Innovative and principles-based approaches to urban equity, sustainability and governance

Cities for the future

Innovative and principles-based approaches to urban equity, sustainability and governance
Foreword

In today’s urban era more than half of the world’s population now live in cities. It is critical to ensure that our cities are places where human rights are protected, where equity, fair labour practices, and transparency and good governance are promoted, and where resilience is developed in the face of critical environmental challenges and growing instability around the world.

The Global Compact Cities Programme, the urban arm of the United Nations Global Compact, provides a framework for translating our ten principles in the areas of human rights, labour, environment and anti-corruption into day-to-day urban governance and management. The programme’s focus on collaboration between all levels of government, business and civil society enhances the development of sustainable, equitable and just cities.

It is with great pleasure that we present “Cities for the future: Innovative and principles-based approaches to urban equity, sustainability and governance”. This is the biannual flagship publication of our Cities Programme and we are delighted to see the breadth and depth of initiatives led by our cities to realize a better world.

This publication highlights the diversity of approaches that our cities are undertaking in the face of unprecedented demographic, environmental, social and spatial challenges. The innovation, practices and collaborative approaches of cities, reflected in these case studies, provide a valuable resource for urban development good practice. They also reflect how the Global Compact principles can be realized in the urban environment through city government leadership and multi-sectoral collaboration.

We encourage more cities and regions across the world to join forces with our 12,000 signatories from business, civil society and government, based in 160 countries — all committed to becoming architects of a better world.
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The face of urbanization. The City of São Paolo is the largest city in Brazil and one of the seventh most populous metropolitan region’s in the world. The state of São Paulo is one of the Global Compact’s newer signatory regions. Image: Tommaso Durante/The Visual Archive Project of the Global Imaginary.
Acknowledgements

Where to start in terms of directing acknowledgments for this beautiful publication? This is the first time we have gathered case studies from across the full network of Global Compact cities. As such, we have an incredibly diverse range of authors to thank. I wish I could acknowledge all by name, I urge the reader to look over the extensive page of contents. These executives have taken time from their busy work schedules to produce these considered and reflective, high quality reports and essays; your efforts are appreciated.

The diversity in content reflects the multitude of ways to advance the Ten Principles in the urban context. The common denominator in authors’ selection was the value of the case study for other cities. We simply asked ‘what have you done that other cities would benefit learning from?’. I thank all our authors for considering others in their writing. Time has clearly been devoted to contextualising the initiatives, identifying challenges, rationales, partners, approaches and lessons learned. For this reason, we have a highly informative and rich document.

Thank you also to the numerous ‘others’ who generated interest in the publication and canvassed interest from cities, people such as our partners in Local Networks and city contact points.

As well as informative, Cities for the Future is visually beautiful. This again can be attributed to many people in our cities, those who contributed images and in many cases, went back to hunt for the same images in higher resolution, or went on laborious quests seeking images from other colleagues. The final product is also very much a credit to the visual specialists in our team: Melissa Postma, who was responsible for the design and layout of the publication, Paty Galan for the infographics - the beautiful icons and maps - and Tommaso Durante for a number of spectacular city photographs. We were also gifted images from photographers, Gerardo Borbolla and Mohamed Shinaz, always generous in their support of Global Compact cities and regions.

The publication has been in development for more than a year and a small team of people have provided dedicated editorial and project management support along that journey. I’d like to offer special thanks to Felicity Cahill, Zulaikha Shihab and Sarah Robertson. Encouraging authors to write in their own language (if not English) meant considerable efforts have been put in to translation. Thank you to our Portuguese and Spanish specialists, Keila Lopez and Fiona Thiesen.

Thank you also to RMIT University who provided the financial and professional support to publish this collection of case studies.

My final thank you is to our readers. We hope you are inspired to apply some of these new approaches and projects in your city or region. We will happily provide introductions to authors and project leaders if you would like to know more. We look forward to learning about your efforts with the Global Compact and the Ten Principles - and to publishing them in our next volume!

Thank you of course to RMIT University who provided the financial and professional support to publish this collection of case studies.

Elizabeth Bryan
Deputy Director, Global Compact Cities Programme
The Global Compact Cities Programme

The Global Compact Cities Programme is proud to present this collection of case studies from city and regional participants of the United Nations Global Compact, ‘Cities for the Future’.

As the urban arm of the United Nations Global Compact — the world’s largest voluntary corporate responsibility initiative — the Cities Programme works with cities and regions and partners to progress social equity and justice, environmental sustainability and good governance in the urban environment. This is through articulation and action on the Ten Principles of the Global Compact in the areas of human rights, labour, the environment and anti-corruption and is within the context of contemporary global challenges.

Cities are sites of competitive advantage, hence the global shift to cities. However, with urbanization comes complex problems of allocation of resources, land and opportunities. In contemporary cities, poverty, equity, the need to protect the environment, and the need to practice good governance, are more pressing than ever. This volume provides a collection of positive responses to these challenges in an era of urbanization and rapid change.

Individually, each case study involves the development and enactment of a collective and engaged vision for a better city. City leaders, citizens and communities are tackling issues from poverty and inequity through to climate change and food security. This collection presents a breadth of innovative, socially-focused responses that are a credit to the leadership of city governments and the community and industry leaders that work with them. They provide valuable models for other cities seeking to build resilient and vibrant communities, strong local economies and more equitable, just societies.

Established in the recognition that cities have a critical role to play in the world’s future, the Cities Programme was founded on a platform of collaboration between government, the private sector and civil society. Partnership is at the core of the work we do. We hope you find inspiration in this collection and encourage you to join with us in creating cities that are just, equitable and sustainable.

Ralph Horne
Director, Global Compact Cities Programme

The United Nations Global Compact

The UN Global Compact is a strategic policy initiative for businesses that are committed to aligning their operations and strategies with ten universally accepted principles in the areas of human rights, labour, environment and anti-corruption. By doing so, business, as a primary driver of globalization, can help ensure that markets, commerce, technology and finance advance in ways that benefit economies and societies everywhere.

As social, political and economic challenges (and opportunities) — whether occurring at home or in other regions — affect business more than ever before, many companies recognize the need to collaborate and partner with governments, civil society, labour and the United Nations.

This ever-increasing understanding is reflected in the Global Compact’s rapid growth. With over 12,000 corporate participants and other stakeholders from over 160 countries, it is the largest voluntary corporate responsibility initiative in the world.

Endorsed by chief executives, the Global Compact is a practical framework for the development, implementation, and disclosure of sustainability policies and practices, offering participants a wide spectrum of workstreams, management tools and resources — all designed to help advance sustainable business models and markets.

For more information see www.unglobalcompact.org

The Ten Principles

The Ten Principles of the UN Global Compact are derived from a set of universal declarations including the Universal Declaration of Human Rights, the International Labour Organization’s Declaration on Fundamental Principles and Rights at Work, the Rio Declaration on Environment and Development, and the UN Convention Against Corruption.

The UN Global Compact asks companies to embrace, support and enact, within their sphere of influence, a set of core values in the areas of human rights, labour standards, the environment and anti-corruption:

**HUMAN RIGHTS**

Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights; and
Principle 2: make sure that they are not complicit in human rights abuses.

**LABOUR**

Principle 3: Businesses should uphold the freedom of association and effective recognition of the right to collective bargaining;
Principle 4: the elimination of all forms of forced and compulsory labour;
Principle 5: the effective abolition of child labour; and

**ENVIRONMENT**

Principle 7: Businesses should support a precautionary approach to environmental challenges;
Principle 8: undertake initiatives to promote greater environmental responsibility; and
Principle 9: encourage the development and diffusion of environmentally friendly technologies.

**ANTI-CORRUPTION**

Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.
The Global Compact Cities Programme

The Global Compact Cities Programme, or Cities Programme, is the urban arm of the United Nations Global Compact. Its International Secretariat is based in Melbourne, Australia and is hosted by RMIT University. Its Executive is comprised of the Cities Programme Director and Deputy Director and the Head of Local Networks from the Global Compact Office, New York.

To advance the Ten Principles of the UN Global Compact in the areas of human rights, labour, the environment and anti-corruption we work with cities and regions and partners to progress social equity and justice, environmental sustainability and good governance in the urban environment.

The Cities Programme works to advance the Global Compact and the Ten Principles in cities and regions through:

Networking: to transfer knowledge and practice
Creating: new knowledge to underpin the progress of cities and regions
Enabling: effective action through capacity building and cross-sectoral collaboration
Supporting: planning, monitoring and reporting activities
Communicating: the achievements of cities and regions.

The Cities Programme was founded on a platform of collaboration between government, the private sector and civil society, originally termed the Melbourne Model.

Engagement

Signatory
Cities and regions enter the UN Global Compact as signatories. To become a signatory to the Global Compact, the most senior representative in the city, municipal or state government addresses a letter of commitment to the UN Secretary General that is submitted with an online application at www.unglobalcompact.org/participate.

The organization also commits to Communicate on Engagement (CoE) biannually. Each city and region is given a dedicated web page at www.citiesprogramme.org/cities.

Active
Cities and regions then become active in their commitment to the Global Compact, advancing the Ten Principles in their sphere of influence and in their capacity as city leaders. They promote their commitment through their corporate and public communications, with use of the logo and by encouraging other organizations to participate in the Compact. They should begin linking city strategies and goals to the Ten Principles, communicate their corporate and public communications, with use of the logo and by encouraging other organizations to participate in their sphere of influence and in their capacity as city leaders. They promote their commitment through their corporate and public communications, with use of the logo and by encouraging other organizations to participate in the Compact. They should begin linking city strategies and goals to the Ten Principles, communicate their

Active cities and regions are given the option to contribute financially to the administration of the Cities Programme, and for this are able to access tailored services which include:

- support in setting objectives and reporting on progress in relation to the Ten Principles
- access to Cities Programme interns
- access to expert advice in issue areas
- opportunity to engage Cities Programme researchers in projects and to receive independent project evaluation
- feature in Cities Programme publications
- discounted entry to training and networking events.

Leading
Cities or regions at the Leading level have a dedicated plan with a holistic, integrated approach which sets goals related to the Ten Principles and has measurable outcomes and impacts across social equity and justice, environmental sustainability, fair work and good governance. A specific 3-year plan of activities is dedicated to the Global Compact.

The International Secretariat provides a framework for the plan, project development and progress evaluation and the format for reporting. A range of implementation services are available to the city. There is a financial contribution for this level.

Leading level cities and regions are conscious of their roles as civic leaders and global citizens and also work to improve the knowledge and practice of other cities and regions. They actively and meaningfully engage their citizens and other stakeholders in their planning and projects.

Innovating
Cities at the Innovating level carry out three-year, innovative projects utilizing the Melbourne Model. They address a complex or seemingly intractable issue or set of issues with a multi-year project that is supported by a cross-sectoral group comprising government, business and civil society. There are clear monitoring and evaluation and reporting processes, which are supported by the international secretariat. There is a financial contribution for this level.

Innovating projects have a transformative quality and contribute to innovative practice across the Global Compact Cities Programme network.

Support

The Cities Programme is also supported by a number of individuals and external organizations.

Cities Programme Strategic Partners
These organizations are signatories to the UN Global Compact and have formal partnerships with the Cities Programme based around mutual interests in articulation and action on the Ten Principles of the UN Global Compact. Strategic partners collaborate with the Cities Programme on projects that progressing social equity and justice, environmental sustainability and good governance in the urban environment and are of international benefit.

Cities Programme Interns
The Cities Programme has a stellar internship program that attracts talented, high calibre post-graduate students and early career urban professionals from across the globe. Our Interns undertake specialist research projects supervised by urban experts. Their engagement is generally from 6 to 12 months and their placement can be onsite with Global Compact cities, in the Melbourne office of the International Secretariat, or a combination of both.

Global Advisors
These are champions and expert friends to the Cities Programme who actively promote the UN Global Compact, encourage new cities to participate and are available to share expertise with city participants. They also at times collaborate on partnership projects to the benefit the Cities Programme and city participants and to the advancement of social equity and justice, environmental sustainability and good governance in the urban environment.

Urban Scholars
A dedicated group of academic scholars whose expertise is available to city participants, partners and interns. This is in the form of advice, guidance on the development of research projects, monitoring and evaluation. Cities Programme Urban Scholars have specific disciplinary knowledge connected to the urban environment, and skills and experience in interdisciplinary problem solving for cities. They are active in applied research. They collaborate - working with external bodies such as the public sector, NGOs and business.

Innovating Centres
Education and research institutes that collaborate with the Cities Programme in areas such as research, policy development, education and capacity development, tools, monitoring and evaluation systems. This is to the benefit of Global Compact participant cities and/or the broader advancement of social equity and justice, environmental sustainability and good governance in the urban environment.

Global Compact Local Networks
The Cities Programme works in close collaboration with a number of Global Compact Local Networks to advance the Global Compact and foster greater partnerships between governments, the private sector and civil society in the urban context. City participants are encouraged to participate in their region’s Global Compact Network.
Participant cities and regions
Perhaps never in our world’s history has it been more important to work in partnership than now – and never has it been more achievable. Our advances in communication technology enable us to connect with others across the globe in nanoseconds. We witness and share other countries crises and moments of glory as they happen.

We are a deeply connected and intertwined international community, yet with all these advancements and new capabilities, our challenges are greater than ever.

Collaboration and participation is the platform of the Global Compact; the basis on which all participants engage with the Compact and promote the Ten Principles. The Global Compact is a global movement, a call for action to create a better world – to advance human rights, labour, the environment and anti-corruption – together.

For cities and regions, collaboration and participation is the foundation of democracy, accountability and good governance. It can be a platform to engage citizens and other actors meaningfully in the governance and shaping of the city or region. It is also a mechanism to advance the social agenda – the human rights to housing, livelihoods, citizenship, safety and to live free of discrimination. Also advancement of the environmental agenda – clean air, energy and water, climate change and green space.

For some, citizen engagement is deeply embedded into cities’ systems and culture. We see this with some of our leading cities – Porto Alegre’s 30 year long systemic embrace and championing of participatory democracy. Medellín’s social agenda to address poverty and inequity which overcame a decades long bloody civil war and is literally transforming the city.

Whilst this opening chapter of Cities for the Future is focused on collaboration and participation, partnership weaves its way through almost every case study in the publication. Technology is being used to socially advance the city and to engage citizens with city government, its initiatives and others. We learn from strategies in Pula, Bogotá and Dubai. The breadth of food and nutrition security initiatives in our cities in Brazil, Colombia and Africa benefit from city governments partnering with other actors and with the community. Emerging new innovations such as urban aquaponics show the need for systemic integration and support.

Multiple actors shape the urban environment; government, business, civil society, academia and citizens. Collaboration between those sectors is critical to sustainable environmental, social and economic development. This is reflected in the work of Milwaukee and Quota in the Americas; Cape Town in Africa; Leuven and Nuremberg and the growing number of Maltese cities in Europe; and in Jamshedpur, India.

The Cities Programme was established on a framework of cross-sectoral collaboration, then termed the ‘Melbourne Model’ but universally applicable. This chapter opens with a remarkable case study of project closely aligned with that model – Via Chocolão’s decade-long journey to achieve emancipation and social inclusion as part of community’s resettlement and the cross-sectoral network that supported it. We learn about the Local Solidarity Governance system, a new form of participatory democracy in Porto Alegre that resourced and framed this and other community initiatives.

Gender equality is critical to the human rights agenda in cities. We learn about a multi-party UN initiative supporting Turkish cities to become ‘Women Friendly Cities’. The Latin American capital cities network REDISCUR demonstrates the role of regional collaboration in advancing human rights, the environment and regional governance. The work of NGO, TECHO across that region, reflects the value of civil society partnership with government, and systematic community engagement. The emerging focus of World Vision International on delivering development programs in the urban context again point to the need for macro approaches and local and multi-sectoral partnerships to overcome urban poverty.

There are many pathways to achieving human rights, transparency and accountability, and efficient and effective public management (Gisselquist 2012); context-specific responses are called for. Cross-sectoral collaboration and citizen participation is not a panacea for all the challenges facing our cities. It is however a solid and viable framework for moving a principles-based, sustainability agenda forward.
The trials and transformation of Chocolatão

Elizabeth Ryan, Deputy Director, and Felicity Cahill, Research Officer, Global Compact Cities Programme

The more than 10-year-long journey preparing to resettle over 800 residents of Vila Chocolatão is a remarkable story—one that captured the attention of the Brazilian city of Porto Alegre, and many internationally. The threat of forced eviction became a community’s demand for a better life. The resultant struggle for rights to citizenship, education, livelihoods and housing, together with the engagement of City Hall, civil society and the private sector, transformed a re-housing project into a citywide initiative to combat poverty and exclusion.

The hurdles and crises faced during the Chocolatão resettlement are a sombre reminder of the frailty of the human condition and our global challenges. However, the lofty ambitions, spirit and courage of the people who dedicated themselves to the journey are a point of inspiration, and the process and outcomes over those years are a valuable model for cities worldwide.

The principles of this process, including participatory approaches and cross-sectoral engagement, are now being applied in other socially and economically marginalized communities in Porto Alegre. As one of the original sites to trial the Cities Programme’s cross-sectoral ‘Melbourne Model’ in 2006, the Vila Chocolatão resettlement has a long-standing connection to the United Nations Global Compact. The story, approach and outcomes of the Vila Chocolatão resettlement provide rich insights into human rights in the urban context, overcoming poverty and the systemic support structures that can underpin community engagement and facilitate long-standing cross-sectoral partnerships. This article draws from research undertaken by the Global Compact Cities Programme and RMIT University from 2012 to 2014 that mapped the history of the resettlement and the purpose, processes and actions of the Network for the Sustainability of Vila Chocolatão (Rede para a Sustentabilidade da Vila Chocolatão, or Sustainability Network).

Vila Chocolatão

Vila Chocolatão was an irregular settlement in a central area of Porto Alegre, Brazil that was established in the 1980s at a time when many rural Brazilians were migrating to cities in search of work. Most residents of Vila Chocolatão relocated to Porto Alegre from rural areas and were only able to draw a meagre living as catadores, or street pickers, collecting recyclable materials from the streets of the city under a repressive cartel system. Named after an adjacent office building that resembled a chocolate bar, Vila Chocolatão was a highly impoverished community situated on a small parcel of land near the city centre in a district of federal offices. It was allegedly dominated by a ‘parallel power’ (a Brazilian term for criminal forces that control irregular settlements), which stood to gain from keeping the community in the city centre. The housing in Vila Chocolatão was transitional and dangerous. Fires, exacerbated by illegal electricity connections, regularly caused loss of life and decimated the community. Residents without formal addresses faced difficulties with securing employment in the legal labour market. Social issues, including crime, violence, child labour and drug addiction, also plagued the community. In contrast, the standard of living and educational attainment rates in Porto Alegre, the capital of the southern state of Rio Grande do Sul, are amongst the highest in Brazil. Porto Alegre is renowned globally for its democratic public management model. It was the first city in the world to successfully implement participatory budgeting and is also the birthplace of the World Social Forum. The city’s social democratic efforts have focused on addressing inequity in impoverished communities, many of which are located in irregular settlements.

The shadow of eviction

The impetus to resettle the Vila Chocolatão community arose in 2000 when the Federal Union, a government body that owned the land where the community lived, initiated a court request to reclaim the lot and evict Chocolatão residents. The Federal Regional Tribunal of the Fourth Region (Tribunal Regional Federal da 4ª Região, or TRF4), the court that heard the Federal Union’s claim, determined that the eviction should be postponed given the community’s vulnerability and absence of resettlement options. In an unusual move, the court,
which also neighboured Vila Chocolatão, proceeded to initiate a social project to support a sustainable resettlement called the Vila Chocolatão Emancipation and Social Inclusion Project. A dedicated social worker was employed who commenced the project by identifying and bringing together key organizations connected with the community, including government agencies and NGOs. The court provided a space for community members and external stakeholders to meet. The initial goals of the project were to ensure there was alternative adequate housing, that citizenship was promoted and that there was access to rights-based human development. The court played a leading role in the network and continued to support the community throughout the resettlement process.

At the inception of the project, a small number of women formed a group called the Vila Chocolatão Association of Women (Associação de Mulheres de Vila Chocolatão). This fledgling group eventually grew into the Vila Chocolatão Residents’ Association (Associação de Moradores Chocolatão), which made specific demands in Porto Alegre’s Participatory Budget in 2005. On behalf of the community, the group requested that:

- the community be resettled to an alternative site
- a childcare centre be constructed at the new site
- a recycling centre be established at the new site to support the livelihoods of Vila Chocolatão community members.

These views did not necessarily represent those of the whole community. As many have recognized and commented, speaking in general terms, the community was initially fearful, distrustful and lacking social cohesion. Trust was slowly built over time and as tangible projects and outcomes were achieved.

**Network for the Sustainability of Vila Chocolatão**

In 2007, the cross-sectoral Sustainability Network was formalized and afforded dedicated resources by City Hall. The network comprised representatives from different municipal government departments, federal and state government bodies, civil society, the private sector and the Chocolatão Residents’ Association. It grew from the TRF4-led Vila Chocolatão Emancipation and Social Inclusion Project and was supported by Porto Alegre City Hall’s newly established participatory democracy system, Local Solidarity Governance (Governança Solidária Local or GSL), which employed a full-time coordinator to facilitate the network and help drive the group’s projects.

The establishment of a legal electricity network in Vila Chocolatão was one of the first major projects of the Sustainability Network. Aside from the stigma of irregularity associated with the absence of formal electricity supply, illegal connections to surrounding electricity networks, combined with debt, resulted in several catastrophic fires in Vila Chocolatão. The illegal provision of electricity was prioritized by network members based on their belief that access to basic services and a safe living environment is a human right and an essential element of citizenship. Image: Global Compact Cities Programme.

The Local Solidarity Governance scheme built on the concept of decentralization and was developed by the municipal administration elected in 2005 to promote a system and culture of partnerships. Under this scheme, City Hall is responsible for connecting the public sector, businesses, Porto Alegre citizens (especially the least politically organized and most socially and economically vulnerable) and civil society organizations through cross-sectoral, multidisciplinary networks that are organized territorially across the city.

The resettlement project became connected to the Global Compact Cities Programme as an innovating project and one of 12 trial sites for the ‘Melbourne Model’ – a cross-sectoral approach to tackling complex urban issues. Some of these systems and principles were incorporated into the project. Porto Alegre became a Global Compact participant in early 2004 and there was a lengthy period (2003–06) of working with the city to identify and connect a specific project to the model. There was a strong synergy between Porto Alegre and the aims of the Global Compact and its Cities Programme. In light of the city’s long history of public participation and development of innovative approaches to engaging citizens in participatory democratic processes, the then Mayor of Porto Alegre envisaged that “participation in a global network of cities... and more inter-sectoral partnerships would promote social inclusion and sustainable development [in Porto Alegre].”

In interviews with Sustainability Network members, ‘citizenship’ and ‘transformation’ were the most commonly used terms to describe the purpose and process of the network. In the words of project facilitator Vania Gonçalves de Souza, the main objective of the Vila Chocolatão Emancipation and Social Inclusion Project was “to promote social inclusion and improve the quality of life and dignity of Chocolatão residents both prior to and following resettlement.”

The number of community members involved with the Sustainability Network was initially small but grew over time and as projects were realized. In the words of Fernanda, “the community fought for their rights, looking for quality of life and social inclusion. No one lives in the Chocolatão community of their own free will and accord but for lack of opportunity and we were aware that we could look for a better life through collective action. Our vision was building for the community in an egalitarian way”.

The impact of the Sustainability Network extended beyond community members. All interviewees — representatives from a range of external organizations — referred to their personal experiences of being part of the network and their changing perceptions and opinions throughout the time they spent working together. Bringing stakeholders together through a cross-sectoral, project-focused network dissolved silos and allowed space for relevant municipal departments to work cooperatively. Local government network members also negotiated with state and federal government representatives on behalf of the community.

A network of conversation, problem solving and major projects

A striking feature of the Chocolatão resettlement was the implementation of key development projects in the original informal settlement. These projects were Moving recycling collection from the streets to the community. With the support of NGO partners in the Sustainability Network, the community’s first recycling cooperative, the Chocolatão Recyclers’ Association, was formed in 2005. A communal sorting shed was established to facilitate the delivery of recyclables directly to the community by the city’s Department of Urban Sanitation. The professionalization of livelihoods based on recycling and the inclusion of cooperative members in Porto Alegre’s citywide recycling network made a significant contribution to building livelihoods. Image: Global Compact Cities Programme.
particularly unusual given the impending relocation and planned demolition of the site. Working within the framework of the Sustainability Network, a range of partners contributed varying resources and expertise depending on the focus of each project.

Providing a meeting space for community participation to occur within Vila Chocolatão was the first project carried out by the Sustainability Network. It was considered critical that discussions were held on neutral ground and that as many community members as possible were involved in decision-making processes. Trust was very slow to develop. A community shower block was built as there were no washing facilities in the settlement. There was also a host of social projects implemented over the years, many directed at the health, care and development of the community’s children.

The formal mapping of the community and subsequent connection of dwellings to a legal electricity grid was arguably the most controversial initiative undertaken by the Sustainability Network. As well as reducing the risk of fires, this was seen as a critical step in establishing citizenship because a legally recognized address is a prerequisite to obtaining an identity card and formal employment in Brazil. Having service accounts linked to formal addresses with an electricity provider established the official ‘existence’ of community members living in Vila Chocolatão.

Improving livelihoods was a core focus of the Sustainability Network. To improve opportunities for community members who derived income informally through rubbish collection, a temporary communal recycling shed was built next to the settlement. NGO partners were brought in to provide training in recycling and business management systems. Community engagement in this initiative slowly increased from six to 40 members. A formal Recycling Cooperative (Associação dos Recicladores Chocolatão) was established and with rules, regulations and processes put in place, a ‘collective’ culture took root in the community and developed over time.

The Sustainability Network provided a framework to discuss and resolve a range of issues, including the proposed relocation site and its development. After a lengthy negotiation process, Morro Santana, which is located 12.8km from Vila Chocolatão, was chosen as the location for the new housing development.

The resettlement process was not an easy journey and the community and Sustainability Network faced many challenges. Issues with the parallel power continued to confront the community in the pre- and post-resettlement phases. The first president of the Chocolatão Residents’ Association was murdered in 2009 and the community was reportedly too dangerous to enter for approximately three months after his death. The network continued its activities, however, and held meetings and carried out programs under the trees next to Vila Chocolatão and, on hotter days, in a shed loaned to the community by the Municipal Department of Urban Sanitation.

There was also active and sustained opposition to the resettlement from a small number of external groups who purported that Vila Chocolatão residents had limited participation in the resettlement process and believed that removing the community from the city centre would result in disadvantage. These groups claimed that City Hall, sought to avoid public scrutiny over the living conditions of Vila Chocolatão residents by moving people away from the heart of the city. Interestingly, these issues were often discussed by ‘opposing’ parties within the network.

181 homes, each with two bedrooms, a lounge room, bathroom and kitchen, supplied with electricity, running water and sewerage services
• paved streets and lighting
• four commercial buildings
• a childcare centre with the capacity to care for 120 children
• a library
• a state-of-the-art recycling centre
• a sports field.

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On the day after the relocation, 13 May 2011, a sizeable public ceremony and celebration took place at Residencial Nova Chocolatão to mark the inauguration of the new community.

Residential Nova Chocolatão

Following years of negotiation and community building, the final development, Residential Nova Chocolatão, was a substantial capital works project that included:

• 181 homes, each with two bedrooms, a lounge room, bathroom and kitchen, supplied with electricity, running water and sewerage services
• paved streets and lighting
• four commercial buildings
• a childcare centre with the capacity to care for 120 children
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educational opportunities and provides a cultural centre for the community. It continues to be staffed by an NGO.

The Sustainability Network understood that the attrition rate is high in resettlements, with the majority of people typically returning to living informally within six months of relocation. The lengthy preparatory process appears to have had a positive impact on the residents of Residencial Nova Chocolatão but exact figures are not known. A number of residents have sold keys, some reportedly to pay drug debts. There appears, however, to be a reasonable degree of stability in the community.

This is reflected in a number of households undertaking illegal housing extensions, such as the addition of front enclosures, to the displeasure of Porto Alegre’s Municipal Housing Department. Many view these extensions as reflecting permanency and a commitment to ‘home’. The network continued to meet after the resettlement but the frequency of meetings has reduced over time.

The Chocolatão Model and its Sustainability and Citizenship Networks

A significant outcome of the Vila Chocolatão Emancipation and Social Inclusion Project is that the principles and approach that emerged through through preparing for the resettlement — the Chocolatão Model — are now being applied in other impoverished communities in Porto Alegre. These include Santa Terezinha, Vila Santo Andre and Ilha do Pavão.

The model is based on the development of cross-sectoral groups called Sustainability and Citizenship Networks. These are defined as governance networks based on cooperation between governmental and non-governmental institutions, as well as individuals who volunteer to address challenges in communities with high social vulnerability. There is a defined process for developing these networks and projects. It includes:

- mapping the place (based on a tool)
- getting to know community leaders (social capital), NGOs, volunteers and public servants who work in the community
- identifying problems and demands
- recognizing potential partners in the first, second and third sectors
- encouraging community empowerment and leadership
- holding network meetings locally and encouraging full community participation
- promoting transversal government actions.

There are also a number of principles that govern the way these networks function and how their projects are developed.

Mobilizing cross-sectoral and collective will

The processes around the resettlement of Vila Chocolatão demonstrate that continuous participatory, cross-sectoral engagement is by no means quick or easy. However, a network of partnerships is clearly a valuable platform from which to address entrenched societal inequities and actions change.

One of the most important lessons from the Chocolatão story is that collective responsibility is required to transform the lives of vulnerable communities. The problems of the Vila Chocolatão community became the problems of the city. Community members moved from living in a ‘hidden world’ to one where, for a period of time, their struggles were known, felt and shared. Mobilizing and harnessing the collective will and resources of many is valuable and powerful. It required the commitment of time and expertise (and in some cases financial resources) from many organizations, including local government, NGOs, the private sector and, most importantly, the community. A long-term view was required and the process took over a decade. It was possible because there were shared goals and principles.

Continuing dialogue was critical. The process challenged partners to be flexible, open and patient. Cultural and social shifts had to occur before physical improvements could be realized. Trust was built in the community by producing tangible outcomes and delivering on promises.

A remarkably diverse group of people committed to working with community leaders to improve the lives of Chocolatão residents and their children and to facilitate access to the fundamental human rights enjoyed by the majority of city residents – housing, employment, health, education and citizenship.

The City of Porto Alegre has been a Global Compact participant since 2005 at the Innovating level. It was one of the first cities to trial the ‘Melbourne Model’ through the Vila Chocolatão Social Inclusion Project. The Local Solidarity Governance scheme resourced and underpinned the project and Porto Alegre was the first Global Compact city to provide a long-term, cross-sectoral support framework for critical urban human rights challenges. The model is now being implemented in a number of other communities in Porto Alegre.

While the Sustainability Network achieved a number of significant and positive outcomes for Vila Chocolatão residents, it also encountered many challenges, some of which are enduring. We hope that other cities can learn from the Chocolatão experience and work in a similar way.

Porto Alegre leaders are available and willing to work with others to share their lessons, methodologies and the principles of their approach. A research report about this project has been developed and is available at: www.citiesprogramme.org

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Porto Alegre - new avenues for democracy, equity and citizenship

Cezar Busatto, Municipal Secretary for Local Governance, City of Porto Alegre, Brazil

‘Local Solidarity Governance’ schemes in Porto Alegre, Brazil, are pursuing local development and improvements in poorer communities and suburbs across the city. Citizens are encouraged to embrace their rights and responsibilities and engage in cooperative relationships through cross-sectoral networks.

Porto Alegre is the capital of Rio Grande do Sul, the southernmost state of Brazil. The city is renowned as the birthplace of the World Social Forum, which is a global gathering, held for the first time in 2001, that provides space for actors to construct local and international democratic projects in different contexts. It is also well known for its democratic public management model and was the first city in the world to successfully implement participatory budgeting, which has been in operation in Porto Alegre since 1989. In 2005, Porto Alegre launched an innovative political experiment called Local Solidarity Governance (LSG), which created space for a new mode of municipal governance to emerge.

Pursuing active and participatory governance

Over the past 25 years, the Porto Alegre’s municipal government and local legislative council — whose members are elected every four years by free, universal and direct vote — have coexisted with participatory democratic institutions such as the Participatory Budget and the Sectoral Council for Public Policies. Participatory budgeting is an approach to municipal administration that aims to reverse public policy priorities in favour of the poor and working class. This reversal is made possible through public participation in the prioritization of urban issues and subsequent allocation of municipal funding. Participatory budgeting is centred on the promotion of a redistributive politics. It creates forums for public decision-making that promote citizen engagement in policy-making, enhanced accountability and the curtailment of corruption and arbitrary allocation of public resources.

The interplay between participatory and representative democracy in Porto Alegre makes for fascinating political observation. On one hand, the allocation of public resources from the municipal budget through participatory budgeting is a collaborative process in which local citizens are welcome to participate. The spread of participatory democracy in Porto Alegre has created greater awareness amongst citizens about local community ownership and shaped a culture of rights that is strongly entrenched in the practice of urban citizenship. On the other hand, representative democracy, which involves regular competition between political parties to secure electoral zones in order to govern a city, is adversarial in nature. This competitive political system creates an environment of conflict and divisiveness from which winners and losers emerge after each election. The potential for conflict to arise in participatory democratic processes is also a consideration in light of tension between the needs of local communities and the limited budgetary resources of the local government.

Porto Alegre’s LSG scheme represents a new democratic political mechanism aimed at dealing with tensions between the municipal government and local citizens. In line with Porto Alegre’s international reputation as a laboratory for political experimentation, the LSG brings two fundamental innovations to Porto Alegre’s political sphere.

First, the idea that full citizenship implies not only rights but also responsibilities. Second, the vision that the foundation of harmonious, inclusive and sustainable urban growth depends on relationships between people that are built through horizontal dialogue, trust and cooperation, as opposed to competitive relationships between political parties and other hierarchical and centralised organizations.

