have 87 CSA shares. A share costs $425 for 20 weeks of the season. There are add-ons, people can do a Thanksgiving share, a flower share, eggs and honey and pickles are separate.*
>
> *We also sell at Eastern Market on Tuesdays, and we sell to a number of restaurants.*

Noah has been working full-time on the farm since 2011, though it's only in 2014 that they've reached break-even point:

> *We've been pouring money into all kinds of [infrastructure] projects here. The shipping container house, the chicken coop, the utilities, the solar panels, the hoop houses…We've probably spent around $50,000 over the four years we've been in operation…My business partner has another full-time job, and I've been mostly working unpaid this year. We've been able to employ three part-time workers to get more done here this year. We had one employee the first year, and two in each of the last two years.*

Food Field

Rising Pheasant Farms

Rising Pheasant Farms is

> *A family-owned farm on Detroit's Eastside. We specialize in naturally-grown micro-greens and a wide variety of heirloom vegetable crops all delivered to local markets and restaurants by bicycle.*[42]

[42] http://risingpheasantfarms.blogspot.com.au/,

The farm was started by Carolyn and her partner, Jack. Carolyn moved to Detroit in 2007 to work for the not-for-profit organisation, Greening of Detroit. They were running a number of programs, in particular the Garden Resource Program, to support family gardeners and market gardeners get a start into urban farming in Detroit. [43] One of those programs was to help develop a school-based urban farm, and Carolyn worked on that for a couple of years, 2009-2011. That urban farm was quite unique because it involved a lot of animals, including rabbits, chickens, goats and horses. The students were involved in the care and running of the farm, and helped build the barn. The teacher who founded the school farm, long-time Farnsworth resident Paul Wertz, gave considerable help to Carolyn and Jack in their establishment phases, for example with the use of his tractor.

She didn't have any farming or agricultural background: "I grew up in a typical suburb in the west side of the State", she said.

Carolyn moved to Detroit to attend graduate school and studied landscape architecture, with a major in plant ecology. It was the experience of coming to Detroit that really motivated her to embrace urban farming:

> *I moved [to Detroit] and it was through helping out with all the projects here that I became really inspired by all the amazing people doing urban agriculture, either for themselves personally, or in a community sense; there were so many amazing projects going on already in 2007 when I moved here.*

But she also noticed a gap:

> *One thing that seemed to be lacking is that although lots of people were talking about the potential [of urban agriculture], especially in Detroit, with all the open land, for people to do it, as a business, on a more [commercial] production scale, as opposed to a community garden type scale. But no one was really doing that. People were excited about it, but no one had really 'jumped off the cliff', so to speak. So I took that jump. I was like, 'Well, let's see if we can do it.'*

So Carolyn began in 2009, with micro-greens in a garage:

> *So we started out with sunflower shoots. I had some experience growing those at the rural farm I'd been an intern on in Ann Arbor. The place I was living in had a bar fridge with multiple glass doors in a garage. So I retrofitted it with lights, and that was an incubation chamber, and we started growing the sunflower shoots in there. We did that for a year, and then we moved to Eastside Detroit, Poletown East-Farnsworth, where we're still living. We were renting, and we converted our attic to a grow room. And we continued to grow sunflower shoots under lights.*

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[43] The Garden Resource Program is now operated by Keep Growing Detroit – the role of these not-for-profits will be discussed further below - http://detroitagriculture.net/garden-resource-program-2/garden-resource-program/.

Carolyn, Jack and their co-worker Elizabeth

Growing in that way at that time was important to 'keep under the radar, because urban ag (sic) of any sort at that time was not allowed in the City'.

From those small beginnings, Carolyn and Jack expanded outdoors from 2011 onwards:

> *We bought the house we now own in 2011, and also began the process of buying the adjacent land, three city lots, that we currently grow on. The City owned two of those lots, and a private owner the third. The owner sold the house to us for clearing the back taxes, which totalled about $5000. When you buy a house, the City will sell you adjacent lots it owns for around $200 a lot, though it depends on the frontage. Private owners that we have dealt with ask for more than that. After three years of negotiations, we now own 11 lots, including the lot the house sits on, as well as four others that are on Moran. 12 lots total an acre. I wouldn't want to go any bigger than acre – it feels like a size that can fit in a neighbourhood, but not feel like you're taking over the neighbourhood. It still can be a size that the community can easily engage with.*

Currently Carolyn and Jack only have 3 of their 11 lots under cultivation, about ¼ of an acre:

> *The plan is to treble our production. So we have to figure out what we want to grow, whether we want to grow more annual crops, whether we want to put in more perennial stuff, berries and so on. We have a lot of figuring out to do!*

Rising Pheasant Farms, Farnsworth, Detroit

In terms of the soil contamination issue and remediation, Carolyn said:

> *We've done soil testing. Lead is the biggest issue you're usually concerned about. Those lots (in Moran) tested out alright. The lots here were a little higher. So we've tried to build up the soil, rather than dig down. With all the area we've added tonnes and tonnes of compost. We make a little bit ourselves, but we mostly buy it in. There's local composting companies outside of the city. It can be expensive. This year we paid $10 a cubic yard, then almost as much again for the shipping. We bought 30 cubic yards for $675, which is not a bad price.*

As regards her crops, Carolyn described how their focus has sharpened over time:

> *There's a little less variety than the past, because we're trying to hone in on what the top sellers are. On the crops that we make the most $ per square foot. But as we add more land to our farm, we'll be able to diversify again. We'll be able to do things like cucumbers, and winter squash, that take up a lot more room. Now we're focusing especially on tomatoes, and heirloom carrots.*

As for the sales outlets:

> *We sell mostly at the Eastern Market. We go there every Saturday, pretty much year round. We just transitioned the shoots to the greenhouse, so we'll see what this winter looks like, compared to growing indoors. It's going to have heat eventually, but it doesn't have heat right now. We also sell to about half a dozen restaurants.*

At an average market Saturday at Eastern Market they sell $1000 worth of produce, more in summer, less in winter. This allows Carolyn to dedicate herself

full-time to urban farming and her partner Jack has taken on a little bit of part-time work towards the end of the winter season.

Carolyn and Jack don't currently run a CSA, though they are considering a variant of one next year:

> *We don't currently operate a CSA, though we are thinking about starting a buying-club CSA next year. In that people would pay ahead and get credit, and they could get percentage discounts for their produce at the market table, e.g. a 2% discount if they pay $100; or 25% if they pay $1000. And they would have credit that we would keep track of. So they can buy whatever they want, they get a discount for paying ahead, and for supporting us when we need the most money at the start of the season. So that way we are supported, but we don't have to do all the boxing up that normally goes with a CSA. You have to grow quite a variety of crops to run a successful CSA, though a multi-farm CSA eases some of that pressure, for example if one farmer loves growing carrots and does it well, then you don't have to if you don't want to.*

Rising Pheasant Carrots

Carolyn and Jack are very conscious of the equity issues around access to good food:

> *We thought about doing a CSA that would just be for residents locally in our neighbourhood. It's very easy to sell organic produce to the well-off people in the suburbs, but it's not always as easy to sell to folks who are really budget conscious in the city. CSA to a lot of people, no matter what your income or background, is a pretty new concept. It's hard for people to get their head around the idea that you [as a farmer] expect me [as a customer] to give you a bunch of money for nothing. So we opted to do a weekly farm-stand, that we do right here, at the house. The pricing is tricky. When we started out we charged less than at Eastern Market, but now it's pretty much the same price. We do have some neighbours that we know can afford the regular prices, but we have others who are probably turned off by*

those prices. We have thought about trying to facilitate access for folks who have the Bridge card or EBT (food stamps), but it's so small-scale, that if you only have a few transactions of a few dollars, I don't know if they'd give you a reader…

The farm stand is definitely a work in progress. We do it on Wednesday evenings, and sometimes we only sell $2, and other times, if it's tomato season or you get the right combination of passers-by, we can sell $40. We definitely don't do it as a moneymaker. We tell ourselves that this way the access is there for local people, because it feels weird to tell our neighbours they have to go to Eastern Market to buy our produce when it's right here. We want to be better about advertising to the local churches and other places, there are definitely a lot of things that we could do better. It's a start, and I'm glad that we have that as an option to offer to local folks.

Another couple who live a couple of blocks away, Andrew and Kinga Kemp, have an amazing permaculture garden-farm on a large block. They run a small 'work for food' CSA. It's only small, there are 10 shares, but instead of paying money, you provide the equivalent value in labour. That's another way of enhancing access to good food for people on tight budgets.

Carolyn and Jack have one employee, Elizabeth, who works part-time, 4 hours a day, Monday-Thursday. They also have another employee who works 4-6 hours on Friday, which is harvest day. In bringing another 8 or 9 lots into production, that would likely mean Jack working on the farm full-time, Elizabeth going to full-time employment, and possibly hiring another part-time worker. It would also likely involve the purchase of some equipment, such as a walk-behind tiller, since currently they prepare all the rows by hand.

Carolyn commented about a perception that 'local food' in Detroit is a mainly white phenomenon:

Our customers at Eastern Market are diverse; Eastern Market is a diverse place. But certainly we have many more white customers at Eastern Market than, proportionately, there are white people who live in the city, which is around 15-17%. I was worried when we started with sunflower shoots, because they're out of the ordinary, no matter what your background. But we've been very pleasantly surprised with the diversity of folks who purchase our shoots and other produce at market. These are people who are regular, repeat customers, and many of them pay with EBT, which means that they are making a very conscious decision, that this food is worth my funds.

Carolyn and Jack are also distinctive in that they don't own a car, and do all their deliveries by bicycle. That involves two trailer loads to the Eastern Market on Saturday mornings, and trays of sunflower shoots to restaurants. This takes the sustainability of urban farming and local food to new levels. As Carolyn pointed out, Detroit is a flat city with relatively little traffic.

Delivery Bikes, Rising Pheasant

Carolyn also had some important observations on the culture and practice of sharing:

> *Community sharing of resources and equipment comes out of necessity. If everyone has enough money to buy their own equipment, then they don't need to go to the extra hassle of working out sharing and loan arrangements. There is a much higher potential in Detroit for a sharing culture to emerge and flourish than in other places that are more affluent.*

Fresh City Farms

Fresh City Farms is a direct farm-to-table for-profit social enterprise that operates bio-intensive market gardens at Downsview Park, on the outskirts of Toronto, and sells direct to households. It is self-described as follows:

> ***Fresh City wants to change how you think about food.*** *We farm right in the city and work with like-minded makers to deliver a food experience that respects our bodies, our planet and our shared tomorrow. By bringing makers and eaters closer together, we hope to rekindle the intimacy between people, land and food.*[44]

Founder Ran Goel was originally a New York-based lawyer, but always knew that he 'wanted to do something more human rights related, or from a general public interest perspective'. He incorporated Fresh City Farms in 2010, and the first growing season was 2011. It operates on a six-acre site that was a former military aircraft military base, and is now a public park, property of the Canadian Federal Government. Two acres are decent soil under nearly full cultivation, and the remaining four consist of poor soil that will take some time to improve. The soil was tested for lead and mercury, and the results came back negative. There is no long-term security of tenure.

[44] See https://www.freshcityfarms.com/.

