

Urban Cultivation

A Guidebook to:



Educate.

Empower.

Engage.

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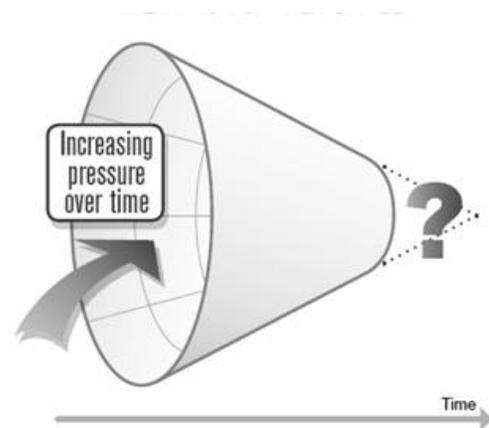
1

The Sustainability Challenge

Globally there are systemic increases in anthropogenic pressures on the earth's natural resources, challenging the ecosystem's carrying capacity due to a greater rate of consumption than replenishmentⁱ. Such pressures are directly contributing to issues as climate change, economic instability, biodiversity loss, ecological degradation and environmental pollutionⁱⁱ. The future effects of such issues are largely unknown, as are the consequences to the earth's carrying capacity that will affect the very system humanity relies upon for survival.

The deteriorating capacity of the ecological system's ability to support humanity's increasing demands can be depicted through the visual metaphor of a funnel, as seen in Figure 1.

The narrowing of the funnel walls reflects current sustainability problems are due to systemic errors in societal design and the weakening ability of the socio-ecological fabric to support our current societal means of livingⁱⁱⁱ



New practices need to be designed with a sustainable future in mind, allowing natural systems to return to a state of equilibrium. Sustainable development, defined as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”^{iv} holds such potential. More so when constrained within the limits of the Sustainability Principles^v. These principles state that in a sustainable society, nature is not subject to systematically increasing:

- 1 ...concentrations of substances extracted from the Earth's crust;
 - 2 ...concentrations of substances produced by society;
 - 3 ...degradation by physical means;
- and in that society
- 4 ...people are not subject to conditions that systematically undermine their capacity to meet their needs.

2

Agriculture & Sustainability

“40% of an individual’s ecological footprint relates to the food they eat”

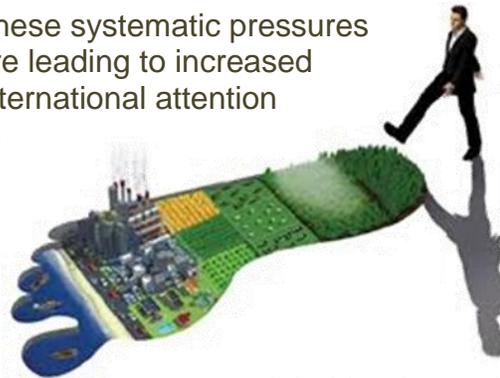
In the past 50 years, society has doubled its demand on the ecological system through intensification of industrial processes^{vi}. The current design of the agricultural system is primarily based on achieving economic efficiency; increasing production to meet the demands of the world’s growing population. This is enabled by industrial style farming, with disregard to ecological health^{vii}.

The agricultural systems usage of natural resources is extensive. Irrigation practices account for 35% of global water usage^{viii}, and “by 2030...world’s farmers will need 45% more water than today”^{ix}. Chemical inputs into soil and continual intensive industrial farming practices are causing increasing topsoil erosion, reducing soil capacity for agrarian efficiency, undermining the foundation of food production^x.

The agriculture system is reliant on fossil fuel energy consumption through food production and distribution. Food products travel on average 1,640km prior to purchase^{xi}. This requires up to ten times more energy needed to maintain product longevity and quality

than required to grow the crop initially^{xii}. With food intended for such long distribution networks and mass production, approximately half of harvested food is lost in the supply chain^{xiii}; with 30-50% nutritional loss as a result of transportation and storage lag between processing and consumption of fruit and vegetables^{xiv}.

These systematic pressures are leading to increased international attention to



global food security as social and ecological needs continue to rise. The FAO predicts between now and 2050 demand for food will rise by 70%, due to increasing population and rising standards of living^{xv}. To address these challenges, there is a need to find innovative and sustainable means to farm on land already accessible, already developed.

3

Population & Urbanization

Pressure of the sustainability challenge is driven by the demands of an increasing world population; a trend occurring with the most prevalence in urban areas.