Adicionalmente, o exercício da democracia participativa coloca em permanente disputa as comunidades locais e o governo municipal, principalmente devido à tensão entre as necessidades limitadas e os limitados recursos orçamentários para atendê-las. Esse padrão de disputa entre as comunidades locais e o governo municipal acaba também contribuindo para a formação de um ambiente adversarial e conflituoso na cidade.

Neste contexto, o surgimento da GSL introduziu na vida política de Porto Alegre duas inovações fundamentais: primeira, a de que a cidadania plena implica não só direitos, mas também responsabilidades; segunda, a de que são relações horizontais de diálogo, confiança e cooperação entre as pessoas - e não relações de competição e disputa entre partidos e outras organizações que se estruturam de modo hierárquico e centralizado -, o fundamento de um desenvolvimento mais harmônico, inclusivo e sustentável da cidade.

A metodologia da GSL está baseada na criação de redes de cooperação entre pessoas de governos, comunidades e empresas: servidores públicos, líderes comunitários, cidadãos e empresários socialmente responsáveis e voluntários de organizações sociais com fins lucrativos, todos voltados para a realização de propósitos comuns de desenvolvimento local e melhorias em vilas e bairros da cidade. Essas redes estabelecem relações horizontais, não-hierárquicas, de diálogo, respeito às diferenças, confiança e co-responsabilidade social entre as pessoas que interagem, empoderando as lideranças comunitárias locais e fortalecendo seu protagonismo, fomentando uma cultura de cooperação democrática na base da sociedade e no cotidiano das cidadãos.

Note: The text includes a mention of the Porto Alegre – City of Solidarity and Cooperation. This initiative is supported by the Global Compact Cities Programme and the Global Social Innovation Challenge (GSIC) of the United Nations Office for the Coordination of Humanitarian Affairs (OCHA).

Building upon participatory and democratic processes, the Local Solidarity Governance scheme aims to promote a partnership approach between local government and citizens and actively engage community members in urban-focused projects. Image: Global Compact Cities Programme.
The LSG methodology is based on the development of cooperative networks with representatives from different levels of government, communities, and companies. Participation ranges from public servants to community leaders, citizens, socially responsible entrepreneurs and volunteers from not-for-profit organizations who are united in the perspective of achieving local development and improvements in poor communities and suburbs. These networks are predicated upon horizontal, non-hierarchical participation, where leadership is encouraged, as are respecting difference, developing a sense of trust and social responsibility among participants, challenging local leaders to strengthen their advocacy skills and fostering a democratic, cooperative culture in Porto Alegre’s society and in each citizen’s everyday life.

Differences in views, opinions and interests are a normal part of life in all societies. In LSG communities, networks are encouraged to overcome their differences through dialogue, respecting others’ opinions and searching for common goals and consensus in determining objectives and deciding upon agreed actions. Actions that have the potential to create dispute and division — such as voting, where there are always winners and losers — are avoided. Although governance agents from the local government establish the initiatives, these networks are informal, open, plural and flexible to changes in the environment where they have been established and their leadership is shared between public servants and community leaders.

The experience of LSG community networks in Porto Alegre over the past 10 years has revealed that one of the biggest challenges is dealing with the legacy of the city’s competitive and adversarial political culture. This conditioning stems from the way elected political parties engage with communities. Elected municipal politicians in Porto Alegre select local community leaders as party representatives. At the same time, opposition parties join local communities in challenging the government and its representatives. In both cases, parties often come into conflict with each other, using the government as a tool to gain power and independence in the communities in which they operate.

In first place, the way in which the actions of the political parties inside the government and in the communities. As a result, the parties involved in the development and improvement of the municipal government have a larger responsibility when it comes to implementing urban development projects in communities and for this reason in the implementation of LSG in networks to operate.

Sustainability and citizenship networks

Despite obstacles presented by the partisan nature of the relationship between government officials and not for-profit political parties, the work of sustainability and citizenship networks, based on LSG principles, is making a difference for citizens living in the most vulnerable communities in Porto Alegre. Successful experiences have been reported in the communities of Nova Chocolatiera, Vila Santa Teresinha, Vila Santo Andre and the Region of Ilha. These experiences have been supported by the Global Cities Institute at RMIT University and the Global Compact Cities Programme.

Local government LSG agents are trained to facilitate cooperation networks, form permanent community groups and link local community leaders with public servants from different government levels, the local, state and federal levels, and with community volunteers, social organizations and socially responsible corporate partners. These cooperation networks are able to enable a range of actors to work together to solve collective problems, implement improvement projects and look for new opportunities to improve quality of life in local communities. The sharing and cooperative nature of these networks has led to promoting a new political culture. Community members benefit from an improved sense of individual and collective self-esteem, the development of a culture of rights and responsibilities, and interacting with each other and network members in an environment of trust and cooperation.

Political culture shaped by social demand creates municipal governance that is concerned with the collective interest of citizens. The LSG mechanism ensures that companies, social organizations and citizens are involved in the development and improvement of the municipal government. The municipal government has a larger responsibility when it comes to implementing urban development projects in communities and for this reason in the implementation of LSG in networks to operate.

Co-responsibility and cross-sectoral partnerships

In certain communities in Porto Alegre the relationship between community members and the local government has been soured by the deficient provision of basic services, including water supply, sanitation, cleaning, road maintenance, health services, early childhood and primary education. It is also possible for relationships with community members to become damaged, untrustworthy and uncooperative and to be replaced by confrontational interactions between municipal government networks and community members who have a lack of trust in the actions of the political parties. This lack of trust in the actions of the political parties can result in the formation of new networks to operate.

Collaboration and participation

Residents of Porto Alegre casting their votes at their local participatory budgeting forum. Image: City of Porto Alegre.
The LSG model recognizes the inherent difficulties for the municipal government in rolling out urban development programs across communities and promotes cross-sectoral partnerships in order to find solutions that empower local communities and make them effective agents for their own development. Community advocacy, which is essential for the continuity of LSG networks, is a valuable asset that is not subject to the volatility of political election calendars.

The idea of co-responsibility and the importance of cross-sectoral partnerships evolved in a creative way from discussions about city culture at the 5th City of Porto Alegre Congress in 2011. The city’s “I Like It, I Look After It Pact” between the Mayor and local community leaders defies the very concept of the structure and functioning of current political parties and contributes to developing a culture of political democracy by allowing considerable freedom in the design of local relationships and responsibilities amongst citizens and a trusting environment that promotes dialogue, which is essential for the operation of LSG cooperation networks.

Reinventing democracy in Porto Alegre

In Porto Alegre, the varied democratic practices established throughout the city’s history coexist and interact with each other. These practices include classic representative democracy, the Participatory Budget, Sectoral Council participatory democracy and, more recently, LSG cooperative democracy. These institutions comprise Porto Alegre’s democratic administration. Despite contributing to developing a culture of political citizenship that promotes a democratic environment characterized by dialogue, trust, harmonious coexistence and improved quality of life, the LSG networks have experienced difficulties related to hierarchical organizational practices and the way in which conflicts in representative and participatory democracies are dealt with.

Democratic life in the city continues its journey. Informal and creative initiatives such as urban collectives have been initiated at the grassroots level and kindsled by social media without being linked to representative and participatory democratic organizations. These new volunteer social networks are organized in a horizontal and non-hierarchical way. They are based on interactive and collaborative partnerships, promote new cooperative experiments in public places, reveal the anachronism of the vertical structure of current political parties and apply new forms of democracy more aligned with the networked societies in which we live. These are the ways democracy is being reinvented in Porto Alegre. The city is looking for answers to the overwhelming legitimacy crisis in contemporary political practices; practices that were clearly and radically denounced in street demonstrations in June 2013 in Brazil.

The City of Porto Alegre has been a Global Compact participant since 2004 at the Innovating level.
UN agencies are working together to facilitate gender equality and human rights for women throughout Turkish cities. They are being supported by the Global Compact Network Turkey.

Women Friendly Cities is a Joint UN Programme implemented by the United Nations Population Fund (UNFPA), the United Nations Development Programme (UNDP) and Turkey’s Ministry of the Interior. The program aims to contribute to the creation of sustainable cities by improving gender equality in a set of Turkish provinces.

The program strongly upholds the principle of gender equality as the cornerstone of sustainable development due to its potential to transform the physical and social environment not only today but also for future generations. Having worked at the local level since 2006, we know that progressive national policies, while unquestionably valuable, can only become transformative once their connection to local contexts is safeguarded. Consequently, we see the Women Friendly Cities Programme as a fully-fledged intervention for change that guarantees the penetration of gender equality into the lives of ordinary urbanites.

Why local intervention?

Like many other countries, Turkey experiences gender inequality at its peak at the local level. When employment, literacy and reproductive health are analyzed, we witness many regional disparities, and such disparities require tailor-made action. For example, according to the latest statistics published by the Turkish Statistical Institute (Turk Stat), while the rate of illiterate women over the age of 15 in Antalya province is 2.77 per cent, this rate increases to 16.39 per cent in the Şanlıurfa province.

The above figures underline the importance of developing gender-sensitive local policies. Problems, challenges and constraints that women face at the local level are directly related to local policies and measures. However, inequality is also persistent in women’s participation in local decision-making mechanisms. Women represent 14 per cent of the Turkish Grand National Assembly’s members of parliament. However, when we examine local assemblies, this rate drops to 4 per cent (2009 elections). Although this rate went up to 10.7 per cent in the 2014 local elections, it is still below the national ratio. In all of Turkey’s 81 provinces, there are only four female mayors.

As these figures demonstrate, even though women constitute half of total city populations, they cannot fully and equally participate in local decision-making processes as local policies are traditionally designed by men and these designs do not sufficiently account for the needs of women and girls. However, women are the natural partners to be consulted by local administrators in planning and management processes. Decisions made about issues regarding housing, security, transport, education and health directly affect women and have the capacity to make their lives easier or more complicated. Since women are not equally represented in local assemblies, they are unable to influence these decisions.

For instance, services such as building facilities where women can gather or a kindergarten and a day care centre for each neighbourhood are generally not prioritized in urban planning. Poorly lit streets, a lack of public bus services to remote areas and poor security conditions at existing facilities prevent women from exercising their freedom to travel, which is one of their fundamental rights. Meanwhile, overpasses and high pavements make it hard for women to use city streets with strollers. Women constitute one of the most ignored groups when it comes to cultural, sports and leisure facilities offered by cities. Furthermore, women’s shelters and support hotlines — through which women can notify authorities in case of exposure to violence — tend to be disregard by city administrations despite being compulsory measures set by national jurisdictions.

To remedy the lack of local policies that ensure Turkish cities are gender sensitive, we initiated the Women Friendly Cities Joint UN Programme in 2006. The first
The implementation, success and overall outcomes of the LEAPs are essential roadmaps to ensure women’s and men’s equality in a particular city. LEAPs are prepared in six categories (education, health, employment, participation in management mechanisms, violence against women, and urban services) in accordance with the UN Convention on the Elimination of All Forms of Discrimination Against Women and other national and international conventions.

The fact that these action plans are prepared through a ‘participatory’ approach makes LEAPs realistic, feasible and result-oriented. In accordance with this process, we ensure that all relevant stakeholders convene at workshops and training activities organized as part of the program, and that they determine their own duties and authority by discussing the problems and needs of women in that city.

Equality Commissions

Within the scope of the Women Friendly Cities Programme, each partner city establishes an Equality Commission within their local assembly. These commissions are a fundamental aspect of the Local Equality Mechanisms, resulting in draft resolutions.
prepared by councils to ensure the inclusion of gender perspectives. For example, the positive and negative impacts of a park or a road’s construction for women in a particular city can only properly be assessed if these specialized commissions evaluate them. In the same vein, the inclusion of LEAPs within local administrations’ strategic plans, the allocation of resources for activities within these plans and their implementation is made possible because of the efforts of Equality Commissions.

Equality Units and Equality Desks
One of the most important elements in maintaining the sustainability of Local Equality Mechanisms is the Equality Unit/Desk. These are established in municipalities, governorates, regional development agencies, universities and provincial directories of line ministries. These units/desks are responsible for the preparation of institutional action plans, together with relevant institutions within the LEAP framework, monitoring programs and reporting on them, determining problems in practice and developing strategies and finding solutions to challenges.

The way forward
Based on the work done so far, it is clear that the first step in creating a Women Friendly City is to get to know the women and girls living there and correctly analyze their needs, problems and opportunities. Collecting gender sensitive data to address local inequalities and disparities, and political willingness to remedy those inequalities, are the first steps toward the creation of Women Friendly Cities. We believe wholeheartedly that the equality of both men and women leads the way to the creation of ‘fair-shared’, equal and sustainable cities. Such efforts can be further advanced and strengthened through multi-stakeholder platforms where best practices and lessons learned are shared.

In 2014, in partnership with Global Compact Turkey and UN Women, we launched a local working group, the Women’s Empowerment Turkey Working Group, that includes business and women’s CSOs, municipalities and city level organizations. The working group consists of over 40 dedicated organizations seeking to advance the social and economic wellbeing of women in Turkey and the Women’s Empowerment Principles.

The municipality of Nilufer, Bursa has been a participant of the Global Compact since 2007. It reports annually on how it advances universal principles, human rights and women’s empowerment.

The United Nations Population Fund (UNFPA), is the lead UN agency for delivering a world where every pregnancy is wanted, every birth is safe and every young person’s potential is fulfilled. For more than 30 years, UNFPA has been bringing gender issues to wider attention by advocating for legal and policy reforms, helping to collect gender-sensitive data and by supporting projects that help to empower women and safeguard all aspects of their reproductive health.

The Women Friendly Cities Programme serves as a model for the working group in which mapping of private sector actions in relation to the Joint Programme will be conducted.

In recent decades cities have gained leading roles on national and international stages. This is because cities are the spaces where diverse ideas, cultures and trends converge, which produces changes that affect all aspects of human life. Cities are therefore called upon to address major challenges and lead changes by responding to priority issues on the international agenda.

Today we understand that fulfilling the Millennium Development Goals (MDGs) will not be enough to ensure the quality of life of the inhabitants of a particular territory. For this reason, the great challenge for cities is to develop strategies and projects that are increasingly innovative, giving their citizens the opportunity to develop their life projects amidst an increasingly complex urban setting.

There are multiple city networks in Latin America, including the Latin American Federation of Cities, Municipalities and Municipal Associations (FLACMA) and Mercociudades and Red Andina de Ciudades (Andean Network of Cities). However, none of these networks represent the interests of cities on the international agenda. This becomes relevant in light of the reality that Latin America is and will be the most urbanized region on planet as well as the most unequal. In this context, the Red de Ciudades Suramericanas (Network of South American Cities or REDCISUR) was born.

On 20 November 2012, top representatives from the cities of Lima, Bogotá, Quito, Buenos Aires, Asunción, La Paz, Sucre and Santiago de Chile launched the ‘Acuerdo de Voluntades’ (Agreement of Intent) as the vital element of what is now REDCISUR. The Uruguayan capital Montevideo has since become a part of the network and Mexico City is an honorary member.

The network, which is looking for other South American capital cities to become affiliated, was born out of the need to strengthen the process of regional integration and to have a unified voice both nationally and internationally.

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The network is intended to be a platform for integration and unity, which fosters political dialogue, strengthens democracy and governance, contributes to the creation of a ‘South American identity and citizenship, and promotes technical exchange and cooperation.

In this sense, REDCISUR promotes solidarity and equitable development in our cities and is strongly committed to building a region “for us.” With 16 member cities, it advocates for an integration that goes beyond trade and includes the political and social aspects of city development. This translates into a commitment to the development of a REDCISUR agenda that will give coherence and content to the region’s voice.

Since its establishment, REDCISUR has promoted the need to build a policy framework that addresses local, regional and global challenges, such as poverty reduction, climate change, social inclusion, strengthening democracy, human rights, peace and human development. REDCISUR has therefore chosen to focus its agenda on environment and climate change, urban planning and sustainable development, public safety and social harmony.

Since its inception REDCISUR has shown tremendous potential in the various international forums in which it has begun to position itself. REDCISUR participated in the 4th United Cities and Local Governments (UCLG) World Congress in October 2013 in Rabat, Morocco, and promoted itself in important regional arenas, such as the UNASUR and the Organisation of Ibero-American States, FLACMA, the Ibero-American Union of South American Nations, the Organization for American States, UNASUR, the Ibero-American Capital Cities Union and Mercociudades, which gather together many leaders of national and local Latin American organizations and governments.

REDCISUR has a clear objective to influence the international agenda — where decisions are made and where development goals for the coming decades are set. This agenda is distinguished by local government initiatives, developed through the UCLG, which draws on its Bogotá Humana plan for communication about its actions related to the universal principles of the Global Compact. The capital of Colombia, Bogotá, has been an active participant of the Global Compact since 2012. Bogotá engaged at the (then) Reporting level but is now a Leading city with the Global Compact Cities Programme. The city draws on its Bogotá Humana plan for communication about its actions related to the universal principles of the Global Compact.

The challenge for the future is to ensure that the ability to work in a network is sustainable and that REDCISUR can promote its city vision and lead on the international stage as an organization and as a region.

In this context, it is worthwhile highlighting the network’s alignment with the UN Safer Cities Programme, which is an international program that has drawn attention to the importance and relevance of REDCISUR at the regional level.

As a result of this and other dialogues that promote REDCISUR’s other two key focus areas, the next three years of international meetings and discussions will be vital for the development of REDCISUR and its cities alike. The Red de Ciudades Suramericanas will be the ideal space where, as a regional cities bloc, South American city visions and projects will directly affect the new international agenda — an agenda in which cities will play a decisive role.

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In collaboration with communities living in extreme poverty, housing projects facilitated by youth-led Latin American NGO TECHO address the fundamental human rights to adequate living conditions and livelihoods.

When housing provision is addressed in a participatory manner, the process has significant potential to target many social issues and be an instrument of long-lasting positive change. In Chile however, the opportunity to tackle diverse social issues through housing provision is not always taken up. The outcomes of housing provision projects by the youth-led NGO TECHO demonstrate that a practical and participatory approach can help communities build capacity, increase social capital and overcome poverty.

Housing provision in Chile: housing as an end

In line with the increasing trend toward urbanization in Latin America, Chile is a highly urbanized country. Almost 90 per cent of Chile’s 17 million citizens currently live in cities (OECD 2013; UN-Habitat 2011). With one of Latin America’s fastest-growing economies, consolidated macroeconomic stability and a strong, reliable institutional economic framework, Chile was the first South American nation to join the OECD (World Bank 2013). While Chile has made impressive economic progress, reduced poverty and increased the provision of housing in recent decades, it ranks lowly in several key indicators of the OECD’s Better Life Index, particularly in the areas of housing issues and inequality (OECD 2013).

Key criticisms of the provision of social housing during this time, which contributed to dissatisfaction among beneficiaries, included physical issues — such as poor quality and design and inappropriate location selection, and social issues — including insecurity, lack of space, marginalization, entrenched social stratification and a decrease in collective action and unity (Rodriguez & Sugranyes 2011; Posner 2012; OECD 2013b).

Given that the housing problem in Chile was no longer solely quantitative in nature, in 2006, and later in 2011, the Ministry of Housing and Urbanism (Ministerio de Vivienda y Urbanismo, or MINVU) launched important changes to housing policy. These changes shifted the emphasis of social housing to focus on the poorest 20 per cent of the country’s population, who were largely unable to access previously implemented programs (UN-Habitat 2011). In addition, the Housing Solidarity Funds Program (Fondo Solidario de Ejecución de la Vivienda) allowed social and private organizations to work together with municipalities to provide housing, as well develop solutions for other neighbourhood social issues (Burgos 2011). This program is multipurpose in nature and seeks to overcome poverty by reducing Chile’s housing deficit, providing a quality housing product, that may need to be addressed; and (3) implementing lasting and sustainable housing solutions, including basic services such as property regulation, the provision of infrastructure, new housing projects and connecting families with relevant government institutions.

TECHO’s housing process: effective practice for capacity building

TECHO works as a housing facilitator entity (EGSEP) and provides technical and social assistance to families to access government subsidies and develop permanent housing solutions through a robust, participatory approach. Adhering to this approach, TECHO delivered 3,081 housing units in Chile between 2006 and 2012. The housing provision process is seen as an instrument to engage with the larger community and target other social issues that can positively impact on community members’ lives. Left unaddressed, these social factors can detrimentally impact the overall potential of a given housing project.

TECHO’s participatory model consolidates community self-management through four areas of intervention – community organization, education, employment, and habitability. This participation applies to all the stages of TECHO’s intervention model, but it is intensified during the implementation of lasting and sustainable housing solutions.

The following are some of the innovative approaches that TECHO has adopted in the different areas of intervention:

Community organization

Activities are developed for families to get organized and create a sense of community, ownership and responsibility to overcome poverty. Empowering local leaders is a key focus of TECHO’s participatory approach, ensuring that community leaders have the tools and resources to promote the best interests of the people they represent. The specific tasks and challenges of a housing project present great opportunities for communities and leaders to learn how to arrive at a consensus, look for the collective good, connect with existing support networks provided by the government, get empowered and become change agents within and outside their community.

Education

The general objective of this area of intervention is to tackle the educational disparities that exist in Chile and create learning spaces for community development. TECHO focuses on different target groups, including school children, who receive tutorials to support their formal studies, and adults, who are invited to participate in workshops to develop employment skills. Engaging families in educational programs during the life of a housing project has the potential to increase the social impact of a given project in the long term and improve the knowledge and tools of community members.

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Employment

Training initiatives aim to improve the employability of community members, as well as support and increase entrepreneurship within communities. Given that 30 per cent of households in slums work independently, TECHO encourages innovation and the creation of new employment sources within the communities it works with, taking into consideration the capacities and backgrounds of individual entrepreneurs and the particular characteristics of each community.

This approach builds on the connection between housing and income generation (Myers 2001). Home-based enterprises (HBEs) are significant for income generation, particularly for women living in low-income communities who are looking to increase their employment opportunities (Tipple 2004). HBEs also have the potential to contribute to the provision of skills to young people (Erezahide 2012), bring services and goods closer to people (Tipple 2004), assist with financing, attend to maintenance and improvements of dwellings (Strassman 1987) and promote neighbourhood integration with surrounding communities.

Liveability

TECHO supports families throughout the process of looking for sustainable, lasting and dignified housing options. TECHO’s approach to housing design not only considers families’ preferences and ideas but also allows TECHO to give them a general understanding of their dwelling space’s potential. TECHO’s approach to housing design not only promotes liveability and social cohesion but also has the potential to contribute to the provision of additional energy efficient features that could be incorporated into housing projects. A new pilot program will also be run by ACHEE in some of TECHO’s projects, which will involve energy use workshops for community members.

Outcomes, challenges and lessons learnt

TECHO’s community engagement approach has proven to be an effective way to build capacity in communities and overcome certain housing issues, such as house abandonment and dissatisfaction. It has also empowered communities and encouraged their leaders to become change agents, allowing for the development of permanent solutions for their immediate problems.

Improvement in quality of life is the most significant outcome of TECHO’s housing projects for families. While strong economic improvement does not always occur within communities, employment, upskilling and capacity building related to TECHO’s processes allows families to transition from slums to housing developments and cope with increased living costs, such as paying bills not previously incurred. Furthermore, it allows community members to connect with broader society and access an increased range of city networks, institutions and services, thereby encouraging families to take responsibility for their own development.

In relation to the physical aspect of housing, aside from everyday challenges such as budget constraints and community cooperation in maintaining housing, TECHO’s Habitat Development Teams approach the challenge of closing the loop of their work with communities by carrying out a post-project evaluation. The evaluation phase specifically takes into account how families are modifying their houses and how this knowledge can be incorporated into the design phase. The modifications and extensions families make to their homes influences their home’s functionality. Modifications made to allow family members to carry out commercial activities and spatial modifications affecting energy use are particularly relevant. While home-based businesses provide a range of benefits, potential detrimental effects on the broader community also need to be considered. Drawbacks include negative impacts on residential environments, decreasing residential quality or dwelling value, the creation of hazardous waste and inappropriate working conditions (Tipple 1993). Moreover, if carried out improperly, spatial modifications using low quality materials can affect the efficiency of any existing energy saving features in a house. For instance, leaving cracks and draughts or blocking sunlight may affect thermal insulation and result in a colder and less comfortable home. Rather than condemning these modifications, TECHO regards additions and changes as issues to deal with during the participatory design process of housing projects. Through such a process, a goal is to achieve the optimal integration of business and extension opportunities and avoid detrimental alterations.

By carrying out a post-project and post-occupancy evaluation, TECHO can incorporate knowledge of how families are actually modifying their homes into the design phase in order to prepare spaces for expansion or modification. For example, designating space for local businesses and storage facilities in community areas could allow families to work outside of their homes, yet within their own community, enabling them to still take care of dependent relatives without having to modify their houses. Furthermore, the smart designation of areas for modification and expansion could allow families to save on energy bills while having comfort and the flexibility of using the spaces as needed.

Conclusion

Chile’s strong economy, reliable public institutions and competitive housing policies have allowed private and not-for-profit organizations to be involved in the provision of housing. TECHO has taken up this challenge and sees public housing provision as a sustainable way to overcome poverty and engage low-income families in creating permanent solutions to their immediate problems. TECHO’s innovative community participation intervention model creates the opportunity for effective capacity building. Community organization through leadership, involvement, empowerment and education are significant and tangible aspects of TECHO’s model. The improvement of employment opportunities and designing spaces that promote habitability create long-lasting impacts for community members. The transition from living in slums to housing complexes presents design challenges for TECHO. Post-project evaluations allow TECHO to develop designs that allow for the expansion and modification of premises in accordance with families’ needs, while avoiding detrimental impacts such as discomfort and energy poverty within communities.

TECHO has been a strategic partner of the Global Compact Cities Programme since 2012. This article draws on research undertaken in 2013 by the Global Compact Cities Programme and RMIT University in collaboration with TECHO – Chile.
World Vision is advancing just cities for children

Joyati Das, Senior Director, Centre of Expertise for Urban Programming, World Vision International

As the world races into its first urban century, NGOs are confronted by the shifting and expanding dimensions of poverty and inequality across the rural-urban continuum. In response, World Vision is trialling context-specific programs to tackle the complex issues facing children in urban environments.

The programming interventions of Global Compact Cities Programme strategic partner, World Vision International, indicates that hundreds of millions of children in the world’s cities are living in conditions that threaten their health and wellbeing. The international NGO is tackling the growing challenge of poverty alleviation and aid provision in complex urban environments. To trial new programming models, pilots were established in Indonesia, India, Cambodia, South Africa, Lebanon and Bolivia, working on context-specific issues including land rights, economic development, governance and policy reform, protection (child labour and trafficking) and child participation.

The meta-evaluation of the urban pilots is informing new strategies. This evaluation has concluded that a formal (top-down) city-wide process coordinated through bottom-up community led implementation and advocacy with various partners is the appropriate development approach, particularly in complex urban settings. This article presents findings from pilot projects rolled out in six cities across the world that are aimed at addressing poverty and the effective provision of aid in complex urban areas.

More than one billion children – almost half of the world’s children – live in cities, however millions of these children live in shanty conditions (UNICEF 2012). Many children lack access to clean water and clean toilets. In crowded areas and homes, they are vulnerable to infectious diseases. In overcrowded schools, children suffer from poor-quality education. There are no playgrounds for children in slums and the public space that is available is contaminated by garbage and dangerous waste.

Children living in slums are highly vulnerable to trafficking, child labour, violence, road accidents and living on the streets. Access to basic services becomes a major issue because their families are often not registered with city authorities. This inaccessibility is hugely exacerbated by the urbanization megatrend, with the UN predicting the global slum population to increase from one-sixth (2012) to one-third of humanity within 30 years (UN-Habitat 2012).

Children living in informal settlements are the first victims of urban poverty and are particularly vulnerable to all kinds of exploitation including long hours and or unpaid or low-wage work in harmful working environments. They are also exploited for drugs, sexual violence and prostitution. Families unable to support children may abandon them, contributing to the increasing number of street children.

The multifaceted issues facing urban children need to be addressed through a holistic and integrated program intervention that engages the duty bearers, family, community, the private sector, civil society and the state. The ‘urbanization of poverty’, however, has presented NGOs with a largely unexplored terrain. As the world races into its first urban century, NGOs are confronted by the shifting and expanding dimensions of poverty and inequality across the rural-urban continuum.

World Vision’s Urban Programs Initiative

The megatrend of urbanization demands the design of development models to guide responses to the unique challenges presented by cities. Recognizing an organizational need to understand, respond and adapt to the changing face of poverty, World Vision launched its Urban Programs Initiative five years ago and has established an urban unit (Centre of Expertise for Urban Programming) to explore and understand the changes impacting the aid and development landscape. This strategic initiative aimed to design and inform development theory frameworks and methodologies specific to the urban context.

World Vision International launched a five-year operational global research programme applying an action research approach across World Vision implementing offices. Six field offices were identified to launch urban pilot projects as part of this initiative. Seven pilots were established in:

- **Cambodia**: promoting community awareness about land tenure security and Cambodian housing rights and engaging city authorities in a dialogue to advocate for pro-poor policies.
- **Siliguri, India**: promoting sustained civic engagement by establishing a citywide network model to address and reduce the incidence of child labour and child trafficking.
- **Kanpur, India**: working to reduce the incidence of child labour through supporting rehabilitation, non-formal education, provision of vocational training opportunities, capacity-building and advocacy.
- **Lebanon**: providing opportunities for children and youth to proactively engage in building positive relationships amongst historically divided groups using art and sport and allowing youth to claim public space to contribute to safe and peaceful communities.
- **Bolivia**: promoting the active participation of children and youth in local governance processes in La Paz and engaging in city planning processes to bring a youthful lens to the city’s constitution.
- **Orlando East, South Africa**: working to create opportunities for local economic development through networking, advocacy and community partnership mechanisms.
- **Surabaya, Indonesia**: contributing to the development of pro-child policies within city government processes through the promotion of Child Friendly Cities.

A meta-review of pilot projects, built on monitoring and evaluation activities within individual urban case studies, examined common urban programming themes across all contexts, as well as unique issues pertinent to each of the six pilot cities. The framework was designed to prompt researchers to explore and analyse the intersection of the urban context, the enabling environment and World Vision’s organizational context.

Lessons learned from the meta-review

### Defining slums and contexts

Slums in many cities are no longer just marginalized neighborhoods housing a relatively small number of struggling urban poor. They are often home to a range of diverse socio-economic groups. Defining the urban poor in this diverse concentration of people presents a challenge to any programming methodology and needs to be given careful consideration.

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![Non-formal education centre](image-url) Non-formal education centres are an essential stepping stone for child labourers in Siliguri, India. Image: World Vision International.
**Kanpur Pilot Project, India**

**Project goal:**
To reduce hazardous forms of child labour in Ward 2 of Kanpur City.

**Project outcomes:**
- rehabilitation and reduced vulnerability for poor urban children in slums
- provision of educational opportunities (formal and informal) for children
- vocational training for youth and women.

This project is based around four core approaches:

1. **Rehabilitation of child labourers**
   - The project has established transit schools for child labourers to help them enter the formal education system. Child rag pickers have specific challenges, and the provision of such facilities has provided informal education and general rehabilitation.

2. **Networking and advocacy**
   - The project has set out to partner with the Department of Education, the District Level Task Force on Child Labour (headed by the District Authority) and other NGOs operating in Kanpur. Further advocacy strategies include capacity building for youth to become agents of change, encouraging religious leaders to influence community opinion, and conducting a positive deviance study to identify change agents within the community.

3. **Community mobilization**
   - This includes school enrolment campaigns in collaboration with the Schools and Education Department, mobilizing religious leaders to encourage their communities to send their children to school, and the formation of self-help groups, youth associations, and children’s clubs.

4. **Livelihood development**
   - This includes a market analysis and skills assessment study, linking self-help groups to banks and a microfinance NGO, capacity building for these self-help groups around livelihood development, and vocational training for youth (through partner NGO collaboration) in areas such as basic computer skills, beautician courses and tailoring.

**Siliguri Pilot Project, India**

**Project goal:**
Sustained civic engagement to reduce the incidence of child labour and child trafficking.

**Project outcomes:**
- stakeholders in the target area empowered to prevent, protect and restore children at risk of child labour and child trafficking
- stakeholders effectively monitor and manage the vigilance mechanisms on child trafficking
- stakeholders share and adapt good practices and processes for combating cross-border child trafficking.

The project is based around three core approaches:

1. **Community mobilization**
   - The project aimed to establish and maintain local vigilance committees and child protection units. These units included school teachers, social workers and local leaders. Their aim was to strengthen social protection, monitoring and reporting mechanisms to reduce incidences of child labour and trafficking.
   - Other community-based activities included supporting local child wellbeing groups and youth clubs to create positive peer environments for children and youth.

2. **Rehabilitation of child labourers**
   - Non-formal education centres have been set up in the six communities. This service offers homework or extra lesson clubs targeting children from slum areas who remain outside the formal education system. Volunteers provide basic education and life-skills training while World Vision provides uniforms and basic stationery to support the integration of children back into the formal system.

3. **Networking and advocacy**
   - The project is actively involved in the Siliguri Anti Trafficking Network (ATN), which consists of seven local and national NGO partners, and works closely with government authorities. The project provides training to the West Bengal Police and Border Security Force who guard the Indo-Bangladesh border and Sashastra Seema Bal who guard the Indo-Nepal border. World Vision enables access to key government actors and critical resources required.

Diverse urban communities

Urban areas tend to be more diverse and heterogeneous than rural areas. Urban neighbourhoods can often consist of residents from different cultures, belief systems and languages motivated by economic opportunities to move to the city. Often separated from their own kinship ties, cultural groups and land, they lack the relationships that are fundamental for maintaining strongly networked communities. The trust and solidarity that usually exists between community members in rural settings is missing at times in urban contexts.

**Urban mobility and fluidity of the city environment**

One of the most significant features of the urban setting is the population’s mobility. Slums, or neighbourhoods housing the urban poor, are often perceived by residents as temporary dwelling situations. This may make it difficult to track and measure impacts on participants over a specific period of time.