Intern volunteers – would-be 'new farmers' – at Fresh City Farms, Toronto

The two acres of land are now in their sixth year of cultivation, four by Fresh City and two years previously by a not-for-profit inspired by Growing Power (Milwaukee / Chicago). That organisation folded after their external funding ran out, because their own revenue stream (CSA sales) was insufficient to sustain the organisation. Ran reflected on this experience, and his decision to operate the urban farm on a for-profit basis:

> *One of the reasons I decided to do this as a for-profit was to see if it could be done, without relying on grants, because those are fickle. We have had some grants over the years, those that are available to small businesses, for example if you hire someone under 30. That might be $4-$5000 to get you started. But because we're for-profit, we're not eligible for the larger grants.*

Fresh City Farms operates an innovative model to support young people to enter urban farming, which Ran explained:

> *The land here is divided into two…Half of it's farmed by us as a company, Fresh City; and the other half is farmed by member farmers. There are 15 member farmers, and they each have their own plot of land, ranging from 2,000 to 7,000 square feet. We work on a barter basis with those farmers, who are people with some experience, maybe a year or so. We make the land available to them and provide them with some space in the greenhouse to germinate seeds and seedlings. We do some workshops in the spring. The barter is that they provide us with half a days' labour a week, to help us with weeding and so forth.*
>
> *We also operate a more traditional internship program, under which people commit to come out here and volunteer one day a week for four weeks. Most of them continue beyond that period. We've had dozens of those interns over the years, there's a strong interest here in urban farming.*

The business model depends on sourcing half the produce from the Downsview Park site, and half from other local farms. Fresh City Farms employs three farm

staff, and 10 non-farm staff, who work out of a leased warehouse four kilometres to the south, where the produce is processed and packed. Ran explains:

> *Early on I realised that soil-based urban farming by itself cannot be viable. Our costs of production are going to be higher, certainly than Mexico and California, and even compared to small rural or peri-urban farms here in Ontario. They have more land, cheaper access to land, and access to cheaper labour than we do in the city. So the idea here is to use this enterprise as a platform, not only to grow food, but to engage people around food, and to sell a range of other products.*
>
> *So we deliver to 1500 homes around Toronto, as an organic bag delivery service, about two-thirds to people's homes, and one-third to pick-up hubs. It's not a CSA because there's no sharing of risk, which is the heart of the CSA model. We guarantee the produce in every box. We have an aquaponics greenhouse, and we have storage crops from local farms, and some imports, so we supply year-round; and our customers can buy week by week.*
>
> *That's our angle on how to make urban farming work, make it viable. We do events here, we do workshops, tours. We get a lot of media attention. We want to build a loyal customer base, around this concept. Because with the production by itself, you can't compete. Maybe if you're selling to a very specialized niche customer base, like high-end restaurants; or to the 1 in 200 people who will pay more for city farmed and organic produce, but that's a very limited market.*

Ran Goel, Fresh City Farms Greenhouse, Downsview Park, Toronto

Fresh City Farms offers different size bags and some options for customization, in that customers can choose not to have certain produce in their bags, and / or they can choose to include a limited range of extras, such as eggs, bread and milk. They are moving to more complete customization, because

> *We realised that we needed to do two things. First, we needed to obtain a higher value per order, in order to make the delivery infrastructure economically viable. Secondly, customers were asking for more products, because they have to go to the grocery store to obtain those. So we want to become something like on online*

wholefoods store, offering dry food goods in bulk, flours, oils, lentils and so on. The theory is that we're already making the delivery, so the extra produce won't cost us much more in transport. And it allows a lot of people to close the loop, because there aren't that many outlets for local and organic produce in Toronto.

In terms of the average order, it's $28 for a regular veggie bag, and $37 for a large bag, plus $3 - $4 for delivery. The business does an average of 850 deliveries per week, around $30,000 in weekly sales, with a dip in the summer because of the farmers markets and because customers go on vacation. In winter, when the weather turns cold, people like home deliveries.

Even though the business is reaching a certain scale in terms of sales, Ran feels they have some distance to travel:

We crossed $1 mn in sales last year, 2013. That seemed like a big milestone. But it's not where we need to be. We need to be in the $5 mn - $10 mn bracket, because there's a baseline overhead that you need to cover. Even though we have access to land at below commercial rates, we're selling to the warehouse at wholesale prices. From the customer's perspective, we're no different to any other organic delivery service. Our prices have to be competitive; otherwise our customers will just go elsewhere.

Urban agriculture as food security

It will have become apparent from the above case studies that many practitioners of urban agriculture on a for-profit basis are strongly motivated by considerations of social justice and equity. They firmly believe in the principle that all people, regardless of income or background, should have access to good, fresh and healthy food. And they are structuring their business operations in ways to achieve this outcome, on the scales that they are dealing with.

The not-for-profit and government sectors also have a critically important role to play in addressing the issue of food insecurity. Not-for-profits have an explicitly social purpose, rather than an economic or financial purpose, and in relation to food, this is often directed towards enhancing food insecurity for low-income groups. Similarly government policies and programs have a vital role to play in ensuring food security for the most vulnerable population groups.

The following discussion considers government actions at the Federal and local levels in Argentina, and then considers a few not-for-profit case studies from Toronto and Argentina.

Pro Huerta

As mentioned, a primary motivation for including Argentina in this study was to explore the relevance and significance of the national program, *Pro Huerta* ("Pro small-scale Vegetable & Fruit Gardens), which has been in operation since 1990. It has a presence in all 23 of Argentina's provinces, with a workforce in excess of 700, and a national volunteer network approaching 20,000. Pro Huerta's main activities involve the sourcing and distribution of packages of organic seeds, twice a year, to approximately 600,000 mainly low-income families, and over three million people, throughout the country. The distribution of seeds is

supported by community workshops and one-to-one visits carried out by the technical staff of Pro Huerta, who is mainly agronomists. Pro Huerta staff sit within the National Institute of Agro-Livestock Technology (INTA – *Instituto Nacional de Tecnologia Agropecuaria*).

According to the website of INTA, Pro Huerta is described as:

> *A public policy programme which promotes productive agroecological practices for self-sufficiency, food-related education, and the promotion of local markets with a focus on including family-level production.*
>
> *As regards institutional responsibility and frameworks, Pro Huerta is implemented by [INTA] and the Federal Departments of Agriculture and Social Development, via the National Food Security Plan. This enables an integrated approach to the different realities experienced across our vast Argentine territory.*
>
> *This territorial and integrated approach reaches producing families through the promotion of agroecology, for self-sufficiency, food education and commercialization in local markets, as well as the recovery of varieties, tastes and traditional customs, with an inclusive focus that values and empowers diversity.*
>
> *This productive emphasis promotes the use of sustainable methods of production, the use of local resources and appropriate technologies that enhance the quality of life of the producing families and their communities.*

A brief history of Pro Huerta and its achievements is taken from the program's own website:

> *Pro Huerta commenced on August 3rd, 1990, in the Greater Buenos Aires, Santa Fe and Mendoza provinces, and soon expanded through all provinces of the country. Pro Huerta has a journey of stories, experiences, dreams and ambitions. It is one of the most important production and development social programs; and it also supports the recovery of values and histories.*
>
> *The initial objective of the programme referred to the support that the technical staff of INTA would offer to the most vulnerable population groups, to enhance their access to adequate food, growing and raising some of their own produce.*
>
> *24 years later, Pro Huerta interacts with more than three million people, linked throughout the national territory by more than 10,000 institutions and organisations, and supports more than 400 agroecological markets, thereby guaranteeing healthier eating, developing technologies aimed at the self-production of healthy foods, strengthening families, communities and organisations, promoting a solidarity and just economy, enhancing the natural environment, and raising awareness about citizens' rights.* [45]

Echoing this description, the Director of Pro Huerta in Neuquén, Eduardo Zeman, added these written reflections subsequent to his participation in the Churchill Fellowship:

> *We consider that the strategy for the growth of Urban Agriculture that at the same*

[45] See http://prohuerta.inta.gov.ar/acerca-de/

time may coincide with the noble objectives of Food Sovereignty and Food Security, should contemplate aspects linked to appropriate technology in intensive protected cultivations, the use of substrates, recycling of organic materials, and inclusive and secure access to water.

In addition, there are important questions about access to land, rational allocations of lots with infrastructure improvements that can be accessible to family and community producers.

Many of these questions are contemplated by Pro Huerta, which promotes Food Sovereignty through community organisation for local food production, as well as using appropriate technologies, with adjustments to the local territorial conditions, that are aimed at caring for the environment, and which can be expanded from the family veggie plot to the production of surpluses that can be integrated into the social economy.

Pancho Zelaya, Coordinator of the Pro Huerta team of San Miguel de Tucuman, offered an historical perspective on the emergence of Pro Huerta in Argentina and its role and significance in the second decade of the 21st century:

The structure of Pro Huerta in Tucuman is very similar to that in other provinces across Argentina. We have 26 coordinating offices throughout the country. Every Province has its own coordinating office, and Buenos Aires, because it is so large [in population terms], has three. The coordinating office has a technical team; and each office depends in turn on the provincial experimental station of INTA.

We have this office here in San Miguel de Tucuman, because of the pioneering work that Pro Huerta has been doing in this province. So INTA have decided to support and resource this office, which is a new development, because until 2013 we were based in the experimental station in Famallá [a regional town about 30 kms from San Miguel de Tucuman]. This is important, because here in the city we are accessible to people who don't have access to private car transport. And we work with communities in the urban and peri-urban zones, whereas INTA traditionally is focused on rural producers.

This centre in San Miguel de Tucuman is important, because apart from Buenos Aires, which has a research centre supporting urban and peri-urban agriculture, this is the only other centre in the country supporting these forms of agriculture.

This development also has to do with a policy of decentralization. In the bigger cities like Cordoba, Mendoza and Rosario, the coordinating offices of Pro Huerta have struggled, because they haven't fully integrated a perspective of what urban and peri-urban agriculture really means in those contexts. Even though Pro Huerta now has 24 years of experience working in urban agriculture, what that means has not been fully incorporated into the vision and planning of INTA, and therefore Pro Huerta, in many other provinces.

What the opening of our office here in the city of San Miguel de Tucuman signifies is the advance of the work of Pro Huerta, not merely supporting the 'huerteros' (gardeners) themselves, but also effecting change at the institutional level as well.

These institutional linkages were observed during a series of visits that took place during the week Dr Rose was in Tucuman. This included visits to a local

community centre, staffed by volunteers, who provided emergency assistance and support to people from all walks of life; to a local health centre, and to a centre for young men in recovery from drug addiction, *Las Moritas.*

With the young men in recovery from drug addiction at the Centro Las Moritas, San Miguel de Tucuman

In the case of the Drug Rehabilitation Centre *Las Moritas*, which has been funded and operated by the Provincial Health Department in 2009, the creation and maintenance of the veggie garden is seen as an important element of the recovery from addiction. It is a form of therapeutic gardening. Currently the centre has capacity for 48 young men, from 14 to 33 years of age. The time they spend in the centre depends on each individual, but varies from four months to nine months. The Director, Federico, explained that the demand for space was very high, and that currently new constructions are taking place to increase its capacity. There is no other Centre like it in the whole province.