Populations are predicted to rise from 7 billion to approximately 9.2 billion in 2050^{xvi}. By then, 70 – 80% of the global population will live in urban centres^{xvii}.

This forecasted growth would entail a need to produce more food worldwide over the next 50 years than has been produced over the past 10,000 years combined^{xviii}. To meet this demand, an additional landmass the size of Brazil will be required to adequately feed the global population by the year 2050^{xix}.



Is Localization the Answer?

The localization of food production is a means to create local food security; reconnecting people to their food, promoting food accessibility, nutrition and cultural preference.

Within the urban sphere, low-income communities can be particularly sensitive to challenges instilled from the current food system. These communities are prone to an increasing phenomenon known as food deserts; isolated areas lacking accessible and affordable fresh, unprocessed, nutritious food^{xx}.

4 Urban Areas: an Arena for Sustainable Development

The urban sphere, “the quintessential example of a complex adaptive system”^{xxi} has demonstrated an ability to be adaptive and innovative for change.

Everything you need is Already Inside

As drivers of economic growth, creativity and co-creation through collaborative Third Spaces, cities provide unique opportunities in rallying creative thinking for solving complex issues. Urban spheres are at the epicentre of technological advances^{xxii} such as recycling programs, green building and retrofitting techniques. Innovation is spawning grassroots initiatives such as Wally Satzewich’s Spin Farming and Britta Riley’s WindowFarms. Entrepreneurial advances, for example Brightfarms rooftop agriculture and advanced LED light growing techniques used by MetFarms. These methods are

diverse; ranging from spin farming, maximising production on a small acreage to hydroponics and growing with soil substitutes, technology and our interaction with that technology in the urban sphere is advancing quickly.

Sustainable development in urban spheres can be used as a strategy to develop ‘copycat’ effects, advocating sustainability to be adopted within an urban context. Such advances will not only create spillover effects into local economies, but also further stimulate urban communities to embrace sustainable approaches to strengthen community resiliency. Vancouver’s Michael Levenstons’ Compost Demonstration Garden does just that; with a specific function to showcase the benefits of inner city food production and waste recycling techniques to a broad audience, from the surrounding community to visiting overseas delegates^{xxiii}.



5 Benefits of Urban Agriculture



UA projects offer many intimately linked environmental, social and economic benefits, providing solutions for tackling the intimately linked concerns that make up the complex system of urban areas^{xxiv}. From this, there is an increasing understanding of the value UA projects have as a powerful vehicles for urban areas to address the sustainability challenge. Some of the benefits include:

ENVIRONMENTAL



- Beautifies, cools climate & filters air pollution (Mougeot 2005).
- Means of environmental education (Smith 2008).
- Fosters an ecological habitat for inner city flora, fauna & wildlife (Bellows 2003).
- Recycles Waste (Dunn 2012)
- Reduces energy consumption, with decreased food miles (Broadway 2009).
- Revitalization of brownfield sites contribute to storm water retention (Schadek et al. 2009).

SOCIAL



- Reconnects people with nature, offering accessible & affordable food while fostering an understanding of a healthy diet (Bellows 2003).
- Localization increases their food security (Mougeot 2006).
- Supports community building (Coleman & Gotze 2001)
- Increases an understanding of the processes affecting our food system (Simaika and Samways 2010).
- Decreasing crime, trash dumping, juvenile delinquency and drug and alcohol abuse (Bellows 2003).



ECOECONOMIC

- Localized Economy offers security against fluctuating international food prices
- Job creation (Armstrong 2000).
- Domino Effect: can spur other projects (ie. bike coops and nearby restaurants selling local food)
- Household savings through growing vs purchasing food produce
- Increases surrounding land value