Vulnerable children in urban areas, such as street children, are also particularly mobile. As such, the design of urban programs may need to include indicators that measure impact at a collective or higher level rather than the individual level. For instance, alternative indicators might encompass attempting to measure a program’s impact through its influence on a more equitable and ‘pro-poor’ government policy, success with including children and youth in municipal planning processes or the strengthening of coalitions and partnerships with civil society organizations.

**Lack of correct data to inform program interventions**

The accuracy and quality of data about urban poor and slums is often unreliable and patchy. The channels and sources of data collection are government bodies, which collect data periodically (usually through a census every 10 years). In light of the issues of urban mobility and unregistered migrants, the poor are mostly not included in the formal reports and figures. The limitations of available data make it difficult to identify those who are in need of support. Evidence shows that it is these unregistered migrants who become ‘slum casualties’. NGOs need to consider strategies that would often require some additional primary data collection during the assessment phase to inform urban program design.

**The need for partnerships**

The pilot reviews demonstrated the need for World Vision to establish strong partnerships in urban contexts to have impact and create sustained change. The partnering approach provides the potential for significant opportunities in combining resources, knowledge and expertise of various existing agencies. Effective coordination and time are required to navigate the web of urban actors and to forge strategic partnerships. Mobilizing social capital, volunteering, human resources, finances from local corporations and municipal governments have greater potential in urban areas and require project staff to develop the skills that can activate these resources. This is similar to the wider discourse and dialogue about the changing role of NGOs in complex environments. Strategic partnerships must be formed in a given city to be effective in dealing with complex issues and establish systems for sustained change involving government and other stakeholders.

**Cities for children**

The lessons from the pilots have informed a ‘Cities for Children’ framework to advance World Vision’s goal of contributing to the wellbeing of children in complex urban environments. The framework consists of four inter-related domains of change that are essential to bring sustained change: Healthy Cities, Prosperous Cities, Safer Cities and Resilient Cities. Underpinning these domains is the core goal to advance Just Cities for children.

Currently in development, each of the four domains outlines essential goals, evidence-based strategies and tools and indicators that can be implemented in diverse urban contexts. The domains are informed by and aligned with tested cities, frameworks designed by various multilateral agencies, including UN-Habitat, WHO, UNICEF, World Bank and UNICEF.

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In the words of UN Secretary General Ban Ki-moon in a 2012 address to world mayors: “our struggle for global sustainability will be won or lost in cities.”

Witnessing first-hand the impacts and costs of a changing climate and unsustainable human habitation, many cities are taking the lead on environmental issues. Despite hope for international commitments at the United Nations Climate Conference in Paris in 2015, particularly in light of the United States and China announcing bilateral cooperation to tackle climate change, the world has been slow at the international and even national levels to respond to pressing climate, land, water and biodiversity issues.

Research and consensus among the international scientific community has continued to mount that humans have (and are) pushing planetary systems to the brink. The year 2014 was declared the hottest year since records began in 1880, with 13 of the 15 hottest years on record occurring since the year 2000.

It is within this context that it is more critical than ever for cities to lead the promotion and realization of the universal principles of the Global Compact that impact environmental sustainability. In all of their roles – as planners and regulators, service providers, employers and elected representatives – cities can play an immensely influential role in planning and informing the social ethics and environmental sustainability of the city and its citizens. Possibly one of the most significant roles they can assume is as leaders in setting agendas, standards and goals, and acting as models for their citizens and other stakeholders in the urban environment.

Environmental sustainability is a significant part of the majority of case studies in this publication. In many cities, municipal governments, businesses, not-for-profit organizations and other leaders recognize the social, political, economic and environmental benefits of actively pursuing sustainability policies and programs.

Some have a specific focus on water. Milwaukee plans to be the Fresh Coast Capital of North America by embracing smart, achievable sustainability principles. It is taking a holistic approach, looking across the city in terms of social and economic impact and drawing meaningfully from its community. In Leeuwarden in the Netherlands, a quadruple helix of science, education, business and government in water technology will soon be extended to culture and the community in efforts to improve global water sustainability and local development.

In Cape Town, Bogotá, and Melbourne, Australia, programs and research are tackling the impacts of human habitation on natural systems. Acknowledging the complexity of its social and environmental challenges has been the City of Cape Town’s first step in realizing its vision to create a sustainable city that empowers growth and champions environmental protection. Meanwhile, through its Development Plan ‘Bogotá Humana’, the city government of Bogotá has taken measures to ban construction in forest reserve areas adjacent to water sources, create ecosystem conservation areas, improve transport options and curb the effects of uncontrolled urban sprawl. Researchers in Melbourne are confronting the challenges of urban growth and working to create the paradigm shift required in urban design and planning to better nurture nature in city development.

In Quito and Nuremberg, local governments are seeking to lead their employees and citizens in more environmentally responsible practices. Quito’s city government is generating a culture of environmental responsibility, which it sees as a starting point for development towards its end goal of being a sustainable city. Working with different sectors, it is promoting programs that encourage citizens and businesses to engage in more environmentally friendly practices. The City of Nuremberg in Germany provides valuable methodologies to Global Compact city participants. It is taking systematic, practical steps to reduce the city’s carbon footprint.

These are just some of the case studies of cities that are taking action on environmental issues. They are doing so not merely to pursue environmental sustainability as an end in itself, but as the foundation of bigger picture thinking about sustaining our future on this planet.
Cities for the future

Cape Town is located in one of the world’s six plant kingdoms, the Cape Floristic Region, which is the smallest but most biologically diverse of its kind. Cape Town’s botanical diversity is mirrored by its diversity of spirit. Often referred to as the ‘mother city’ or the ‘gateway to Africa’, Cape Town is home to an eclectic and vibrant social fabric that is tightly interwoven with the city’s heritage.

Acknowledging the complexity of its social and environmental challenges has been the first step towards realizing the City of Cape Town’s vision of creating a sustainable city that empowers growth and champions environmental protection.

Cape Town, as with all cities within developing countries across the globe, faces challenges brought about by urbanization and unemployment. It also combats a history of social divide, which has fed threats of indigence and inequality. Within the realm of environmental prosperity, Cape Town must combat water and air quality degradation, the functionality of ecosystems, the conservation of critically endangered vegetation (11 of the 21 nationally critically endangered vegetation types are found in the municipal boundaries of Cape Town), and the looming effects of climate change.

Building a path to long-term sustainability

The City of Cape Town has sought to be proactive in addressing these complex issues. In 2001, Cape Town became the first city in Africa to approve and adopt a comprehensive city-wide environmental policy: the Integrated Metropolitan Environmental Policy (IMEP). The IMEP set out the city’s environmental commitments and the policy was accompanied by a series of strategies and plans that outlined specific steps for achieving sectoral goals. Most recently in 2014, Cape Town actively worked towards the city’s designation as the first metro bioregion in South Africa. This bioregion is planned to cover a metropolitan area of 2,460 km².

Cape Town and its path to sustainability

Dr Johannes Van Der Merwe, Mayoral Committee Member, Economic, Environmental and Spatial Planning, City of Cape Town, South Africa

Cape Town, the legislative capital of South Africa and a major African hub, is well known for its natural beauty. Blessed with rich biological diversity but also facing challenges from rapid urbanization and unemployment, the City of Capetown is investing in a sustainable future.

While Cape Town is committed to sustainability and protecting its biologically diverse environment, the city is also focused on addressing social inequity in communities in the context of increasing urbanization and unemployment. Harmony Flats. Image: Bruce Sutherland.
a broader environmental awareness linked to low-carbon solutions or biodiversity enhancement. Similarly, ‘green’ projects, which have had a specialized biodiversity focus, are now also exploring socio-economic opportunities through, for example, connecting people and nature, creating ‘green jobs’ and considering broader social improvement opportunities.

Best practice projects in sustainability -- those designated as ‘gold star’ -- broadly demonstrate positive outcomes against all sustainability criteria, encouraging an inclusive approach to service delivery. For example, the Pelican Park integrated housing development project facilitates the formation of a healthy community by bringing together people from different income groups whilst still meeting the specific needs of each group. Meanwhile, for the project ‘Friends and Neighbours: The Other Side of the Fence’, project managers used intelligent design and natural intuition to connect Village Heights, a small informal settlement in Lavender Hill, with the False Bay Ecology Park. In doing so they created a new living environment that builds opportunities for disadvantaged communities and improves quality of life. Another instance of a best practice project is the Kraaifontein integrated waste management facility. This waste management facility is unique. Not only has it set the benchmark for solid waste management, it has also changed the way people think about waste and recycling.

This portfolio is an important tool in building a socially, economically and ecologically prosperous Cape Town, which aligns with some of the core theme areas of the Global Compact Cities Programme.

The protection and careful use of Cape Town’s rich natural resources has the potential to inspire social upliftment and create economic opportunities for local people. As a universal society, we need to challenge the all-too-common paradigm of natural resource depletion resulting in social and economic impoverishment.

This key to usurping this thought model is harnessing natural resources to stimulate economic development. This is, however, only possible through the creation of partnerships across lines of government, the private sector and civil society.

Green technology

Through dynamic processes of cooperation, Cape Town is actively assisting the launch of the green economy within South Africa. Currently, 70 per cent of renewable-energy measures are housed within the Western Cape. Cape Town, with an aim to be dependent on renewable energy for 10 per cent of its energy needs by 2020, has created the Green Technology Hub. The Hub services the industrial needs of companies involved in the supply of components to utility-scale renewable energy installations, those that manufacture and maintain energy efficiency equipment, as well as those that are engaged in research and experimentation for renewable energy innovation.

Companies are enticed to the Hub by a number of enterprising financial and non-financial incentives. These fiscal and administrative benefits are designed to cut through red tape, facilitate business and employment creation and fast track the availability of alternative energy to the South African market. This incentive package has already borne fruit, with a sizeable investment in a state-of-the-art wind power facility having been secured.

Safeguarding biodiversity

A measure of particular ingenuity within the investment incentive scheme is Cape Town’s land-bank program. A first for any South African metropolitan area, the city has purchased tracts of land laden with Cape Town’s unique Cape Flats Dune Strandveld and Atlantis Sand Pans vegetation. This has been done in anticipation of the biodiversity loss within the urban area as a result of critical green technology developmental growth. However, this expected loss is simultaneously being offset by the proactive securing of land flourishing with rare biodiversity, thereby safeguarding its existence into perpetuity.

Sustainability, recognized within Cape Town as one of the foundation stones of development, requires that every major long-term decision taken by a local government should consider the best interests of the city according to a balance of needs. Cape Town is a unique city, blessed with enviable natural resources and cultural vitality. It is one of the most sought-after destinations in the world for both vocation and lifestyle. This will count for nothing however, if the city cannot sustain its growth by amalgamating the sanctuary of its natural asset base into daily existence.

Consideration and cooperation are crucial to this ideal. To be achieved, sustainability has to equate to progress. Cape Town is committed to an identity of growth and opportunity. From the Mayor’s Portfolio, which holistically challenges citizens and government officials alike to replicate and improve upon best practice approaches, to the corporate incentives to support the growth of the green-energy sector, to biodiversity protection mechanisms, the City of Cape Town is investing in its future to sculpt a more sustainable, vibrant and equitable tomorrow.

Cape Town committed to the Ten Principles of the United Nations Global Compact in 2014. An environmentally rich city, Cape Town is situated in one of the most biologically diverse regions in the world. Image: Bruce Sutherland.
Environmental management of the Municipality of Nuremberg

Dr Susanne Spröter, Department of Environment and Health, Municipality of Nuremberg, Germany

The Municipality of Nuremberg in Germany has undertaken a range of environmental initiatives since the late 1990s. The city’s efforts are practical examples of the ways city governments can minimize their environmental impact and be enabling agents for environmentally responsible practice in their spheres of influence.

Nuremberg is located 160km north of Munich and is the largest city in Franconia. In 2014, the City of Nuremberg was home to just over 513,000 people, whilst the European Metropolitan Area of Nuremberg had a population of 3.5 million.

In 1997, Nuremberg City Council became involved in the United Nations’ Agenda 21 process. In 2001, the city signed a sustainability pact with regional companies and, since 2003, has presented annual awards for sustainable management and projects.

In 1997, Nuremberg City Council became involved in the United Nations’ Agenda 21 process. In 2001, the city signed a sustainability pact with regional companies and, since 2003, has presented annual awards for sustainable management and projects.

Nuremberg City Council committed to the Ten Principles of the Global Compact in 2003. The city has since committed itself to sustainability. Nuremberg achieved fourth place when it participated in the European competition for Green Capital Cities 2012/13. In October 2014, the city was nominated for the German competition for Green Capital Cities 2012/13.

In 2009, the city was nominated for the German Sustainability Award 2014.

Agency for Climate Protection and Sustainable Development

In 2010, the City of Nuremberg launched an initiative to create a regional agency for Climate Protection and Sustainable Development within the Nuremberg Metropolitan Region (NMR), which comprises 34 cities and districts. The members of the Council of the Metropolitan Region agreed to this. The following measures have been implemented so far:

- Exchange of expert opinion on best practices and sharing of successful solutions and experiences.
- Improved communication of climate protection competence, both internally and externally i.e. 1st international conference on climate protection in Nuremberg in 2012, the second conference is planned for the summer of 2015.

Sustainability reporting

In recent years, the Department for Environment and Health has been working on a sustainability report for the city. The first comprehensive report on the sustainable development of the City of Nuremberg was published in November 2009. The City Council decided to review this report regularly and the second report was published in 2012. The reports are based on indicators characterizing the state of environment and development trends, sustainability of the local economy and businesses and socio-economic features of civil society. These indicators will serve as orientation marks for future development projects and political decisions and assist with analyzing their effects on sustainability and adjusting (if necessary) development concepts.

The Department for the Environment has launched an information campaign on the new European regulation for public procurement, which permits the application of environmental criteria in the procurement process. Internal municipal regulations will be adjusted step-by-step to the new rules, e.g. by (1) integration of low engine emission standards for vehicles; (2) emissions-free/reduced products in the building sector; (3) eco-friendly IT equipment and appliances; (4) eco-friendly technical materials used in wastewater treatment, etc.

Environmental certificates for municipal facilities

A number of municipal offices and agencies have been certified according to international Environmental and Quality standards and norms, notably:

- ASN, the municipal agency for waste management with 437 employees (first certified according to ISO in 1997)
- the municipal agency for waste water management, ISO 14000 and ISO 9000 in 2003
- B14, the newly formed agency for waste water management and environmental analysis (415 employees), certified for all sectors of work according to ISO 9000, ISO 14000 and (the laboratory unit) ISO 17025
- Nürnberg Stift, the agency for municipal homes for elderly people has implemented a (not certified) EM-system
- SOH, the recently formed municipal road and public space service (865 employees) first certified according to ISO in 2009.

Between 1998 and 2000, the City of Nuremberg directed and coordinated a certification project that was implemented by four Bavarian cities. The Eco Audit in Municipal Administration implemented EMAS certification in the Nuremberg State Theatre, the Nuremberg Environmental Department, two elementary schools, the B4 vocational school for professions in the retail trade and credit business, wholesale and foreign trade, the B4 vocational school for office professions and a company running Franconian Stadium.

Environmental friendly purchasing management

Purchasing for the municipal administration is organized according to the principle of decentralized administration of resources. All municipal offices, agencies, services or other units have to follow the Guidelines for Environmentally-Friendly Purchasing – a voluntary municipal environmental compatibility check, which was implemented by the City Council in 1990 that is binding for purchasing offices. Some examples of products under the purchasing policy are:

- Recycled paper: Since January 2009, only recycled paper (100 per cent recycling) shows reductions by using recycled paper (100 per cent recycling).
- Fresh fibre: Since January 2009, only fresh fibre (100 per cent recycling) shows reductions by using recycled paper (100 per cent recycling).
- Energy saving light bulbs: For over 10 years, the City of Nuremberg has been changing lighting from conventional bulbs to energy saving light bulbs. Today 100 per cent energy friendly lighting appliances are used.

<table>
<thead>
<tr>
<th>Year</th>
<th>Energy saving light bulbs (100,000-300,000 lbs)</th>
<th>Electric bulb (max. 2000 hrs)</th>
<th>Overall consumption (kWh)</th>
<th>CO₂ emissions (in kg)</th>
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<td>750</td>
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<td>3,050</td>
<td>4,250</td>
<td>29</td>
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<tr>
<td>2008</td>
<td>470</td>
<td>1,300</td>
<td>2,770</td>
<td>17</td>
</tr>
</tbody>
</table>

Office furniture: Office furniture in municipal offices have to be certified according to Blauer Engel (Blue Angel) standards.

Organic products in schools

In July 2003, Nuremberg City Council unanimously decided to aim at supplying 10 per cent of all products consumed in school canteens and other municipal canteens and service points from organic farms or certified organic processors by 2008. In October 2008, more ambitious targets up to 50 per cent of organic food in schools and day care centres were set.

Organic Lunch Box Drives 2005–09: Since 2005, the Organic Lunch Box Drive has been implemented in Nuremberg and other municipalities in the Metropolitan Region. In the first year, about 5,000 boxes were handed out to first-formers free of charge. In the fifth drive in September 2009, all first-formers were handed their new Organic Lunch Box with tasty snacks for school breaks. Ten thousand organic lunch boxes were distributed to 413 classes. Nuremberg was the second city to introduce this initiative after Berlin.

Energy management in municipal buildings

The characteristic value for energy used for heating all municipal buildings has continuously decreased in past years. While in 2006 (adjusted to weather conditions) the value was still at around 165 kWh/m² per year, in 2008 it was reduced to about 146 kWh/m² per year. A similarly positive trend can be observed for significant city buildings, such as schools, municipal office buildings, municipal baths, cultural institutions and large childcare centres. Thus the average heat energy use characteristic of this group of buildings was a value of approximately 133 kWh/m² per year in 2006, reduced to 2008 to only approximately 114 kWh/m² per year.
The goal is finding the best solution for construction projects fulfilling all functional, need-based, economic and design quality criteria, as well as saving resources and energy and preserving existing buildings. The City of Nuremberg stipulated stricter ‘Energetic Standards and Planning Requirements’ in order to achieve its high climate protection goals. Thus, all new buildings must be constructed to passive house standard. When existing properties are refurbished, the standard required by the City of Nuremberg is about 20 per cent higher than that stipulated by the current federal Energy Saving Regulation.

The City of Nuremberg owns property comprising about 1.2 million square metres of heated space, mainly school buildings. Some examples for energy saving refurbishment of existing properties include:

- The conversion of a restaurant building to a nursery school/childcare centre advice centre, Schlachthof (former abattoir), from 2002 – 04. The heating energy needed was reduced by 75 per cent (energy used in 2008: 78 kWh/m²) and the primary energy use was reduced by 80 per cent.
- The complete refurbishment of a childcare centre in Adam-Klein-Straße 37a in 2005. The building housing the childcare centre was completely refurbished with heat insulation technology. The amount of heating energy used was reduced by about 50 per cent compared to the value before refurbishment to 120 kWh/m² per year.

- The complete refurbishment of a childcare centre in Langwasser (Langwasser Community Centre), this project was successfully completed between 2000 and 2003. All structural-physical prognoses concerning damage-free processes and energy saving were confirmed.
- New (municipal) buildings Südpreßl (2004 to 2008). One of the largest projects of past years, the construction of the Südstadtforum Qualifizierung und Kultur – südpunkt (Southern City Forum Qualification and Culture, with about 4,700 square metres of usable floor space), was the first project mainly to adhere to the requirements for the construction of new buildings to passive house standard. Due to the forum’s high profile and its wide information network, this project had a signal effect for further sustainable development in the city’s southern districts. In 2009, the forum’s first operative year, the heating energy used for the entire complex was 38 kWh/m². This value is far below the required value of the current energy saving regulation.

More information (in German) can be found at: http://klimaschutz.metropolregionnuernberg.de/

Milwaukee’s ‘blue’ revolution

Matthew Howard, Director of Sustainability, City of Milwaukee, United States of America

Water resources have sustained Milwaukee since the city’s founding and have helped make the city great. As a recognized leader in water research, technology and sustainable practices, Milwaukee has plans to be the Fresh Coast Capital of North America by embracing smart, achievable sustainability principles.

Milwaukee owes its existence to water, specifically its location at the confluence of Milwaukee, Kimbickickinac and Menomonee rivers and one of North America’s five Great Lakes – Lake Michigan. In fact, the name “Milwaukee” is thought to derive from the Native American Ojibwe tribe word omenwakoning, which means “gathering place by the water”.

Milwaukee’s economic strength has been fueled by its water-intensive industries such as brewing, manufacturing, tanning, shipping and food processing. The extensive water use in these industries has seen companies develop to manage, measure, treat and transport water. These water-related companies have survived and thrived in post-industrial United States, even while the number of primary industries, such as brewing and manufacturing, declined in the city.

Milwaukee’s civic leadership, including current Mayor Tom Barrett, has not forgotten the importance of local history and local waters to the city. To build on the historical and economic significance of being located on the largest surface supply of fresh water in the world, Milwaukee is currently leveraging its water resource assets with the latest research and technology to realign the local economy around water and become a water-centric city on America’s Fresh Coast. On the world market, the water sector is valued at an estimated US$483 billion.

Milwaukee has positioned itself as a world water leader, with over 20 college and university water research and talent-development programs, most notably at the University of Wisconsin – Milwaukee’s School of Freshwater Sciences, which is dedicated to the study of freshwater resources. Milwaukee is home to global water technology leaders, with five of the 11 largest water-related companies headquartered in the region and 150 water-related companies that provide 20,000 local jobs. The Water Council is a first-of-its-kind public-private partnership, established to move Milwaukee forward as a world water hub. The Water Council is now housed at the Global Water Center, which will anchor a water cluster eco-industrial redevelopment.

Finally, Milwaukee’s efforts to capture stormwater runoff through the implementation of green infrastructure have contributed to the city’s reputation as a national leader in sustainable water practices. Over time, the need to protect and conserve the waters surrounding the city has given rise to the realization that communities, businesses and civic leaders must collaborate and become more proactive in their policies and actions.

All of this has provided impetus to Milwaukee becoming a Global Compact Cities Programme Innovating city focused on water issues. Quite simply, Milwaukee exists because of its link to water. Its iconic industries rely on water both as a resource and as a source of inspiration. From yesterday’s tanneries to today’s craft breweries to the promise of the water tech industry in the economy of tomorrow, our environment is inseparable from who we are as Milwaukeeans and as a city. As a result, sustainability matters to Milwaukee.

A plan to ReFresh Milwaukee

In order to promote purposeful and strategic planning around the myriad of sustainability issues impacting the region, Milwaukee Mayor Tom Barrett appointed a ‘Green Team’ of community, business and government stakeholders to lead the development of ReFresh Milwaukee, the City’s first sustainability plan. The 14-person team was chaired by the City of Milwaukee’s Sustainability Director and was advised by residents as well as an ex officio group of regional government stakeholders. The entire planning process lasted 18 months and included extensive public input. The Mayor’s vision for the planning effort was that the public sector and community work together to build a smarter city through sustainability. Milwaukee’s economic development over the next 10 years will meet triple
bottom line goals that benefit residents, businesses and our natural environment. As a result, Milwaukee will be the Fresh Coast Capital of North America by embracing smart, achievable sustainability principles. Specifically, the Green Team’s mission was to develop a sustainability plan that sets a strategic direction for Milwaukee’s sustainable economic development for the next 10 years by establishing quantifiable targets to meet the community’s sustainability goals and identifying responsible parties to implement specific actions. As a result, the City of Milwaukee hired CH2M Hill to help guide the Green Team through the process of gathering public input and converting that input into sustainability goals and targets. This planning effort would not be a top-down exercise; instead, true priority setting would occur at the resident level to ensure the outcome would result in positive impacts on city neighbourhoods and improve the quality of life for all citizens. Gathering residential input was accomplished through six months of public outreach via neighborhood town-hall meetings, small discussion groups, surveys and public comments. The collected data was tabulated and analyzed to determine the public’s top priorities. Once the Green Team established specific goals based on community preference they devised measurable targets for each. There was an additional six-month period for public comment once the first draft of the sustainability plan had been developed. Mayor Tom Barrett publicly released the final plan, ReFresh Milwaukee, in July 2013. It was adopted by the Common Council and signed into law and official City policy by Mayor Barrett in December 2013. The process of fact-finding and public consultation revealed that although Milwaukee citizens consider the concept of sustainability to be important, three everyday challenges impeded overall quality-of-life in their neighbourhoods: crime and safety (neighbourhood conditions), access to quality education, and access to jobs. These issues need to be addressed before residents can focus on sustainability issues like clean air and water, adequate public transportation and access to healthy food. As a result, the Green Team determined that goal setting in sustainability priority areas like water and energy had to have outcomes that positively impact neighbourhood conditions, access to quality education and access to jobs. The important relationships uncovered during the first public comment period led to the development of the eight priority areas in the sustainability plan and the plan’s overall emphasis on improving neighbourhoods, education access and job creation.

ReFresh Milwaukee acts as a 10-year roadmap and strategic framework to increase sustainability in eight priority areas – buildings, energy, food systems, human capital, mobility, resource recovery, water, and catalytic projects. It includes quantifiable and measurable targets for each goal. While the city is committed to meeting these goals and increasing sustainability in all of the focus areas, the chapter on water is of great importance considering the city’s reliance on local waters for its sustenance, recreation and industry. Among the four goals stipulated in the water chapter of ReFresh Milwaukee, the City of Milwaukee has made advances in three of them in the first reporting year: reducing stormwater and clear water from entering the sewer system; achieving swimable and fishable waters in Milwaukee watersheds and near shore Lake Michigan; and establishing Milwaukee as America’s water-centric city. The City of Milwaukee and its partners are evaluating conditions that impact the fourth goal – preventing new aquatic invasive species from entering Lake Michigan and Milwaukee area waterways – due to the complexity of the issue and the multitude of regulatory agencies and stakeholders involved outside of the city government.

ReFresh Milwaukee water goals and targets

Goal 1: Reduce stormwater runoff and clear water from entering sewer system

Targets:
• Baseline measures of impervious surface and green infrastructure established on a city-wide basis by June 2014.
• A city green infrastructure policy created by December 2014.
• A regional climate change resiliency plan that uses the best available atmospheric science developed, via city collaboration with partners by 2015.
• Volume of stormwater runoff captured through green infrastructure increased by 10 per cent annually.

Goal 2: Achieve swimable and fishable waters in watersheds and the near shore of Lake Michigan

Targets:
• Total maximum daily load studies developed, with city assistance, for the Kinnikinnic, Menomonee and Milwaukee River watersheds and the Milwaukee Harbor estuary.
• All riparian corridors on all waterways and in the estuary preserved and expanded as redevelopment occurs, balancing both the built and natural environments.

Goal 3: Establish Milwaukee as a water-centric city

Target:
• Water-centric strategies used on both public and private projects across residential, business and commercial applications to substantially increase water conservation and citywide energy savings.

Goal 4: Prevent new aquatic invasive species (AIS) from entering Lake Michigan and Milwaukee area waterways

Targets:
• Plan of action adopted by 2018, in coordination with Great Lakes cities, states, federal and international governments, to prevent new AIS from entering Lake Michigan and local waterways.

The Mayor’s vision for the planning effort was that the public sector and the community work together to build a smarter city through sustainability. Milwaukee’s economic development over the next 10 years will meet triple bottom line goals that benefit residents, businesses and our natural environment.

Benchmarking water sustainability

In June 2014, the City of Milwaukee’s Office of Environmental Sustainability collaborated with Milwaukee Water Works (a City of Milwaukee-owned drinking water utility) and the Milwaukee Metropolitan Sewerage District (a regional wastewater treatment agency) to create North America’s first comprehensive municipal water sustainability benchmarking report, the 2014 Sustainable Municipal Water Management Public Evaluation Report for the Great Lakes and St. Lawrence Cities Initiative. Milwaukee was one of four cities that published this type of report for the Cities Initiative. The report was developed to evaluate the city’s progress in conserving water and protecting waterways and highlights positive and negative growth in six goal areas consisting of 21 milestones. The report not only provides the community, city leaders and stakeholders with information relating to Milwaukee’s water management, but may also encourage other municipalities to develop their own water assessments and lead to increased awareness and implementation of best management practices to conserve and protect their water resources.

Recently, the Office of Environmental Sustainability created a Green Infrastructure Baseline Inventory. This project quantifies the total area of impervious surface and all known existing green infrastructure within city limits. The information provided in the report is a vital first step in drafting a green infrastructure policy plan for the City of Milwaukee. It also satisfies a specific target for the stormwater goal in ReFresh Milwaukee.

The results of the inventory can be utilized to track the percentage of imperviousness across the city as a whole and in each watershed, and will assist the city in determining optimal locations for implementing future green infrastructure projects to achieve the greatest impact and return on investment. In addition, the study provides a baseline for the current stormwater capture quantity through green infrastructure, which the City of Milwaukee can use to plan for new projects in order to meet ReFresh Milwaukee’s target of increasing the volume of stormwater runoff captured through green infrastructure by 10 per cent annually.

Milwaukee is a highly active Global Compact Cities Programme participant, engaging at the Innovating level. The city made the commitment to the Ten Principles of the United Nations Global Compact in 2009.
Cities for the future

Leeuwarden in the Netherlands has recently elevated its engagement with the Global Compact Cities Programme to the Innovating level. A quadruple helix of science, education, business and government in water technology will soon be extended to culture and the community in efforts to improve global water sustainability and local development in the city.

WaterCampus Leeuwarden is playing a lead coordinating role in its multi-sectoral collaboration to support and drive the city’s Innovating water projects. WaterCampus stimulates cooperation between national companies, research institutions and governments in water technology to achieve synergy in innovation, education and entrepreneurship at a global level. Image: Water Alliance.

Water is essential for life. Yet the world faces many water challenges due to urbanization, population growth and climate change. In matters concerning sustainable water usage, the Netherlands has a lot to offer to the global market, with expertise in dyke construction, water quality, efficient water use for industrial and agricultural processes and raw material and energy production from wastewater and wastewater treatment. The government has selected the Dutch water sector as one of the ‘top-sectors’ of the Dutch economy, where government, research and businesses work closely together in a triple helix to increase the added value of the sector.

Leeuwarden is blessed with good quality drinking water and sufficient amounts of surface and groundwater. In the 1990s, a smart specialization in water technology was initiated in response to environmental and societal problems and economic opportunities in the global water market. The project was built on regional expertise in the agro sector, existing regional knowledge on water management and employability opportunities for students. The establishment of Wetsus in Leeuwarden in 2003 was the first significant achievement in line with this smart specialization.

The WaterCampus innovation ecosystem

At WaterCampus Leeuwarden, a physical hot spot has been created where a quadruple helix is in practice. Research, education and business closely cooperate with government bodies and end users to develop innovative water technologies. A unique and comprehensive innovation ecosystem has been established, speeding up the development process. At WaterCampus, breakthrough innovations arise and find their way to the global market in an ecosystem that attracts water technologies entrepreneurs, knowledge institutions and end users.

In the 1990s, market studies concluded that the global market in the areas of drinking water, wastewater and industrial water was large and would grow in future decades. Economic growth in this market could be achieved based on four targets: knowledge pooling, early foreign acquisition, building international collaborations, and realizing pilots and reference projects. In an effort initiated by the Province of Fryslân (Friesland), important stakeholders collaborated in a taskforce to realize these targets. The launch of Wetsus, a centre of excellence for sustainable Water Technology, in Leeuwarden was one of the taskforce’s first big achievements and an important basis for the establishment of WaterCampus Leeuwarden and other water technology initiatives.

Results so far

The quadruple helix is in place at WaterCampus Leeuwarden, with strong cooperative ties between science, education, business and government. This mutual effort is resulting in significant impacts on society. Excellent know-how, the results of historical care...
for and awareness of water in the Netherlands, is one of the triggers for the success of the Dutch water sector. The strong commitment and cooperation of all stakeholders in the water technology sector today are key drivers that make the progressive approach and results at the WaterCampus possible. Moreover, the WaterCampus region is a lively test garden for showcases and projects that attract increasing international visitors interested in new solutions.

Science

In order to develop the breakthrough solutions required to solve the global water and energy challenges, a multidisciplinary and applications-oriented research program is required. At Wetsus over 95 global companies (25 per cent non-Dutch, 45 per cent SME) define a multidisciplinary research program, executed by PhDs supervised by 45 professors from 19 universities in nine different European countries. The companies involved are connected to Wetsus through long-term rolling financial commitments, enabling them to monitor and guide the scientific program to suit market demands.

Wetsus has already generated over 350 scientific papers with high citation impact and 65 patents, most of which have been transferred to the companies involved for commercialization. Currently, 70 doctorate students from all over the world, but predominantly from the European Union, are performing world-class research.

Business

The WaterCampus vision is that companies are crucial to bringing innovations to society. Stimulating business is therefore a priority. Companies are facilitated in several ways, including start-up company stimulation programs, marketing support, facility sharing, financial instruments and cooperation models.

Water Alliance is facilitating water-technology SMEs and has about 80 sector companies with strong connections to water technology. It is also stimulating business and global cooperation for the Dutch water technology sector and encouraging interaction and cooperation with other sectors including agro, food, health, energy, and high-tech systems, generating business innovations. Water Alliance is globally promoting the Dutch Water Technology sector and attracting new partners in order to stimulate export. The international network of the Water Alliance already consists of approximately 2000 businesses and organizations worldwide. Annually, dozens of companies are successfully introduced by the Water Alliance to international partners, initiated through initiatives such as international trade shows and trade delegations.

As part of the WaterCampus innovation ecosystem, six water technology demonstration sites are available for water authorities and industries to test, develop and commercialize water technology. Combined with masters and doctorate programs in Wetsus, a Bachelor of Science in water technology track with Van Hall Larenstein and Noordelijke Hogeschool Leeuwarden, a vocational water education program with Friesland College and Noordwin College, and the water professor program for children at elementary schools, a unique worldwide learning cycle on water technology is present in Leeuwarden. This makes WaterCampus the place to be for the inflow of students in water technology at any level, with an outflow of innovative craftspeople, experts on water technology and excellent water researchers. Bringing together different educational levels at one physical location provides close cooperation with industry and an innovative climate. The availability of facilities and knowledge programs enables practical education with internships and research for projects related to water technology, creating value for students, businesses and industry.