When asked what it meant to them to be able to come out to the veggie garden and chicken coop each day, this is what they had to say:

> *We prepare the earth, we have a compost heap and we germinate seedlings. We take care of the chickens and feed them. We water the plants and make sure they are healthy. We have an orchard we are developing, some lemon and orange trees. We're going to build a fence here and expand the area for growing. We prepare the food in our kitchen.*
>
> *Before coming here, not many of us had any experience with gardens or growing food. We spend a lot of time here, from early in the morning till late in the afternoon. At first it was hard, because we got bored quickly and it seemed like there was nothing to do. But now we like it a lot, it's very relaxing and calming.*

In San Miguel de Tucuman, in common with other large cities in Argentina, there is an influx of people coming to live on the periphery, in the peri-urban / semi-rural areas. Many of these new communities, which are characterized by very marginal living conditions, with poor quality housing and often lacking basic infrastructure, find themselves at the outer edges of the rapid and continuing expansion of the vast soy monoculture. Soy, says Pancho, was planted in Argentina for the first time in 1960. Now it covers two-thirds of the arable land of the country.

Rosario

Rosario has international prominence as being a city at the leading edge of integrating urban agriculture into its planning, social justice and economic development strategies. It is unique in Argentina and indeed at a continental level for its extensive network of *Parques Huerta*, or Vegetable Garden Parks, of which there are currently 5, occupying 22 hectares of public land at diverse locations around the city of 2 million inhabitants. These *Parques Huerta* are guaranteed security of tenure for periods of 20 years or more, and the municipal government has plans to double the current network of parks to more than 50 hectares over the next few years. The *Parques Huerta* are supported by a number of local markets where urban farmers can sell their surplus produce at fair prices, and also by local training and enterprise development centres for artisanal food processing and manufacturing. This is part of the work of the 'Sub-secretariat of the Social and Solidarity Economy' that sits within the municipal government of Rosario.

The development of urban agriculture in Rosario was the subject of an unpublished doctoral thesis by Dr Silvana Mariani, who works within INTA-Pro Huerta in the city of Cordoba. The abstract of her thesis, entitled, *Potencialidad Agroecológica de la Agricultura Urbana en la ciudad de Rosario: El Caso del Parque Huerta Molino Blanco* (The agroecological potential of urban agriculture in the city of Rosario: the case of *Parque Huerta* Molino Blanco), reads (in part) as follows:

> *The emergence of urban agriculture in Rosario, Santa Fe, arose as a productive alternative for social inclusion in a context of economic crisis, enabling access to fresh produce for families in vulnerable situations. It has evolved in some cases into solidarity networks of production, processing and commercialisation…*
>
> *The Parques Huerta, as a strategy, represent an innovative and offer potential for the creation and consolidation of alternative models of urban agriculture, opening productive and multifunctional spaces (production, educational, recreational and aesthetic.*
>
> *We can say that the consolidation of local food systems and policies of endogenous development are phenomenon closely associated with agroecological development, where the articulation of diverse local actors is prioritised within a political project that is aiming towards social transformation in distinct territories.*

As Dr Mariana explains, Rosario, in common with many other urban centres in Argentina, experienced de-industralisation and a consequent loss of employment

through the 1970s and 1980s, as a result of the embrace of market-driven neoliberal policies. At the same time, its population swelled due to the ongoing expansion of the *soja frontera*, leading to establishment, by 1990, of 95 *villas miserias* ('misery villages'), in which an estimated 200,000 people lived below the poverty line.[46] By 2002, in the wake of the financial and political crisis of December 2001, these numbers had swelled, so that more than 800,000 inhabitants (60% of the total population) of the city lived in poverty; and 28% of these were in extreme poverty, with insufficient income to secure a minimum basic diet.[47]

The mass development of urban agriculture in Rosario has its origins in these conditions of economic crisis and hardship. Impoverished residents began to grow food on vacant land around the city; and the municipal government not only relaxed existing restrictions on urban agriculture, but also created a special program to facilitate its expansion, as Dr Mariana documents:

> *To support this emergent activity, the city created the Urban Agriculture Program. This program, a cooperative initiative that brought together urban farmers, city staff and representatives from NGOs in order to design production units on the basis of agroecology, quickly helped the urban farmers to secure and protect the urban farmlands, to take advantage of agricultural products of added value, and to establish new markets and market mechanisms.*
>
> *Very quickly, seven farmers markets and more than 800 community gardens appeared across the city, supporting nearly 10,000 urban farmers and their families…For its part, the Pro Huerta program identified levels of self-sufficiency in vegetables amongst low-income populations of nearly 70%, especially in urban areas, and the emergence of networks of social security via the urban gardens.*

Parque Huerta La Tabalada, Rosario, Argentina

[46] Mariana 2014, p21.
[47] *Ibid*, 21-22.

Antonio Lattuca, who has been coordinator of the Urban Agriculture Program at the City of Rosario since 2001, currently has a staff of 40 working on the program. As at August 2014, 25 hectares are under cultivation, distributed amongst seven large *Parques Huertas*, the smallest being three hectares in size. These *Parques Huertas* have received substantial infrastructure and equipment investment from the municipal government, with each having irrigation systems, well-stocked tool sheds, workshop spaces, washing and packing facilities, greenhouses, seed germination areas, hoop-houses, and so on; as well as a tractor that is shared as required amongst all the *Parques Huerta*. Part of the financing for this infrastructure and equipment investment has come from international cooperation (especially from the Italian government); and substantial in-kind support from both the municipal government and the Federal government, via Pro Huerta-INTA.

The model of urban agriculture designed and implemented in Rosario is unique in Argentina. It has received substantial international recognition, receiving awards from the United Nations Development Program, in Dubai and Colombia. Similarly in 2013 the Food and Agriculture Organisation of the United Nations completed a five-year evaluation of urban agriculture initiatives and strategies in Latin America, in which Rosario was identified as one of the 10 most sustainable cities in the continent, and the only one in Argentina. The National University of Argentina in Rosario has also provided important research support, especially via the faculties of Engineering, Agriculture, Social Sciences and Medicine. Recently there has emerged a collaboration with the community health centres, which are distributing preparations derived from medicinal plants, grown in urban farms and prepared in the processing centres established and resourced by the municipality of Rosario. This support also takes the form of research students who carry out pre-professional, internship-type practices, on the *huertas*.

With Antonio Lattuca, Rosario, Argentina

The Director of the Sub-secretariat of the Social and Solidarity Economy, Susana Bartoleme, also explained how the municipality of Rosario is working with the provincial government to assist the *quinteros* (larger-scale commercial producers on the peri-urban zones of Rosario and other large urban centres) to transition from conventional (chemical-based) methods of production, to agro-ecological, low or no-chemical, production. "We're trying to get the provincial government to dedicate resources to support this transformation", she said. "This involves a major culture change", she added.

As Susana Bartoleme explained, there are many municipalities across Argentina and internationally that support urban agriculture in various forms. There are few, if any, that have dedicated the levels of institutional support and policy frameworks that the Municipality of Rosario has done over the last 15 years.

The Sub-Secretariat of the Social and Solidarity Economy has responsibility for primary and value-added products, in four main areas: urban agriculture, fishing, livestock, and food processing.

Urban Agriculture has now developed in Rosario to such an extent that the entire month of September is devoted to its recognition and celebration, with tours of the gardens and urban farms, workshops, presentations, seminars, markets and festivals.

The system of markets (*ferias*) in Rosario is supported by a *Red Pro Verde*, a network of pro-agroecological consumers. The establishment of the *ferias* was seen as a critical moment in the rapid expansion of urban agriculture. As Antonio Lattuca explained, since the early 1990s, the country as a whole, including Rosario, had a policy and a mechanism of supporting family-based urban agriculture, through the *Pro Huerta* program within INTA. However it was only with the creation of the *ferias*, combined with the establishment of the larger-scale *Parques Huertas*, in the context of the 2001-2 financial crisis, that there was a significant incentive for the urban farmers to produce on a larger scale, in order both to feed themselves and their families; and also to sell the excess.

While the state support has been critical in expanding urban agriculture in Rosario, at the same time, there are risks with the extensive levels of institutionalization, as Susana Bartoleme explained:

> *One of the things that makes me feel bad is that the State is subsidizing all this activity. The State, in its three levels, makes available the seeds, the tools, the infrastructure, and the vehicles to transport the produce to market, the irrigation, as well as the structure of the ferias. The State grants the huerteros the right to sell their produce with no additional cost…And the price of the vegetables doesn't reflect or recognise all these subsidies. So I say, we're not subsidizing the huerteros, we're subsidizing the consumer…The price being charged is the same as consumers pay for conventional produce, grown with agrochemicals, that is sold in the greengrocers.*

As Susana and her colleague Marcelo Tengala pointed out, the patrons of the *ferias* are in general people of average or above average income, who are

motivated not by low cost but rather because they want healthy and fresh produce, and who would therefore be capable of paying a higher price. And demand for this type of produce in Argentina is growing, given the relative lack of non-chemically grown produce.

For Susana, this topic also raises the issue of gender, since the majority of the urban farmers in Rosario – and indeed elsewhere in Argentina – are women. The perception is that the urban farmers have not wanted to charge a higher price for their produce because they don't believe consumers would pay it. Susana said that this is a gendered issue because these women, especially from lower socioeconomic classes, have great difficulty in valuing their own work, given that they are very accustomed to carrying out work that is not remunerated.

At the same time, the development of urban agriculture in Rosario has been a process, which in the first phases has been about identifying and addressing the most urgent barriers: secure access to significant amounts of land with supportive infrastructure and water, and the creation of markets to create incentives to produce at a significant scale. And in the context of the severe economic crisis, many consumers displayed substantial solidarity with the *huerteros*, through the purchase of *bonos verdes* (green bonds), which were a form of community-supported agriculture, i.e. consumers would pay up-front for produce so the *huerteros* could cover the costs and time of growing the food.

Parque Huerta El Bosque, Rosario, Argentina

The most recently established *Parque Huerta* is *El Bosque*, which is on the peri-urban fringe of Rosario, about 25 minutes from the city centre. It covers three hectares, and is located in one of Rosario's poorest neighbourhoods. The Coordinator is Tomasa, who was one of the first community gardeners in Rosario during the 1990s. Thirty families are currently working plots of approximately 200 or 400 or 500 sq. metres in the garden, according to their levels of experience with gardening. The intention is to expand the numbers of families involved, all of whom come from the local community, to fifty or more.

Due to the nature of the neighbourhood and the socioeconomic realities of its residents, several of the *huerteros* are struggling with problems of alcoholism and drug addiction, which makes them very challenging to work with. "Their levels of self-esteem, and self-development in general, are very low", said Tomasa. "Which means they are able to do very little, and the little they can do requires a big effort and a lot of support from us":

These comments highlight the *therapeutic potential* of urban agriculture, which is also noted above in relation to Tucuman; and below in relation to Neuquén. This also highlights the significance of the inter-institutional relationships. As Tomasa explained:

> *Others use drugs a lot, and because of that we have to give them less land, because they are developing slowly. Because they come here sad and depressed, and you can't give them all at once a large plot to look after and work. But the simple fact of working the earth and touching it helps them a huge amount, to recover from their addiction, because they are busy with something else, they sell their produce, and so things begin to change. They say to me, Look, I'm not going to get work, and I say to them, See? You're selling your vegetables.*
>
> *And from here they can link to the Health Centre, and we can show them that there are other sources of support in the neighbourhood. And of course they don't always go, but they understand that there is support. Before, they used to think that psychologists were only for mad people. Now they realise that the psychologist is there for them also. The Health Centre works a lot with us, with the soil – they send people here when there's an accident, or in other cases…*

Another challenge that *El Bosque* faces, due to its location, is theft and vandalism. When infrastructure improvements have been made, such as the installation of taps and pipes for irrigation, thefts have occurred. The site is fenced, but holes are cut through the fencing. For this reason, the site does not have much built infrastructure added.