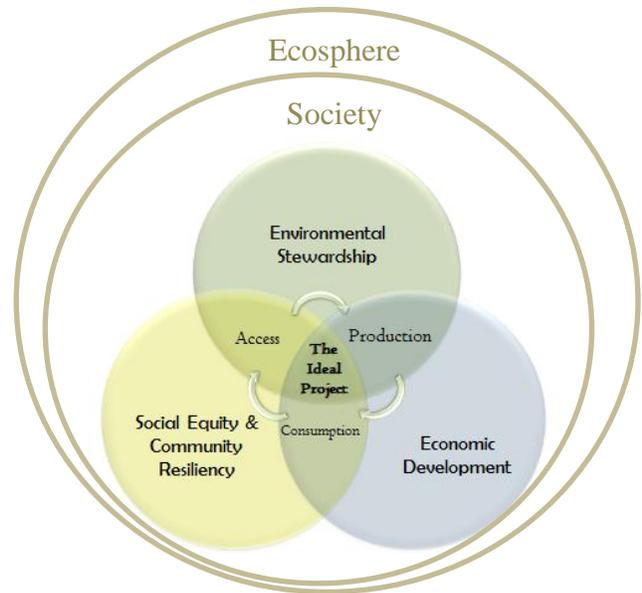
WHO

- Participants, Volunteers (of all ages!)
- Leaders & Practitioners
- Surrounding community
- Society
- The Earth
- EVERYBODY 😊



6 Systems Thinking

Systems Thinking entails that individual properties can only be understood through the dynamics of the whole, producing a better understanding of the roles each part plays and how they interact with each other within the larger system of the biosphere^{xxv}. It acknowledges the need to unite the aspirations and actions of those interacting within complex systems and the sustainability challenge^{xxvi}. This basis of understanding and acknowledgment allows a holistic approach, fundamental when planning or restructuring; an integral part of sustainable development



Strategic Sustainable Development (SSD) is a methodological approach that drives sustainable practice and awareness. There are two key components of the SSD approach. The initial component is to define a vision to work towards; this vision must be shared for its full benefit to be communicated and achieved. This vision should be constrained within the scientifically deduced Sustainability Principles. These principles act as boundaries for a future vision of the organisation to be designed within, they are general in order to ensure applicability and designed to inspire and guide creative actions within the capacity of the socio-ecological system^{xxvii}.

7 Creating the Ideal Project. The process and the plan

So, now you know some background to sustainability, and the benefits of UA, so how do you make a successful UA project? The next few pages outline a process in which you can follow. A conceptual framework to organize and strategically plan towards success, creating your own Ideal Project, as well as a process to guide you step by step along the way.

The FSSD The Framework for Strategic Sustainable Development (FSSD) is a conceptual framework, allowing a simplified understanding of the many elements that make up a UA project. Information is structured into the respective five levels (which you can adapt to meet your own dreams too!). This framework aids in analysis of complex systems, decision making and planning towards sustainability.

The ABCD is a planning process, incorporating all the SSD concepts, holding the ability to actualize the Ideal Project in the FSSD. For the case of UA, a preliminary ‘1° Explore’ step has been added. This places emphasis on incorporating the community and sensing the field in which the UA project will be involved in. The process is outlined step by step below.

Systems 1°	Adopting a systems thinking perspective to understanding the UA projects relationship with the community, to the city, to society to the ecosphere.
Success A&B	A commonly shared vision of success is created, aligned with the Sustainability Principles. The 10 Foundational Values will be a reference point of success, in which a UA project should adopt for a success and sustainable future.
Strategic D	Backcasting is used as a methodology to strategically move towards a future vision of success. The 3 prioritization questions, along with the 3 E’s are used as strategic planning guidance. Further, collaboration between different UA projects as well as the greater community is a primary strategy for increased success and community resiliency.
Actions C	The 25 Strategic Recommendations are used as a Best Practice menu for UA projects. These are chosen, based upon contextual needs of UA projects as a starting point, with additional actions brainstormed to match individual needs.
Tools	Amongst other sustainable mobilizers, <i>The Urban Cultivation Guidebook</i>