Society

Involving society is very important but it also presents challenges. Societal awareness about the availability and use of fresh water and the disposal of wastewater is expected to have a significant influence on achieving ecological ambitions and improving quality of life. Therefore, the WaterCampus and its partners significantly invest in wider citizen involvement and engagement. Recent examples include the permanent exposition of a water laboratory at the Frisian Natural Museum that attracts many school children, frequent open days at the WaterCampus and local media involvement.

The JBM Serious Request was a special event hosted in Leeuwarden in December 2013. At the event, three well-known DJs fainted and played music requests in a glass house for 24-hours-a-day in order to raise money for those who suffer from diarrhoea – a disease typically related to polluted drinking water. About 12.3 million euros was collected by donations from citizens and the private sector.

In addition, the Council of the European Union decided to award the title of European Cultural Capital 2018 to Leeuwarden, addressing water as one of the major themes in boosting the economic, social, ecological and cultural structure of Leeuwarden. For example, the Dutch Wadden area by using the power of Mierink (community sense). The program is underway, with the WaterSciencePark and Huid Art to be presented in 2018.

Government

National, regional and local governments are committed to a focus on water technology. The regional commitment is notably demonstrated by special innovation and demonstration subsidies that have launched customer projects and have co-funded the WaterCampus.

Over the past few years, a regional innovation subsidy ‘Zyriam Fermij’ has enabled approximately 45 SMEs to cooperate in approximately 20 water technology innovation projects. The Frisian Water Authority has also committed to adopting innovation through a Green Deal program to stimulate the application of innovative water technologies.

In selecting the Dutch water sector as one of the ‘top sectors’ of the Dutch Economy, several programs have been launched focusing on science and innovation, human capital, export and promotion and global cooperation. A recent example is the Dutch water sector’s partnership with the World Bank to tackle global water challenges. Programs are carried out in close cooperation with the WaterCampus Leeuwarden.

Future ambitions

The significant economic impact of the water technology sector has greatly influenced the success of WaterCampus. The Dutch water technology sector consists of more than 1,000 businesses and institutions, achieving a stable growth rate of five to eight billion euros, more than 25,000 jobs and about one per cent GDP. For the Province of Friesland, the GRDP is 1.5 per cent, representing more than 10 per cent of the Dutch water sector. Growth characterizes the sector in spite of generally challenging European market conditions.

The joint ambition of the WaterCampus and its partners is to associate more than 2,000 knowledge workers with the WaterCampus Leeuwarden by 2020. This workforce will be an eminent contributor in fulfilling the ambition to realize solutions in response to global water challenges and to stimulate water technology businesses. It is hoped that valorization and internationalization will result in the stimulation of technology-enabled projects and showcases, encouraging a globally competitive water sector with strong connections to other major global water hubs. The program developed for the European Cultural Capital will also boost economic, social, ecological and cultural structures by using the power of community sense.

Leeuwarden has recently increased its engagement with the Global Compact Cities Programme, committing to the Innovating level of the program with plans to expand the WaterCampus, deliver Leeuwarden Cultural Capital 2018 and stimulate technology-enabling projects. At this point, WaterCampus Leeuwarden is proud to present its new building as a first step towards its future ambitions.

Leeuwarden made the commitment to the Ten Principles of the United Nations Global Compact in 2010. It deepened its engagement in late 2014, committing to the Innovating level of the Cities Programme.
Quito – a sustainable proposal from the middle of the world

Agustín Darquea Fiqueroa, Director of Environmental Good Practice, City of Quito, Ecuador

Seeking to preserve its unique and rich cultural and historical legacy, the capital of Ecuador, Quito, is pursuing a sustainable future. Its first actions are with the private sector, academia and civil society – promoting environmentally friendly practices and reducing the city’s carbon footprint.

Imagine a city that is largely rural, located between 500 and 4,800 meters above sea level and characterized by a diversity of weather conditions and microclimates. It is a city that is home to more than 18,000 species of flora, 540 species of birds and 711 species of mammals. It is a place with a historical and artistic legacy that was recognized when it was declared as one of the world’s first UNESCO World Cultural Heritage sites.

Such a place almost seems fictional, but this city is real. Quito is the capital of the Republic of Ecuador and has an area of 4,240 km². It is divided by the equator and has a population of over 2.2 million inhabitants who are able to enjoy its charms each day. Quito’s globally recognized uniqueness makes its inhabitants responsible for preserving and protecting its environment within a sustainability framework.

Conscious of this responsibility, the Metropolitan District of Quito has been promoting the ‘Quito Ciudad Sostenible’ initiative, which encourages the development of a city with low carbon rates to maintain balance for the next and future generations. The initiative includes aspects such as the use of alternative energies, water resources, the accurate management of solid waste and green areas, as well as environmentally responsible transport options.

Quito’s government, together with the private sector, scholars and other civil society actors, promotes programs that lead to the application of environmentally friendly practices as a starting point for development. The government’s aim is to make some changes to the behaviour of Quito’s inhabitants to help prevent and reduce negative environmental impacts.

The program began with an analysis to gather information related to the city’s hydric, ecological and coal footprints as a result of the daily activities of Quito’s citizens. These measurements contributed to the identification of Quito inhabitants’ natural resource demands in the context of the territory’s regenerative capacity. Quito’s local government is convinced that the construction of a sustainable city depends on the cooperation of all its inhabitants. Therefore, we defined a set of parameters to determine the ideal environmental management of the city. These aspects have been communicated to all citizens in an accessible way.

With the evaluation completed, we proposed the following activities in order to reduce negative environmental impacts. Inside Quito’s government offices, public servants are carrying out a cleaning project and organizing their workplaces, including desks, storage rooms and filing cabinets. The goal is to identify unused equipment and materials that can be reused in other parts of the city government headquarters. A set of environmental criteria will also be introduced to guide public procurement and official events within this project framework.

As the city’s administration promotes environmentally friendly behaviour amongst its citizens, it is encouraging prevention rather than punishment. As a result, the city’s government has created a program to recognize and highlight the environmentally responsible initiatives and practices undertaken by companies from the private sector, educational institutions and neighbourhoods. This program aims to promote better use of resources and cleaner production.

This program aims to promote solidarity and community service among city inhabitants. The volunteer program seeks to include people of different ages, as well as corporate, academic, not-for-profit and other civil society actors to promote active citizen participation. Since building a sustainable city goes beyond environmental development, our volunteering program provides a wide range of options for those who want to get involved, including projects in areas such as health, culture and education, among others.

This is just the beginning. Those who have been lucky enough to visit Quito and even live here believe in the importance of taking firm steps to add sustainability to the many qualities Ecuador’s capital already possesses. We invite everyone to join this effort and contribute to Quito’s Mayor’s initiative to give life to this wonderful city in the middle of the world.

As part of Quito’s commitment to the Global Compact, the Mayor of Ecuador’s capital, Mauricio Rodas, committed to working with private enterprise and citizens to reduce the city’s carbon footprint, one of the first steps in Quito becoming a sustainable city.

Image: Alcaldía de Quito.
Bogotá – mitigating and adapting to climate change

Emmanuelle Pinault, City of Bogotá, Colombia

As part of the Development Plan Bogotá Humana, Bogotá’s climate change adaptation and mitigation efforts are seeking to make the city more pedestrian friendly, improve transport options and focus on water and ecosystem conservation.

A central theme of Bogotá’s Development Plan Bogotá Humana 2012-16 – devised during the current administration of Mayor Gustavo Petro – relates to climate change adaptation and mitigation and city land-use planning in the context of water conservation.

This emphasis has arisen in response to understanding the overall effects of climate change on the city, particularly in relation to the most vulnerable sectors of the population. These impacts include ongoing emergencies posed by natural disasters that result from global greenhouse gas emissions, extreme changes in temperature and subsequent effects on sea levels and water cycles – such as floods, droughts, typhoons, tsunamis and the El Niño and La Niña phenomena – and unsustainable patterns of production and consumption in large cities.

One of Bogotá Humana’s fundamental tools for tackling climate change is the implementation of the Land-Use Plan (or POT, as it is known in its Spanish acronym). The plan responds to the development of a new urban vision aimed at regulating processes of urban expansion, reorganizing land use and occupation processes, democratizing urban land, protecting providers of environmental services and prioritizing the use of public space. As a result, the city's local government has taken measures to ban construction in forest reserve areas adjacent to water sources, create ecosystem conservation areas of 36,900 hectares and curb the effects of uncontrolled urban sprawl on ecosystems.

The city is also increasingly incorporating adaptation policies and strategies to mitigate the risks arising from human settlements in areas that are highly vulnerable to potential natural events. At the same time, the city is preparing responses to the impacts of unsustainable urban consumption and production that significantly affect society.

In this sense, the use of alternative energy sources from ‘clean’ technologies in transportation vehicles has led to the implementation of a system of hybrid diesel-electric...
Cities for the future

buses and the launch of electrically powered buses and taxis. The pedestrianization of the city centre has also stopped the daily circulation of an average of 10,700 vehicles, decreasing pollution levels and reclaiming this space for the daily movement of thousands of pedestrians.

Bogotá has become a prominent and recognized example of a city making major changes to adapt to and mitigate the impacts of climate change. In recognition of the city’s commitment to addressing these issues, Bogotá was recently honoured with the global City Climate Leadership Award in the category of Urban Transport by the C40 group of cities, and Mayor Gustavo Petro was invited to the Climate Change Conference in Warsaw in 2013.

With Bogotá’s climate change adaptation and mitigation efforts receiving local and international recognition, and with its focus on creating an inclusive, innovative, harmonious and, above all, sustainable city, the plan is an important model for the city to take to international forums, including the World Urban Forum (2014) and the UCLG World Summit and Habitat III in 2016.

The City of Bogotá made the commitment to the Ten Principles of the United Nations Global Compact in 2012. The city initially engaged at the (then) Reporting level and is currently engaged at the Leading level.

Planning for biodiversity on the urban fringe – re-imaging the suburb

Dr. Georgia Barrand and Associate Professor Sarah Bekessy, RMIT University, Melbourne, Australia

Researchers in Melbourne, Australia, are confronting the challenges of urban growth, working to create the paradigm shift required in urban design and planning to better nurture nature in city development.

Many people around the world gain benefits from engaging with ‘nature’ in the places where they live and work. These benefits include aesthetic and cultural inspiration, recreation and air and water purification, to name just a few. Plants and animals in cities are often the only exposure people have to natural environments, so urban habitat represents an important educational opportunity. Preserving ‘nature’ in cities requires that we manage biodiversity; that is the variety of life at the gene and species levels. It also requires managing the ecosystems of which species are a part and the ecological and evolutionary processes that maintain them.

Nurturing nature in our cities has become increasingly challenging over the last 100 years, as cities around the world have dramatically increased in size. This urban growth has resulted in profound impacts on natural areas, including the loss of natural habitats and landscape fragmentation, the introduction of pests and weeds, the modification and pollution of natural waterways, increased road surfaces and traffic, problems of sewage and waste disposal and disturbance from intensive tourism and recreation.

Because urban areas tend to be located in productive regions with regular rainfall and fertile soil they often coincide with areas of high biodiversity. This means that the biodiversity value of natural areas in and around cities is often highly significant. For example, in Australia over 40 per cent of nationally listed threatened species occur in urban fringe areas. For these reasons, urbanization is considered one of the greatest current threats to biodiversity and there is an urgent need to improve conservation planning in these regions.

However, despite the introduction of planning legislation and frameworks to preserve biodiversity, many cities around the world are facing a looming extinction crisis; short-term economic gains consistently win over biodiversity concerns on a localized case-by-case basis. Through research being undertaken by researchers in the Interdisciplinary Conservation Science Research Group at RMIT University in Melbourne, Australia, we are working to create the paradigm shift required to nurture nature in the city.

Two key challenges

The native ecosystems on Melbourne’s urban fringe contain highly threatened species and communities, including some of the last remaining examples of Victorian Volcanic Plains temperate grasslands. Many of these grasslands exist primarily on private land and housing development threatens many remaining areas. As a result, the grasslands and the species that rely on them face a perilous future. Without a major re-think, it is entirely possible that we will see the extinction of many constituent species — if not the whole ecosystem type — in the near future.

Two major problems are driving the loss of grasslands on the urban fringe. Firstly, once development occurs, grasslands inevitably deteriorate. Community perception of grasslands is very poor and appropriate management is difficult to maintain. Over time, the fragmentation of the landscape, introduction of pests and weeds, increased roads and traffic and disturbance from intensive recreation results in the disappearance of sensitive flora and fauna species. These impacts can be controlled and substantially better outcomes are possible, but achieving this depends on better and scientifically-driven urban design that meets the needs of species and manages community use and perception.

The second major problem is that Melbourne’s key growth corridors are aligned with grassland biodiversity hotspots. This inevitably leads to conflict in land use, with biodiversity values typically deprioritised in favour
of development and the continued expansion of the urban growth boundary into biodiversity-rich areas. Alternatives to urban sprawl exist, but projections of the consequences of status quo and alternative scenarios for communities, local economies and biodiversity are urgently needed.

With the support of The Myer Foundation, our research is seeking to find solutions to these two problems.

Planning for grasslands within housing developments

A major output of the project is a new planning protocol for ‘biodiversity sensitive urban design’ that highlights possibilities for maintaining and even improving grasslands within urban developments.

The protocol’s design principles focus on locating grasslands within a development and maintaining viable populations of vulnerable flora and fauna species. Other issues being considered include minimizing human/nature conflicts, protecting and creating habitat, facilitating dispersal and encouraging stewardship from local communities.

Planning housing development to avoid grasslands

We are running planning scenarios to evaluate big picture planning approaches as alternatives to urban sprawl. The principle aim is to assess the likely consequences of status quo alternative plans for Melbourne’s remnant grasslands.

A number of different scenarios will be explored, from simply adjusting lot sizes to urban consolidation with no further expansion of the urban boundary. Recognizing that the argument for alternative planning approaches will not succeed on the basis of biodiversity alone, we are collaborating with experts in urban planning, housing affordability, transport planning, health and wellbeing, and sustainable housing to evaluate the implications of these scenarios for other key planning objectives.

Better nurturing nature in the city

The project has the potential to develop planning for biodiversity that is rigorous, effective and based on sound science. Importantly, it also has the potential to generate interest in alternative designs for cities that are more sustainable in many different dimensions and create livable and desirable cities for humans and biodiversity alike.

Dr Georgia Garrard and Associate Professor Sarah Bekessy are part of RMIT University’s Interdisciplinary Conservation Science Research Group. For more information visit: www.rmit.edu.au/socialhumanities/conservationscience

The City of Melbourne was the first city in the world to make the commitment to the UN Global Compact, becoming a participant in 2003. The city led the establishment of the Global Compact Cities Programme, in partnership with the Committee for Melbourne, establishing the ‘Melbourne Model’ as a cross-sectoral framework for cities to implement the Ten Principles.
Cities, business and livelihoods

“"No one person, business or organization can solve the world’s intractable problems alone.”

Dean Amhaus, CEO and President, The Water Council

Collaboration between city government and the business sector – and ensuring all citizens have equal economic opportunity – is critical to the Global Compact agenda and meeting our global sustainability and equity goals.

Cities and urban regions have long played important roles as hubs for people to meet, trade, dwell, innovate and transform.

Today the paradigm of uninhibited growth is being tempered and reinvented as the forces of globalization and urbanization impact city and regional communities in a multitude of ways. Despite global progress in reducing economic, social, educational and health-related inequalities – and despite meeting the Millennium Development Goal to cut extreme poverty rates by half – hunger, poverty and economic hardship are still critical global issues.

In this context, focused and appropriate local economic development is an avenue for many cities to strengthen their urban fabric, provide local employment and open avenues to counter human rights and labour issues.

Sustained and productive cross-sectoral collaboration continues to underpin the work of many Global Compact city initiatives as they seek to drive positive economic, social and environmental change.

The case studies that follow present a breadth of strategic approaches to build equitable and prosperous cities through business enterprise and collaboration. In both ‘developed’ and ‘developing’ economies, cities are implementing projects and programs that recognize, draw on and foster enterprise, from micro and small-to-medium enterprises (SMEs) to incubators and industry sector clusters. Their approaches are varied but generally integrated, holistic and based on partnerships.

A business initiative originally developed to address economic and industrial downturns in Milwaukee, USA is an excellent example of city-wide collaboration. Through its efforts, Milwaukee has grown from the base for a water technology industry cluster to a world water hub. An Innovating level city of the Global Compact, Milwaukee now draws on all sectors across the city to manage water, share economic opportunity and solve global water problems.

Meanwhile, in Jamshedpur in the Indian state of Jharkhand, business plays a central role in ensuring residents benefit from social and municipal services. JUSCO, an arm of Tata Steel, delivers infrastructure services in Jamshedpur and is continually developing education, training and community development programs based on the smart city model.

Research by Global Compact Cities Programme partner World Vision International in Johannesburg’s South Western Townships (Soweto) demonstrates that urban economic hardship is a continuing challenge for city governments and leaders. Despite its location in a major emerging global market, Soweto experiences few of the benefits of the city’s urban development. World Vision International’s review project highlights the importance of microeconomic development – supported by collaboration between government, community, business and the not-for-profit sector – to tackle economic issues faced by the urban poor.

In Latin America, Global Compact cities have provided excellent examples of strategies for city governments to lead, incentivize and facilitate the development of SMEs, microenterprises and entrepreneurship, strengthening their local economies and countering poverty.

The municipality of Peñalolén, Chile, through the Yunus Centre for Employment, Training and Education, has developed numerous programs and partnerships to improve employability and develop businesses in the district. The collaboratively managed ‘Exitos’ program in Querétaro, Mexico, is building links between buyers and local entrepreneurs and business capability to increase production, employment and investment in the city and address the poverty facing almost 40 per cent of this growing state capital.

There are many challenges to cities achieving fair and equitable economic sustainability. Working in partnership, city governments, business and civil society have important roles to play in nurturing the opportunity the urban environment holds for all.
Cities for the future

Kristian Vaughn, Intern, and Dean Amhaus, CEO and President, The Water Council, Milwaukee, USA

As the City of Milwaukee, Wisconsin, USA, celebrates its fifth anniversary as an Innovating City with the Global Compact Cities Programme, The Water Council reflects on its achievements, challenges and lessons learned, from its beginnings as an economic development initiative to its current position of World Water Hub.

Milwaukee’s abundant freshwater resources afford the City of Milwaukee unique privilege and great responsibility. Located along the southwestern shore of Lake Michigan at the confluence of the Milwaukee, Menomonee, and Kinnickinnic rivers, the city is naturally endowed with Earth’s most precious resource. Throughout the city’s history, local industry and residents have taken advantage of the rivers and lakes for monetary gain, drinking water and recreation. Our appreciation and recognition of this resource developed into a dangerous presumption that our community possessed an eternally available water spigot. While countries in arid regions across the globe face water crises in the truest sense of the word, Milwaukee has never run out of fresh water. We were, however, threatened with running out of clean fresh water.

Milwaukee's renaissance as the World Water Hub began over a century ago. The strong river network, access to a deep-water port, available labour and a growing market attracted major industry to the region (Romell 2013). The small companies that emerged in the first decades of the 20th century developed into today’s major industry leaders – most notably, A. O. Smith Corporation, Badger Meter, and MillerCoors’ umbrella of brands. The city’s period of prosperity shuddered in the 1960s as many Midwestern American cities suffered from massive de-industrialization, including a broad decline in manufacturing jobs that shifted to southern locations in the United States and overseas (Kanter & Bird 2013).

Economic development efforts shifted focus as the period of prosperity declined. In contrast to a previous era when Milwaukee touted its industrial strength, the 1970s saw leaders and businesses trying to preserve remaining jobs while simultaneously innovating to create new ones. It quickly became apparent, however, that jobs were not the only concern. While Milwaukee’s “wet” industries had thrived for over half a century, its wastewater management practices were irresponsible and misinformed, resulting in the heavy pollution of the city’s waterways. Indicating Milwaukee was not alone, the United States Congress passed the Clean Water Act of 1972 to address water pollution nationwide. The Act established specific regulations governing the discharge of pollutants into waterways and the monitoring of water quality in surface water resources (US EPA 2013).

In response, Milwaukee businesses abandoned their previous roles as mere water users and innovated to become water technology companies that used their new expertise in efficient water management to grow and thrive. The city not only began to see a resurgence in the strength of its business sector, it also saw new opportunities being created.

As in other world communities, new technologies, shifting business influence and urban demographic changes forced Milwaukee and Southeastern Wisconsin to reevaluate the region’s move into the 21st century. Milwaukee leaders knew the area needed a distinct advantage if it was to remain an influential urban centre on the Lake Michigan shore. While water had always been a key component of the region’s cultural identity, the unified scope and power of water technology companies in Southeastern Wisconsin had yet to be realized.

Developing a water industry cluster

In early 2007, the Milwaukee 7, a Southeastern Wisconsin business consortium, began an in-depth study of potential economic development opportunities. The group discovered not only a high concentration of successful and prominent water technology companies, but also the Great Lakes WATER Institute — a water research facility of the University of Wisconsin-Milwaukee. This discovery demonstrated the presence of a strong industrial water sector and supporting research capabilities to produce new technologies.

In spring that year, Paul Jones, Chairman and CEO of A.O. Smith Corporation (water heating equipment), and Rich
Meesen, President, CEO and Chairman of Badger Meter Inc. (liquid flow measurement and control technologies), met to discuss collaborative business opportunities. On a tour of A. O. Smith’s innovation laboratory, Meesen commented on the business power the region could potentially leverage if its water companies worked to strengthen the water industry cluster. Jones agreed and the two CEOs approached Julia Taylor, President of the Greater Milwaukee Committee (GMC) — a key leader in the Milwaukee 7 economic development effort who had already started building the water technology industry under the Milwaukee 7 banner — to see how the GMC could help advance their efforts. The two parallel initiatives combined their work and what is now called The Water Council was formed.

In an effort to confirm the water industry cluster, business leaders called upon Professor Sammis White, a professor of urban planning at the University of Wisconsin-Milwaukee and an economic development scholar, to research the region and determine the feasibility of pursuing an economic development campaign in water. With a team of graduate students, Professor White produced a regional analysis indicating that Southeastern Wisconsin had great potential to gain a foothold in the water market. In July 2007 the first Water Summit was convened at Discovery World on the Lake Michigan shore. Sixty individuals of various backgrounds attended — fulfilling the initial open, participatory forum envisioned by the organizers (Kanter & Bird 2013). Attendees from government, business, and education quickly recognized the potential of Milwaukee as a water industry cluster and began work to make it a reality. Major business executives devoted portions of their daily activities to developing the idea, while the Greater Milwaukee Committee and the non-profit Spirit of Milwaukee donated office space and pertinent staff. The Water Council has a mission of economic development, the creation of a talent pipeline and the development of new technologies to make Milwaukee the Silicon Valley of water.

As key stakeholders prepared for the second Water Summit in July 2008, they reflected on recent activities and asked, “Do we really have what it takes? Or did we think we had it?” Professor White conducted additional research in support of the initial 2007 discovery and turned the former question with a resounding “Yes!” There was a caveat, though. While it was clear Milwaukee could become both a regional and national centre for water business, its prowess and legitimacy could only be ensured with decisive action from local leaders. Over 120 regional businesses had a direct interest in water business, its prowess and legitimacy could only be ensured with decisive action from local leaders. Over 120 regional businesses had a direct interest in water business, its prowess and legitimacy could only be ensured with decisive action from local leaders. Over 120 regional businesses had a direct interest in water business, its prowess and legitimacy could only be ensured with decisive action from local leaders.

Innovating to become a world water leader

With definitive proof of Milwaukee’s regional assets, participants left the second Water Summit confident in the region’s potential. Julia Taylor and Dean Ambhaus, then-President of the Spirit of Milwaukee, traveled to China in late 2007 on unrelated business to the water technology cluster. While there they learned of the Global Compact Cities Programme by a chance meeting in Beijing with Fred Dube, a Senior Advisor to the UN Secretary-General. They recognized the significance that the designation could have on Milwaukee’s ambition to become a world water leader. Water Council leaders began discussions with the Cities Programme and in April 2009 Milwaukee received its designation as an “Innovating City”.

Because water is a multi-faceted and complex industry and issue, Milwaukee leaders decided to pursue various initiatives within the Cities Programme. Regional water companies in cooperation with the City of Milwaukee work to strengthen and promote aquaculture, reduce phosphorous in regional water sources, reduce pollutants in storm water runoff, improve wastewater treatment, assist municipalities to adopt new water technologies, manage the quality of drinking water supply and integrate multiple technologies to solve complex water problems.

Milwaukee’s comprehensive water industry goals and new international proveos have legitimized its efforts. In the past four years, the City of Milwaukee and Water Council have received a massive influx of human and financial capital. Dean Ambhaus became the President and CEO of The Water Council in 2010 and immediately implemented his unique guerilla-style marketing tactics to raise awareness about Milwaukee’s water culture and current efforts. Community and business leaders invested unquantifiable amounts of money and time to support business practices, develop and promote The Water Council and grow the culture of water in the region.

Fostering talent through education

The future success of Southeastern Wisconsin’s water industry depends on its current strength and the growth of water culture in the community. The Water Council, in cooperation with local universities and technical schools, conducts outreach programs to ensure that 100 per cent of students in the community look to the water industry as a viable, strong career path. Students of all ages join at the centre of activities to support water education programs, internship opportunities and career offerings. The region’s talent development network grows stronger each day as water education is infused in curricula and programs around the community.

In September 2010, the University of Wisconsin-Milwaukee opened the School of Freshwater Sciences — the only graduate school of its kind in the United States to specialize in fresh water. In addition, over $52.5 million was granted in 2010 through the United States National Science Foundation and Milwaukee businesses to establish an IndustryUniversity Cooperative Research Centre (see Milwaukee’s Blue revolution on page 49).

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and foreign countries, calling our partners throughout the world and sparking the imagination of a new entrepreneur who wants the opportunity to work in the Global Water Center. Our partnership with the Global Compact Cities Programme affirms the belief that no one person, business or organization can solve the world’s intractable problems alone. It is an effort that requires people in different sectors to recognize their industry and academic assets and then capitalize on their collaborative strengths.

Milwaukeeans have never needed to ask if our freshwater supply can support the region’s population—the three rivers, numerous lakes and a Great Lake provide an overabundance of water. However, our complacency and inattentive government and business policies served our region poorly.

As we confront the freshwater issue in the 21st century, we are keenly aware of the delicate balance that exists between human productivity and protection of the world’s natural ecosystem. While Milwaukee uses its water technology expertise to strengthen companies through strategic water consumption and recycling processes, all parties involved feel passionately that our endeavor transcends our community and country. Our region’s responsibility is great and we are humbled by the fact that our actions impact our fellow human beings across the globe. We proudly upheld the United Nations’ vision: for our community, for our country, for us all.

The City of Milwaukee has been a participant of the United Nations Global Compact since 2009. Engaging at the Innovative level, Milwaukee committed 15 water-related projects to its participation. Also a Leading city, Milwaukee has exemplary urban planning practices and shares lessons and models with other cities.

Innovative economic development in Peñalolén

María Paz Ortega Frei, Director of Economic Development, Municipality of Peñalolén, Chile

Peñalolén’s innovative economic development approach is helping micro, small and medium-sized business prosper, with real social impact. The Chilean municipality presents a model that requires cultural change, considers socio-economic vulnerability, supports entrepreneurship and promotes social inclusion and community empowerment.

Peñalolén is commonly understood to mean “fraternal meeting place” in the Mapuche language Mapudungun and is a commune (district) located in Santiago de Chile. Peñalolén covers an area of 54 km² and has a population of 250,000 inhabitants, making it one of the 12 most populated districts of Chile. Peñalolén is a residential district of great socio-economic diversity, focused primarily on the second and third lowest income quintile (75 per cent).

As a primarily residential district there are very few large businesses in Peñalolén, however, there are many enterprises and smaller businesses that strengthen community development. In the continued interest of the Municipality of Peñalolén to improve the competitiveness of smaller businesses, the Yunus Centre for Employment, Training and Entrepreneurship was created in 2005. The centre’s mission is “to improve the employability of the inhabitants of Peñalolén and the productivity of businesses in the district through employment, training, innovation and technology.”

The centre was created with the principle objectives of improving the skills of the district’s labour force through a training system designed to improve employability, strengthen entrepreneurial skills, facilitate rapid integration into better jobs and strengthen sustainable business ventures in the district through a comprehensive system that supports the lifecycle of the enterprise. All of this is made possible through the provision of tools and relevant, effective and sustained partnerships that enable participants to sustainably improve their quality of life.

Since Mayor Carolina Leitao Álvarez-Salamanca has been responsible for administering it, the Yunus Centre considers it strategic to embark on the following goals in coming years to:

- strengthen the competitiveness of micro businesses in order to decrease their failure and increase their chances of becoming at least small businesses, with the idea that under such conditions it will be possible to generate more and better jobs in the district.

(From left) Co-chairs of The Water Council, Rich Meeusen (CEO, Badger Meter) and Paul Jones (CEO, A. D. Smith Corporation); “breaking the ice” at the Global Water Center opening with Scott Walker (Governor of Wisconsin). The initial concept for the council was born from Meeusen and Jones’ vision that business could be leveraged for the region if Milwaukee’s water companies came together in a cluster. Image: The Water Council.

(From left) Co-chairs of The Water Council, Rich Meeusen (CEO, Badger Meter) and Paul Jones (CEO, A. D. Smith Corporation); “breaking the ice” at the Global Water Center opening with Scott Walker (Governor of Wisconsin). The initial concept for the council was born from Meeusen and Jones’ vision that business could be leveraged for the region if Milwaukee’s water companies came together in a cluster. Image: The Water Council.
• promote social inclusion through targeted actions focused on criminal offenders, female-headed households and the disabled.
• Fortalecer la competitividad de microempresas para disminuir la desertión de éstas y aumentar sus posibilidades de convertirse en al menos pequeñas empresas, en la apuesta de que en tales condiciones estarán posibilitadas de generar más y mejor empleo en la comuna.

The Yunus Centre addresses the district’s economic development through empowerment of the community and aims to be a national pacesetter in managing economic development through:

1. Training: to equip people with tools and knowledge that make them more competitive in the job market and provide them with the opportunity to learn skills that enable them to initiate independent or group activities.

2. Employment: to act as an intermediary between companies that offer employment and job seekers, preparing them for successful matches.

3. Business development: supporting those who want or have started business ventures or are self-employed, assisting them throughout the process of entrepreneurship, providing guidance on fundraising, helping them connect with marketing possibilities operated by the municipality and promoting a dynamic of collaboration and innovations.

The main challenge for the implementation of this new form of economic development has been the cultural change involved in this innovative model of municipal management. Firstly, it set aside welfare and immediate policies. Secondly, it motivated people to project towards the future, providing training and creating new initiatives.

As previously stated, this has resulted in the implementation of new projects that seek to provide or strengthen the management skills of entrepreneurs and people running small and medium businesses. Technical assistance and support have been determinants of real impact, as has training traditionally provided by municipalities, all of which have gradually increased the number of people who have participated (see Figure 1).

In order to carry out these new projects, the Yunus Centre has an integrated team of specialized managers and professionals in the areas of business finance, regulation, training and technical assistance, among others, and has assisted approximately 2,000 people annually.

In 2013, the Department of Training assisted 2,597 people with various issues related to entrepreneurship, such as business plans and regulation, marketing and sales, soft skills, computer proficiency and accounting.

The team of professionals at the Yunus Centre has experience in projects oriented towards entrepreneurship, economic development (employment and productivity) and programs to overcome poverty. This experience has come from the Municipality of Peñalolén, other public service entities, private consultants and non-government organizations, with entrepreneurs and people with small and micro businesses benefitting. The team has worked in Chile’s Technical Cooperation Service start-up programs, pilot programs of the Municipalities of the Solidarity and Social Investment Fund (FOSIS), programs to support micro businesses of FOSIS and has given training on the use of Chile’s public procurement system (Chilcomp), among other initiatives.

Local economic development in Peñalolén has gone beyond replicating or approximating the job supply of central government. It has connected institutions, leveraging human, financial and technical resources to generate new labour opportunities for its neighbours. At the same time, it has taken into account socio-economic vulnerability factors that stimulate the need for certain businesses and the fact that many emerging enterprises are micro businesses (see Figure 1).

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Regarding its coordinating and resource leveraging role, the Yunus Centre has developed partnerships with experts and decision makers of the public and private sector. It has concluded new projects that allow the centre to implement new programs to promote their development. The centre has developed partnerships with experts and decision makers of the public and private sector. It has concluded new projects that allow the centre to implement new programs to promote their development.

**The Cordillera Route Entrepreneurship program** was implemented in partnership with the Vértice Foundation and financed by Chile’s Promotion of Production Corporation (CORFO). This state entity seeks to provide knowledge and skills to 150 entrepreneurs and business people through experience in an integrated way that is consistent with the personal and business challenges and opportunities they face.

It is a diploma which consists of weekly classes and "business trekking" (thematic discussions with experts and entrepreneurs) and includes technical assistance in business management, marketing and networking.

*Programa “Ruta Cordillerana del Emprendimiento”, ejecutado en conjunto con Fundación Vértice con financiamiento de CORFO, entidad estatal, que busca entregar conocimientos y habilidades a 150 emprendedores y empresarios de forma experiencial, integrada y coherente con sus negocios y desafíos. Se compone por un diplomado (clases semanales) y Trekking (semana temática con expertos en la materia cada 2 semanas).*

**The Start Your Dream Program** is a municipal grant fund for local entrepreneurs, which arose out of recognition of the difficulties faced by entrepreneurs and small businesses in accessing the initial capital that enables them to begin their own commercial projects or make improvements to their own businesses.