The *huerteros* are improving the soil by making compost from local organic materials, and from horse manure that is brought to the site on a weekly basis. The method of production is similar to Cuban-style 'organoponics': raised beds full of rich organic material which are supported by hard materials on both sides. However only a part of the site has been improved to date; and much work remains to be done.

Parque Huerta Hogar Español

In contrast to *El Bosque*, *Hogar Español* is one of the longest established urban farms in Rosario. The land belongs to the Spanish Consulate, and was made available to the City of Rosario on a five-year lease during the midst of the crisis in 2001, which has since been renewed twice. Finance for the installation of infrastructure on the site was also provided by the Spanish government. The site is approximately three hectares and is surrounded on all sides by a high brick fence, creating an atmosphere of peace and security. Thefts occur from time to time, but there is no vandalism.

Juan Pablo, the Promoter assigned by the City of Rosario to *Hogar Espanol*, put a great deal of emphasis on the inter-personal and social dynamics of the *huerteros* that form the coordinating body for *Hogar Español*:

> *This is a closed space: physically closed; and emotionally closed. The leading group is tight-knit and very solid. The production here is for the benefit of all; and if you don't have that, you have nothing. If it's only a pleasant place to come, you're not going to produce anything. As an employee of the Municipality here, I'm dispensable, because there's a very solid group.*

Juan Pablo commented on how the security of the *huerta*, and its agroecological (chemical-free) production system, supported the families and particularly the women who were the main agriculturalists:

> *There are seven families working the land here, as well as 8 young people who are in training. They have a smaller space, but they form part of the collective. The children of the families also participate. Since no chemicals are used here, since we don't put down poison, the kids can be here and share the garden. Because it's safe, this also allows the women to work here on a daily basis, because their children can be here…This logic of forming part of a strong group supports everyone's personal development, it creates more possibilities of being well.*

The group of *huerteros* at *Hogar Español* has remained very constant over the 13 years of its history, and it has been a conscious decision to keep the numbers small, as Juan Pablo explained:

> *Some gardeners have left…but there's a very low rate of turnover. There aren't more gardeners here because the group decided to cap the numbers pretty much as they are. Some have got ill and gone away, but they want to come back, because they feel good here. Everyone has come from a capitalist logic, of boss and worker, but here it's different. Here everyone is valued and looked after…they're happy here, and that translates to their work.*

Parque Huerta Hogar Español

The group plans the work in the *huerta* at a weekly meeting on Tuesdays. There are nine different work areas: irrigation, seeds and seedlings, planting and weeding, soil compost, transport, infrastructure, finance, harvest and packing. Each area has a different person responsible, and this allows the group to function effectively and efficiently, almost as a de facto co-operative. This has allowed the group to develop a high degree of autonomy, to the point where, as Juan Pablo indicated, they no longer really need the direct support of the Municipality, in the form of his presence. These weekly meetings, which are supplemented on a daily basis with a social gathering at lunchtime, have also allowed the group to air and resolve differences, reducing, to a relative minimum, levels of tension and conflict that often tend to arise when several individuals share a common resource.

Juan Pablo also explained the socio-psychological changes that take place working with the youth involved in the *huerta*, and how this work contributes to broader processes of social change:

> *In relation to the youth, there are no individual plots. The spaces are worked together. We all prepare seedlings, and the seedlings belong to everyone. We all water the same parcel, and cultivate that parcel. This enables you to think collectively. When they first join [the huerta], they're not accustomed to work in that way. This enables us to break that individualist logic. You broaden their perspective, towards society. And this way of seeing the world, begins slowly to filter outwards, in conversations with neighbours, in their behaviour, how they see another person, how they think of another person…From there we see emerging an outwards-focused group with a distinctive social outlook, focused on the world. It's a perspective that no longer privileges individualism.*

Parque Huerta Hogar Español

PRODA

According to its website, PRODA (*El Programa de Desarrollo Agroalimentario* – Agri-Food Development Program), is:

An innovative program that makes working with the land an activity focused on the self-sufficient production of food and the strengthening of the family economy.

It has three priority areas: attitude towards work; permanent training, through courses and workshops; and rigorous follow-up to productive processes.

PRODA is a good example of a territorial intervention that seeks to work in the totality of themes that encompass local development. Taking into account community quality of life, conservation of natural resources, building sustainability, self-management and citizenship participation.

The development of PRODA enables the generation of personal capacities for self-management to achieve community strengthening, elevated environmental awareness and to reaffirm the value of productive development.

While Pro Huerta is a Federal government program, and the City of Rosario's Urban Agriculture Program is at the level of local government, PRODA is an initiative of the Provincial government of Neuquén. PRODA is financed by the Provincial Minister for Territorial Development. PRODA has an interdisciplinary workforce of 20, which includes agronomists, communication specialists, social workers, a veterinarian, a philosopher, and demographers. PRODA supports the establishment of community gardens in marginalized *barrios*, working with low-income families, principally women, who have low levels of education and are either experiencing food insecurity, or are at risk of experiencing food insecurity.

PRODA was established in 2003, inspired by the example of the *Puesto de Capacitación No 2 de San Patricio del Chañar* (Training Centre No.2 of San Patricio el Chañar), which is discussed further below. Its strategy has been the creation of a network of 30 *Huertas Protegidas* (Protected Gardens), which involve the recuperation of vacant and at times contaminated land, and its conversion into productive spaces that also serve as community hubs and educational centres. According to its website:

Today, 500 families participate in more than 30 of these 'Protected Gardens', located in diverse low-income neighbourhoods of the city of Neuquén and in other provincial centres. The productive activities undertaken include:

- *Organic vegetable growing*
- *Worm farming*
- *Bio-intensive agriculture*
- *Edible mushroom cultivation*
- *Making of preserves*
- *Under-cover production: greenhouses and macro / micro-tunnels*
- *Family farming: raising chickens in coops*
- *Seed saving*
- *Aromatic and medicinal plants*

Ariel Zabert, Coordinator of PRODA, pointed out that, unlike similar programs in other provinces, the *huerteros* receive no payments or government subsidies. This was emphasized as important feature of the program in terms of achieving its first thematic priority: improve the attitude towards work. Hence the plots within the *huertas protegidas* are all individual; and infrastructure improvements to them – installation of a greenhouse, planting a stone fruit tree, the opportunity to cultivate mushrooms, the costs of each of which are covered by PRODA – are allocated on an incentive and performance basis. In other words, the more diligent a *huertera* is in the cultivation of her plot, the more likely she is to secure (for example) a greenhouse or a micro-tunnel, which in turn will enhance her productivity.

With Marta and other *huerteras*, *Huerta Protegida Cuenca 15, Neuquén*

Zabert also emphasized the importance of the community building and social function of the *huerta protegida.* To facilitate this, every *huerta* has its *matera,* or sheltered space with seating, where the gardeners can sip and share *mate* and chat. The *huertas* also have clay ovens, which are used to roast meats and vegetables on special occasions, and to cook pizzas and other foods in order to celebrate *fiestas* and achievements. Each *huerta* must have a minimum of 10 families; and several have more than that.

Health and well being is a key strategic outcome which PRODA aims to achieve through its *huertas protegidas.* Health here refers to both physical health, which helps address issues of obesity through exercise and dietary improvement, and mental / psychological health. As regards the latter, PRODA has two *huertas* that are directly attached to hospitals with mental health patients; and so they operate explicitly as a form of *horticultural therapy.* PRODA is also at the point of establishing a *huerta* linked to a women's prison, to assist the inmates reintegrate to society, gain new skills, and improve their self-esteem.

In relation to documented benefits in the field of mental health, Zabert commented:

> *I've been in meetings with the medical directors of the hospitals where we have these gardens. They can't believe how the practice of growing vegetables can directly influence in a positive and significant way the pathological state of the patients.*

With these institutions, PRODA is also conducting an experiment whereby the organic food wastes from the hospital kitchen are converted into compost in the *huertas*, thereby improving the soil and enhancing its productivity. The intention is that the produce can then being used by the kitchen staff in preparation of meals for the patients.

PRODA does not have a relationship with Pro Huerta in any of its activities throughout the province of Neuquén. The two programs effectively operate in parallel. On the other hand, PRODA works closely with 40 local governments throughout the province; as well as schools, health centres, libraries, churches, universities and others.

Cuenca 15 – Huerta Protegida

PRODA organized a visit to one of its *huertas protegidas* in a very low-income *barrio* of Neuquén, Cuenca 15. As seen below, this *huerta* was constructed on barren vacant land in between two housing developments, on what was previously being used as a rubbish dump. One of the challenges in food production in Neuquén is that it is located in a semi-arid geographic zone, at the north of Patagonia, and as a result has a very low annual rainfall, of only a few hundred millimetres.

Because of these climatic and productive difficulties, the staff of PRODA need to engage personally and directly with those who express a wish to participate in the construction and development of a *huerta protegida*. Much of this is related to addressing the culture of *asistencialismo*, as well as dealing with the particular challenges of vegetable growing in the region as a member of PRODA staff said:

> *This is at times the most difficult [part of our work], because in some families you are dealing with three or four generations that are accustomed to receive subsidies. So, one of our biggest challenges is to work, and invite residents to work the land, without receiving a subsidy, which is different to what happens in other provinces…In Rosario, people charge a certain amount of subsidy, in lieu of working for the municipality, in order to work the land…Here it was a very different process of social and cultural construction in the communities. Here also the huerteras have to get used to working the land in a different way, in harmony with nature, to learn to conserve water and irrigate the plants in a different way, and to see how they can secure resources without depending on the State. We are a State programme, but we've managed to work with the goals of autonomy and self-management [for our communities] since the beginning.*

The *Huerta Protegida* en *Cuenca 15* has been established for three years, but already is producing a large amount of vegetables, a reflection of the amount of work that the *huerteras* – most of them are women, in common with the majority of urban gardeners throughout Argentina – have undertaken. A notable feature of this *huerta* is the strong presence and leadership of a small group of women,

especially Marta. More than 40 different varieties of fruits, flowers and aromatic herbs are being grown, which serves multiple purposes:

- Educational and capacity building, in terms of the *huerteras* gaining experience with different types of plants and their performance under different growing conditions
- Agro-ecological, in terms of minimising the risk that too much of the *huerta* might be lost to pests or disease through companion planting
- Productive, in terms of generating enough produce to satisfy the requirements of the families of the *huerteras* and also some surplus for sale

There are currently 16 families working in this *huerta.* Six have greenhouses and micro-tunnels. The garden is well maintained, and there have been no cases of pests or diseases observed. Water is provided by the provincial water company, and there is no charge for its use for this social project.

In terms of producing for sale, mushrooms are a high-value local crop, especially if the produce can be dried and / or marinated. A kilo of fresh mushrooms sells for 60 pesos, but dried mushrooms sell for 150 pesos. And the processing can be done by the women using the facilities in the city offices of PRODA. For its high protein content, mushrooms are also seen as a good substitute for meat in the diets of local residents. This knowledge is shared by the *huerteras* with other members of their local communities.