The FSSD – A Conceptual Framework for Strategic Planning

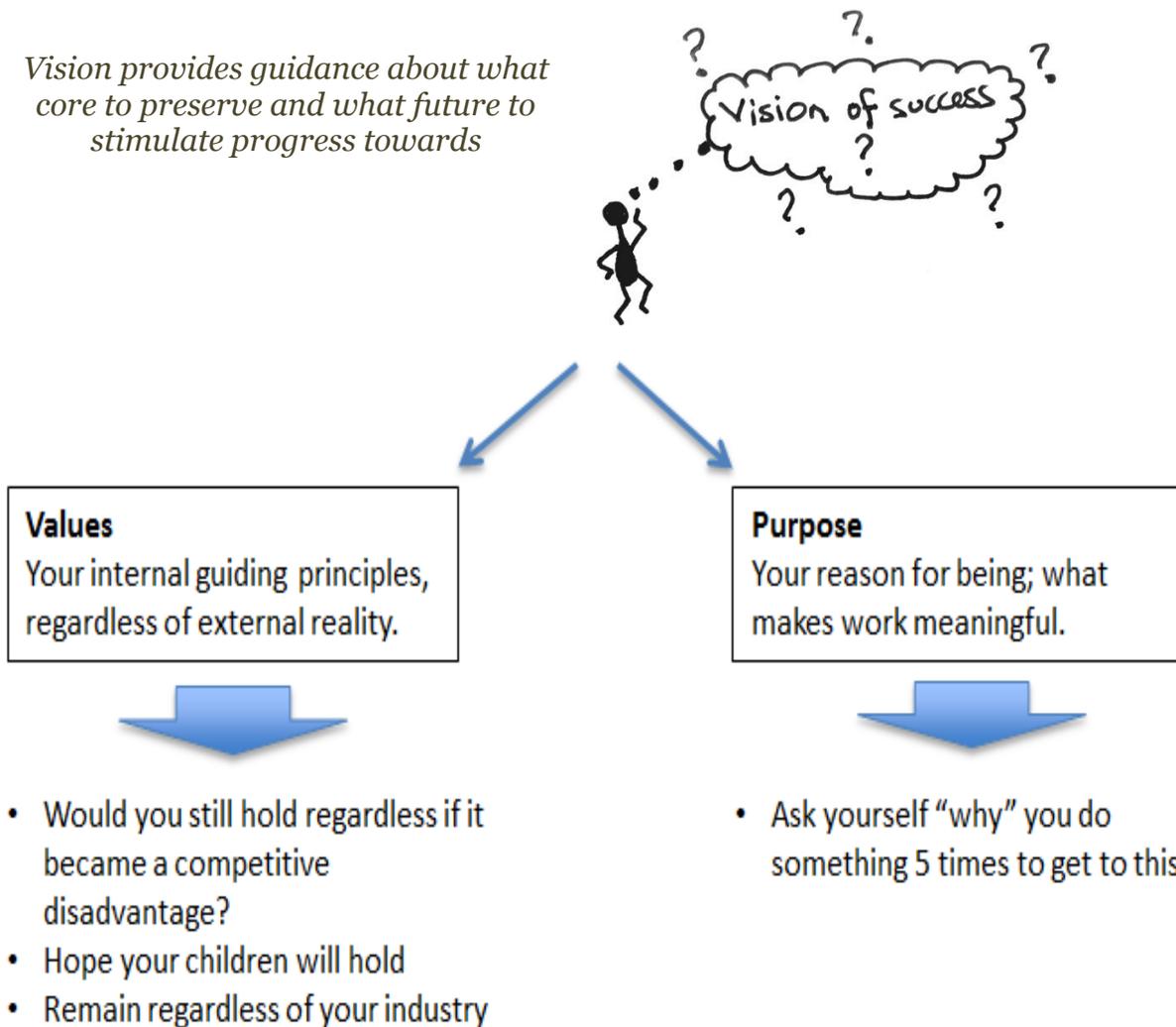
A&B

Success: Creating a Vision

Yes! We all want to achieve success, but what does this mean?!

Success is based upon **defining an overall goal or 'vision'**. This is an understanding of the desired future projects and practitioners want to be working towards, through a shared purpose and value. This is the foundation of any planning process thus necessary prior to any strategic action being implemented^{xxviii}.

Vision provides guidance about what core to preserve and what future to stimulate progress towards



The Sustainability Principles and Urban Agriculture

To help move UA projects sustainably towards success, the 4 Sustainability Principles should be used to align their values, purpose and vision. As the sustainability principles are vague in description, ensuring applicability to a broad field of use, language more conducive to UA has been added for a greater understanding and adoption.. They have been expanded upon in the following chart:

In a sustainable society, nature is not subject to systematically increasing:

<p>1. ...concentrations of substances extracted from the Earth's crust</p> <ul style="list-style-type: none"> - This is in regard to materials such as fossil fuels, used for transportation of produce and supplies or use of heavy metals for chemical inputs and fertilizers. - Re-use scrap material as much as possible. i.e. build hoop houses from reclaimed plastic sheeting, build rammed earth tires for thermal heated coop houses, etc 	<p>2. ...concentrations of substances produced by society</p> <ul style="list-style-type: none"> - These are materials synthetic to nature, and persistent over time; for example, many herbicides and fungicides or chemicals for weatherproofing. These are synthetic, and do not decompose, polluting soil, waterways and the greater ecosphere. - Reuse, Reduce and Recycle! i.e. contact culinary and educational schools to collect food waste to turn into compost
<p>3. ...degradation by physical means</p> <ul style="list-style-type: none"> - Monoculture activities that deplete soil degrade natural habitats and destroy biodiversity. Many human activities in urban areas challenge ecological cycles polluting waterways from agricultural runoff. - Try and not destroy/degrade any natural habitats to create your UA site. Build on Brownfield sites, grow vertically, be innovative! 	<p>4. ...and in that society, people are not subject to conditions that systematically undermine their capacity to meet their needs</p> <ul style="list-style-type: none"> - UA holds a natural ability as a vehicle for social change. Moving away from the current reality low-income areas face; lacking community cohesion, opportunity and engagement, creating change for future generations to live a healthy and prosperous life. - Empowerment of local community members through capacity development and local food production

10 Foundational Values

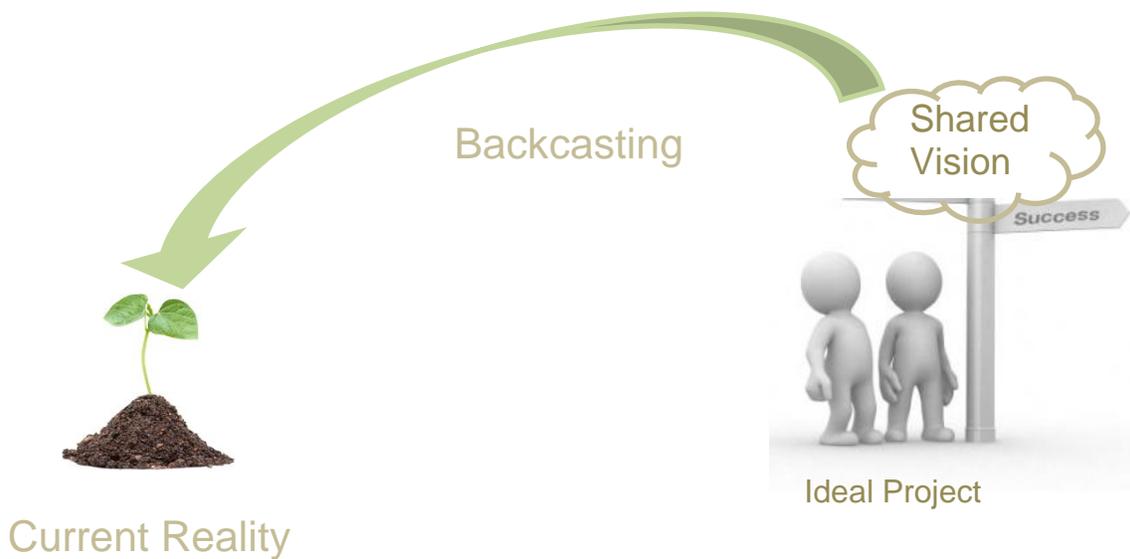
The 10 Foundational Values have been added at the Success level of the Ideal Project, as descriptive characteristics UA projects should employ. These are values in which to base the project, thus vision upon; constrained by the sustainability principles. As not all may be applicable to a UA project or circumstance, projects are urged to work towards those that are applicable to them. To offer guidance in support of Foundational Values, the guidebook provides a resource list of how projects can implement them. This detail of support will aid projects in implementing a course of actions individually applicable to their locality, visions of success and/or to overcome specific contextual barriers they may face. These can be found on the following page.