*Programa “Negocio Saludable”, ejecutado por Fundación Fundus con financiamiento de CORFO. Este programa pretende mejorar la gestión productiva y de negocios de 100 micro y pequeñas empresas dedicadas a la comercialización, producción y servicios de alimentación. Incluye asistencia técnica en administración de su negocio, talleres de capacitación en temas como finanzas, operaciones y ventas, asesoría en buenas prácticas de higiene y manipulación de alimentos, clases de cocina e información sobre nuevos productos, ferias y reuniones de negocio y la posibilidad de aparecer en guía gastronómica de la comuna.*

**The YUNUS/UAI Program for Entrepreneurs** was implemented through a partnership with Adolfo Ibáñez University with the aim of strengthening the capacity of micro and small enterprises of Petahelón through the provision of management and networking skills, the identification of business opportunities and encouraging innovation.

*Programa de YUNUS/UAI para emprendedores, ejecutado a través de una alianza con la Universidad Adolfo Ibáñez, orientado a potenciar los negocios de micro y pequeñas empresas de Petahelón a través de entrega de capacitación de gestión, identificación de oportunidades de negocio, innovación y gestión de redes.*

**Creer** + Petahelón is the only municipality in Chile to obtain funding from the European Commission’s Cohesion Fund. A training project was initiated in business, personal and technology skills for over 3,000 entrepreneurs, with funding of two million euros contributed in equal parts by the European Union and the city.

*Programa “Emprende tu Sueño”, fondo concursable municipal para emprendedores que surge en reconocimiento de ciertas dificultades que enfrentan emprendedores y micro y pequeños empresarios (MIPyPyM) para acceder al capital inicial que les permita dar curso a sus proyectos comerciales, de trabajo o por cuenta propia, o para incorporar mejoras en aquellas iniciativas que ya están en funcionamiento.*

**Petamerced** is a municipal program that has been implemented to promote entrepreneurship and technology skills for women entrepreneurs and micro and small businesses.

*Programa “Emprende tu Sueño”, fondo concursable municipal para emprendedores que surge en reconocimiento de ciertas dificultades que enfrentan emprendedores y micro y pequeños empresarios (MIPyPyM) para acceder al capital inicial que les permita dar curso a sus proyectos comerciales, de trabajo o por cuenta propia, o para incorporar mejoras en aquellas iniciativas que ya están en funcionamiento.*

**The municipality of Petahelón committed to the Ten Principles of the Global Compact in late 2013. The municipality is closely supported in its engagement by the Chile Global Compact Network.**

*The aforementioned programs have generated real social impact in the district. This is reflected in the gradual reduction of food baskets delivered in the municipality as the people involved have been given real opportunities for development.*

*Figure 2: Number of people trained and entrepreneurs given technical assistance.*

<table>
<thead>
<tr>
<th>Year</th>
<th>Trainees (employment &amp; entrepreneurship)</th>
<th>Capacitated (emprego-empreendimento)</th>
<th>Entrepreneurship assistance</th>
<th>Asistencias de emprendimiento</th>
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</thead>
<tbody>
<tr>
<td>2008-2009</td>
<td>2,217</td>
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<tr>
<td>2012-2013</td>
<td>3,123</td>
<td>3,123</td>
<td>2,022</td>
<td>2,022</td>
</tr>
</tbody>
</table>

**Figure 2: Number of people trained and entrepreneurs given technical assistance.**

*Figure 2: Cotidian de personas capacitadas y asistencias técnicas para emprendedores.*

*ChileCompra Centre: Due to an agreement with ChinChin and Petahelón, one of the three centres operating in the metropolitan area that trains and provides technical assistance so that small businesses can enter the market of public procurement and become government suppliers. From 2011 to 2012, representatives of 153 companies (75% per cent of these companies are micro and small businesses) traded over $US180 million in this market.*

**Janome**: Delivery of sewing machines for those starting up or who already have a tailoring business.

*The aforementioned programs have generated real social impact in the district. This is reflected in the gradual reduction of food baskets delivered in the municipality as the people involved have been given real opportunities for development.*
Building Querétaro’s competitiveness

Governor Calzada, Frederico Quizaños and Alejandro Maccise Aguirre, Municipal Government of Querétaro, Mexico

The ‘Exitos’ program in Querétaro, Mexico, is building links between buyers and local entrepreneurs to increase production, employment and investment in the city and reduce dependency on welfare. A commercially focused approach to counter the poverty that faces almost 40 per cent of this growing Mexican state capital, the collaboratively managed program enables micro-businesses to become professional suppliers, creating stable household incomes for thousands.

Established in June 2013, Exitos is an income generating program implemented by the Municipal Government of Querétaro. Exitos identifies and provides business opportunities by discovering market demand and satisfying it with local supply, aiming to create more sales for local companies. The result is an increase in local production, generating more employment and investment. Ultimately, Exitos generates economic development and improves people’s quality of life.

Querétaro is one of 18 municipalities in the State of Querétaro. It shares a metropolitan area with three neighbouring municipalities that includes 1.1 million people and between 30 and 40 new resident families arriving daily. The state is rich in history and traditions, and is among the fastest growing economies in the country with air space, automotive, IT and health clusters characterized by large international investments and the constant establishment of new corporations. The municipality of Querétaro is composed of seven delegations, 841,282 inhabitants and poverty pockets affecting close to 40 per cent of its people.

Identifying issues

Economic growth is the focus of public policy for Querétaro’s municipal and state governments. Successful policies enable the business environment and it is crucial for local businesses and entrepreneurs, particularly micro and small businesses, to fit within the city’s growth dynamics and reap opportunities that arise as new companies arrive and as the main sectors of the economy grow.

Economically vulnerable women and men, characterized by low income and limited education or training, are target groups for government support and assistance. A large number of entrepreneurs (SMEs) continually request assistance from the municipal government. In most cases requests are for economic support, but such aid deepens their dependency on government handouts.

A solution to improve capacities for SMEs that would enhance their income-generating capacity within the scope of their businesses was needed. On the other hand, medium and large corporations (manufacturing firms, retail stores, hotels, etc.) constantly require and purchase specific goods and services. A deliberate effort to establish links between these two groups by satisfying local demand with local suppliers made sense.

Exitos: training, formalizing and linking buyers and suppliers

Exitos is based on a market access/business methodology that incorporates public and private actors to generate economic growth and improve the lives of those who need it most. Strategies include the municipality’s commitment to generate ongoing sales for SMEs, linking them to real buyers who are ready and willing to buy — a real purchase order from a real buyer.

Exitos identifies and provides business opportunities at securing business opportunities, assistance to formalize their businesses to incorporate them successfully as legally established entities, and hands-on support to link them with buyers.

The program’s principles are:

• start with real buyers who are ready and willing to buy — a real purchase order from a real buyer
• think about commercial transactions from the market’s perspective. Although goods flow from supplier to buyer, the starting point of any transaction is buyer not the seller
• recognize that true demand originates from a specific buyer with a name and address.

In a challenging urban setting comprised of multiple sectors and an array of SMEs at different stages of development who all require assistance to succeed in their enterprises, Exitos has provided successful solutions for male and female entrepreneurs. Collaboration between public, private and academic actors who are actively engaged in the program has been central to the program’s development and success. In addition, the program builds the capacities of beneficiaries — college seniors who volunteer in the program — as well as for the team of local professionals who implement and supervise program activities.

Business know-how and technologies are being transferred and SMEs are included in the formal economy and linked into mainstream markets through Exitos. The program is creating conditions of competitiveness so that entrepreneurs and companies secure their business, thereby ensuring better incomes for their families.

From the outset, Exitos activities make business sense, engage beneficiaries and provide tools for continuous income generation. The program prepares micro and small business owners to respond successfully to pre-identified market demand. Exitos’ core team of local professionals accompany beneficiaries throughout the process and ensures sustainable business practices are in place to generate ongoing sales maintenance and growth. The most common outcome experienced by entrepreneurs working with Exitos varies between business growth of 50 per cent and 100 per cent over approximately six months.

In addition to technical assistance and training, the program includes a financial component; where the municipality creates a strategic alliance with a financial institution to provide financing for capital and infrastructure investments. A grant from the municipality covers interest costs for 300 groups of beneficiaries enabling market-readiness for over 4,000 women microentrepreneurs.

In addition to technical assistance and training from numerous partners, the Exitos program provides a grant to cover the interest on loans to over 4,000 women microentrepreneurs. Image: Municipal Government of Querétaro.

The municipality of Querétaro became a participant of the United Nations Global Compact in 2013. The state of Querétaro is also a signatory to the Compact, making the commitment in the same year.
In Jamshedpur in the Indian state of Jharkhand, cross-sector water, waste and education projects led by Tata Steel have sought to embed improved human rights and environmental quality in the city's development.

A sustainable city uses fewer resources, produces less waste and reduces levels of waste and pollution. Over the last 100 years, Jamshedpur has managed to improve, innovate and implement many sustainable solutions to improve its citizens' quality of life. A signatory to the Global Compact since 2005, JUSCO, the urban service delivery arm of Tata Steel, has managed the city's municipal services, undertaking projects to improve the city's water and waste management, power distribution and education programs.

A heritage city

Five years before the first steel plant in India was set up by the Tatas at Jamshedpur, Tata Steel founder Jamsetji Tata described his dream “city of steel” to his eldest son.

Jamshedpur today

In a landmark land lease agreement between Tata Steel and the then Government of Bihar, now Jharkhand, Jamshedpur was handed over to Tata Steel for the company to set up a steel plant and other facilities such as housing for employees, schools, and hospitals. Tata Steel took responsibility to provide municipal and civic services to the citizens of Jamshedpur. The company set about extending civic amenities in adjoining private land areas around the leasehold. This initiative ensured inclusive growth together with community participation, resulting in the city's earning a generous amount of goodwill and loyalty from the stakeholders at large. Today Jamshedpur citizens have become the city’s brand ambassadors.

Jamshedpur has one of the highest green covers (more than 27 per cent) of all cities in India, with over 30 community parks covering an area of more than 162 hectares. The largest, Jubilee Park, measures about 93 hectares. The Tata Zoological Society, which houses approximately 400 animals, birds and insects; about 60 species of birds, and 25 species of mammals.

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Jamshedpur has one of the highest green covers (more than 27 per cent) of all cities in India, with over 30 community parks covering an area of more than 162 hectares. The largest, Jubilee Park, measures about 93 hectares. The Tata Zoological Society, which houses approximately 400 animals, birds and insects; about 60 species of birds, and 25 species of mammals.
is now in the process of recycling and reusing sewage water by treating and converting it for irrigation and other purposes. The objective is to reduce the river water requirement and move towards achieving Zero Liquid Discharge within the city premises.

Robust process control measures are in place to ensure that potable water is consistently better than the Bureau of Indian Standards and World Health Organization norms. In Jamshedpur, people can drink water straight from the tap with over 90 per cent coverage through pipe networks. The water management department of JUSCO has a NABL-accredited water laboratory to ensure its potable water quality. Because of its consistent performance and quality control systems and processes, the department was conferred with the TPM Excellence Award by the Japan Institute of Plant Maintenance in 2008. The department also received the 5th Asia Water Management Award (2008) and the Commendation from Global Water Intelligence Award (2008).

While the age of the water network is increasing by the day, the company continues to provide uninterrupted service through continuous improvements. Water loss during distribution, or Non Revenue Water (NRW), is measured regularly to reduce/arrest leakages in the system. Jamshedpur’s NRW is a benchmark in the country.

Sewage disposal is another important part of city management services and Jamshedpur benefits from complete network connection in its command area. The sewage network is connected to a state-of-the-art plant that treats sewerage to levels above Indian regulatory requirements and recycles it for irrigation purposes. Some of the water and wastewater solutions implemented over the years include:

- rainwater harvesting as an integral part of new construction guidelines.
- implementation of these in existing residential and commercial establishments is in progress.
- recharge pits to arrest stormwater for in-house use.
- potable sewage treatment plants to convert sewage into reusable water for irrigation and other purposes.
- installation of an estimated 50,000 children per day. Image: Tata Steel.

Jamshedpur has been a signatory to the Global Compact since 2005. It has been a participant at the Innovating Cities, business and livelihoods since 2008. Early childhood education is a focus area for Tata Steel, which aims to provide preschool education to 600 underserved children in Jamshedpur. A midday meals scheme aims to enhance enrolment, retention, attendance and nutritional levels. Meals are provided to an estimated 50,000 children every day. Image: Tata Steel.

The midday meals scheme

Under this scheme, midday meals are provided to students in government schools in and around Jamshedpur to enhance enrolment, retention and attendance and improve nutritional levels among children. Approximately 469 schools in the two neighbouring districts of East Singhbhum and Seraikela–Kharwars have been adopted, with a total student base of approximately 65,000. An estimated 50,000 children benefit from midday meals every day. Tata Steel has built a modern kitchen for this initiative, with logistics and food provided in partnership with the Government of Jharkhand.

Adult literacy

To address the issue of illiteracy amongst adults, Tata Steel provides an adult literacy program that focuses on improving functional literacy to approximately 3,000 women every year.
Balancing the macro with the micro in Soweto – Orlando East and the challenges of building a local economy

John van Kooy, Dr Liam Magee and Dr David Lansley for the Centre of Expertise for Urban Programming, World Vision International

A review of a pilot urban development project by World Vision in Soweto, Johannesburg, South Africa, suggests collaboration between government, community, business and the NGO sector could be critical to tackling economic issues facing the urban poor.

In 2008, international non-government organization World Vision launched a pilot urban development project in Orlando East, what was once termed a ‘dormitory suburb’ in the South Western Townships (Soweto) of Johannesburg. The project adopted an open-ended, exploratory and participatory approach to local economic development challenges in the area with the aim of understanding and contextualizing some of the effects of urban ‘poverty traps’ in Soweto. The project focused on strengthening community partnering and conducting government-oriented advocacy and network-building to create something of a ‘business zone’ in Orlando East.

This article presents an overview of that project and a summary of the economic challenges and opportunities facing local actors. The views of local people working in business, communities, government and non-government organizations (NGOs) all tend to highlight the difficulties in overcoming structural developmental deficits – in this case brought about by the hostile political, economic and spatial effects of the apartheid regime. By teasing out a small sample of these views, we hope to better understand local economic development challenges and opportunities in disadvantaged urban contexts.

Urban microeconomic development and the World Vision pilot project

Cities are drivers of economic growth; they attract populations with employment opportunities, and offer ready-made markets and infrastructure for products and services. However, stimulating economic development at a local level in cities is a persistent challenge for communities, governments, policy-makers and NGOs. Prescribing generalized economic policy and programmes can be problematic when they are applied to the complex social structures, community relations and diverse populations living in urban areas.

Microfinance as a means of building local economic growth has received considerable attention in the past two decades. Increasingly, it makes sense to think of microfinance as a family of related approaches that encompass formal microfinance lending systems, community-based savings and loans groups, and business and life skills training. All of these approaches emphasize small-scale and community-based interventions. As some scholars have noted recently, the huge diversity of urban communities in different parts of the world – or even within the same city – means that such programmes need to be carefully tailored to reflect the historical, political and cultural aspects of local communities in urban areas.

World Vision started a pilot local economic development project in 2008 in the Soweto area of Johannesburg. The project took an open-ended, exploratory approach to the design and implementation of its activities and engagement with project partners. The initial approach focused on working with sectoral ‘task teams’ who would plan and execute economic strategies and were focused on issues of environmental action, skills development, tourism, informal traders and small and medium enterprises. However, the project quickly advanced to a greater emphasis on growing a local network of community and business organizations, and on advocacy to government and local authorities. This transition was a significant learning outcome: in Orlando East, purely financial schemes (loans, savings, skills development) needed to be embedded in a broader context of power and activism to have efficacy. This may not be a uniform feature of urban local economic development; rather it was born out of the particular history of Soweto.

A key pillar of the project – and one that proved to be quite active in its advocacy to the city government – was the Small, Medium and Micro-Enterprise (SMME) Forum. The Forum, which was initiated and facilitated with the support of World Vision, serves as a networking and planning body for economic initiatives in the local area. Activities include matching CVs and skills of forum members with available job opportunities, linking members with government schemes and identifying local business opportunities. In late 2012, the SMME Forum was also in the process of registering for formal status as a financial institution.

A research team was deployed in late 2012 to review the project and capture lessons from the first phase of implementation. The review attempted to map the array of obstacles to and opportunities for economic development in Orlando East, as reflected by program participants. Our findings contribute to better understanding of the barriers to local economic development in an urban context.

A ‘poverty trap’ amidst South Africa’s growing economy

Researcher Ivan Turok describes South African cities as having a “low-density, fragmented form” that creates “poverty traps on the periphery”. The Orlando East area in Soweto is located in just such a ‘poverty trap’. Spatially distant from the economic hub of Johannesburg’s centre, Soweto is a low-income area with a fast-growing population. Chronic housing shortages and limited basic infrastructure, including paved roads, water and sewerage, add to the range of social challenges.

During the apartheid era, Orlando-East functioned largely as a ‘dormitory suburb’ for black workers commuting into Johannesburg. Since 1994 the area has struggled to participate in South Africa’s strong economic growth, in spite of several positive developments such as hosting the World Cup games at a newly built stadium in 2010 and gradual growth of tourism to the area.

Soweto suffers from high levels of unemployment and makes only a marginal contribution to the national economy. Small and micro businesses are the main type of private economic activity and the area is home to a substantial number of informal, unregistered businesses and traders. Microenterprises in South Africa’s informal economy typically do not survive beyond their first five years – and Soweto is no exception. Small informal businesses operating in the area face high ‘mortality rates’ due to a lack of skills, business knowledge and resources; inappropriate training; cash flow problems; a lack of business networks; and isolation from formal financial institutions and state-run business support schemes.

Obstacles to economic development in Soweto

In our review of the World Vision project, we conducted interviews and questionnaires with residents of the Orlando East area, project staff and partner organizations that are developing economic training, local business people, health or other community services. We asked questions about the general economic environment, employment and business obstacles and prospects for the future.
Nearly all respondents agreed that the outlook for business had not improved, or had become more difficult in recent years. The main reasons given for this were increased competition, the lack of business management skills, a changing technology environment, and ongoing security and safety issues. Of these reasons, competition from recent migrants to Soweto (from countries as far away as Somalia or Pakistan) was by far the most significant issue.

Respondents also talked about problems of crowded and poor-quality housing, describing the influx of people to Orlando East as "particularly difficult for young people", and that children were frequently left with elderly carers due to the impact of HIV/AIDS on the adult generation.

Education, skills and access to information were mentioned as strategies for countering this vulnerability. Most respondents also agreed that there was substantial economic inequality in the area, with suggestions that some 50 millionaires reside in Soweto.

Small businesses and contractors, it seems, face a damaging combination of obstacles. The situation is captured well by one of the managers interviewed at the SMME Forum:

“A lack of skills is a major obstacle facing small businesses... Mobility is also a problem; particularly in the building sector [where] there is a constant need for training... There is the problem of the need for businesses to expand out of Soweto and even beyond South Africa. This requires skills and finance. And competition has become more intense, forcing businesses to become more creative, for example the development of a new ‘greener’ township...”

The main obstacles are a lack of information and a lack of preparedness, for example what is the gap in the market? As an example we recently met two young people wanting to ‘sell ideas’. They had not done enough research into the advertising industry, which already employed lots of creative people. We advised them to re-think and change their business plan.

Other barriers identified, from government corruption to infrastructure gaps, contribute to the high rates of small businesses failing. And fickle customer preferences, heightened competition and a changing technology environment add to the difficulties of operating, as does a lingering reputational attitude, even among local residents, that better retail opportunities could be found in Johannesburg proper.

The second obstacle makes this situation worse; that is, the ongoing difficult operating environment for businesses. Respondents mentioned factors like fluctuating demand and fickle customer preferences, heightened competition in low-skilled service sectors, lack of investment, low formal education levels and the complexities of business regulation. All of these dampen the usual incentives that motivate business development.

The third set of obstacles relate to institutional weakness. Respondents noted a number of concerns in dealing with government agencies, including poor and infrequent communication; the complexities and difficulties of acquiring business and financial management skills. Other barriers included: small businesses not being able to ‘sell ideas’; and enticing businesses to set up shop.

Community respondents identified an even broader range of factors, including lack of infrastructure, and the extent to which the local government and local government officers to promote specific interests and agendas that fail to be heard through other channels. This is not only an issue of social justice and equity. As the comments of the SMME Forum respondents showed, organized collective action on the part of small businesses, tradepeople and community groups can help drive economic opportunity.

Conclusions

Major cities such as Johannesburg are powerful attractors of financial, human and social capital. However, marginalised zones such as Soweto contribute little to the economic output of the city and suffer a disproportionate share of urban ‘blight’, including high unemployment, crime, perceptions of government corruption, the effects of HIV/AIDS and other transmitted diseases, skills and service shortages and general poverty. In short, they enjoy little of the benefits of urban development, while inheriting many of the costs. These issues are illustrated clearly in Orlando East, which has seen many of the economic development benefits experienced by South Africa as a whole generally pass it by.

We review the World Vision project has identified three main sets of obstacles to economic development in the area. First, it is obviously difficult to enter the formal economy to gain employment or to start up a business. There is a lack of physical infrastructure and financial capital to incentivize businesses to set up shop in Orlando East. Security and health issues compound the difficulties of operating, as does a lingering reputational attitude, even among local residents, that better retail opportunities could be found in Johannesburg proper.

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Food security

Globally, urban populations are experiencing food security threats as a result of increasingly centralized food systems, food price rises, urban sprawl and contamination caused by emissions and waste.

With the world’s global urban population outnumbering those living in rural areas, and with more than half of the developing world’s population expected to be urban by 2025, food security is becoming more critical. It is an issue that is firmly placed on the political agenda in times of perceived economic or humanitarian crisis, but how can cities successfully strengthen food security for their urban populations in the long term?

A number of Global Compact cities have realized that taking leadership in food cultivation in their city can address inequity and will contribute to a more socially, environmentally and economically sustainable future.

Achieving greater food security involves building capacity in sustainable production methods, experimenting with innovative planning and trade models and engaging with communities to create locally responsive and culturally diverse food systems. We can all benefit from their successes and challenges; ultimately, global awareness will come as we learn from the experiences of those working in the field.

Food security is clearly high on the agenda for Global Compact participant cities. The number and quality of case studies contributed to this publication show that food touches every area of the Global Compact’s Ten Principles. The integrated approach of these projects reflects that resilient urban food systems require sustained commitment to human, labour and environmental principles and need to be underpinned by just and fair behaviours and systems of governance.

This is acknowledged by the Food and Agriculture Organization (FAO) of the United Nations, which recognizes that effective governance is vital for food security projects to proceed. The FAO suggests that local government agency in the facilitation of urban food security has and will be integral, helping to review and resolve regulatory barriers and place food firmly on the political agenda (FAO 2014).

This chapter presents practical models for local and regional governments to incorporate sustainable, socially equitable food production into policy, planning and program delivery. It also highlights the important role of community engagement and partnerships with non-government organizations and civil society.

Colombia’s second largest city, Medellín, has become world-renowned for its social agenda and transformational approach to urban development. We learn about food and nutrition security as an integrated component of the city’s urban strategy.

In South Africa, the award-winning Abalimi association is helping Cape Town residents initiate and maintain organic food growing and nature conservation projects with long-term social and environmental benefits.

A number of city sites in the Brazilian state of Paraná are drawing on the national SAN scheme and local partnerships to deliver nutrition and livelihood outcomes for a substantial proportion of their communities. Maringá is seeing promising social, political, economic and ecological outcomes from projects focused on improving food security for their cities’ poorer inhabitants.

Finally, Melbourne and Milwaukee are educating and empowering residents to encourage ecologically sensitive food production and urban renewal through urban aquaponics.

By viewing urban sustainability through a food lens, it is possible to better understand its significance to global health and wellbeing and begin to map our way toward a healthier, sustainable and more equitable future.

Some 805 million people were estimated to be chronically undernourished in 2012–14. This figure has decreased by over 100 million over the past decade and the Millenium Development Goal of halving the proportion of undernourished people in developing countries is within reach. (Food and Agriculture Organization 2014)

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“People are considered food secure when they have all-time access to sufficient, safe, nutritious food to maintain a healthy and active life.”

(World Food Programme 2015)
The Colombian city of Medellín has overcome years of violent civil war with a social transformation agenda that has focused the city’s planning and resources on inclusion and redressing inequity. We learn about one of Medellín’s many innovative and participatory strategies – food security.

Medellín is the capital city of the central northwestern Colombian state of Antioquia. It is Colombia’s second largest city, the country’s commercial centre and has a population of 3.5 million across the broader metropolitan area. Built along and up the sides of the Aburra Valley following the route of Rio Medellín is a stretched city, checkered with peaks and ridgelines that, as the city has grown, have caused major issues in urban connectedness, restricting access to services and infrastructure.

The effects of this disconnection are especially felt in the poorer, often informal neighbourhoods otherwise known as asentamientos. Violence, drugs and crime are still commonly concentrated in the most impoverished neighbourhoods. These informal communities continue to grow along the steep slopes and ridges away from the city centre as rural refugees migrate to the city to escape ongoing violence in the outer regions.

These new communities tend to be matriarchal as most of the men have died or disappeared. High levels of stress, depression and trauma affect a great number of people and not having enough to eat is a daily challenge.

With a motto of ‘Todos por la vida’ (‘Everyone for life’), the city has worked steadily over the past 10 years towards alleviating the deeply felt effects of over 20 years of civil war and is aspiring to build a much safer and more dignified future for its population. This has been supported by long-term political cohesion with three consecutive mayors committing to a consistent approach to urban transformation. Their approach has been to prioritize participatory development and social inclusion so that services and infrastructure are directed to where they are needed most.

In April 2014, we witnessed firsthand the impact of the city’s transformation with state-of-the-art and pedagogically designed infrastructure such as locally and internationally funded libraries and schools, museums and childcare centres that have intentionally been placed in poorer areas. The positive impact of this strategy on the city’s citizens was clearly visible. Greening and building biodiversity in the city is also a priority.

Food security in Medellín

Significant efforts are underway to lessen the severity and prevalence of household food insecurity and childhood malnutrition throughout the city. With nutritional deprivation proven to have lasting and irreversible effects, local government is working on a number of short-term and long-term food insecurity mitigation strategies.

Current projects operate at household, community and city-wide levels, experimenting with different organizational methods to incorporate food production into the urban landscape, building community kitchens and school food programs. The city government has also used its participatory budgeting model to identify locally responsive projects that provide dignified forms of emergency food assistance that also support the local market.

Urban agriculture has been clearly identified as a way to address this critical issue in the medium to long term and there are a growing number of community huertas (gardens) within and around the city. In addition to providing access to fresh food, urban agriculture is being recognized as a tool for therapy, education and economic development, with the city piloting a program that uses gardens along its borders as a way of regulating the growth of informal settlements and feeding the city in the future.
We viewed two projects focused on food security, with both employing innovative approaches to actively encourage informal trading between households, the formation of markets and the trade of household fresh food surplus with the local food bank.

The projects are facilitated by two different arms of city government: the Enterprise for Urban Development (Empresa de Desarrollo Urbano, or EDU) and the Secretary for Social Inclusion and Family for the Medellín Municipal Government (Secretariat de Inclusion Social y Familia del Alcalde de Medellín).

**Empresa de Desarrollo Urbano—EDU**

EDU, Medellin’s Urban Development Agency, is the ‘action arm’ of the Medellín Municipal Government. It is responsible for delivering the infrastructure projects that are part of the city government’s master plan. An unusual development agency, its motto is “we don’t do projects, we do transformation.”

In line with city objectives, EDU uses a genuine participatory development model for the identification of locally responsive programs for sustainable urban transformation. Their design approach is ‘Urbanismo Civico-Pedagogico’ (Civic Pedagogical Urbanism) — a form of urban design that builds social equity by creating urban environments that are liveable, accessible and educational. Whilst the majority of EDU’s work is major infrastructure, the mix also includes food security projects.

Many aspects of Medellin are fascinating and unique. EDU is primarily funded from the profits of city-owned utilities company EPM, which is responsible for the city’s gas, water and electricity. Medellin is deeply fortunate to have plentiful water and its electricity is hydro-generated. EPM works as an independent entity and is widely recognized for its corporate efficiency. However, it also has a social agenda. Service rates are tiered according to the socioeconomic status of each urban area and its profits are consciously channelled into the city’s infrastructure and social projects, which are directed to enriching the lives of citizens.

Much of EDU’s work has been directed at formalizing and transforming informal settlements around the city to improve community safety, access and hygiene through education and community participation. The now famous cable car in Comuna 8 is an iconic example of Medellin’s methodology whereby new infrastructure projects are used to open up communities, overcome violence and insecurity and redress physical, social and economic isolation.

These projects have not been easy or quick to implement, with initial engagement with community members ranging from very hostile to suspicious, and EDU having to work hard to gain safe access to certain areas. This hostility has been overcome using a slow process of extensive community engagement and participation, with the aim of building trust over time. Most often when a community has eventually agreed to engage with EDU, it would be on the precondition that no one would be forced to leave. EDU would agree based on the provision that no one else would be allowed to join the settlement. This critical first step allowed for the clear definition and self-regulation of communities on the fundamental agreement that ‘no one leaves but no one enters’.

The beginnings of the Cinturon Verde (Green Belt) path. This 72 km project of pathways and landscaping trains employ local community members (mandated 30 per cent women) to build it. Its aim is to create a physical and psychological boundary to the city’s sprawling growth and to connect and open remote communities. Offering magnificent views of the city, it should become a popular site for visitors. There are educational sites and eco-huertas (urban gardens) along the path. Image: Global Compact Cities Programme.

Medellin stretches along and up the slopes of a large valley, with informal housing becoming more precarious the higher it is built. Pictured centre are the escalators of Comuna 13, which open what was a previously dangerous region and allows safe and easy travel for residents. Image: Global Compact Cities Programme.
EDU's success to date has come from investing large amounts of time in trust building and community engagement. A testament to their approach, all EDU representatives were greeted warmly as we toured the city and we were invited into people’s homes.

A particularly fascinating feature of EDU is the involvement of its largely technically-qualified staff, including architects and engineers, in community engagement. All these staff are completely involved in the community engagement process. It will often take a couple of years to engage the community and implement an infrastructure project. Labour for projects is sourced from within each community, increasing the sustainability of projects, building community ownership of new projects and building skills and capacity.

We witnessed a number of examples of EDU’s transformative urban development through citizen participation, including the La Bobo, Cinturón Verde; and Eco-Huertas Pilotas (pilot eco-gardens) projects.

La Bobo

In Medellín, informal settlements are built along the edges of Medellín, regions that were previously very isolated and dangerous. One of its primary aims is to create a physical limit to the asamientos, a boundary where no other construction should take place. The landscaping and path construction of Cinturón Verde is undertaken by local community members. Thirty per cent of the workforce are women and workers receive certified training.

Cinturón Verde connects to and is being developed in co-ordination with the establishment of Integrated Community Centres (Unidades de Vida Articuladas) in more marginalized areas around the city. These community centres provide modern and safe spaces for community sports, arts and education, and reflect the city’s prioritization of pedagogic and socially inclusive planning.

Alongside the Cinturón Verde pathway, community classrooms have been built for the purpose of ongoing environmental education and capacity building. We saw groups of women relaxing with young children in these isolated areas — a telling reflection of improved security.

This mother and daughter are pictured in front of their urban garden (huerta familiar) in one of the highest and most remote parts of Medellín. The garden’s development has been supported by EDU and NGO Fundación Salva Terra. The majority of the women in these projects are sole parents whose husbands and sons have died in the narcotics-fuelled civil war (Image: Global Compact Cities Programme).

Eco Huertas Pilotas

In collaboration with Fundación Salva Terra, EDU recently commenced a pilot gardens project. Using purely agro-ecology methods and training, the pilot gardens are located on the city’s fringes high up in the hillsides where citizens are isolated and there is room for urban agriculture and food production.

A number of community garden spaces are being trialled along Cinturón Verde. We visited three sites. In Huerta Comunitaria (Barrio El Faro), families share access to a parcel of land and coordinate its maintenance. Production is chemical free and families receive training in agroecological cultivation. In Huerta Familiares, individual families gain access to small parcels of land and training to get them started with household cultivation.

The predominance of women in these projects — single mothers whose husbands had died in the narcotics-fuelled civil war — was a sharp reminder of Medellín’s violent history.

Huerta Escolar is a school kitchen garden pilot in a very impoverished, matriarchal community. The school is not currently recognized formally so it is not eligible for the food assistance program afforded to other government schools. The school has set up and runs a food program for 300 students. Mothers in this region use donated scraps to cook three meals a day, such as bone soup. Children in the region suffer from malnutrition exacerbated by permanent parasites. This fresh food and garden education program promises to have a significant impact on their lives.

SEF’s food security projects

We also learnt about a number of food programs run by Medellín’s Department for Social Inclusion and Family (Secretariat de Inclusion Social y Familia del Alcalde de Medellín or SISF). SISF manages and develops emergency food programs in Medellín. It coordinates school food programs through which all students in the city receive fortified milk and lunch every day. Students who qualify are also eligible for a breakfast program.

In the inner city suburb known as Comuna 10, a high number of residents are forced to supplement their diets with food parcels. The community has chosen to use their funding allocation — allocated via the municipal participatory budgeting scheme — to test a new food parcel program. The new program has moved residents away from traditional ‘hand-outs’ of pre-packed, non-perishable foods to a coupon system where each registered household gets a monthly pack of coupons to spend at the local market. This is seen as a more dignified and healthy way of providing emergency food support as people can choose according to their personal food preferences, interact with the market and access perishable foods that were previously unavailable.

We also saw state-of-the-art, pedagogically-designed centres that provide free childcare and education for thousands of children from low income households between the ages of three months and five years. Fourteen centres have already been built and four more are planned. In these centres, children receive a nutritionally balanced diet that meets 40 per cent of their daily needs.

Medellín has been a participant of the United Nations Global Compact since 2013 and is actively working to promote its innovative, socially-focused urban practice with other cities.
Urban agriculture systems – transforming the lives of people in informal settlements

Ban Mansfield, Project Manager for the Lukhanyo Community Farm and Hub, Khayelitsha, Cape Town, and Public Space Strategy and Design Consultant
Professors Alfredo Brillembourg and Hubert Klumpner, the Urban Think-Tank Chair of Architecture and Urban Design

The award-winning Abalimi is helping South Africa’s Cape Town residents initiate and maintain organic food growing and nature conservation projects with long-term social and environmental benefits.