Mushroom logs, Huerta Protegida Cuenca 15, Neuquén

The Stop, Toronto / Community Food Centres

Under the leadership of its recently retired CEO, Nick Saul, the Stop has pioneered a transformation from a traditional charity-model food bank, that distributes (often inferior quality) food on an emergency basis to people on low

incomes, to a new, human rights-based, empowerment model of 'community food centre'. This is how the organisation describes itself:

> ***Mission***
> *The Stop strives to increase access to healthy food in a manner that maintains dignity, builds health and community, and challenges inequality.*
>
> ***What We Do***
> *The Stop has two locations: at our main office at **1884 Davenport Road** we provide frontline services to our community, including a drop-in, food bank, perinatal program, community action program, bake ovens and markets, community cooking, community advocacy, sustainable food systems education and urban agriculture. The Stop's Green Barn, located in the **Wychwood Barns at 601 Christie Street**, is a sustainable food production and education centre that houses a state-of-the-art greenhouse, food systems education programs, a sheltered garden, our Global Roots Garden, community bake oven and compost demonstration centre.*
>
> ***Philosophy***
> *We believe that healthy food is a basic human right. We recognise that the ability to access healthy food is often related to multiple issues and not just a result of low income. At The Stop, we've taken a holistic approach to achieve real change in our community's access to healthy food.*
>
> *We strive to meet basic food needs and, at the same time, foster opportunities for community members to build mutual support networks, connect to resources and find their voices on the underlying causes of hunger and poverty.*
>
> *A key tenet of The Stop's approach is that community members must be involved in making decisions about how our organisation operates. When program participants are involved -- as front-line volunteers, program advisory committee members, gardeners or cooks -- the stigma associated with receiving free food is often diminished or erased. While our food access programming helps confront the issue of hunger, it also creates opportunities for community members to forge their own responses to hunger. We believe this approach will end the way charity divides us as a society into the powerful and the powerless, the self-sufficient and the shamed. At The Stop, we are creating a new model to fight poverty and hunger: a community food centre.*[48]

The Stop's main centre is in Davenport West, which is a "priority neighbourhood, that's considered under-resourced, with high unemployment", as Kristen Howe, Coordinator of the Stop's Green Barn, explained. The location of the Stop's main centre right in that neighbourhood means that the organisation is able to respond directly to the needs of residents, beginning with the need for better access to fresh fruit and vegetables, and design programs accordingly. "We've got hundreds of volunteers, and employees, directly from the neighbourhood", Kristen said. "It's a very specific approach to food security. We really focus on our neighbourhood."

[48] See http://www.thestop.org/mission.

The Green Barn is the Stop's new project, located in a higher-income neighbourhood, Wychward. It's intended to be an inspiring place for the clients of the Stop to come, as well as raising awareness about the issues of food security. As a space in which events can be held, it's also provides the organisation with good opportunities for fundraising and awareness raising.

The Green Barn works with more than 20 primary schools, and three classes per week come to the site. Each class has a series of four workshops that they participate in at the Green Barn over the year. Kristen Howe explains the synergies and educational benefits that the site offers to schools:

> *We would never be able to do this at our Davenport West site, because we're so pressed for space. But they can come here, and in one session they can come here and harvest things from the greenhouse, they can cook something in the kitchen, and walk through our garden. It's a hands-on focus on cooking, gardening and social justice. The social justice is the lens that we take to our approach, asking where the food comes from. We have game role plays that highlight some of the key issues. And we target schools from low-income neighbourhoods.*

The Green Barn also has a strong participation of volunteers from the local neighourhood, with 20-40 adults each spending a few hours during the week to take care of the greenhouse and garden space. This is a significant opportunity for skill sharing and community building, as Kristen explains:

> *Our greenhouse and gardens here, as well as our gardens at our other site, people come, work on their own if they want, work with other people if they want; help to grow food, share their skills if they are gardeners, or if they are coming from a farming background, learn new skills, go to free workshops, and then take home a portion of the harvest.*

The Stop also runs an urban landshare program, matching urban gardeners with householders who have available space for growing in their front or backyard. It's called YIMBY – Yes in My Back Yard – and in 2014, forty matches have been arranged, on top of 80 matches that were arranged in the two previous years. The details of the agreements are negotiated with the involvement and support of the Stop, in terms of hours and times of access, use of water, and so on. Regular tours of gardens close to the Green Barn are arranged to promote the initiative and raise awareness of its benefits.

Tibetan Garden at the Green Barn, the Stop, Toronto: part of the culturally diverse community garden space provided by the Stop

The Stop also collaborates with a volunteer-based urban foraging initiative, Not Far From the Tree, which involves teams of people collecting the harvest of surplus fruit from different homes and streets around the city. Some of this produce is donated to the Stop for distribution to recipients of its food relief program in Davenport West. Not Far From the Tree also organises a city cider festival, pressing cider from local apple trees; and they also tap maple trees across the city, to make local maple syrup.

The Green Barn also runs about 15 workshops per year, that are free skill-building workshops, covering topics such as what is good soil and composting, to how to make your own fertilizer, and how to garden in difficult spaces, such as how to build container gardens.

Advocacy is an important focus of the Stop's work, to address the longer-term and structural causes of food insecurity and food poverty, such as housing, employment and welfare benefits. The community advocacy office of the Green Barn negotiates with landlords on behalf of community members regarding the proper receipt of their welfare benefits, for example. The Stop also has an immigration officer and a welfare rights officer, whose roles are to 'support people through difficult processes, and let them know what their rights are', according to Kristen Howe.

The Green Barn offers a drop-in meals service, and also a three-day supply of food that registered users can access once a month. In terms of the demand for emergency food relief, and the types of food that are sourced and supplied, Kristen Howe said:

> *It's quite intense. There's been a nearly 30% increase in the numbers of Canadians accessing food banks in the past few years. [Our food relief service] is a really heavily used program, and our co-workers in charge of it have done a lot of work*

over the past year to incorporate fresh fruits and vegetables. Whether from our gardens, or from our farmers, so we have more choice over the types of food we have. We have more wholefoods in bulk, and are saying 'no' to a lot of the foods that others are trying to donate.

We always try to balance how much of our resources are going to go to food hampers and meals, rather than into food skills training, urban agriculture programs, and community cooking programs. So the staff who run the food bank have decided to keep it open the same number of hours per week, but on one day run it not as a food bank, but as a community food grocery store. We'll buy the food in bulk, and sell it at a discount, to increase dignified food access.

Kristen Howe, the Stop

Community Food Centres

As mentioned, it was the previous Director of The Stop, Nick Saul, who was the leading force behind its transition from a conventional, charity-based food bank, to an empowerment model of Community Food Centre. He explained his strategic thinking behind these centres as follows:

We can feed people, but I'm trying to engender a conversation about basic rights. About access to good food as a basic human right. And to take our society, and our decision-makers on a journey, so they understand the implications. Of how our food system impacts on our environment, how it generates 30% or more of our

greenhouse gas emissions. And about how it is just too damn expensive to have a food system that produces such a vast quantity of unhealthy people. And which is excluding millions of our fellow citizens out of the democratic conversation because they can't put food on their tables.

Nick Saul explained the vision of these Community Food Centres in the following way:

We're trying to create centres where you can touch the future you want to see. They're about community, about people, about dignity, about pleasure, about joy. About straddling class, but not ever backing off the political agenda. Not in a partisan, or strident way; but in a way that tries to build a larger community about these really important things that are [destroying] our world. And food is a really great medium through which to have that conversation…Academics and politicians can sit there and write reports, but if you don't build examples of the future you want to see, how can you let other people into the conversation? It's really important to us that we don't just rail against the system, but that we're building the better system we want to see. You can't just talk about it, you've got to do it.

Nick Saul explained his 'theory of change', which informs the bigger transformation he is trying to achieve:

If you think of a triangle, with politicians at one point, and bureaucrats at another, and civil society at a third, it's those three elements that you want to work with. So if can create noise and momentum in civil society around an issue, and then find bureaucrats who are willing to work with you on it, and you have some galvanizing politicians who get it, in the middle, you'll see change on that issue, whatever it is. It could be increasing social assistance rates, it could be getting young farmers onto the land…But for me it's civil society that's most important, because the politicians get their inspiration to act from civil society. Civil society is about driving important stories of change.

In terms of the role of business, I am excited by the growing number of companies in the natural and organic food space that are trying to work out a variety of bottom lines. It's an emergent sector of purpose-driven or values-driven companies. Though a number of these start-up food companies are then bought out by larger and more conventional corporations.

Change is coming and it's going to be driven by health issues. 50% of the budget of Ontario goes to healthcare, and the lion's share of that is spent on diabetes. If the trends continue on their present trajectory, that 50% will rise to 75% in a decade or so.

There are four community food centres already established, and Nick Saul wants to make the case for public investment in this model. Effectively it's about investing in preventative health care:

We are building evidence to suggest that if you come into our programs, and you focus on healthy food, and get involved in the community kitchen, then your health outcomes will be improved. So we are building the data, to show a good social return on investment for this model. We want to say to Government, We've built

this largely privately, and it works. The numbers are in. So let's build six new community food centres for Ontario. They employ five staff, and they cost $500,000 per year to run. This is the space it requires, and these are the metrics. So let's build 10 of those, $5 million per year. It's not a big cost.

So if you think of our strategy as a stool, with three legs, the first is: build community food centres in low-income neighbourhoods. The second is to build a movement of organisations. So we're launching a network of Good Food Organisations, like food banks, social services and environmental organisations; these are a set of organisations that sign onto Good Food Principles. We want to help them move from charity to solidarity. We want them to realise that food is powerful. And it's political.

And the third piece is public policy. How do you make public policy fly? You have the centres – the R & D labs – and the movement of people, telling and sharing stories – bumping into each other. And producing sparks, one of which might be a guaranteed annual income. And then you do a smart campaign to translate that into public policy.

The stories that come out of the centres are amazing, about how lives are transformed. I'm excited to see a growing number of organisations embrace food. But the game I'm really interested in, is how do you create a platform to start having these big conversations, and meet with politicians to secure the important changes. We have the dollars to do it. We just have to re-prioritise them in a different direction.

In terms of the role of large food businesses, Nick Saul is in discussions with some of the biggest Canadian companies, who are interested in funding a community food centre as part of their corporate social responsibility mission. But he is clear that he cannot accept those funds without 'extracting some commitment in return, that they are going to be improving their practices, and working towards a business model that is more oriented to supporting health and sustainability':

True partnerships are about honesty, transparency, and mutually shared values. Those are some of the criteria that I would be looking for…I said to this company {Maple Leaf Foods), you've been around for 100 years. But I don't think you'll be around for another 100 if you don't make this shift.

Nick Saul shared his view of what he termed 'the Good Food Revolution', and how it could be limited, or stagnate, if it didn't transcend consumerism:

What we have to do as part of the Good Food Revolution, is make the shift from the consumer side, to the citizenship side. If we continue just on the consumer side, as individuals, it won't be enough. I'm excited by all the farmers markets, about consumers being able to 'touch' the farmer; about the 100-mile menu restaurants, all of that stuff. They're early adopters. But there's a lot of fetishisation of food there as well, alongside the mainstream commodification of food. But how do you democratize food? What's that middle ground? Our work has been to draw those folks who fetishise food, into a more political dynamic. If you're thinking that that food is the best on the planet, then surely everyone should have access to it…

We're not all going to be growing our own food, and we're not all going to be shopping at farmers markets. Most of us will continue to shop at supermarkets. So the question is: how do we democratize supermarkets? How do we break up those monopolies? We should have hundreds of grocers. We have to re-engineer supermarkets. They can change the countryside. Same with institutional procurement. If we had a commitment from our MUSH (Municipalities, Universities, Schools and Hospitals) to source 20% of their food locally and sustainably from the province, you're talking there billions of dollars. But right now, if you go to the Green Belt and beyond, we don't have enough farmers to produce that food.

In terms of the governance model for the community food centres:

They're all locally run. But it's not a corporate or franchise model. They're all run by local boards. We have a model in terms of operations, financing and structure; and the local board provides leadership and philosophical alignment, in terms of the solidarity approach. We spent 6 month in a community exercise, to determine what programs would work best in that particular context, because it will vary from place to place…

But it does come back to public policy. Our work is developing relationships with people that allow them to understand that their individual issues are shared with other individuals, so that they need to come together to push for changes. Not from an ideological perspective, but as a matter of healthy neighbourhoods.

PART 4: PUBLIC POLICY AND THE ROLE OF GOVERNMENT

A key conclusion (see below) from this Fellowship is that Government at all levels has a critically important role to play in supporting the expansion of urban agriculture in Australia, in at least three respects:

- creating supportive public policy frameworks and environments that recognise the value and multiple benefits of urban agriculture, for example through local food marketing and branding strategies; urban agriculture action plans and policies; and enabling planning and zoning mechanisms,
- establishing resource and funding mechanisms that support the work, innovation and creativity of individuals and organisations who are making substantial changes on the ground, as well as supporting research and knowledge-translation work to create and share evidence bases, and
- establishing and / or enabling multi-stakeholder collaborative forums and networks that build shared understandings and knowledge-bases about urban agriculture and local food systems, and through which opportunities for initiatives and projects can be identified

In the previous section of the report the role of Federal, Provincial and Local Government in Argentina has been explored, with a discussion respectively on Pro Huerta (Federal), PRODA (Provincial) and the City of Rosario (Local). This section will examine briefly some key initiatives at the Provincial and city levels in Ontario and Chicago respectively.

Local Food Act and Local Food Fund, Ontario

In November 2013 the Provincial Legislature of Ontario passed a Local Food Act. This Act mandates the Minister of Agriculture and Food to set goals or targets with respect to:

- Improving food literacy in respect of local food
- Encouraging increased use of local food by public sector organisations
- Increasing access to local food

The Act also creates a 25% tax credit for farmers who donate produce to local food banks, as a food security measure. It also sets aside the first week in June each year as a 'Local Food Week', as an industry-led initiative to celebrate Ontario produce, and raise awareness about what's in season and where it can be purchased.

Another plank of the Canadian strategy is a dedicated **Local Food Fund**, worth up to C$30 million over three years to support innovative projects that enhance the purchase of local food and contribute to economic development.

As Marc Le Berge, Economic Development Policy Manager at the Ontario Ministry of Agriculture and Food, explained, these measures are the latest in a series of policy, financing and marketing initiatives that have supported the development of a local food sector in Ontario, dating back to the 1970s:

> *Ontario's been in the business of supporting local food for a long time. Most notably through the [marketing and promotion programme] Foodland Ontario, which has been around since the mid-to-late 1970s, and is aimed to 'make local food top of mind' for consumers. It also helps people to identify local food in store.*
>
> *We've been involved in local food through a lot of other different ways. Through our funding programs, such as the Ontario Market Investment Fund (OMIF), which was the previous version of the Local Food Fund. Also through research, knowledge-translation and transfer, [we do a lot of work] with the University of Guelph and other universities, in terms of developing the research, developing best practices, tools and resources to help local food stakeholders. There's also industry-capacity building – we support a number of stakeholder organisations, in the work that they do, such as Farmers Markets Ontario. We also help to develop relationships along the value chain, helping people make those connections to make their businesses more effective, and to take advantage of opportunities. That also links up with our Business Advisory Services: we have folks in the field who work directly with farmers, food processors, economic development organisations and municipalities, to help them with their local food initiatives.*
>
> *All in all, since 2003, with the different funds and programs, we've invested about $C116 mn in Local Food Initiatives.*

Marc explained the reasons for the establishment of a Local Food Act and Fund in 2013:

> *A couple of years ago we engaged in some regional consultations with a wide range of stakeholder groups, across the province, ranging from industry thought leaders, academics, public sector staff, NGOs doing local food work. We wanted to know how could we take this to the next level, and there were a number of challenges and opportunities that people identified. Specifically, education was raised a lot, both for consumers and for businesses in terms of understanding the opportunities; regional aggregation and distribution was identified as a real gap; access to capital, especially for small organisations with good ideas; the need for collaboration and value chain development, in terms of people not really knowing who all the players were, or how they could work together; and for the public sector to show leadership in supporting local food systems through procurement.*

That consultation led to the development of a 'multi-pronged local food strategy' to build on all the work already underway:

The crux of the Local Food Strategy was that we wanted Ontario consumers to enjoy local food more often, and in more places. Our mission was: let's increase the consumption of local food in Ontario. In terms of the high level goals, we saw them as being about:

- increasing awareness amongst Ontario consumers about the value of choosing local food, help people understand what's in season and what's the value proposition, help people connect the dots about the social, environmental and economic benefits;
- increasing access: ensure that local food is available when people walk into their grocery store, and that's it available also through mainstream retailers, as well as via a farmers market or community-supported agriculture enterprise – that consumers can access local food in the way they want;
- increasing supply: that the local food sector is competitive and productive, and can respond to consumer demand, whether that's [culturally appropriate] foods that appeal to new migrants, or whether it's packaged in ways that are competitive and attractive

In terms of implementation of this strategy, the 'cornerstone', as Marc put it, is the Local Food Act, in terms of 'raising excitement and dialogue, get people talking more about local food in the public space'. Local food is defined as 'food produced or harvested in Ontario, including forest and freshwater foods', as well as processed foods containing (with no minimum percentage specified) foods produced or harvested in Ontario. As March put it:

The definition is quite broad, because defining local food is quite challenging. You ask ten different people what local food is, and you might get ten different takes.

The goals and targets – with respect to food literacy, access to local food and public sector procurement of local food – are 'voluntary and aspirational' – however the Minister 'is required to set targets with respect to each of those goals, in consultation with stakeholders.' The food literacy target is the first to be set, by 31st January 2015.

The Act also requires the Government to release a Local Food Report annually, which would, first:

Talk about the sorts of things the Government is doing to support local food: what goals or targets have been established, what steps have been taken to meet those goals and targets. And secondly, to shine a spotlight on innovators outside of Government, to profile what they're doing. To help share best practice, and help motivate people to act, because in a lot of cases, we've found that people don't know what's going on, because local food by its very nature is locally focused. The first report is due by 31st January, 2015.

A second element of the strategy was the establishment of a $C30 mn, three-year Local Food Fund, to fill the capital gap identified through the stakeholder consultations. As at 11 August 2014, over 300 applications have been received, and 67 have been funded and are in progress. There has been a diversity in terms of size of applications, with some multi-hundred thousand dollar or in excess of million-dollar projects, and several smaller ones for sums of a few thousand or even a few hundred dollars.

The Local Food Fund has committed $C11.6 mn dollars to the 67 applications that have been approved. Funding was only released in September 2013, mostly for the summer of 2014, so (as the date of the Churchill trip) little data had been received on the outcomes of funded projects. The type of projects seeking funding ranges widely, from:

- school gardens
- food processors
- farmers markets
- community kitchen
- agri-food venture centre in Northumberland county
- applications from mid-sized family-owned businesses such as Longos supermarkets

There is no restriction on the size of the business that can apply, other than that it has to be a legal entity and demonstrate that it is meeting the goals of the Fund.

Additionally, a Local Food Procurement policy has been put in place for ministries and provincial agencies, requiring them to consider local food sourcing options when making purchases under $C25,000. That figure, Marc explained, is 'in line with our internal as well as our foreign trade obligations.' Finally a best practice guide for municipalities has been produced to help them develop local food policies and support food system stakeholders to adopt innovations to enhance the local food economy.

Urban Agriculture Ordinance, City of Chicago

In 2011 the City of Chicago began development of an Urban Agriculture Ordinance, in order to clarify existing rules and expand the opportunities for food-growing and livestock rearing within the municipal limits. As Brad Roback, City Planner explained:

We were approached by some folks in 2011 wanting to utilize city land to grow food, and so we established an ad hoc working group to review the Public Health Code and the Zoning Code to work out what was allowed. And we found that there wasn't much in the Municipal Code. There were rules – which still exist – that prohibited the raising of 'large' animals in the City on public health grounds. Goats, chickens – they're not really addressed as such – so they're sort of allowed by not being [expressly] disallowed. There's no prohibition on keeping these animals as pets, but the issue arises if they're keeping them commercially.

So in 2011 we dealt with the urban agriculture issue only by looking at plants, and two different animals, namely fish and bees, because that's where the interest was at the time. There were some entities that wanted to buy or lease city-owned property to set up aquaponics facilities, or keep bees, and we had no way of approving that.

Brad explained how the City of Chicago then went through a year-long process of consultation with the Advocates for Urban Agriculture in Chicago, a 'loose association of 2-300 people involved in growing food', as well as Growing Power and the Chicago Food Policy Advisory Council:

> *It was a contentious process in some ways. There were people who felt the Ordinance should be going a lot further than it did. And there were residents in parts of the City where people wanted to set up urban farms, like Englewood and Washington Park, who said, 'I don't want my house to be in the middle of a farm.' The community didn't want a bunch of people who didn't live in the neighbourhood coming in and taking over all the land.*
>
> *We had to strike a balance between property owners and practitioners and advocates. The Ordinance that got passed was much better for this process.*

The Urban Agriculture Ordinance has been incorporated into 1711, the Municipal Code. The 1957 version of the Code made allowances for 'truck farms', because there were still semi-rural areas on the outskirts of the City. When the Code was next re-written in 2004, 'very few people were talking about growing food on vacant land', according to Brad:

> *The new version is more expansive the 1957 version, which only spoke of truck farms on the outskirts of the city. The new provisions allow, as of right, urban agriculture in any commercially zoned space. We have three sub-categories of urban ag: indoor, outdoor, and rooftop. Rooftop is allowed in the most districts – pretty much anything that allows commercial activities. The outdoor classification is also pretty expansive, as long as the zoning is commercial. And indoor urban ag is allowed any place you can have indoor commercial uses.*
>
> *The City has flexibility to change zoning classifications, e.g. from residential to commercial, on a temporary basis to allow for urban farming to take place in particular areas, such as Perry St in Englewood. What we're doing is viewing urban ag as a productive system of open space land management. Even though these sites may be controlled and operated by private entities, people can still go there, and farm, and be active, and learn about fresh food. Eventually Perry St will all become parkland, and whether the existing farm stays will be up to the community.*

The two acre Perry St site, which is currently being managed by Emmanuel Pratt of the Sweetwater Foundation, has previously had over $US200,000 of investment in remediating the site, removing the rubble from the pre-existing school, capping the entire site with a clay barrier, and then bringing in two acres of topsoil. 'So we hope the community wants the farm to stay, after all that investment', Brad commented.