Urban agriculture and environmental action association Abalimi – meaning ‘the planters’ in Xhosa – is at the forefront of a growing international movement enabling informal settlement residents to engage in meaningful food production, making a significant contribution to the fight against food insecurity. The organization’s focus is on improving sustainable food production through the development of ‘microfarms’, which take the form of individual and community gardens within the Cape Town townships of Nyanga, Philippi and Khayelitsha, as well as surrounding settlements. The townships are located in the Cape Flats, an expansive sand dune situated to the southeast of the central business district. Currently, over 4,000 microfarmers and their families are registered, in addition to over 280 community projects.

Like many informal settlements, Cape Town’s townships are composed of areas of densely packed shacks and more substantial homes adjacent to open land where construction is prohibited (often sand scrubland), land around public buildings, along roads and under power lines. Taken together, these areas of cultivation generate a fertile landscape that raises the quality of the overall environment in aesthetic and ecological terms, while also helping participants to realize their potential as food producers.

Well-organized urban agriculture systems are providing bottom-up solutions to some of the key challenges facing informal settlements, namely, decreasing food security, increasing unemployment and associated social problems. Food security means that safe and nutritious food is available consistently and remains reasonably priced. A recent study undertaken to assess the level of food security in Cape Town’s townships found that 80 per cent of households are either moderately or severely food insecure — a figure rising as high as 89 per cent in Khayelitsha, South Africa’s largest and fastest growing township. The dual phenomena of rapidly growing populations and increasing disruptions to food production due to climate change demand increased energy and resources. This was also the conclusion of a December 2013 report by the UN Commission on Trade and Development, which highlighted the need to address food security in informal settlements worldwide by developing methods of small-scale urban agriculture in line with Abalimi’s approach.

The global urban agriculture movement has a long history — three decades in the case of Abalimi — of devising systems to enable informal settlement residents to achieve food security and even generate meaningful income through their own endeavours. Participants in the Abalimi system embark on a step-by-step journey, where skills and knowledge accumulate as participants move through the ‘Farmer Development Chain’ — from survival, to a semi-commercial stage and then potentially a fully commercial stage. The semi-commercial stage is achieved when a microfarmer has guaranteed food security and produces a surplus to sell within their own township, as well as externally to residents throughout the rest of the city. The semi-commercial stage is relatively straightforward to reach. Becoming fully commercial is a significantly harder step and does not appeal to all participants. By this stage, people will have acquired the transferable skills and increased confidence to enter the formal employment market. Moving through the Farmer Development Chain requires serious commitment. Financing is available through funding sourced by Abalimi.

The award-winning Abalimi is helping South Africa’s Cape Town residents initiate and maintain organic food growing and nature conservation projects with long-term social and environmental benefits.

Crucial to the system’s success is the effectiveness of communications strategies that target township residents, focusing on the benefits of participating and what is required to succeed. The main vehicles used are two not-for-profit education and support sites called ‘People’s Garden Centres’, located in Nyanga and Khayelitsha. In addition, mobile educators teach groups within their communities. The centres supply free advice, information and subsidized agricultural inputs such as soil improvers, seeds, ground covers, basic tools, wind breaks, safe pest control solutions, trees and — in the future — access to micro-finance. The majority of the people progressing through the program are women, who represent whole families and are typically the most open to self-help initiatives. Encouragingly, however, the participation of men and youth has expanded in recent times.

One of Abalimi’s key innovations is the development of the ‘Harvest of Hope’, a social marketing business that collects, packs and delivers surplus organic vegetables to families living in the formal areas of Cape Town. It is effectively an economic bridge between the informal and formal sectors, serviced by microfarmers at the semi-commercial stage of the Farmer Development Chain. Participating in Harvest of Hope provides microfarmers with regular income by contracting them to grow seasonal organic produce at guaranteed prices. Around 100 previously unemployed microfarmers are currently contracted. In the medium term, the number is set to increase to 300, while longer-term potential exists for thousands of microfarmers to supply Cape Town’s demand for vegetables and grains. This innovative economic connection between informal and formal markets can be replicated in other settlements with similar conditions.

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The adoption of urban agriculture projects sees multiple benefits flow through to the overall settlement community, including increased interaction between residents, improved cooperation, the horizontal transfer of skills and knowledge and greater social cohesion within and between townships. The opportunity remains to impact townships on a much larger scale. In order for this to occur, enhanced cooperation between existing stakeholders and new partnerships are needed to increase available resources to fund microfinance from the mid-livelihood level, where microfarmers are able to budget based on predictable income streams. Worldwide interest and participation in social investment is growing rapidly.

Abalimi represents a proven model for investment and expansion.

Cape Town has significant potential to develop the scale and sophistication of its urban agriculture sector, which will ultimately benefit the entire city. There are numerous examples of other cities around the world that have embraced urban agriculture successfully. Singapore, for instance, is fully self-reliant in meat and produces 25 per cent of its vegetable needs. Dar-es-Salaam, Tanzania, one of the world’s fastest growing large cities, now has 67 per cent of families engaged in farming compared with 18 per cent in 1967.

The necessity of embracing small-scale agriculture in urban areas to mitigate growing food insecurity is clear. The challenge lies in devising successful methods to communicate the work of Abalimi and likeminded organizations to informal settlement residents worldwide, positioning the development of urban agriculture as a fundamental element of the evolving urban fabric. Future
Cities for the future

The process is being documented and will be communicated via manuals for residents of the informal settlements and for professionals to help catalyze the development of other urban agriculture projects and similar community hubs on unused land in South Africa’s townships.

New Lukhanyo project

Lukhanyo Community Farm and Hub is located on an area of 1.2 hectares of unused land owned by the Department of Education. It is being developed with a neighboring informal settlement community living in an area called the BT Section. The community’s participation is being led by the community leader Phumeze Tsibants. The development will include a range of community functions, such as planting areas, a covered market space, an orchard, public spaces and energy creation. The focal point will be a multi-functional community building with a range of functions, including pre-school and adult education classes, a creche, a kitchen, a community event space, community meetings area, a WSVI hub and a library. The building will have flexible spaces and be designed to enable future upgrading, with architect Maurits der Stassy developing the building design.

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Many schools across Cape Town’s townships have large areas of unused land that have the potential to be made available for urban agriculture. Lukhanyo is being developed as a potential prototype for replication on this land supported by the Department of Education Circuit Manager and the Principal Spatial Planner for Khayelitsha. The process is being documented and

Community gardening in Maringá

In Brazil, research reveals that the majority of disadvantaged families spend up to 80 per cent of their monthly income on food. In addition to difficulties accessing food, many of these families have limited knowledge of good nutrition, particularly in relation to fruit and vegetables (Ethos Institute 2012). Concerns about disadvantaged populations, increasing criminality amongst young people, low quality of life and health problems, including depression and low self-esteem in elderly residents, motivated the development of a community garden project to minimize these problems and many others. The project also aims to encourage the productive use of idle urban local government land, which is often used as landfill and characterized by contamination and the transmission of diseases such as dengue fever. The productive use of the land for gardens protects and preserves these areas, avoiding sanitary and social problems (Albuquerque-Oliveira 2012).

In response, Maringá City Government has created a community garden program. The garden idea arose from workshops with the community in which problems and solutions regarding how to improve the population’s quality of life were discussed and strategies were proposed by the Potentially Healthy Cities Network (Rede de Municípios Potencialmente Saudáveis). There are currently 22 gardens in different regions of the city. The project has partnerships with the University of Maringá (Universidade Estadual de Maringá), through the Urban and Periurban Agriculture Reference Centre (CERAUF), Eletrobrasil Central Electric S/A, Maringá South Rotary Club, Adventist Agency for Development and Support Resources (ADRA), professionals and retailers (Albuquerque-Oliveira 2012).

The objective of the project is to promote cooperative action for the cultivation and sale of fruit and vegetables to improve access to and the availability of quality food in a communal way. It is hoped that this will guarantee food security for the population and offer them the opportunity to work and generate income.

No Brasil, estudos demonstravam que a grande maioria das famílias carregava gastos com 80% da renda familiar mensal com alimentação. Além da dificuldade de conseguir o alimento, essas famílias são desprezadas pelo conhecimento para um melhor aproveitamento no que se refere às frutas, vegetais e legumes (Instituto Ethos 2011).

A preocupação com a situação de carência em que vivem a população em alguns bairros, na cidade de Maringá, a crescente criminalidade, a saúde e o bem-estar da população, os alto índices de doenças como a dengue, por exemplo, motivou o desenvolvimento de um projeto de construção de hortas comunitárias, capazes de minimizar estes e outros problemas, além de contribuírem para a ocupação benéfica de terrenos baldios acossos em áreas urbanas, de propriedade do município, que muitas vezes são utilizados como depósitos de entulhos e se transformam em focos de contaminação e transmissão de doenças como a dengue, por exemplo, protegendo e conservando estas áreas, evitando problemas sanitários e sociais (Albuquerque-Oliveira 2012).

As hortas comunitárias foram criadas pela Prefeitura de Maringá, por meio de diversas secretarias municipais, a partir da decisão de realizar um projeto de hortas comunitárias, onde foram levantados problemas e soluções para melhorar a qualidade de vida da população, a partir de estratégias propostas pela Rede de Municípios Potencialmente Saudáveis. Atualmente existem 22 hortas comunitárias em locais diferentes da cidade. O projeto passou por parcerias com a Universidade Estadual de Maringá — UEM, através do Centro de Referência em Agricultura Urbana e Periurbana — CERAUF, Eletrobrasil Central Elétrica S/A, Rotary Clube Maringá Sul, Agência Adventista de Desenvolvimento e Recursos Assistenciais — ADRA, profissionais e retailers (Albuquerque-Oliveira 2012).

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Other goals are to:

- create and stimulate work and quality of life
- promote social and productive inclusion for citizens experiencing economic vulnerability and food insecurity through cooperation and sustainable food production for consumption and commercialization initiatives
- contribute to the fight against hunger and malnutrition for people who are experiencing social and food insecurity
- offer nutrition education and food supplement activities to promote healthy eating habits
- promote access to fresh, healthy and affordable food
- reduce marginalization and encourage re-integration into society and citizen participation
- promote interest in agriculture and strengthen families; as well as professionally train all involved
- guarantee community participation in the community garden’s management to promote its sustainability
- ensure the quantity, quality and reliability of food production
- use unused public spaces in a sustainable manner (ibid)

Background

In 2007, research found that people in places where the first community gardens were established were in need of fruit and vegetables, presented cases of depression and other mental health conditions, and lived in economic and social vulnerability. The local government owned unused land in these places where it was appropriate to cultivate vegetables. There was found to be a lack of recreational activities for the population, particularly for the elderly and retired.

How the gardens work

The community garden program is coordinated by the City of Maringá through the department of Public Services (SEMUSP). The leader of the neighborhood is contacted. They are key to the process as they know all residents, can identify who would like to participate and know where there is public land to establish a vegetable garden. They are the first to promote the project by word-of-mouth. The project is then announced at the Social Assistance Reference Centre and Basic Health Services Unit, where the community is invited to a meeting to discuss how the project is developed and register participating families, prioritizing community members in need. A second meeting is held in an established community garden so new participants can see how it works. At a third meeting, a leadership board is created with a president, deputy president, secretary and treasurer. A statute is also established for a maintenance fee, which is paid by all participants. At this time, the vegetable garden is built by the city government and, in a final meeting, the garden beds are distributed to families through a random draw.

Other partners, such as Rerontou Centrais Elétricas S/A, participate in implementing the community garden by supplying space, electricity transmission lines, and equipment. The Rotary Club offers financial support for fencing and seedling/seed supply. ADRA also offers financial support for irrigation and seedling/seed supply. UEMCRAUP (a team of agronomists, a psychologist, a social worker and a physical education teacher) offer technical support, guiding and monitoring work since the garden is established.

The projects of Maringá are supported by the Community Food Security Initiatives (CFSI), a national network that promotes the establishment and maintenance of community gardens by providing support from professionals and retailers who pay a social worker and a physical education teacher, offer technical support, guiding and monitoring work since the garden is established.

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SEMUSP is responsible for the infrastructure needed to establish and maintain the gardens, including:

- supplying machinery and tools
- preparing the land by ploughing, harrowing, subsolling, fencing, creating garden beds, cleaning, and supplying and transporting organic fertiliser
- providing contractors for drilling artesian bores or requesting water services for irrigation from the state water company (SANEPAR)
- supplying seeds and technical assistance
- buying agricultural products in partnership with the Health Department (i.e. seedlings, seeds, fertiliser and irrigation supplies) using resources from the Food and Nutrition Fund, according to the Food and Nutrition National Policy instruction “to stimulate inter-sectoral actions with a vision of universal access to food”.

A local government technical team, including two agronomists and two assistants, and professionals from UEMCRAUP (a team of agronomists, a psychologist, a social worker and a physical education teacher), offer technical support, guiding and monitoring work since the garden is established.

Other goals are to:

- gerar e estimular o trabalho e a qualidade de vida
- promover a inclusão social e produtiva de cidadãos em situação de vulnerabilidade econômica e de insegurança alimentar, mediante iniciativas de cooperação e produção sustentável de alimentos para o autoconsumo e comercialização
- contribuir no combate à fome e denúncia de pessoas que estejam em situação de vulnerabilidade social e/ou em situação de insegurança alimentar e nutricional
- realizar atividades de educação alimentar e nutricional e para o consumo, complementação alimentar, desenvolvendo práticas e hábitos alimentares saudáveis
- promover o acesso a alimentos frescos, saudáveis e a custo acessível
- reduzir a marginalidade, promover a ressocialização e cidadania
- promover o interesse pela agricultura, um novo e aconchego familiar, capacitar profissionalmente os usuários
- garantir a participação da comunidade na gestão da Horta Comunitária, de forma a manter sua sustentabilidade
- garantir quantidade, qualidade e regularidade da produção dos alimentos
- ocupar de forma sustentável áreas públicas ociosas

Caracterização inicial

De acordo com pesquisa realizada em 2007, a população dos locais onde foram implantadas as primeiras hortas caracterizava-se por consumo insuficiente de verduras e legumes, ocorrência de casos de depressão e outros transtornos mentais leves, vulnerabilidade econômica e social. Nesses locais existiam áreas pertencentes ao município, adequadas para o cultivo de hortaliças, que não estavam sendo utilizadas, e população carente de atividades ocupacionais, principalmente os idosos e aposentados.

Dinâmica do funcionamento-metodologia

O programa é coordenado pela Prefeitura Municipal de Maringá, através da Secretaria Municipal de Serviços Públicos (SEMUSP). É realizado contato com o presidente do bairro – ele é uma peça chave no processo, pois conhece todos os moradores e sabe quem pode vir a participar, bem como sabe onde existe um terreno público no local em que se possa instalar uma horta. Por meio dele é feito a primeira divulgação do projeto, no sistema ‘boca a boca’. Em seguida é feita a divulgação do projeto nos Centros de Referência em Assistência Social (CRAS) e nas Unidades Básicas de Saúde (UBS), convocando a comunidade para uma reunião. A primeira reunião tem como principal objetivo esclarecer aos interessados como funciona o projeto. A segunda reunião tem como objetivo identificar quem quer participar e saber onde existe um terreno público para o projeto. A terceira reunião tem como objetivo esclarecer aos interessados como funciona o projeto. A quarta reunião tem como objetivo identificar quem quer participar e saber onde existe um terreno público para o projeto. A quinta reunião tem como objetivo esclarecer aos interessados como funciona o projeto. A sexta reunião tem como objetivo identificar quem quer participar e saber onde existe um terreno público para o projeto. A sétima reunião tem como objetivo esclarecer aos interessados como funciona o projeto. A oitava reunião tem como objetivo identificar quem quer participar e saber onde existe um terreno público para o projeto. A nona reunião tem como objetivo esclarecer aos interessados como funciona o projeto. A décima reunião tem como objetivo identificar quem quer participar e saber onde existe um terreno público para o projeto. A décima primeira reunião tem como objetivo esclarecer aos interessados como funciona o projeto.

There are currently 22 community gardens throughout Maringá. As project participants have reported improvements in their physical and mental health, people in other city regions have requested gardens be created in their suburbs.
The project is monitored directly by a local government agronomist and other professionals contracted with funds from the Social Development and Fight Against Hunger Ministry, and relies on technical support from Mattinga University’s Department of Agronomy (CERAUP). An annual seminar with project participants is held to encourage them to share experiences, promote training and undertake project evaluation. There are also health education activities, such as information about dengue fever, HIV and the use of medicinal plants through the Tea Time that was created to talk about immunization and chronic diseases, such as diabetes, is offered, in addition to glycemia tests and hypertension and oral health checks.

Results

There are currently 22 community gardens throughout Mattinga. As project participants have reported improvements in their physical and mental health, decreased medicine use and increased social wellbeing, people in other city regions have requested gardens be created in their suburbs. In addition, production is entirely pesticide free and meets quality and hygiene standards.

Awards

The Community Garden Project received an award in 2008 from ADRA, with a US$25,000 prize to be invested in creating and improving existing ones. In 2009, the project was ranked in the top five best government practices among 454 entries in the Rosani Canha Social Development Prize awarded by MDS. This award recognizes and values best practices in areas such as social assistance, food and nutrition security, income transfer and inclusive productivity. The project also received an award from the Bank of Brazil Social Technology Foundation (Fundo Brasileiro de Tecnologia Social) in 2011; the Community Garden Project won the ‘Poverty Eradication Public Policy’ category and received a prize of R$80,000.

The project is supported by integrated and inter-sectoral policies that create networks of commitment and cooperation, focused on the population’s quality of life and health. Public financial resources and the participation of diverse sectors of the community (universities, private enterprise and associations) ensure the sustainability of the project.

We believe the project is environmentally responsible, socially fair, economically feasible and culturally accepted by the community. It is successful because it is public policy made with effective social participation.

The City of Maringá became a United Nations Global Compact participant city in 2011.

The experience is accompanied directly by engenheiro agronomo do município e outros profissionais contratados através de projetos financiados pelo Ministério do Desenvolvimento Social e Combate a Fome (MDS), com assessoria técnica do Departamento de Agronomia da Universidade Estadual de Maringá (CERAUP). Antes de ser realizado o encontro, os produtores de todas as hortas para troca de experiências, capacitação e avaliação do trabalho. Nesta oportunidade, também são desenvolvidas atividades de educação em saúde, como informações sobre dengue, HIV/AIDS, uso racional de plantas medicinais por meio do Programa Hora do Chá, vacinação, orientações sobre doenças crônicas como diabetes, inclusive com teste de glicemia capilar, hipertensão e saúde bucual.

Acompanhamento, Avaliação e Monitoramento

A experiência é acompanhada diretamente por engenheiro agrônomo do município e outros profissionais contratados através de projetos financiados pelo Ministério do Desenvolvimento Social e Combate a Fome (MDS), com assessoria técnica do Departamento de Agronomia da Universidade Estadual de Maringá (CERAUP). Antes de ser realizado o encontro, os produtores de todas as hortas para troca de experiências, capacitação e avaliação do trabalho. Nesta oportunidade, também são desenvolvidas atividades de educação em saúde, como informações sobre dengue, HIV/AIDS, uso racional de plantas medicinais por meio do Programa Hora do Chá, vacinação, orientações sobre doenças crônicas como diabetes, inclusive com teste de glicemia capilar, hipertensão e saúde bucal.

A ação baseia-se em políticas integradas e intersectoriais, compreendendo redes de compromisso e corresponsabilidade que visam a qualidade de vida da população. Os envolvidos são parceiros em redes de compromisso, que comparam experiências sobre as realizações que têm sido alcançadas nos diversos aspectos: de produção, finanças, de saúde física, mental e de relacionamento interpessoal.

A experiência foi premiada, inicialmente, em 2008 pela ADRA – Agência Adventista Desenvolvimento e Recursos Asinências Internacional com o prêmio de $25 mil dólares para ser investidos nas implementações de novas hortas e melhorias das que já existiam. Em 2009, ficou entre as 15 melhores práticas, dentre as 454 práticas governamentais com o Prêmio Rosani Canha do Desenvolvimento Social, instituído pelo MDS–Ministério do Desenvolvimento Social e Combate a Fome, premiação que visa reconhecer e valorizar as boas práticas nas áreas de assistência social, segurança alimentar e nutricional, transferência de renda e inclusão produtiva. O projeto foi premiado também pela Fundação Banco do Brasil do Tecnologias da Sociedade em 2011.
The Restaurantes Populares serve approximately 6,500 meals daily. There are four restaurants in Curitiba, the capital of Paraná, and one in Ponta Grossa and one in Londrina. As an example, in Maringá, there were seven restaurants: four in Curitiba, one in Maringá, one in Ponta Grossa and one in Londrina. As an example, in Maringá, there were seven restaurants: one in Ponta Grossa and one in Londrina. The importance of the restaurants for the elderly (31 per cent of users) was clear. Of these, 14.8 per cent lived alone and most were women. Economically, the research showed that 380 people received the minimum wage, R$622, at that time. In 2006, certain events in the city led the local government to create strategies to reduce food insecurity; for example, the impact of rising numbers of people in the streets of Curitiba's commercial zones, among them low income workers from adjacent towns, students, retired citizens, recycling collectors and street vendors. This increase pointed to the need to create Restaurantes Populares in a central location to strengthen citizenship through the provision of healthy meals in a clean, comfortable environment, promoting dignity and socialization. To be affordable to users, meals were priced between R$3.00 and R$6.00 (0.90-1.80 US cents). Paraná Social Action, because of its experience in food management, initiated a partnership with local governments to manage the restaurants. In 2012, seven restaurants were operational: four in Curitiba, one in Maringá, one in Ponta Grossa and one in Londrina. The restaurant operation offered up to 1,644,500 meals per year in high-demand periods.

To eradicate hunger in Brazil, Restaurantes Populares (public restaurants) have been established by the Public Policies department of the Ministry of Social Development in cities with more than 100,000 inhabitants. The restaurants are a public instrument for food and nutrition and seek to produce and distribute nutritious, affordable and delicious food aimed at vulnerable groups such as the elderly, students and workers. Various ready-to-serve meals are offered, allowing nutrient balance (proteins, carbohydrates, minerals, vitamins, fibres and water) in one meal, facilitating the maximum nutrient absorption by the body and reducing health risks. The produce used by the Restaurantes Populares comes from family farms in the state of Paraná. These families produce small-scale crops and cannot sell them to large retail companies or compete with big agricultural companies, which would jeopardize this organic food that is hand-cultivated in the cultural tradition of the region. The government buys this food through cooperatives, where produce is stored for a short period. The families sign a contract with the federal government to create strategies to reduce food insecurity, for example, the impact of rising numbers of people in the streets of Curitiba's commercial zones, among them low income workers from adjacent towns, students, retired citizens, recycling collectors and street vendors. This increase pointed to the need to create Restaurantes Populares in a central location to strengthen citizenship through the provision of healthy meals in a clean, comfortable environment, promoting dignity and socialization. To be affordable to users, meals were priced between R$3.00 and R$6.00 (0.90-1.80 US cents). Paraná Social Action, because of its experience in food management, initiated a partnership with local governments to manage the restaurants. In 2012, there were seven restaurants: four in Curitiba, one in Maringá, one in Ponta Grossa and one in Londrina. Paraná Social Action offered up to 1,644,500 meals per year in high-demand periods.

During the implementation of this project, the organization conducted a survey to understand the profile of users and their perception of the service at the Restaurantes Populares, based on the 6,500 meals served daily. Nine hundred-and-fifty-nine users were interviewed. The importance of the restaurants for the elderly (31 per cent of users) was clear. Of these, 14.8 per cent lived alone and most were women. Economically, the research showed that 380 people received the minimum wage, R$622, at that time. In 2006, certain events in the city led the local government to create strategies to reduce food insecurity; for example, the impact of rising numbers of people in the streets of Curitiba's commercial zones, among them low income workers from adjacent towns, students, retired citizens, recycling collectors and street vendors. This increase pointed to the need to create Restaurantes Populares in a central location to strengthen citizenship through the provision of healthy meals in a clean, comfortable environment, promoting dignity and socialization. To be affordable to users, meals were priced between R$3.00 and R$6.00 (0.90-1.80 US cents). Paraná Social Action, because of its experience in food management, initiated a partnership with local governments to manage the restaurants. In 2012, there were seven restaurants: four in Curitiba, one in Maringá, one in Ponta Grossa and one in Londrina. Paraná Social Action offered up to 1,644,500 meals per year in high-demand periods.

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Food security

The following testimonials confirm the importance of the Paraná Social Action’s SAN Project in terms of food security and providing a much-needed service to the citizens of Paraná.

“I like very much the people, the food, the workers. This restaurant means EVERYTHING to me.”

“I’m a widow and live on my own. This restaurant is my second home. I eat very well and sometimes I meet my friends. I love it here and I get upset on the weekends, when the restaurant is closed.”

“I think this Public Restaurant is excellent, the best thing ever done in the city. I come here every day because the food is very good.”

For more information about Paraná Social Action and the Restaurantes Populares, visit: http://www.aspr.org.br/siteasp/?page_id=2438

The State of Paraná joined the United Nations Global Compact at the Innovating level in 2012. The State’s Innovating Project was the establishment of Aliança Nosso Paraná Sustentável (Our Sustainable Paraná Alliance), which has facilitated the commitment of an additional five cities to the Global Compact.

Agriculture in the city of Curitiba is compact at the Innovating level in 2012. The state’s Nosso Paraná Sustentável (Our Sustainable Paraná Alliance) project has facilitated the commitment of an additional five cities to the Global Compact.

Preparation of food at the public restaurant, which employs around 130 workers. The challenge for the SAN project is to increase the number of restaurants for the benefit of a greater number of vulnerable groups. The need is great in Curitiba, the state capital, where 40 per cent of the population fit the user profile of the Restaurantes Populares. Image: Karine Carvalhor, Ação Social do Paraná.
A comprehensive approach to urban agriculture in Pinhais

Debora Carla A. Jelinski, Municipal Government of Pinhais, Brazil

The small municipality of Pinhais in Southern Brazil is implementing food and nutrition security programs in urban schools and backyards.

Pinhais, a city council belonging to Piracicaba municipality until 1992, is one of Paraná’s youngest and smallest city councils. With an area of 60.92km², Pinhais encompasses 15 suburbs and numerous communities. Pinhais is adjacent to Colombo, Curitiba, Quatro Barras, São José dos Pinhais and Piracicaba.

According to the latest (2010) census by the Brazilian Institute of Geography and Statistics, Pinhais has the 14th largest population in Paraná, with more than 117,000 inhabitants. It ranks 12th in state tax income.

In 2009, the Agriculture and Food Supply Department was created; initially part of the Municipal Secretary of Government, it was transferred to the Municipal Secretary of Economic Development in 2010. Its objective was to create a set of public policies focused on the sustainable development of urban and agriculture supply, promoting food and nutrition security (SAN) under the National System for Food and Nutrition Security (SISAN).

Food and nutrition security actions in the municipality

In this context, Pinhais Council, through its Urban Agriculture program, aims to promote the use of residential spaces and unused public or private areas for food production, processing, distribution and consumption, as well as related services.

Focusing on food and nutrition security, the ‘Vegetable Garden in the Backyard’ project was created in 2009 with 42 registered families. Today, there are 500 registered families. The project is directed at Pinhais families who earn up to three minimum wages. The application is made in partnership with the Ministry for Social Services and the National Secretariat for Social Education.

A survey conducted with 169 registered families in 2011 in four council regions — Jardim Cláudia, Jardim Amélia, Maria Antonieta and Weissópolis — verified the generally favourable support of the project, with people interested in continuing it even without council support. Only 6.5% per cent of respondents affirmed they could not carry on with the vegetable garden if the council stopped supplying organic fertilizer and seedlings. All families confirmed the project had raised their awareness of food and nutrition security.

When asked what they considered to be the most important aspect of the Veggie Garden in the Backyard project, 72.8% per cent of families cited health benefits, 23.1% per cent said income support was vital as they didn’t need to go to the grocer to buy vegetables and consequently saved money to buy meat and other food to complement a meal; 14.8% per cent considered work in the vegetable garden a therapy or distraction that improved their quality of life. Additionally, 59.7 per cent of respondents of life, with vegetables considered to be an essential component of food and nutrition security.

Twice a year, registered families receive approximately 15 seedling species and 40kg of organic fertilizer. Production is guided by organic agriculture principles and practices. Apart from being an incentive to families, this project is also open to interested municipal schools, municipal childcare centres, public departments and organizations.

A project team member visits the families. The application is made in partnership with the Ministry for Social Services and the National Secretariat for Social Education.

Resident of Pinhais in their backyard garden. The garden was supported by the SAN scheme, a cooperative partnership between the federal government and local municipalities. As well as the Veggie Garden in the Backyard, the program also supports the school meals system with prioritizing buying organic produce from local farmers. Image: Government of Pinhais.
affirmed that they shared excess food they produced with friends; only one respondent sold the oversupply.

Applying food and nutrition policies in Pinhais

As a consequence of the National Policy and System for Food and Nutrition Security, the SAN Municipal Council (COMSEA) was created in January 2012. COMSEA is a mixed organization represented by local government and organized civil society with an overarching aim to recommend guidelines for a Food and Nutrition Security Policy.

In 2013, the Intersectoral Department of Food and Nutrition Security was created in partnership with COMSEA. Its challenge is to coordinate the Food and Nutrition Security Municipal Policy’s design.

A bill proposing the creation of a National Food and Nutrition Security System is before the Municipal Legislative Council. Parameters for the SAN Municipal Plan are being defined, taking into consideration principles and guidelines from federal law 11.346/2006, which guarantees the Human Right to Proper Nutrition.

The first municipal Food and Nutrition Security Conference took place in Pinhais in November 2013. Documents related to the Food and Nutrition Security National Policy were signed at the conference, among them a request for the local government to join the SAN National System and sign a commitment letter to create the SAN Municipal Plan within a year after joining SISAN. The conference, which took place concomitantly with the VI Zero Hunger Committee Forum, had approximately 180 participants.

With these procedures, the federal government, through the Ministry of Social Development and Fight Against Hunger, confirmed Pinhais’ and eleven other local governments’ commitment to the National SISAN at the ‘Food and Nutrition Security National System in Local Governments’ seminar opening in Brasília on 28 November 2013.

In order to guarantee the project’s successful execution, discussions over food sovereignty and nutrition security were brought to a municipal level. As Pinhais’ total municipal area is considered urban by municipal law 412/2000, the city is heavily dependent on external circumstances when it comes to vegetable and animal product supply. A city in the urbanization process plans to consider the use of these spaces for food production, but it does not work case studies have added value to the backyard vegetable garden.

This municipal government project brought public services closer to families and their homes, in an area that was not formerly considered on the public action agenda.

Meals at school within SAN policy

In 2009, initiatives were undertaken as part of the urban agriculture program to buy produce from Family Farming for school meals. These initiatives focused on getting better quality produce, from both a nutritional and health point of view, and they provided food to approximately 13,500 students.

In the first semester of 2010, under the June 2009 federal law 11947, the first tender to buy Family Farming produce was conducted; it prioritized organic produce, i.e. produce grown without poisons and chemical fertilizers. Since then, a tender has been carried out each semester to buy organic Family Farming produce.

In 2011, a four-stage training program was organized for 120 school meal staff in order to optimize consumption of the produce provided, especially vegetables. The conference, which took place concomitantly with the VI Zero Hunger Committee Forum, had approximately 180 participants.

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In 2011, a four-stage training program was organized for 120 school meal staff in order to optimize consumption of the produce provided, especially vegetables.

The vegetable garden is a tradition in most families, especially for the elderly, as it brings a history of contact and relationship with the land. Opportunities for social interaction, knowledge sharing and migration and land

Fonte: Prefeitura de Pinhais, Departamento de Agricultura e Abastecimento afirmaram que o projeto despertou uma consciência em Segurança Alimentar e Nutricional.

Quando perguntado o que a família considera mais importante no Projeto Horta no Quinilal da Casa, 72,8% afirmaram que é a alimentação saudável, 23,1% o apoio na renda, pois não precisam mais ir ao mercado comprar verdura, economizando para a compra de carne e outros alimentos complementares para a refeição. 14,8% consideram trabalhar na horta como uma terapêutica que faz muito bem para melhor qualidade de vida. Além disso, 59,7% dos entrevistados afirmaram que dividem com os amigos o excedente da horta e apenas um vende para alimentar a renda da família. Sobre a compostagem, 13,02% informaram que não realizam, sendo os principais motivos: falta de tempo, desconhecimento e atração de animais prejudiciais devido a odores e decomposição dos alimentos.

Institucionalização da Política de SAN no Município

No contexto da Política Nacional de Segurança Alimentar e Nutricional foi criada, pela Lei Municipal 1276, de 04 de janeiro de 2012, o Conselho Municipal de Segurança Alimentar e Nutricional – COMSEA que é um órgão colegiado composto por representações do Governo Municipal (1/3) e da Sociedade Civil organizada (2/3), com objetivo geral de propor as diretrizes gerais para uma Política de Segurança Alimentar e Nutricional.

Em 2013 foi criada a Câmara Intersetorial Municipal de Segurança Alimentar e Nutricional – CAISAN, que tem como desafio, em conjunto com o COMSEA, coordenar a construção do Plano Municipal de Segurança Alimentar e Nutricional.

Já se encontra em tramitação na Câmara de Vereadores a proposta de lei para criação dos componentes do Sistema Nacional de Segurança Alimentar e Nutricional, bem como definir parâmetros para a elaboração e implementação do Plano Municipal de SAN, observando-se os principios e diretrizes estabelecidos pela Lei Federal 11.346, de 2006, com o propósito de garantir o Direito Humano à Alimentação Adequada.

Em novembro de 2013 foi realizada a I Conferência de Segurança Alimentar e Nutricional na qual foram assíndos documentos relacionados à Política Nacional de Segurança Alimentar e Nutricional, quais sejam: Pedido de adesão do Município ao Sistema Nacional de SAN, bem como o Termo de compromisso de elaborar o Plano Municipal de SAN, no prazo de um ano, a partir da confirmação da adesão ao SISAN. A Conferência, realizada junto com o VI Fórum do Comitê Gestor Fome Zero, contou com a presença de aproximadamente 180 pessoas.

Como desdobramento desses procedimentos, o Governo Federal, pela Ministerio do Desenvolvimento Social e Combate à Fome – MDS, confirmou a adesão de Pinhais ao SISAN Nacional, juntamente com mais onze Municípios brasileiros, em solenidade realizada em Brasília dia 20 de novembro de 2013, quando da abertura do Seminário sobro “O Sistema Nacional de Segurança Alimentar e Nutricional nos Municípios”.

Para a execução do projeto do Departamento de Agricultura e Abastecimento identificou-se, a princípio, no contexto do Município, a necessidade de colocar em debate a questão da Sobranção, Segurança Alimentar e Nutricional, na medida em que por ser o território todo considerado área urbana, o que foi assegurado com a Lei Municipal nº 412/2000, torno o Município esencialmente dependente de circunstâncias externas na questão do abastecimento de produtos de origem vegetal e animal. A cidade, no processo de urbanização, está preparada para as alternativas de paisagismo na formação e ocupação dos espaços, mas não trabalha a oferta de serviços para a ocupação desses mesmos espaços com a produção de alimentos, especialmente de origem vegetal. Considera-se igualmente relevante a questão dos alimentos industrializados que, rega geral, não são suficientemente adequados para assegurar às pessoas uma melhor qualidade de vida, mas que pela grande oferta e pela facilidade de acesso é o que a população mais consome, comparativamente ao consumo de produtos naturais. A horta já é uma tradição para a maior parte das famílias, especialmente para as pessoas de mais idade, que tem um histórico familiar de contato e de trabalho com a terra.

A ação da Prefeitura aproximou as famílias dos serviços públicos para uma área que até então não compunha a agenda de ações públicas, chegando até o interior das residências.

A oportunidade do contato pessoal, do compartilhamento
Pinhais is a municipality in the Brazilian state of Paraná. For many years, Pinhais has been an Innovating participant of the United Nations Global Compact since 2012.

The seminar on food and nutrition security policies took place in May 2011, with attendance from more than 50 public servants representing many different secretaries and departments. The seminar aimed to promote a more integral use of organic vegetables, herbs, and medicinal plants, share and present alternatives for human consumption; consider the benefits and ensure this work can be replicated and undertaken by the community.

For over 50 years, ‘Rust Belt’ cities such as Chicago, Detroit, and Milwaukee have been plagued by decades of cascading and chronic urban problems: the ongoing physical deterioration of the built environment, aging and collapsing infrastructure, growing collections of foreclosed and abandoned buildings, an increasing number of empty lots and warehouses, homes and apartments in varying states of disrepair, the rapid rise of poverty and unemployment, a crisis in public health issues, a failing educational system and ever-increasing environmental collapse. Once iconic cities representing economic prowess, large portions of these cities have become the poster child for ‘blight’, disinvestment, de-industrialization and patterns of urban decay. These same socio-spatial patterns of disinvestment and neglect within our cities help perpetuate a psychological state of ‘otherness’ that ultimately sets in motion a cyclical process and pattern of alienation, neglect and despair across race, class, and socioeconomic divisions.

For the future of cities by allowing individual students to think critically about the environment and food production methods for a sustainable planet.

Democratizing, urbanizing and globalizing urban agriculture in the USA’s ‘Rust Belt’

Emmanuel Pratt, Executive Director, Sweet Water Foundation, Milwaukee, USA

Sweet Water Foundation in Milwaukee, USA, is taking advantage of the benefits of urban agriculture, using aquaponics, harvest celebrations, markets and learning hubs to encourage ecologically sensitive food production, innovation and urban renewal.

For more than 50 years, Rust Belt cities such as Chicago, Detroit and Milwaukee have been plagued by decades of cascading and chronic urban problems: the ongoing physical deterioration of the built environment, aging and collapsing infrastructure, growing collections of foreclosed and abandoned buildings, an increasing number of empty lots and warehouses, homes and apartments in varying states of disrepair, the rapid rise of poverty and unemployment, a crisis in public health issues, a failing educational system and ever-increasing environmental collapse. Once iconic cities representing economic prowess, large portions of these cities have become the poster child for ‘blight’, disinvestment, de-industrialization and patterns of urban decay. These same socio-spatial patterns of disinvestment and neglect within our cities help perpetuate a psychological state of ‘otherness’ that ultimately sets in motion a cyclical process and pattern of alienation, neglect and despair across race, class, and socioeconomic divisions.

The issues

While struggling urban areas have historically been victims of the exigencies of modern living and the subjective strategies of developers and urban planners, the presence and growth of food deserts throughout our cities point toward the even more devastating consequences of living beneath the poverty line: regular consumption of fast and restaurant foods that contain little nutritional value and are characterized by cholesterol-laden diets and food prepared with excess salt, sugar and preservatives. In communities where obesity, diabetes, hypertension and heart disease are the norm, the situation has become the breeding ground for chronic poor health and, all too often, premature death from entirely preventable diseases.

Yet as grim as the outlook seems to be, and despite the appearance of city spaces void of income and important resources, experiencing fresh and good nutritional food is not just a possibility; a Good Food Revolution is already in progress.

Under the weight of layered crises, including natural disasters and environmental devastation affecting soil and water quality and impacting national and global food supply, the rules driving the rationale and structure of the 20th century food systems paradigm and subsequent policies have drastically changed. Instead, the growing popularity of and concurrent global discourse surrounding urban agriculture offers a new menu of ecologically sensitive innovations in food production across a fusion of ancient, conventional and cutting-edge biometric technologies. These technologies focus on the preservation of natural, social and human capital and the transformation of various waste streams into a dynamically reproductive and responsive feedback loop within the urban ecosystem.

Addressing the issues

At Sweet Water Foundation (SWF), our mission is to democratize, globalize and commercialize urban agriculture practices for resilient 21st century communities via hands-on, real-life learning opportunities in urban agriculture. We do this by developing and delivering intergenerational and interdisciplinary educational and career programming that incorporates historical, technological, scientific, artistic and cultural components into a project-based learning approach accelerated by open data platforms. Our team’s multifaceted approach opens discussion about the future of cities by allowing individual students to think critically about the environment and food production methods for a sustainable planet.
For SWF, urban agriculture and aquaponics have become tools offering solutions to address:

1. food security and neighbourhood stabilization in distressed neighbourhoods chronically experiencing ‘urban decay’ and ‘blight’
2. sustainable production methods addressing increasing market-level needs of ‘local’ or ‘organic’ food production.

The focus of our work in cities such as Chicago, Milwaukee and Detroit has been to gain a more comprehensive understanding of the experiences, challenges, obstacles and opportunities of and for urban agriculture practitioners, planners, residents, officials, designers and politicians in terms of the implications of urban agriculture on traditional approaches to city planning and development.

Our approach has and continues to include intensive participant observation supplemented by a series of open-ended interviews, including our team members engaging as active participants in the discussion. As such, SWF’s work is grounded via praxis (the balance of theory and practice) and learning by doing (aka heuristics).

The Good Food Revolution is led and carried out by urban agricultural practitioners, planners, residents, officials, designers and politicians in terms of the implications of urban agriculture as an emerging industry of urban agriculture. This model includes a growing network of Aquaponics Innovation Centres, Urban Agriculture STE[ A +]M Hubs and robust hyper-local partnerships locally, regionally, nationally and globally.

**Our approach to maximum impact**

SWF uses an exponential growth model for maximum impact by embedding our programming within existing networks within communities. We work to catalyze and cultivate innovative spaces that emphasize the relationship between inspiration, education, action and innovation by supporting STE[ A +]M (science, technical, engineering, art and medical) education for learning and activity in urban agriculture and aquaponics. These hubs include schools, colleges and universities, community centres, churches and neighbourhoods—anywhere that people gather for learning and growing food together. Where Aquaponics STEA[M+M] Hubs are established we create a series of small-scale installations in partnership with a group or institution committed to the same values and principles.

**Challenges ahead**

Critical numbers of people within so-called ‘blighted’ or disinvested urban neighbourhoods are demonstrating a powerful creative response to issues that adversely impact the quality of their everyday lives. The seeds for change are quietly being sown and have already sprouted wondrous roots producing far more than just good food. The Good Food Revolution is led and carried out by once alienated youth, wisdom-filled elders, eager school children, working folk and the under-employed, singles and partners, war veterans now armed with hope, the formerly incarcerated now intent upon growing a new life, paid college interns and apprentices of all ages.

Whether it is a person or community in crisis, a neighbourhood plagued by broken moments of history, illness, neglect and oppression, or a city attempting to overcome the adverse effects of a plantation economy, industrialization, discrimination or environmental degradation, the drive toward transformational insight and true change starts from the single revolutionary act of sacred reconnection.

This dynamic shift in thinking about inner-city urban life serves as an important corrective to planning schemes where, despite decades of living and serving a beloved community, people can be uprooted like useless weeds, then exiled to other alienated neighbourhoods, perhaps even in another city. They easily become the victims of entrepreneurial or political re-zoning and gentrification schemes that significantly and adversely affect neighbourhood demographics. Instead, the process of creating urban farms initiates a direction that moves people from institutionalized victimhood to empowered personhood and offers the possibility of collective re-invention, re-imagining, regeneration and true problem solving that requires a dramatic recasting of a narrative of loss to one of potential and promise.

In these spaces, people gather to share their own life stories, dreams and visions of new homes. Abandoned buildings and warehouses, rather than representing a blight of disintegrating wood, bricks and mortar upon the urban landscape, are re-envisioned as restorable projects; markets for potential financial and community investment. Working together, people envision new small businesses, better schools and vital organs of community life that can possibly emerge over time. This new narrative of promise, hope and re-connection offers the possibility to transform problems to opportunities and obstacles to assets.

It is within these spaces that people are offered the possibility to create a new sense of community and re-story their lives. This is achieved through a local economy centred around food-based and community-scale manufacturing through small farms and farmers markets, educational opportunities through school gardens and university research projects and social networks anchored on community gardening. However, given the complexity of urban agriculture as an emerging system, its success will require the development of a new paradigm of interdisciplinary planning practices and supportive policies.

There grows the neighbourhood.

**Sweet Water Foundation.**

Sweet Water Foundation is a partner in one of Milwaukee’s Innovating projects with the Global Compact Cities Programme. In 2012, Cities Programme Research Officer, Julia Laidlaw, focused her research internship and honours thesis on the urban aquaponics projects of Sweet Water Organics and Melbourne social enterprise CERES (see following article).
Sweet Water Foundation projects

The MYCELIA Project

The MYCELIA Project cultivates new connections through a series of informal and formal art and cultural events infused with science and technology where we invite people to celebrate various collaborative projects. The significance and aim of these events is to awaken all five senses (sight, touch, taste, hearing and smell) of those who attend via cooking demonstrations, live art, live music and more. The MYCELIA Project resonant spaces and events are an opportunity for students to showcase their innovative work and for schools to showcase their initiative. Ultimately, our intent is not only to highlight the value of food, but also to celebrate the education and innovation of our students along with all of those who have supported and made the programs successful.

Seed to Table Project

Supported by Newman’s Own Foundation, the Seed to Table Project engages students in the production and distribution of food from seed to table. Students are tasked with germinating seeds, constructing an aquaponics system, growing fish and plants and producing a culturally oriented meal with their produce. These projects reclaim and revitalize school greenhouses and classrooms that lie vacant or are used for storage.

Neighbourhood development initiatives

In Milwaukee, SWF partners with ACTS Housing to incorporate indoor and outdoor gardens into the restoration of foreclosed homes in the Washington Park Neighbourhood Renewal Project (WPNRP). WPNRP is a collaboration between Wells Fargo Bank, ACTS, the Urban Ecology Center, SWF, and Milwaukee Bicycle Works. Across Chicago and Milwaukee, SWF operates the Perry Aye Community Farm + Think-Do House, and has partnered with the Heart Haus, as a series of connected collaboration/entrepreneur consortium project experiments. Each site supports a range of individual, yet interconnected STE(A)H-based initiatives emphasizing the interrelationship between inspiration, education, commerce, art, action and health and wellness. These sites serve as hubs for emergent research design and development of urban agricultural practices, with a particular focus in the areas of soil science, urban ecology and public health.

AQUAPONS

Sweet Water AQUAPONS is a learning platform for practitioners of aquaponics of all backgrounds. This open source platform allows learners to accrue a series of digital ‘badges’ that correspond with aquaponics achievements, skills and proficiency. AQUAPONS was developed through a grant from the Digital Media and Learning Competition IV, with funding from the MacArthur Foundation and technical support from Mozilla Foundation as part of the HVE Learning network. SWF uses AQUAPONS to support all of its programming, especially its membership in HVE Chicago, the Chicago Summer of Learning and Chicago City of Learning initiatives.

Drawing on a study of stakeholder experiences building community-based urban aquaponics enterprises in Milwaukee, USA, and Melbourne, Australia, research at the Global Compact Cities Programme explored the elements required to foster the development of urban aquaponics.

Today, urban agriculture is increasingly on the international agenda. Viewed as part of a comprehensive solution to food insecurity caused by runaway growth and rising fuel costs, it is becoming recognized as a model cities can use to move away from current inequitable and resource dependent food systems, reduce their ecological footprint and increase their livability. However, more needs to be known, about environmental, political and social characteristics that contribute to, or inhibit the development and sustainability of food security projects.

Aquaponics is an environmentally sustainable food producing technology that is adaptable and amenable to urban contexts and community-led development and capacity building. Community-based urban aquaponics enterprises represent a new model for how local agency can be blended with scientific innovation to increase the food security of cities, re-engage urban communities in their food production while minimizing stress placed on the natural environment caused by unabated urban expansion.

More than ever, the need to create socially responsible and environmentally friendly food production systems is highly relevant (Roc et al 1999, Viljoen & Wiskerke 2012, Ackerman-Leit 2013). Urban aquaponics, a relatively new and unknown form of urban agriculture, has a role to play in the transition to more socially responsible and environmentally friendly food systems. In an era of growing food insecurity and diminishing natural resources, it presents as a promising sustainable food producing technology that is easily adapted to urban environments (LeBoid 2012, Bernstein 2011).

Sweet Water Organics, Milwaukee

Milwaukee is the largest city in the state of Wisconsin in the United States. It has a population of approximately 700,000 people; a population which was, until recently, in decline on account of limited employment opportunities as a result of a broader decline in manufacturing in the region (Alder, Lagakos & Ohanian 2013). Situated on the southwestern shore of Lake Michigan, Milwaukee has never suffered from a lack of water. The Great Lakes region, as it is known, is home to one of the world’s fresh water. However, with a significant portion of the population un- or under-employed, and with large areas of the city lacking access to fresh food (Martinez 2011), food insecurity is a reality that many people face on a daily basis. Over the past few years, a nascent ‘foodie culture’ has emerged in Milwaukee through increased awareness of and enthusiasm for locally grown fresh produce. This, coupled with the increased availability and affordability of city real estate since 2008, has provided an ideal crucible to test an urban aquaponics project.

Sweet Water Organics (SWO) is an urban aquaponics farm, school and experiment that was set up in a large, unused, inner city, industrial building in the Bay View area of Milwaukee in 2008. It was funded primarily by its founders, who were motivated to develop creative capacity building and employment opportunities in their city, while providing chemical free, fresh, accessibly priced food to the community. Proudly experimental in its approach, SWO provides a living example of alternative uses for urban space and its capacity to produce fresh food.

The Sweet Water Foundation (SWF) was formed from SWO in 2010 with the idea that it would grow as a mutually supportive, cohesive hybrid organization that was both a for-profit commercial urban farm and a not-for-profit aquaponics ‘academy’. Local community and schools were engaged from SWF’s inception and as
The CERES aquaponics system is an 80m² self-sustaining in an economic sense. All projects within CERES are expected to support the farmer who maintains it. The farmer's wage depends on how much he produces, with all produce still not working to capacity, is completely self-sufficient in energy and water and generates enough produce to employ a single full-time employee. It was built using a $100,000 grant over a few months. The system, although still not working to capacity, is completely self-sufficient in energy and water and generates enough produce to support the farmer who maintains it. The farmer's wage depends on how much he produces, with all produce being sold directly to the CERES Fair Food organic box delivery enterprise in the neighbouring building.

Challenges and lessons learned

Both the Milwaukee and Melbourne urban aquaponics social enterprises have experimented extensively with different configurations of housing, equipment and fish and vegetable species. Similarly, they have explored a range of social structures and incentives to remain in operation. Expertise and infrastructure for building more than hobbyist-scale aquaponics systems are more common in developed cities like Milwaukee and Melbourne. Both the United States and Australia have considerable traditions in areas of agricultural and research in the design of their respective urban aquaponics installations. It appears that at least at the ‘meso’ scale of social enterprise — that is, neither backyard hobby nor full-blown industrial — urban aquaponics has yet to settle into a paradigm of ‘normal science’ with a set of established equipment and operating procedures to follow. Any future commercial aquaponics projects would benefit enormously from drawing on research of viable scales of production for either retail or wholesale markets.

A number of factors are significant to each project’s survival to date. Principal among these is the ongoing commitment of key stakeholders. It has been critical that both enterprises have had continued support of personnel with technical and business management skills combined with enduring leadership. Equally important is that these stakeholders have remained involved and prepared to cooperate without strong financial incentives and in the face of technical and political challenges. This is often the case in successful social enterprises — where, despite the need to be economically viable, the driving energy for the project comes from the desire to bring about social change and to stimulate a transition towards a system that measures wealth, health and sustainability in other than purely financial terms.

Despite this underlying motivation, the trials of farming using an united production technology that has no successful commercial precedent in the urban context — combined with the lack of technological expertise and research in the design of their systems — has caused both enterprises to flounder and struggle to achieve economic viability. In part, this has occurred on account of the limited availability of research-based knowledge, experienced individuals and tried technology in this field of aquaponics. It has also been triggered by the limited research undertaken by both parties into available market opportunities and ‘best practice’ systems prior to commencing their ventures. This has had a significant impact on their ability to gain economic traction in their start-up phases.

The local political context has also been significant for each project. In the case of the City of Milwaukee, strong financial and legal support has allowed SWO to expand its fixed assets and human resources, build market awareness and acquire a sizeable regular commercial customer base. The CERES project, by comparison, has had little such support beyond an initial grant, and has struggled to generate revenue to expand the project. A positive government environment and relationship clearly provides more opportunity for urban aquaponics social enterprises to reach produce volumes that justify initial capital expenditure.

The availability of markets for urban aquaponics product also proved to be highly relevant. While the urban aquaponics ‘story’ is attractive to a customer base that is increasingly responsive to issues of food security and ethical consumption, the CERES example suggests that this story needs to be refined and developed for even Melbourne’s sophisticated inner-city consumers. As one respondent suggested, this may well be because the hidden food production costs of water and energy are externalized in many developed world countries, including Australia. The sustainability of urban aquaponics enterprises needs corresponding political and social demand-side support that would be greatly facilitated through political advocacy, community education and existing examples of viable systems.

Aquaponics as a tool for sustainable community development

As both cases work to achieve economic sustainability, the full potential of aquaponics as a tool for sustainable community development and education in cities has yet to be proven. These findings suggest, however, that through strong community networks and outreach opportunities, potential markets can be created as people become aware of the benefits of accessible, locally grown fresh produce.

Overall, the experiences of these two projects show that urban aquaponics is now a tantalizing prospect for social enterprises looking to build sources of food security and sovereignty for cities. The success of such enterprises is greatly enhanced by a strongly supportive government environment; one that is willing to share some of the risks. The technical methods to manage moderate-scale aquaponics are slowly coming of age, and these can be readily adopted by volunteers and professionals.

The exact form and financial model of social enterprises is less clear. The split for-profit/not-for-profit structure of SWO introduces higher overheads and potential tensions between stakeholders, while the profit sharing model of CERES is challenging due to the lack of a ‘critical mass’ market. This remains an open question for urban aquaponics social enterprises, and further social experimentation in this area is expected in the years ahead.

This article draws on the findings of a year-long research project undertaken by Julia Laidlaw during her internship with the Global Compact Cities Programme in 2012 and related Honours thesis. Her research was presented at the International Sustainable Development Research Conference in Cape Town in 2013 and an academic paper has recently been accepted for publication in the Local Environment journal. Julia is currently working as a Food Security Officer on the Island of Vanuatu.
The role of information and communication technologies (ICTs) as enablers of development has become increasingly clear in recent years. Access to technology, particularly digital communication, is now seen as a basic human right and a critical component of democratic and participatory processes.

In the lead up to discussions around the post-2015 development agenda, the United Nations Group on the Information Society has noted the fundamental relevances of ICTs to achieving the Millennium Development Goals, including ensuring sustainable, rights-based development, creating jobs, improving education and empowering women, to name just a few (UNCTAD 2013).

People are more technologically connected than they have ever been, particularly in cities where infrastructure is significantly more developed than in rural areas.

Yet inequity in access remains. Of the 4.3 billion people who are still not online, 90 per cent live in the developing world (ITU 2014).

The use of technology is now a core component of social action, freedom of expression and mobilizing to promote and protest for human rights. The world has witnessed this with the role of social media in movements such as those that erupted on the ground and in cyber space during the Arab Spring in the Middle East and North Africa, and more recently in the USA and France.

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At the city level, many local governments and authorities are involved in addressing the injustices and inequities facing their citizens through access to ICTs and other technological enablers.

The City of Pula in the Republic of Croatia has been recognized for its efforts in anti-corruption and ensuring the transparency of municipal management. Communications technology is integral to the city’s high-level service provision, which is underpinned by a code of ethics and Corporate Social Responsibility management system.

City governments around the world are using ICTs and other technological advancements to make cities ‘smarter’. As Dubai’s turn to host the World Expo in 2020 approaches, Sheikh Mohammed bin Rashid Al Maktoum, Vice-President and Prime Minister of the UAE, and Ruler of Dubai, has launched a strategy to transform Dubai into a Smart City. Under this strategy, 1,000 government services, many of which support sustainability and livability, will “go smart” in the next three years.

City governments are using ICTs to ensure human, democratic and environmental rights and support good governance.
Hoy las TIC están presentes en casi todas las actividades de la sociedad, son la revolución de nuestra época, como lo fue en su momento la imprenta. Sin embargo, la apropiación de estas nuevas tecnologías por la ciudadanía logra todo su alcance cuando se les posiciona desde lo social. Para ello, las TIC no sólo deben ser entendidas como un medio, también son un factor de cambio del comportamiento ciudadano y de transformación cultural.

Así como “Un mejor espacio público alivia el conflicto social”, dice Christian Werthmann, especialista alemán en temas urbanos, también podemos decir que un mejor acceso, uso y aplicación de las TIC, alivia la exclusión social. Más aún, la superación de la exclusión social, uno de los grandes desafíos de nuestra sociedad, pasa también por la superación de la exclusión digital. ¡En la era de la información y las comunicaciones, la inclusión digital es determinante para la inclusión social!

Con esta visión, en el 2012 incorporamos en el plan de desarrollo de la ciudad, por primera vez en la historia de Bogotá, todo un capítulo dedicado al acceso, uso y aplicación de las TIC. Me refiero al Plan de Desarrollo “Bogotá Humana”, presentado por la Administración de Gustavo Petro y aprobado por el Concejo de Bogotá, en el que se articulan tres ejes: superar la segregación social, fortalecer lo público y adaptar la ciudad al cambio climático.

En el 2013 consignamos en el Plan de Ordenamiento Territorial nuevos temas relacionados con la infraestructura tecnológica en el Distrito Capital, a ciudad que hoy tiene más de 8 millones de habitantes. En el 2014, estamos trabajando en la formulación de un Plan Maestro de TIC para Bogotá. En todo ello, siempre guiados por nuestro lema: “ICT para metas humanas!”

In a globalized digital world, citizen access to the information society must be addressed as an emerging right. Just as access to better health services, better roads and better security is important in urban life, so too is access to the information society. In the same way that “For a Humane Bogotá” established minimum

Today, information and communication technologies (ICTs) are present in almost all activities in society; it is the revolution of our time, as the printing press was in its time. However, the adoption of these new technologies by citizens achieves its full extent when they are positioned from the social perspective. To this end, ICTs must be understood not only as a means, but also as a factor in changing citizen behavior and cultural transformation.

Just as Christian Werthmann, a German specialist in urban issues, said that “better public space relieves social conflict”, we can also say that better access, use and application of ICTs relieves social exclusion. In addition to overcoming social exclusion, one of the great challenges of our society is overcoming digital exclusion. In the era of information and communication technologies, digital inclusion is crucial for social inclusion.

With this vision, for the first time in the history of Bogotá, an entire chapter dedicated to access, use and application of ICTs was incorporated into the city’s development plan in 2012. The development plan, “For a Humane Bogotá”, presented by the Administration of Gustavo Petro and approved by the City Council of Bogotá, articulates three aims: overcoming social segregation, strengthening public finances and adapting the city to climate change. In 2013, the Territorial Ordinance Plan established new issues related to technology infrastructure in the Capital District, a city which now has over eight million inhabitants. In 2014, we focused on working to develop an ICT Master Plan for Bogotá. In all of these efforts, we are always guided by our motto: “ICT for human goals!”

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Overcoming social segregation is central to the city's development plan. Initiatives of Bogotá’s TIC Office include: free Wi-Fi zones in the city’s territories. Public access should not be seen as an issue of antennas and cables, but as an initiative to guarantee citizens the right of access to the city’s information society.

Recently, we learned of the troubling results of Colombian students in the international Program for International Student Assessment tests. We wanted to know how the social appropriation of ICTs in education could help young people become better able to solve the problems of everyday life. If we want a profound renewal of education, virtual education is a crucial factor to energize and transform classroom education. As a result, in 2013, the Bogotá Telecommunications Company, together with the Ministry of Education, installed 430 educational centres with fibre-optic connectivity to the internet, reaching more than 600,000 students in the city. At the same time, we added Wi-Fi to approximately 4,000 classrooms at those institutions. Bogotá is the first city in the country to have 70 per cent of its public educational establishments connected to the information highway.

Giving tablets to public schools, deploying virtual educational content and developing training programs for teachers to incorporate new innovative forms of education are the next challenges that the Mayor’s Office of Bogotá is working on.

Let us focus on the opportunities offered by the innovative use of ICTs to promote social behavioural changes toward greater citizen participation in urban life. The city belongs to all of the actors who form part of it. A city is more sustainable to the extent that its various citizens appropriate the city and act in favour of public life, all of which can today be promoted and boosted through the innovative and intelligent use of ICTs.

Take, for example, smart city applications for mobile phones in a city where there is almost one cell phone for every inhabitant over 15 years of age. These applications allow citizens to report and geo-reference road network issues, waste disposal, mobility, security and other urban problems in real time. This is the case in the application launched by the Water and Sewerage Company of Bogotá to report sewers without lids. There is also this year’s “BogotáPiensaTIC” competition, instituted by the office of the ICTs Counselor, in which 200 smart city projects were presented. It is important to note here the dual role played by new technologies, in particular ICTs. On the one hand, they are a means to enable and facilitate interactions between citizens and public institutions, in this case for the improvement of the urban habitat. On the other hand, they can be an agent of change for social and institutional responses. Broadscale use of these applications requires a change in citizens’ social responsibility and institutional responses, but their use also produces feedback from these citizens and institutional culture.

This topic of the new opportunities offered by ICTs for citizen participation in public life and the transformation of public life is part of a wider field: the contribution of the digital era to strengthen government and democratic governance in cities. Take, for example, online government and new virtual scenarios for the exercise of citizen democracy. It is a multidisciplinary field of great interest.

Overcoming social segregation is central to the city’s development plan. Initiatives of Bogotá’s TIC Office include: free Wi-Fi zones in the city’s 20 localities; 50 free access zones in parks and public spaces and in the terminals of the Transmilenio rapid bus system, and training and education. Image: Ministería de TIC, Colombia.
In a globalized digital world, citizen access to the information society must be addressed as a new emerging right.

I will end my contribution to this publication by mentioning two significant events in 2013: Medellín won the award for the Most Innovative City in the world contest organized by the Wall Street Journal, and Bogotá won third place in Latin America in the ranking of ‘Smart Cities’ behind Santiago and Mexico City, undertaken by the publication Fast Company. Both events invite the two cities to work hand in hand, along with other cities in Colombia and the world, to make urban living a more humane, friendly, and sustainable experience. This is the challenge of the future.

This article was taken from a speech delivered by Secretary General Mauricio Trujillo Uribe at a Cities Programme Forum on Innovating Cities at the World Urban Forum in Medellín in April 2014.

The City of Bogotá joined the United Nations Global Compact in 2012. The city participates the Leading level.

de estas aplicaciones de ciudad inteligente se requiere un cambio en materia de responsabilidad social ciudadana y de respuesta institucional, pero a la vez el uso de este medio provoca y retroalimenta el cambio de cultura ciudadana e institucional.

Esto es, el de las nuevas oportunidades que brindan las TIC de participación ciudadana en lo público y de transformación de lo público, hace parte de un campo más amplio: el aporte de la era digital al fortalecimiento del Gobierno y la Gobernanza Democrática en las ciudades. Me refiero al Gobierno en Línea y a los nuevos escenarios virtuales de ejercicio de la democracia ciudadana.

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Connecting technology, ethics and transparency in Pula

Hajdić-Golja Lovorka, Assistant Head, Grad Pula, Pula, Croatia

The City of Pula in Croatia is focusing on communication technologies to advance good governance, transparency and citizen rights.

The City of Pula is a 3,000-year-old city rich in history and numerous archeological finds. Most notably its amphitheatre – the Arena.

The city’s history dates to Roman times. Then called Colonia Petra Julia Pola, the city had all the functions of a city, from public and private institutions to cultural and social life, including the Arena. The Arena is the most significant and largest structure of Roman times in the world. It is a unique example of Roman architectural achievement and structures typical of Roman settlements. During the Austro-Hungarian Empire, Pula was the main base of the Austrian Navy.

Pula is located in the south of the Istrian peninsula and is known internationally for its long tradition of shipbuilding. It is the main tourist destination of Croatia, with a population of 57,460.

In recent years, the city has emerged as a regional leader in communications and the introduction of new technologies.

Advancing technology and transparency in community services

Pula is the first local government unit to have introduced a comprehensive e-business policy compliant with applicable laws and subordinate legislation of the Republic of Croatia.

In 2008, using the IT system of the company SWING Informatika Ltd., the city began the process of establishing an electronic document management system for its administrative bodies. The SWING system (SPM + IBM Lotus Domino) enabled, in the first phase, the electronic circulation of documents between city administration departments to support a faster, more accurate and more efficient business.

In 2011, complete e-documentation communication was implemented with the introduction of a certified, advanced electronic signature system. The advanced electronic signature has the same legal force as handwritten or stamped signatures.

The system has been further expanded by introducing:

- e-Accounts and e-Payment slip – an electronic billing internet service
- e-Kindergarten – a unified system to enroll children in kindergartens
- the City of Pula’s official website (www.pula.hr) – the upgraded website enables citizens access to information about cases before the city administration through programs such as a case access code system InforMS, a geographic information system e-Space and e-Consultations.

As of 2013, all official materials necessary for Pula City Councillors to make decisions are submitted exclusively by electronic means.

Through the constantly expanding PulaFreeAir project, free internet access is provided at the city’s busiest open areas, especially near schools and colleges.

In 2009, a quality management system was introduced according to ISO 9001: 2008. A re-certification audit was successfully conducted in 2012. In 2011, systems for information security management according to standard ISO 27001: 2005 were introduced.

The results achieved, in terms of efficiency and operational excellence, have been recognized nationally and the city has received a number of awards. In a LOTUS survey conducted by CONG, is non-party organization funded to encourage citizens to participate more actively in the political process, in collaboration with the Association of the Cities (AOC) in the Republic of Croatia, as part of the project ‘Together against corruption’, Pula achieved third place for transparency of management. The study included 57 cities, municipalities and counties. The e-Kindergarten project won the 2012 Award for innovation and creativity presented by the Network for Development and Creativity. This project was also presented with an award by the AOC for its innovation and best practice in local government in 2013.
In cooperation with the AOC and the World Bank Institute — with which the AOC coordinates the implementation of the Urban Partnership Program — the City of Pula presented the e-business project at the ICT conference ‘Local self-government: Strengthening social responsibility’ in Sisak, Ljubljana, and Vienna.

The city plans to continue its development in this direction, particularly emphasizing the interests of various stakeholders to achieve quality and sustainability. At the global level, Pula will work towards the goals of environmental protection and respect for basic human rights. Pula recognizes that being socially responsible means not only fulfilling legal obligations, but also investing in human capital, the environment and relations with stakeholders.

The general objectives of Pula’s Corporate Social Responsibility (CSR) management system are:

- defining acceptable behaviour of employees and officials
- establishing high standards of work and business
- setting realistic expectations from all interest groups (stakeholders).

As a unit of local government, the City of Pula aims to empower the highest standards of administration through practical application of the Principles of Good Governance under the European Code of Good Administrative Behaviour approved by the European Parliament in 2001.

The established policy of CSR is to provide sustainable urban development based on fundamental principles of CSR, including:

- **Respectibility**: the city is responsible for the impact of its own decisions and activities on the community and the environment.
- **Transparency**: the city is transparent in its decisions and activities that affect the community and the environment.
- **Ethical behaviour**: organizational behaviour is based on honesty, fairness and integrity.
- **Respect for the needs of all stakeholders**: the city recognizes and respects the needs of all stakeholders.
- **Respect for the rule of law**: the city accepts business strictly in accordance with all applicable laws and regulations.
- **Respect for international norms of behaviour**: the city complies with international norms of behaviour while adhering to the principles of respect for the rule of law.
- **Respect of human rights**: the city respects human rights and recognizes their importance and universality.

### City of Pula’s Code of Ethics

When implementing CSR policies it is necessary to respect the needs and interests of all stakeholders, that is any individual or group that has an interest in any decision or activity of the organization, the City of Pula.