The cost of capping sites, which is necessary before they can be used as urban farms because of contamination issues, can be as much as $US100,000 to $US200,000 per acre, Brad said:

> *We're trying to make it a lot more affordable, because we're running out of money to do that sort of development. And the return on investment, in terms of farm jobs per acre, is not very high. Though we do see that it's not just about the bottom line, there are a lot of community benefits that accrue as well. And the jobs will come through the value-added activities – like green juice social enterprises – that are generated from the farms.*

In terms of healthy eating, there's an acknowledgement that it's not only enough to have fresh food outlets in under-served neighbourhoods. But it is important that those communities have the opportunity, and the option to access those foods, which is why Wholefoods is opening a store in Englewood. As well as multiple other options like community gardens and urban farms. The entry of Wholefoods has been supported with $US10 mn of 'TIFF funds, which:

> *Is pretty much our only public financing tool at this point. The TIFF sets a cap on property taxes, saying that the amount of taxes that go to the general funding of the City will be capped at a certain level. Anything above that – the 'increment' – has to be spent in a geographically specific location, and is only accessible to projects within that geography. And it has to be spent on infrastructure.*

A land use plan, Green Healthy Neighbourhoods, has also been developed for Englewood, Washington Park, Wood Lawn and parts of New City – all areas affected by 'disinvestment and population loss', with a consequent rise in vacant land.

PART 5: CONCLUSIONS AND RECOMMENDATIONS / IMPLEMENTATION PLAN

The principal **conclusions** from this Fellowship are as follows:

1. Urban agriculture is multi-functional, multi-dimensional and offers a wide suite of benefits to individuals, communities, local businesses and governments.

2. Urban agriculture encompasses much more than 'growing food', and it should be understood and supported in light of that essential understanding. For example, in Neuquén, Argentina, Dr Rose witnessed its therapeutic benefits in supporting young adults recovering from severe drug addiction; and also its therapeutic benefits for hospital patients suffering from mental health problems.

3. While urban agriculture is multi-dimensional and multi-beneficial, it also can, and does, make an important contribution to the food security needs of low-income and vulnerable populations. This is especially important in the Australian urban context, where recent indications and trends suggest that food insecurity is a rapidly growing problem for large numbers of people in many of our communities.

4. Urban agriculture also has significant potential as a means to generative livelihoods and income for its practitioners, who in many places tend to be young. Linking sales from urban farms into local commercial circuits, which include farmers markets, community-supported agriculture box subscriptions, local restaurants, cafes and grocery stores, and the potential for such exchanges to be scaled up over time, means that urban agriculture has an important urban renewal and economic development dimension.

5. This multi-functionality of urban agriculture, and in particular its economic development potential, is increasingly well understood by local governments in the US, Toronto and Argentina; and by provincial governments (Ontario, Neuquén). Hence these various levels of government have established enabling frameworks, policies and resource allocations to support the expansion of urban agriculture in diverse opportunities. When combined with injections of philanthropic funding, such frameworks and resourcing can lead to impressive results.

6. The potential of urban agriculture is best realised through creative and authentic collaborations, which can and does happen at different scales and with differing combinations of actors and organisations. Well-functioning networks, coalitions and alliances are very important to the success of urban agriculture.

7. Urban agriculture forms one element of a local, sustainable and fair food system. Such systems are being created by innovative and passionate individuals and organisations in civil society; and in many places their efforts in turn are being supported and enabled by policy frameworks and resources from local, state, provincial and federal governments; and through philanthropic and community financing.

The principal **recommendations** from this Fellowship are as follows:

1. Individuals and organisations directly involved in urban agriculture should actively explore ways to expand its current scope, which is largely confined to non-commercial and self-provisioning community gardening. Urban agriculture as a potentially viable commercial activity should be actively explored and promoted; as should urban agriculture as a means to enhance the food security of low-income and vulnerable groups.

2. Individuals and organisations directly and indirectly involved in urban agriculture should examine ways in which they can effectively form part of a network that supports the achievement of their respective organisational, financial and advocacy goals.

3. All local governments should work collaboratively with community organisations and other stakeholders to audit all land potentially available within their LGA area that could be suitable for food production, and then classify the sites according to levels of suitability and types of urban agriculture activity that potentially could take place on them.

4. All State governments should review their planning provisions and legislation to ensure that urban agriculture is included as a permitted and encouraged use across a range of zones, to indicate to local government that the policy approach in this area is one of enablement and encouragement, rather than risk aversion. In other words, the presumption with urban agriculture should be 'yes' rather than 'no'.

5. The Federal Government should acknowledge the value and importance of urban agriculture, and indeed of local food systems and economies, as a matter of public health, local economic development, environmental sustainability and community well-being, as well as enhanced social capital.

6. This acknowledgement and recognition should come in the form of a dedicated Federal Urban Agriculture and Local Food Fund, to be disbursed via an application process that encourages regional and collaborative initiatives with high and long-term impact, to scale up and expand initiatives already existing, and enable the flourishing of multiple new projects and models. Funding should be provided to research partnerships to document changes achieved by the projects and create the evidence base to justify further and ongoing public and private

investment. The amount should be reviewed annually to take account of increasing need and capacity, however the suggested starting figure, based on the Ontario Local Food Fund (see above), is $20 mn.

7. State governments should support this Federal Urban Agriculture and Local Food Fund through their own co-financing mechanisms, according to an assessment of the needs and capacity of the urban agriculture and local food sectors in their own states. For the more populous states (Victoria, NSW, Qld) this co-financing mechanism should be in the order of $5 mn - $10 mn, to be reviewed annually in consultation with the sector. Different financing mechanisms can also be explored, such as a levy on developers, supermarkets, insurance companies, and other relevant private sector stakeholders.

Dissemination and Implementation plan

As was made clear during his Fellowship application process, Dr Rose is very well networked amongst the fair, local and sustainable food communities in Australia, on the east coast in particular. Increasingly he is being asked to speak and present about the benefits of urban agriculture and local food systems and economies in Australia; and to share innovative and creative models from both here and overseas.

Dissemination will be via existing (e.g. Australian City Farms and Community Gardens Network, Australian Food Sovereignty Alliance, Food Alliance) and emerging ('Fair Food Network') Australia-wide networks; through speaking engagements at food forums and related events; and through publications and writing. A significant opportunity for Dr Rose to speak and disseminate the findings of this Fellowship is linked to the launching, by the Australian Food Sovereignty Alliance, of a new documentary, *Fair Food*, which premiered in Melbourne on 2 December 2014, and which will be shown at an estimated 30-40 community screenings in towns and cities right around Australia from February-March 2015 onwards. Dr Rose will be available to speak about the Fellowship and related matters at a number of those screenings, especially the ones close to Melbourne, where he is now living.

One of the exciting models that Dr Rose saw working well during his time in Argentina was the *Catedra Libre de Soberania Alimentaria* – the 'Food Sovereignty Public Lecture'. As mentioned in the body of the report, there are several of these operating in various provinces in Argentina, often (though not always) coordinated by students linked to public universities. Dr Rose intends to explore the possibility of establishing something similar in Melbourne, which would also draw on the models of the 'Advocates for Urban Agriculture' in Chicago, and Keep Growing Detroit in Detroit.

At the time of delivering this Report (January 2015), Dr Rose has already had a number of speaking engagements in which he has been able to disseminate

findings of the Fellowship. He anticipates many more in the first half of 2015, and beyond. These are detailed in the table below.

DISSEMINATION OPPORTUNITIES

Date	Organisation / Location	Event / Numbers attending
17.10.14	University High School, Melbourne, Vic	Fair Food Week presentation. 50 Yr 9 students, 3 teachers
22.10.14	Local Food Connect, Eltham, Vic	Candidates' Forum, 45 attending: local producers, councilors, health professionals, business people
3.11.14	Coffs Harbour City Council Bonville Golf Resort, NSW	Mid North Coast Food Forum, 85 attending: local producers, local and state government, business people, industry associations
17.11.14	Southern Cross University Byron Bay Community Centre, NSW	Regional Food Cultures and Networks Conference, 45 attending: academics, local producers, business people, local government
28.11.14	Local Organics Independent Small Business, Brunswick, Vic	Discussion & Story-telling evening, 60 people attended: community gardeners, local government, health workers, local producers, business people
2.12.14	AFSA / Field Institute NGV, Melbourne, Vic	First screening of *Fair Food* documentary, 190 people attended: community gardeners, business people, local and state government, health workers, interested community members
5.12.14	Queensland University of Technology / Monash University Brisbane, QLD	Fair Food and the Law Conference, 30 people attended: academics, community gardeners, local government
7.12.14	Northey Street City Farms / Fair Food Brisbane	Presentation to 35 people, community gardeners, urban agriculture and sustainability enthusiasts, students and early-career academics, about the lessons learned and inspiring models
5.2.15	Local Govt Urban Agriculture Network Melbourne, Vic	Staff from 15-20 local councils, various departments, working on urban agriculture and local

		food policies and plans
12.2.15	City of Bendigo, Victoria	Discussion with community representatives around the formation of a local food coalition for Bendigo
February 2015 – July 2015	Various, Vic / NSW / QLD	Screenings of Fair Food / food forums / conferences, diverse audiences, various sizes
October 2015	Various, Vic / NSW / QLD	Fair Food Week 2015

Implementation Plan

Dr Rose will work with colleagues in community-based networks, and in local governments around the country, to encourage the development of models, policies and resources to enable the expansion of urban agriculture. Longer-term goals include the recognition of urban agriculture in State planning frameworks; and the recognition of, and support for, urban agriculture and local food in Federal food policy, as detailed in the recommendations.

In particular, as the centerpiece of his work with the Food Alliance and the Australian Food Sovereignty Alliance, Dr Rose will spend the period from December 2014 to 30 June 2015, working to establish an Australia-first 'Fair Food Network', a summary of which is reproduced in Appendix C . Should he be successful in working with colleagues to establish this Fair Food network, during the course of 2015 Dr Rose and / or other suitably qualified colleague(s) will be the coordinator(s) of an expanding national network of leading institutions and businesses that all share the values and principles of a food system that supports the expansion of urban agriculture in Australia. These principles are stated in the Food Declaration, reproduced in Appendix [A], which Dr Rose and his colleagues are now inviting local governments and other organisations to sign and endorse.

This Network offers the opportunity for local governments that do not currently have urban agriculture and / or local food policies and plans, to learn from other councils that do have such policies and have already begun to implement them. It will build a community of practice on a regional and national basis, and generate significant momentum for positive change.

APPENDIX A

‘Sustainable, Healthy and Fair Food’

Urban and Regional Food Declaration

Food is fundamental to life and health. Increasing urbanization, the industrialization of agriculture and a changing climate are adversely impacting many parts of the global food system. This interconnected food system includes production, processing, distribution, consumption, waste management, and meaning creation. The food system faces compounding global challenges and variable local issues. The scale of these challenges and issues is reflected in local concerns about food security, producer livelihoods, local economies, damage to ecosystems, persistently high levels of hunger and malnutrition, a pandemic of dietary-related illness and disease, and biodiversity reduction.

Many organisation and government policy areas—including health, planning, transport, infrastructure, economic development, education, trade, biosecurity and environment—are relevant to the food system. A coherent long-term food policy, at whatever level and scale of governance, enables the integration of these different areas. Cities and regions need a sustainable, fair and resilient food system that provides dignified access to healthy food for all citizens, offers viable livelihoods for local producers, and engenders careful stewardship of regional ecosystems.

Purpose

To achieve a vision of a sustainable, healthy and fair food system, integrated action is needed from individuals, communities, businesses, organisations and governments. The purpose of this Declaration is to encourage such action through offering the following:

- A set of agreed principles;
- A lexicon of agreed definitions and common language;
- A generalized framework for policy and legislative changes;
- A tool for mobilization and advocacy; and
- An associated set of tools for assessment and analysis.