Through detailed analysis of the City of Pula’s activities established by applicable laws and subordinate legislations, the most important stakeholders of the city have been established and grouped according to the following areas:

- **Institutional management**
  - Administration: City Council (representative of Pula citizens), Mayor.
  - Employees: officials, clerks, employees.
  - Users of the service: citizens, economy, not-for-profit organizations.
  - Suppliers and partners: companies owned or co-owned by the city and the institutions founded by the city, suppliers, banks, institutions and associations.
  - Associations: Membership in national and international associations, twinned cities.

- **National and regional government**: state administration bodies, Region of Istra.

- **Community**
  - Citizens, public media, ethnic minorities, religious communities, civil society, political parties and diplomatic bodies.

- **Economy**
  - Companies, craftsmen, free professions and investors.

- **Natural environment**
  - The next step in the work of the implementation team was to define the expectations associated with each stakeholder. In this procedure, it was necessary to specify by name the most important stakeholder representatives of certain categories.

The Code begins with the foreword by the Mayor of the City of Pula-Pola.

Ethics in order to:

- establish realistic expectations of stakeholders.

Pula recognizes that being socially responsible means not only fulfilling legal obligations, but also investing in human capital, the environment and relations with stakeholders.

In relation to the Code of Ethics, the city accepts the following ethical principles:

- We take a responsible approach toward all city stakeholders.
- We respect differences — ethnic and cultural particularities.
- We respect and promote the protection and conservation of original toponyms and local dialects – Chakavian dialect.
- We are transparent in our decisions and activities.
- Our behaviour is based on honesty, fairness and integrity.
- We are able to respond to the needs of all city stakeholders.
- We accept business only in accordance with applicable laws and subordinate legislations.
- We respect international norms of behaviour while respecting the rule of law.
- We respect and recognize the importance of human rights.

In the final phase, before the project was handed over to the city government, an action plan was prepared and a completion deadline of two years was set. The plan consists of actions systematized in 13 points necessary for steadily improving performance of the CSR management system.

The certification company Cto Cert. — authorized in the Republic of Croatia and partner of the International Certification Network, IQNet — conducted an external audit after three months of the system’s implementation in the city administration’s activities. The City of Pula is anticipating a positive report on the quality of work and compliance with the high demands of IQNet.

The City of Pula recognized the value of CSR and has introduced a CSR management system according to the IQNet SB-10 in order to achieve its development vision to make our city a desirable place to live and work. We strive to continuously improve our activities. We are not afraid to work in new and better ways and consider our diversity to be our strength.

**The City of Pula joined the United Nations Global Compact in 2014.**

A city with Roman roots, Pula is moving forward with communications and new technologies. A regional leader, Pula is using e-business Principles of Good Governance and a cooperatively developed Code of Ethics to guide its CSR agenda and engage its citizens in supporting robust and transparent city administration. Image: Grad-Pula.
Transforming Dubai into a ‘smart’ city

Mahmoud Hesham El Burai, Managing Director, Dubai Real Estate Institute, Dubai, United Arab Emirates

As Dubai in the United Arab Emirates prepares to host the World Expo in 2020, the city is implementing a number of projects in pursuit of its goal of becoming one of the world’s leading smart and sustainable cities.

Dubai has undergone significant development over the past decade and has transformed from a small desert trading hub to an urbanized metropolis. Under the leadership of Sheikh Mohammed bin Rashid Al Maktoum, Dubai has grown into the largest city, principal port and commercial hub of the United Arab Emirates (UAE).

In November 2013, the UAE won the right to host the World Expo in Dubai in 2020. This will be the first time that the World Expo will be staged in the Middle East, North Africa and South Asia. The theme for Dubai’s World Expo will be Connecting Minds, Creating the Future, which reflects the spirit of partnership and cooperation that underpin the UAE’s success in pioneering new paths of development and innovation. Through this theme, Dubai Expo 2020 aims to provide a space for connecting minds from across the globe and inspire participants to mobilize around shared challenges under the sub-themes of Mobility, Sustainability and Opportunity. Dubai Expo 2020 is expected to attract 25 million visitors, of which 70 per cent will be from overseas.

In 2014, Sheikh Mohammed bin Rashid Al Maktoum, Vice-President and Prime Minister of the UAE and Ruler of Dubai, launched a strategy to transform Dubai into a ‘Smart City’. The strategy features six key pillars and 100 initiatives around transport, communications, infrastructure, electricity, economic services and urban planning. Under the strategy, 1,000 government services will ‘go smart’ in the next three years.

Sheik Mohammed’s overarching goal in the roll out of Dubai’s Smart City Strategy is for this project to touch the lives of every citizen of the UAE in the immediate future. Having recently announced the strategy, the Government of Dubai plans to implement a number of related projects, including:

- The development of a 5D Control Room, the world’s largest of its kind, which will be used in the process of transforming Dubai into a Smart City.
- The smart electrical grid to encourage homeowners and buildings in Dubai to use solar energy and sell surplus reserves back to the government through the network itself. In addition, smart meters will be developed with the aim of rationing the consumption of electricity and water in Dubai.
- The implementation of the Smart Parks and Smart Beaches projects, which will provide detailed information about weather conditions, temperatures and safety guidelines.
- In line with Dubai’s commitment to become a world leading Green City, and to make Dubai Expo 2020 an environmentally sustainable event, the Municipality of Dubai recently implemented mandatory green building regulations for the private sector and all private development projects initiated since 1 March 2014.

Dubai’s 5D Control Room will play a critical role in overseeing government projects, service indicators and monitoring roads, weather conditions and emergency situations.

- The My Window to Dubai Program, which will allow city institutions, facilities and residents easy, shared access to data and information about schools, hospitals, roads, transport systems, sensors, buildings, energy and more. This program reflects the three basic ideas upon which Dubai’s strategic plan was founded: communication, integration and cooperation.
- A comprehensive plan to ensure the provision of the smartest transportation system in the world through the creation of a unified control centre to improve traffic and transportation systems.
- The development of a smart electrical grid to encourage homeowners and buildings in Dubai to use solar energy and sell surplus reserves back to the government through the network itself. In addition, smart meters will be developed with the aim of rationing the consumption of electricity and water in Dubai.
- The implementation of the Smart Parks and Smart Beaches projects, which will provide detailed information about weather conditions, temperatures and safety guidelines.
Heritage and culture

“Cultural diversity creates a rich and varied world, which increases the range of choices and nurtures human capacities and values, and therefore is a mainspring for sustainable development for communities, peoples and nations.”

UNESCO Convention on the Protection and Promotion of the Diversity of Cultural Expressions 2005

As our global connectedness increases, recognizing what makes cities and their people distinct (as well as what they share) presents a wealth of social, economic and environmental opportunities. Preservation of culture and heritage is critical as a human right and as a social and environmental imperative.

Culture is the “meaning-making processes” (Williams 1958), the repository and the expression of knowledge through which we make sense of our lives. This “repository of knowledge, meanings and values... defines the way human beings live and interact both at local and global scales” (UNESCO 2010).

Drawing on their cultural heritage and using cultural expression and celebration as their voice on local and global stages, Global Compact cities are addressing the challenges of urban change as they look to design and build futures that protect human rights, encourage opportunities for all to earn a living and are fair, honest and environmentally responsible.

A long-standing leading Global Compact city, Barcelona recognized the promise of celebrating culture and cultural diversity when it held the first Universal Forum of Cultures in 2004. This city-wide event celebrates culture and cultural diversity, aiming to build more cohesive, sustainable, just and humane cities and launch them as the driving force behind efforts to incorporate cultural, educational and urban dimensions into the global agenda.

Placing cultural expression and creativity centre stage, Barcelona and the cities that have since held the Universal Forums recognize the important contribution cultural industries make to resilient social, political and financial economies.

A UNESCO report estimated that cultural industries generated jobs and income to the value of US$1.3 trillion in 2005 (UNESCO 2010), while cultural and creative industries have been estimated to be responsible for over three per cent of the European Union’s GDP.

Ensuring heritage, culture and urban development meet diverse needs has been central to cities whose rich cultural traditions and historical attractions attract local and international visitors. As one of the fastest growing sectors in the world, tourism makes a significant contribution to urban development. Yet as the number of visitors to cities increases, city governments have had to think carefully about sharing the benefits developing their cultural and creative industries brings to the city, and managing related impacts.

Mindful of this issue, Dubrovnik is pursuing urban revitalization that seeks to reconcile and meet the needs of both the increasing number of tourists to the city each year and its residents. Meanwhile, local governments in Malta are pursuing action plans based on decentralized and democratized urban planning and their recognition that cultural heritage and vitality, urban regeneration and tourism are pillars of the economy that can boost the international and local profiles of two of its cities, Paola and Valletta.

We learn about the value of the local level from the regional shire of Central Goldfields in central Victoria, Australia, which is taking art to its heart to (re)build a vibrant, culturally active and more resilient community.

This chapter showcases and celebrates the creative and thoughtful ways cities are drawing on the power in their distinct, often diverse, cultural voices to meet the challenges of today and address those of the future. Woven finely into urban life, our cultures and cultural heritage are continually being redefined. They are, therefore, an important stage from which cities and their residents can contribute to local and global debates and future directions.

Preservation of culture and heritage is critical as a human right and as a social and environmental imperative.
In 1997, the Universal Forum of Cultures was designed as a platform to show what cities and citizens could do to change the world. At a time when the world held high expectations for the 21st century, and cities were playing an increasingly meaningful role in the international arena, cities were not represented in major governance bodies and most countries lacked clear urban policy agendas to offer citizens their imagined futures.

Still, the world had its share of good intentions. Excellent meetings, huge international events and important media gatherings were held that produced endless news pieces and nice pictures, as were drawn-out and well-meaning declarations, and some initiatives did result in positive policies for citizens.

The Universal Forum of Cultures – Barcelona 2004

Barcelona, a city that wanted to strengthen its voice in the international arena, launched the Universal Forum of Cultures to offer the world’s cities and citizens the opportunity to express their hopes, fears, thoughts and wishes. It was to be a forum to discuss and reflect on the common yet diverse issues important to daily life, such as climate change, cultural diversity, attitudes that improve our planet, economic organization, democracy, human rights and women’s and social justice issues.

Culture in its broadest sense was to be the core of the Forum process. The Forum’s founders saw three types of action as the best means to this achieving this: dialogue to talk and debate, exhibitions to show and explain and celebrations to play and express.

Through these aims and actions the Forum established a platform to question the obvious, foster the meeting of the difference and let voices of dissent be heard in an environment that cultivated a listening culture. The Universal Forum of Cultures event was to be a cocktail of cities and citizens, culture in its broadest sense, peace, cultural diversity, sustainable development, many diverse agents and a great deal of goodwill.

The Universal Forum of Cultures was, from the start, to be a driving force behind efforts to incorporate cultural, education and urban dimensions into the global agenda. Unlike other world events, it would be a cultural exchange built on the will to develop the basic unit for conviviality – the city. It would be based on the belief that respecting human rights, promoting cultural diversity, enhancing all dimensions of sustainable development and the conditions for peace and conviviality would lead to a better, more just and more cohesive city.

To be successful, the Forum required all stakeholders – citizens, civic, cultural and social organizations, corporations, small and medium enterprises, cities, media, social movements and so many others – to get involved. As such, the Forum is a threefold movement: it is a cultural event, it is a process that encompasses and encourages city and citizen change, and it is a forum that promotes the spreading of ideas, thoughts and best practices.

Barcelona merged this proposal with its ongoing project of renewing the northeast side of the city on the Besòs riverside. A large multifunctional project was developed and a special area was opened for the Forum. Redevelopment saw a major square, an auditorium, a convention centre and a leisure port established. Recovering the coastline, burying a wastewater treatment plant, covering an urban high-speed road and the development of an urban coastal park all helped to transform one of the most downtrodden metropolitan areas of Barcelona. The project sought major renewal, with high environmental, mobility, urban and economic investments made possible by a close public-private partnership. The development of high-quality urban space was foundational to the Forum’s purpose, with the area envisioned as an agora, or gathering place, to express and experience cultural diversity.
Innovative, solidarity-based scientific work. The result is this laboratory of ideas, which six years later continues its development that include citizens. That was, in 2004, the singular experience of the first “UNESCO supports the Universal Forum of Cultures and its purpose of exploring new ways of development that include citizens. That was, in 2004, the singular experience of the first Universal Forum of Cultures in Barcelona. That was also our first collaboration with the Forum Foundation. The result is this laboratory of ideas, which six years later continues its innovative, solidarity-based scientific work.”

Irina Bokova, Director-General of UNESCO, Opening Ceremony, Valparaiso 2010

**Barcelona and beyond**

The Universal Forum of Cultures held in Barcelona, Monterrey in Mexico (2007), Valparaiso in Chile (2010) and Naples in Italy (2013) have left tangible and intangible legacies that in different ways have contributed to improving their citizens’ quality of life and changing city dynamics.

The Forums’ more visible legacies are those related to physical changes in these cities, including public works and economic and/or cultural facilities such as The Forum Park, The Convention Centre and the wastewater treatment plant in Barcelona; the Parque Fundidora, Parque Santa Lucia, Museo del Nordeste in Monterrey; and the coastal bike and pedestrian path, Tornamesa, Estación Puerto and the Maritime Walk.

The Forums’ legacies also include networking practices that have helped organizations work with each other to scale up their activities, increase the institutional capacities of local and regional bodies, develop specific activities — such as new economic, tourism and leisure or cultural activities — and change collective behavioural attitudes encouraging respect for other people and/or the environment.

Looking at the Forum of Valparaiso in 2010 as an example, we witnessed the recovery of public spaces such as Tortamusa, Estación Puerto and the Maritime Walk. The Forum also initiated other processes, including the use of Plaza Sotomayor — the major square in town — for cultural activities; changes in ideas about urban space and its maintenance; environmental learning; Valparaiso’s incorporation into world heritage and tourist city networks; new tourism activities such as boat trips on the bay; the committee for good neighbourhood; and youth peace camp initiatives.

The Forum is not only a cultural festival; the movement goes far beyond each event. The Forum is a process of change and a loudspeaker of voices, ideas, thoughts and best practices. Specific projects, including the school project, peace camp, neighbourhood actions and negotiations, have spread the Forum’s values and practices while building a sense of community.

Many ideas that sprang up at the first Universal Forum of Cultures in Barcelona were innovative and forward-looking and have since been developed. New debates, old debates that were in fashion anew and ideas that seemed crazy at the time all encouraged citizens to express their opinions.

The Universal Forum of Cultures does not purport to be the solution for all of the problems facing the world, but it does aim to provide a spark and help light the road to making things better. Life is a long journey of learning and un-learning and the Forum provides a space for this experience.

The City of Barcelona has been an international leader in promoting the United Nations Global Compact. The city established and hosted the Barcelona Center for the Support of the Global Compact in 2005. The Center grew out of the dialogue on ‘The Role of Corporations in the 21st Century’, which began at the Universal Forum of Cultures Barcelona 2004, and was influential in the expansion of the Global Compact in Europe. The Center’s Director was a lead partner and author of Guía del Pacto Mundial para Gobiernos Locales (Guide to the Global Compact for Local Governments).

Many institutions and citizen organizations also supported the endeavour. They included the International Pen Club, the International Peace Bureau, Green Cross International, Worldwatch Institute, Basic Income European Network, the International Association of Broadcast Meteorology, Casa Asia and Transparency International.

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**Heritage and culture**

Heritage and culture

**Cities for the future**

Concepts, ideas and projects emerged through the combined action and interaction of dialogues, exhibits, performances, artistic expressions, workshops, the Peace Camp, Speaker’s Corner, 141 Questions for 141 Days and the school project. They also emerged through the active involvement and participation of citizens and students, artists and intellectuals, entrepreneurs, visitors and the worldwide online community. In total, over three million people attended and/or engaged with the Barcelona Forum. In this way, the Forum established a meeting place for different stakeholders who have (or will have) a say in the construction of solutions to global challenges.

It set the stage for the involvement and encouraged the responsibility of corporations and investors in the quality of city life.

Barcelona 2004 received the support of several United Nations agencies, including the United Nations Global Compact, UN-Habitat, UNICEF, UNDP, WHO, ILO, and the International Labour Organization, because the Forum’s goals aligned perfectly with the United Nations’ objectives. The Global Compact found a space in both the dialogues and the commitment of different corporations in the operation of the Forum.

Many institutions and citizen organizations also supported the endeavour. They included the International Pen Club, the International Peace Bureau, Green Cross International, Worldwatch Institute, Basic Income European Network, the International Association of Broadcast Meteorology, Casa Asia and Transparency International.
The City of Dubrovnik, as we know it today, is one of the most prominent tourist destinations in southern Europe. However, in the past it has also been known as one of the leading cities of the Mediterranean and many have fought for its ownership.

Initially part of the Byzantine Empire before coming under the sovereignty of Venice (1265–1358), Dubrovnik was granted the right of self-government in 1358 as part of the Hungarian Croatian Empire, reaching its peak as a free state in the 15th and 16th centuries. In 1806, Dubrovnik surrendered to French forces led by Napoleon before it was annexed to Austria (later Austria-Hungary) in 1815. It remained annexed until 1918 when it became part of the Kingdom of Serbs, Croats and Slovenes. Part of the Independent State of Croatia as World War II broke out, Dubrovnik came under Italian then German occupation. In 1945, Dubrovnik became part of the Federative People’s Republic of Yugoslavia and, as the republics of the Socialist Federal Republic of Yugoslavia reached their independence in 1990, the Socialist Republic of Croatia was renamed the Republic of Croatia.

On 1 October 1991, Dubrovnik was attacked by the Serbo-Montenegrin army. The Serbo-Montenegrin siege of Dubrovnik lasted for seven months. In May 1992, the Croatian Army liberated Dubrovnik and its surroundings, but the threat of sudden Serbo-Montenegrin attacks lasted for another three years. Montenegrin attacks lasted for another three years. 

A new development context

Today, Dubrovnik is renowned as a safe and independent town that is a popular global tourist destination. However, the city’s contemporary way of life, higher living standards and the development of the tourism industry have brought new issues to the fore.

The old city centre is slowly losing its function as the heart of Dubrovnik. Until recent times, the old centre was an administrative, political, social, trading and housing hub, but the city’s urban development has seen these functions transferred to the other areas. Tourism has contributed to a rise in real estate values and changes in the number of city residents and housing structures. These new circumstances have influenced the movement of the population to other parts of Dubrovnik where housing is more affordable. Since 1817, the number of people living in Dubrovnik’s city centre has halved. The pursuit of profit throughout the tourist season has also contributed to changes in the function of inner city urban areas. For example, many inner city residents have given up their homes and transformed them into accommodation facilities for tourists.

Addressing challenges and offering solutions

Besides implementing projects based on the revitalization of the old city centre and connecting urban decision makers and citizens to promote mutual collaboration, the City of Dubrovnik and its development agency, DURA, have made significant strides towards addressing new urban development issues. These efforts include the renovation of old and forgotten historical sites such as the Renaissance Aqueduct and the Summer Residence located in the Rijeka Dubrovacka area.

Another project has been to relocate tourists from Dubrovnik’s overloaded old city centre by encouraging the development of new tourist activities on the outskirts of the city. This has assisted with dispersing the growing number of visitors to the old city centre and improving living conditions for inhabitants.

In 2014, the City of Dubrovnik decided to participate in the competition for the title of the European Capital of Culture for 2020. Various actions have been undertaken to work toward achieving this goal, including supporting endeavours aimed at fostering creative cultures and industries. These activities aim to create and organize a solid foundation for urban development and revitalize areas such as the old city centre.

Proposed solutions are in large part based on enticing younger generations and families to move back to the city’s centre by creating more convenient living spaces and business opportunities. In this way, the City of Dubrovnik has sought to emphasize that an increase in permanent residents in the city’s centre is critical to assist with urban revitalization.

Through a European Union financed project, EUPLETT, the City of Dubrovnik and DURA have compared and shared experiences with other cities facing similar issues and sought to find solutions to adapt historical sites to suit new modern trends whilst including inhabitants and local community members in the development process. The aim is to reconcile two seemingly irreconcilable facets of modern life in Dubrovnik — people’s lives and tourist activities.

The EUPLETT project has demonstrated the significance of dialogue between authorities and citizens and the importance of exchanging experiences with similar neighbouring cities. This project has served as an ‘eye opener’ for issues encountered by modern cities with old centres. It has also highlighted the importance of creating an appropriate management plan that sets out suitable guidelines for the revitalization of delicate and historically valuable old town centres.

Revitalizing urban life and cultural heritage in Paola and Valletta

Dr Malcolm Borg, Director, Heritage Enterprise, Malta and Australia.

Paola and Valletta in Malta are regenerating cultural and heritage sites through decentralized and democratized urban planning to improve social, cultural and economic aspects of city life.

The harbourside City of Valletta and the Paola Township, a predominantly industrial region located on the opposite side of Malta’s Grand Harbour, are true examples of the urbanization of the Maltese Islands. With a land size of just 316km² and a population of 417,000, Malta is one of the smallest but most densely populated countries in the European Union.

Over the past three years, the local councils of Valletta and Paola have developed action plans centred on the restoration and adaptive re-use of historical and cultural assets in order to improve their residents’ quality of life.

These plans are co-funded by URBACT, a European exchange and learning program that promotes sustainable urban development. URBACT enables cities to work together to develop solutions to major urban challenges and assist cities as they develop practical solutions to the economic, social and environmental aspects of these challenges. Valletta and Paola have developed locally driven action plans, which is an innovative approach in the context of Malta’s centralized urban planning regime.

A capital of culture

In October 2011, Valletta became a candidate European Capital of Culture (EoC) for 2018 and submitted a bid that included all of Malta. The EoC, an initiative established in 1985, is a designation awarded by the European Union that recognizes the cultural significance of a particular city. Being designated as an EoC is also a valuable opportunity for a city to incentivize urban regeneration, increase its international profile, boost tourism and enhance cultural vitality. Cities nominated as European Capitals of Culture provide living proof of the richness and diversity of European cultures. The initiative has grown to become one of the most prestigious and high-profile cultural events in Europe, with more than 40 cities — from Stockholm to Genoa, Athens to Glasgow and Kraków to Porto — having been designated European Capitals of Culture since the initiative’s inception.

Valletta is also a World Heritage City and was recognized by UNESCO in 1980 as a city of outstanding universal value that has preserved nearly all of its original historical urban features. Valletta is renowned for its imposing fortifications, which date back to the Great Siege of 1565, and the city represents the dominance of European powers in the Mediterranean. Even though Valletta was blighted during the second siege in World War II, it is now a thriving metropolis that serves as an administrative hub, tourist venue and cultural centre. Still, urban development in Valletta during the post-colonial era has left areas in the city indelibly marked by the shift from an imperialist economy to a locally driven micro-economy.

This transformation is also reflected in the Paola Township, a predominantly industrial region located on the opposite side of Malta’s Grand Harbour. The departure of the Mediterranean Fleet and the eventual closure of the town’s shipbuilding docks significantly impacted Paola.

Paola is currently working toward regenerating the pillars of its economy in order to improve quality of life for its citizens and enhance its urban environment. The Paola Township is home to a number of cultural assets that have been designated as World Heritage sites, including Hal Saflieni Hypogeum, the Kordin III Temples and the Corradino Fortification Lines.

Revitalizing landscapes and tourism

Flagship projects have been developed in Valletta through the five-year (2010–15) Heritage as an Opportunity (HERO) Action Plan. These projects target vital areas in the Manoel region through a cultural heritage integrated management plan. The Action Plan for Valletta was based on a character appraisal and considered a new approach to the development of urban planning policies within the council’s Valletta Local Plan.

One of these projects is referred to as CULTS (Cultural Urban Landscapes for Sustainable Tourists) and has been partly funded by the European Union through the European Regional Development Fund (ERDF). The ERDF aims to strengthen economic and social cohesion in the EU by correcting imbalances between its regions. The CULTS project involves the revitalization of a dilapidated and abandoned area called the Peacock Gardens into a recreational park, tourist hub and World Heritage City Interpretation Centre. A number of archaeological discoveries have been made in the Peacock Gardens, including 10 cisterns, a World War II battery and a fortification wall. CULTS aims to showcase Valletta’s cultural heritage and help tourists to discover the city’s history through an interpretation centre. The park will also serve as a gateway to the city from the western side of the Harbour and the Manoel ferry landing.

Planning through urban regeneration

Paola’s Sustainable Planning through Urban Regeneration projects have been developed as an integrated program through the Repair Action Plan over a five-year period (2010–15). Also funded through URBACT, this Action Plan adheres to four key pillars that aim to stimulate development, namely, conservation, tourism and recreation, energy and waste and local jobs for local people. By following these principles, tangible projects have been designed for areas situated upon the principal north—south axis of the town. Based on a greens corridor and heritage route, projects target the restoration and adaptive re-use of heritage assets and the regeneration of Paola’s grid iron plan is marked by the Paola Parish Church, a significant landmark of the East Harbour skyline. The square is one of the most important commercial centres in the region and is being earmarked for revamping to interconnect critical World Heritage sites and encourage commerce and tourism. Image: Heritage Enterprise 2011.
The south wing’s restoration will enhance the site’s master plan. This plan is based on a triple-helix system aimed at enhancing use of the facility as a sports complex, developing a hostel and boosting niche tourism in Paola. Overall, this project is intended to increase tourism in Paola, further support the city’s commercial centre and reduce unemployment in the area.

Heritage through participation

These action plans were developed with the support of the Paola and Valletta Local Councils with the assistance of an Urban Local Support Group (ULSG).

Each URBACT partner, and the Valletta and Paola local councils, was required to set up this support group of local stakeholders. This was an important step in creating awareness of local heritage conservation, empowering local actors and motivating citizens to participate in project planning processes.

The ULSG was a key innovation of the URBACT program. It fostered a participative policy-making approach at the local level and led to the founding of the non-governmental Paola Heritage Foundation. The projects undertaken in Valletta and Paola have also been enhanced by surveys and public consultations aimed at encouraging greater public participation.

Decentralizing and democratizing urban planning

This Maltese experience supports the idea that decentralization in urban planning and democratization in planning and design are vital in ensuring wide public recognition. The experience of these local and council-driven projects supports the principle of subsidiarity and decentralization in a state where councils are still relatively young in the context of city management. Public participation in both projects demonstrated keen interest among local citizens, the engagement of stakeholders in project development and popular support for local projects.

The Local Councils of Paola and Valetta joined the United Nations Global Compact in 2012. In 2014, Region Xlok, the South-East Regional Committee of Malta comprising 15 regional city councils, made the commitment to the Global Compact.
Making arts central in a regional Australian community

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An innovative and multi-disciplinary arts program is working to build a vibrant and culturally active community in central Victoria, Australia.

Art Central is a three-year cultural development project in the Central Goldfields Shire, located in regional Victoria, Australia. A high-quality, innovative and multi-disciplinary arts program, it is working to build a vibrant and culturally active community. As with many Australian regional communities, the shire has faced various adversities over recent decades including droughts, bushfires and sharp declines in employment. Art Central aims to shift a deeply embedded survivor mentality associated with a community toughing out hard times, to one in which hope and aspiration are valued and achievement is considered possible.

Art Central is supported by the Cultural Development Network, Central Goldfields Shire Council, Go Goldfields (a Victorian State government initiative) and the Australian Council of the Arts. Its activities have been extended across the shire community, including the arts, health, education, recreation and business sectors. The Central Goldfields Shire is one of the most recent additions to the Cities Programme, becoming a Global Compact signatory city in 2014.

From resilience to optimism

The Central Goldfields Shire is located in central Victoria, one hour’s drive from the regional cities of Ballarat and Bendigo and about a two-and-a-half hour drive northwest of Melbourne, the capital city of Victoria. The Central Goldfields region has a unique combination of natural environment, with significant manufacturing, retail and tourism potential. The shire has a population of over 7,500 people, a rich gold rush history and relatively cheap housing. It is celebrated for tourist attractions, including stunning heritage buildings, wineries, the historical Maryborough station and farmer’s markets. Other prominent townships in the shire include Bealiba, Carisbrook, Dunolly and Talbot. Maryborough is the shire’s main business centre with a population of approximately 7,500.

For the past few decades, townships in the Central Goldfields Shire have been one of the state of Victoria’s most socio-economically disadvantaged (ABS 2011). Maryborough is suffering from the effects of entrenched poverty, where unemployment rates are double the state average and food security and education attainment are the among the lowest (Vanon 2007). While rural and regional Victorian towns are no strangers to the cycles of ‘booms’ and ‘busts’ of droughts, bushfires and global economic fluctuations, these events eventually take a hard toll on their communities. Decline of industrial employers over the past few decades has left a legacy of unemployment and a constant flow of people accessing public housing in the shire; a situation compounded by limited access to higher educational opportunities in the area.

In 2007, as part of a whole-of-community planning and development initiative, Council commissioned a study on the shire’s economic, social and educational challenges (Perry 2006). The Council’s vision is to build a highly desirable community to live, learn, work and visit. The study highlighted not only socio-economic problems but also revealed challenges in community identity and values. The community has become ‘resilient’ after decades of ‘toughing out the hard times’, but its culture lacked a sense of aspiration, achievement or positive future visioning (ibid). A shift in community culture was needed, one where the future would not mirror the past.

The work and research of the Cultural Development Network, an Australian not-for-profit organization, has demonstrated that the arts play a key role in the cultural vitality of communities of all kinds, and the key to animating the culture is to tap into ideas, activities and values that lie within existing institutional and community organizations.

Project partnerships

The idea for a cultural development project had been in discussion for over two years between the Cultural Development Network and local government, artists, businesses, sport associations, schools and a diverse range of not-for-profit organizations before funding for Art Central was finally secured in 2012. Council led the project and provided the significant infrastructure and support required. Apart from the Central Goldfields Shire Art Gallery, Art Central is the first multi-year arts-based Council investment, via Go Goldfields funding – another key Art Central project partner. As one of the Victorian Government’s Great Outcomes Action Plan for Families initiative, the timely commencement of Go Goldfields’ Shire-wide work on youth and literacy provided an opportunity for direct observation of the unique role community plays in linking and creating partnerships.

Community leaders’ role in cultural sustainability

The fundamental philosophy and goal of the Art Central project was to create a lasting impact (beyond the life of funded programs) in the lives of participants, community leaders and their communities. Community leaders are often influential individuals who have the capacity to champion community arts in their communities and organizations. Art Central intends to help leaders to understand and embrace the value of arts in their own organizations, in their partnerships and sponsorships with their communities.

Recognizing the value of including community leaders in its creative and cultural development process, Art Central connected key representatives from distinct areas of arts, business, education, sports and health via the formation of a community leaders group. This unique approach to partnerships provides an interesting model of community engagement process. RMIT University was engaged to evaluate Art Central outcomes and the impact the project’s partnerships have on community culture.

Art Shop opens its doors

Since its official launch in January 2013, Art Central has engaged a diverse team of professional resident artists to forge links with community members and groups in collaborative creative arts projects. The overarching theme of raising positive community aspirations is interwoven into the project intent, direction and activities.

From its inception, Art Central founds a home base in a working studio space centrally located on High Street in Maryborough to house its activities in the life of the project. The ‘Art Shop’ doubles as a studio and gallery, which maintains an “open door, all welcome, walk-in-walk-out” policy and a creative space for anyone interested. The shop has since hosted regular and impromptu workshops, meetings, art exhibitions and community consultation sessions. It has become a “go-to” space for all matters related to the project. While the Art Shop is located in Maryborough, project activities have also extended to other prominent townships in the shire, including Bealiba, Carisbrook, Dunolly and Talbot. To date, the shop has become an exciting, creative community arts space and is seen as a valuable addition to the cultural landscape of the Shire.
Outcomes to date
As at 2014, Art Central is a little past its halfway mark, with the scheduled completion due in December 2015. Throughout 2013 and 2014, Art Central resident artists have been involved in numerous creative collaborative projects with hundreds of individuals, groups and organizations in the community. Strong working relationships have been forged with the health sector, particularly a mental health unit as well as a disability organization. Successful and reoccurring connections were also made with local parents and children groups. Art Central has also engaged positively with local primary and secondary schools.

Vases, verses and growing acceptance
The Vases ‘n’ Verses project was initiated in conjunction with the 2013 annual Central Goldfields Shire Spring Fling Festival. Over 120 residents painted nearly 50 (1m x 1m) vases, which were displayed in highly visible, unexpected places around the Shire such as farm fences, side streets, a main street roundabout, library windows, and school offices to name a few. The colourful vases resulted in many ‘Aha! This is what art is … and can be!’ and ‘So … that’s what Art Central is doing!’ moments. Individuals and organizations with very little awareness of the project noticed and admired the vases and wanted to know how they could also paint a vase.

These positive reactions reflect growing acceptance of the project by the community. The striking visibility and ‘street-based approach’ of the installation is a key contributing factor for a burst of new and positive creative dialogue with the community. It is interesting to note that none of the numerous vases planted in public spaces were vandalized or damaged. The installation has become an icon for the Art Central and, one year on, is still being praised by many in the community as a catalyst for propelling the project into the public eye and consciousness.

Lets talk about the future
In the second half of 2014, a shift in what may be described as a more definitive construction and purposeful direction for the project was observed. This shift is reflected in the beginnings of a discourse pertaining to ‘the future of Art Central’, which has since led to further discussions about how the positive outcomes of the project can be sustained in the community after funding has ceased. Inspired by the success of the Art Shop, there is also ongoing dialogue about setting up and maintaining a long-term creative working space studio. A member of the community leaders group, an influential individual in the shire, was the initiator of these discussions between various members of the community and Council. The recently established Future of the Community Arts committee is a result of these conversations. The committee’s purpose is to explore structural, funding and administrative options for establishing a sustainable model for an independent community-run and self-sustaining fund for the arts in the shire. Council has recently invested in part-time staff to research and write a strategy for the future of arts in the shire. While in its early stages, this development reflects the pivotal role community leaders have had in driving and establishing a legacy of continuity and appreciation of the arts within the community.

The Art Central project has provided an interesting insight into the impacts a cultural development project can make in regional community struggling with the many challenges facing so many contemporary regional communities worldwide.

Central Goldfields Shire made the commitment to the Ten Principles of the United Nations Global Compact in 2014.
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