Vision

Signatories to this ‘Urban and Regional Food Declaration’ share a vision of a sustainable, healthy and fair food system. We commit to the following characteristics as shaping our approach towards such a system:

- A thriving diversity of food production throughout our towns and cities and countryside, from networks of backyard, community and school gardens, to market gardens, ethical animal rearing, orchards, vineyards and food forests in our peri-urban and regional areas.
- A valuing of food producers as caretakers of the land and ecosystems, and as guarantors of our present and future food security.

- An expansion of farmers' markets, a wide variety of farm-gate shops and trails, and high streets revitalised with shops that burst with local and seasonal produce, all supporting a growing local food economy that generates jobs and livelihoods for communities.
- A food system that supports the health and well being of all, recognising that access to good food is a fundamental and universal human right.

The food system is a complex set of practices that face unique and unprecedented challenges. This Declaration and its principles are based upon four domains as expressed in Figure 1: **Circles of Social Life**[49].

Principles[50]

Ecology: Our food system should actively maintain the health and integrity of the natural environment on which it depends, seeking to maintain the health of existing ecosystems and enhance biodiversity.

Economics: Our food system should support, create and sustain local and regional livelihoods while building a resilient food industry.

Politics: Governments and organisations should collaborate and work holistically, both internally and externally, while proactively engaging with communities to inform policy, planning and legislative actions relating to environmental stewardship, food security, health and wellbeing, and urban and regional livelihoods.

Culture: Our food system should embrace the diverse and cultural significance of food, recognizing its central role in promoting social cohesion, life-long and intergenerational learning, and community health and wellbeing.

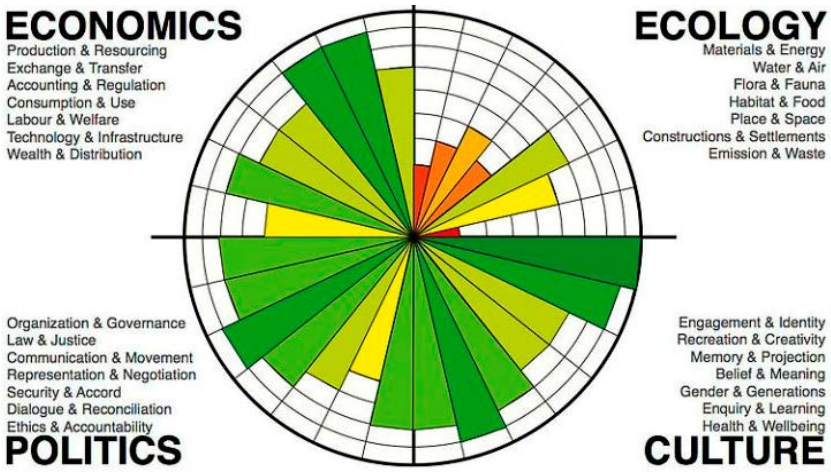

Figure 1. Circles of Social Life

An understanding of and agreement with these principles provide the basis to engage in further collaborative action. See the Appendix for an elaborated version.

[49] For more information, see http://www.circlesofsustainability.org/ and Urban Sustainability in Theory and Practice.

[50] This set of principles represents an adaption of the *Circles of Social Life* and *Circles of Sustainability* approach developed by the UN Global Compact Cities Programme and Metropolis.

APPENDIX

Elaborated Principles

Ecology

Our food system should strive to maintain the health and integrity of the natural resources on which it depends, seeking to restore degraded natural ecosystems and enhance the health of existing systems:

1.1. With food production and processing based as much as possible on organic fertilizing, recyclable materials and use of renewable energy with distributed generation;
1.2. With water for food production sourced sustainably without impacting adversely upon regional ecological complexity;
1.3. With agricultural land, both urban and regional, complemented by zones and linear parks providing continuing habitat for indigenous flora and fauna;
1.4. With urban settlements planned so as to both restrict suburban encroachment upon fertile farming land and allow significant local food production within urban boundaries—including through dedicated spaces being set aside for community food gardens;
1.5. With the food system organized to minimize transport distances from sites of production to consumption;
1.6. With the food system contributing to secure access to healthy food for all; and
1.7. With waste management in all aspects of the food system directed fundamentally towards green composting and hard-rubbish minimization.

Economics

Our food system should support, create and sustain local long-term employment, build a stronger local food industry, and underpin local livelihoods:

2.1. With food production and exchange shifted from an emphasis on production-for-global-export towards generating local mixed food economies and sustainable local livelihoods;
2.2. With financing and co-financing of prioritized aspects of the food system built into all relevant municipal annual budgets and services spending;
2.3. With the accounting and regulation of different aspects of the food system recognizing that food is a social good rather than just another commodity;
2.4. With a stronger relationship developed between producers and consumers through support for farmer's markets and local produce outlets;
2.5. With food production workplaces brought back into closer spatial relation to residential areas, taking into account issues of personal infringement (such as processing smells and noise) through sustainable and appropriate processing methods, filtration and waste-management;
2.6. With appropriate technologies used for food production and processing, respecting the given limits of nature, including seasonal production; and
2.7. With good, local, organic food made available to those who cannot afford it through redistributive processes.

Politics

Our food system should proactively engage with communities through public debate of policy, planning and legislative issues relating to land-use, health and wellbeing; and urban and regional livelihoods:

3.1. With food governance conducted through deep deliberative democratic processes that bring together comprehensive community engagement, expert knowledge, and extended public debate about all aspects of the food system;
3.2. With legislation enacted for sustainable and fair food production and exchange;
3.3. With public communication services and media outlets materially supported where necessary to generate debates about sustainable and fair food;
3.4. With political participation in decisions and processes about food production and consumption going deeper than passive engagement;
3.5. With basic 'food security' considerations afforded to all citizens;
3.6. With all actors in the food system actively acknowledging the need for on-going reconciliation with the original inhabitants of the land—particularly in relation to land-use; and
3.7. With ethical debates concerning how we produce and consume food becoming a mainstream aspect of social life.

Culture

Our food system should embrace the cultural significance of food in all its social dimensions, recognizing its central role in promoting social cohesion, life-long and intergeneration learning, and community wellbeing:

4.1. With food consumption recognizing and celebrating the complex layers of community-based identity that have made our urban region;
4.2. With active support for creative engagement with the culture of food through festivals, rituals and other public events;
4.3. With museums, cultural centres and other public spaces dedicating some of their ongoing space to comprehensive ecological histories of the local-global food system;
4.4. With locally relevant beliefs about the food system from across the globe woven into the fabric of the built environment: symbolically, artistically and practically;
4.5. With conditions for gender equality pursued in all aspects of the food system;
4.6. With the opportunities for facilitated enquiry and learning about food available to all, from birth to old age across people's lives—not just through formal training in the food industry; and
4.7. With public spaces and buildings designed and curated to enhance the sense that food is part of the everyday health and wellbeing of people.

APPENDIX B

BENEFITS OF URBAN AGRICULTURE

Environment

- Reduces the environmental footprint of food production (e.g. through reduced use of chemical and fossil fuel inputs, and reduced water footprints)
- Strengthens the ecological health of towns and cities through green infrastructure, increased biodiversity and genetic diversity (seeds)
- Enables the recycling of organic and food waste, reducing landfill and associated greenhouse gas emissions (methane)
- Builds healthy soils through nutrient cycling, and stormwater capture

Health

- Promotes better physical and mental health from improved access to fresh, affordable food, physical activity, social connection and enjoyment
- Improves individual and community food security, especially for people on low incomes
- Encourages a healthier, fresher diet (fruit and vegetables) and increases likelihood of adopting seasonal eating habits, particularly amongst children
- Lowers the social and economic costs of the rising obesity burden

Economy

- Encourages innovation such as social enterprises around local food production
- Enhances the urban aesthetic environment and raises the potential for agri-tourism
- Supports local and informal economies
- Lowers the proportion of income spent on food, of particular importance to lower-income groups at risk of food security who may have to spent 30-40% of their income to follow the recommended dietary guidelines
- Encourages the productive use of underused/vacant spaces

Community / Social / Cultural

- Strengthens community bonds and supports community development – food brings people together-inclusive of gender, age, background
- Creates opportunities for volunteering and meaningful, creative and rewarding work
- Builds community resilience and social capital
- Affirms and celebrates cultural diversity, builds bridges in communities around food production and consumption
- Reduces social isolation
- Enables people to grow culturally appropriate foods

Education / training / active citizenship

- Promotes education and skills sharing and development around growing and preparing food
- Encourages and enables organic production methods and (where commercial exchange exists) marketing skills
- Facilitates hands-on food growing for children
- Promotes community education , raises awareness / connects people with horticulture / agriculture / food systems
- Provides pathways to training / jobs / income
- Builds an active citizenship and democratic culture from engagement with civil society and democratic processes

In addition to these fundamental dimensions of food security and livelihood strategies, urban agriculture builds social capital through fostering a multiplicity of community connections. It provides numerous opportunities for skill sharing and acquisition, including through formal and informal training and educative opportunities at the primary, secondary and post-secondary levels. At an individual level, it enhances physical and mental well-being. It promotes the adoption of healthy eating patterns and habits through the increased consumption of fruit and vegetables.

APPENDIX C

Urban and Regional Fair Food Network

Why is a Food Network necessary? What are its benefits?

It's widely known and accepted that Australia's food system is under many pressures. It's also known that emerging and complementary initiatives like farmers' markets, regional branding, and local food economies are attracting increasing support from the Australian public.

Local government, and local and regional businesses, producers and institutions, are already leading players shaping this shift to a fair and sustainable food system. These actors recognise the opportunities and benefits that structured and ongoing collaboration offers, including being able to:

- Shape and drive policy, practice and advocacy initiatives on regional, state and national levels, leading to recognition as thought-and-practice leaders
- Identify regionally-relevant joint projects and initiatives, such as regional branding initiatives, new financing options, and measures to support young people to enter agriculture
- Develop indicators and benchmarks for a 'Fair Food City / Region' accreditation, acknowledging achievements of leading cities and regions in this area[51]
- Share policy and practice experience, and work with academic institutions to generate regionally-relevant research outcomes that inform and improve further policy and practice
- Be linked to leading institutions and individuals throughout Australia and internationally, gaining access to cutting-edge food systems thought and practice

The proposal

Members of this Network will:

- Be named and have a profile on a dedicated "Circles of Fair Food" website, showcasing existing policies, strategies, programs, initiatives and achievements
- Have access via that website to tools and resources used in Australia and internationally in the development of local and regional food systems and economies
- Work towards benchmarking as 'Fair Food Regions', achieving national & international recognition as thought & practice leaders in sustainable & fair food systems
- Have access to an experienced regional coordinator linked with community local and regional food networks and practitioners
- Collaborate on shared advocacy agendas at the regional, state and national levels
- Access a complementary 3-hour annual review of existing / proposed food policies and strategies with the support of Prof Paul James and Dr Nick Rose
- Have discounted access for up to 4 staff members to an annual regional 1-day forum to share successes, discuss obstacles and explore opportunities for collaboration
- Access discounted consultancy services including food policy and strategy development, monitoring and evaluation, external stakeholder engagement, internal capacity building, and food literacy development

Proposed annual membership cost:

- Businesses / industry associations – tiered from $1000 to $5000
- Local governments / other public sector organisations – tiered $750 - $5000
- Not for profit organisations – tiered from $500 - $2000

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[51] There is a strong parallel with the proposed Food Network and the 'Cities for Climate Change' program, with its benchmarks and milestones, of the International Council for Local Environmental Initiatives - Local Governments for Sustainability (ICLEI) – see http://oceania.iclei.org/home.html.