 <p>Authentic leadership</p>	<p>Be true to yourself and promote transparency, motivation, passion, and patience within your being. A true leader is capable of listening, supporting, decision-making and attracting those around to participate. This is the starting point of success for a UA project. One needs to know the personal motives for undertaking such a project, letting go of pre-empted purpose, and focusing on nurturing the wants and needs of all those around.</p>
 <p>Knead the needs of your community</p>	<p>Our research has brought up numerous stories highlighting ambitious, well-intended UA projects that have gone into a field for all the right reasons but had none of the right outcomes. It is imperative that every UA project knows the needs of the community in which they wish to interact with. This is not simply what they believe the community needs, but what the community themselves have voiced.</p>
 <p>Let seeds grow</p>	<p>The pioneering spirit necessitated by UA projects requires the need for scalable approaches with small incremental advances as knowledge, resources, competence and community support strengthen. Plant your seeds as you can, once they grow, and grow well, plant more seeds and continue to spread from a small scale garden box, to a large scale production.</p>
 <p>Translate Value</p>	<p>Look for local resources that are lying idle or being considered as wastes that can mobilize to help your project. Many UA projects are powerful vehicles for engaging the unemployed, rehabilitating unused land and utilizing resources deemed as 'wastes'. A primary example is in how urban areas produce a massive amount of organic waste, which can easily be diverted away from landfills for soil creation. Not only does this reduce environmental pressures, it can create a subsidiary business plan, providing resources of a UA project's needs, but creates a profit from resale.</p>
 <p>Cultivate the community</p>	<p>The social system in low-income areas drastically limits the capacity or opportunity for community empowerment or engagement. UA, as a tool for transformational change within these areas provides opportunity, diversity support and hope for all in community, especially for youth. By providing training for life skills, internship opportunity, interpersonal skill building, increased hope and a movement away from degrading stereotypes, dynamic system changes are able to occur throughout the community.</p>

 <p>Pass it Forward</p>	<p>To make the UA movement sustainable, knowledge of entrepreneurial systems thinking must flow from practitioners to those participating in the day-to-day maintenance of the project. Ultimately, this approach creates inclusivity, responsibility and a shared ownership of the projects. This direction, along with its achievements, equips the next generation of UA projects with the skills they need to sustain and innovate the movement.</p>
 <p>Engage</p>	<p>The UA project should be more than just a means to produce fresh fruit and vegetables; growing good food should also be about growing good people. Use the project as a Third Space, to bring the community together, to work towards equipping the community with personal capacity, horticultural and business savvy skills. Stimulating creative expression, dialog of local issues and co-learning.. This can be encouraged further with the means of available access, equipment and events hosted by specialists.</p>
 <p>Plant the Roots of Sustainability</p>	<p>Develop the knowledge of what food is and where food comes from through interaction with planting, nurturing and eating of fruit and vegetables. Educational workshops in horticulture and on site interaction through gardening are means to ignite biophilia in project participants. This interaction aims to offer participants a new perspective to how they manage their approach to food and align dietary preferences with healthy, fresh and seasonal produce. A key learning for practitioners is to make the growing of food fun, creative and accessible; experiments with a diverse variety of crops can help promote the joy of horticulture offering a beneficial approach to sustain interest in younger participants throughout their life, to encourage a healthy and varied diet.</p>
 <p>Love it? Share it!</p>	<p>Advocate for the benefits of UA. There are countless positive ramifications from what UA can offer; it's people, it's environment and a burgeoning new circular green economy. With increased dialog, through such things as educational workshops, media, exposure and collaborating with local municipal councils, mind-sets and regulation can be changed. If you find something positive coming from your UA project, share it with others. Talk to your friends, neighbours and community and tell them about it. Branch out to groups that may be heading certain fields and approach them with your findings. It is through actions like this that UA will gain understanding amongst popular culture and in turn gain access to such support mechanisms as UA friendly urban zoning permits, tax breaks, subsidies and grants.</p>
 <p>Be local, buy local</p>	<p>If we 'vote with our dollars', ensure the project works with and supports local industries and businesses. Whether it's where the project sources its materials from, the people the project interacts with or where waste is sent, it is important to keep in mind how UA can help stimulate a localized industry. The market will not only become more resilient to outside shocks, but will encourage positive spin off effects as local businesses and your community's development</p>

D Set a Strategy: Backcasting from Success

The Strategy Level places emphasis on backcasting from Success. By envisioning your Purpose in the future then determining your current reality, a plan can be formulated to move towards that purpose by asking “what do we need to do to get from here to there?” As a starting point, 3 Prioritization Questions (3PQ’s)^{xxix} help create a strategic plan for a project to formulate stepping stones towards success. In the case of UA projects in low-income areas, an additional 3 Prioritization Questions, the 3E’s, have been created.



3 *1. Is this an action a step in the right direction? (Towards the vision of success)*

Prioritization Questions *2. Is this a flexible platform?*

3. Will there be a good Return on Investment? This is not just economic; the investment in community capital and environmental returns is also considered

Does this action:

3 E's

- 1. Educate...*
- 2. Empower... the needs of the local Community?*
- 3. Engage...*

C ■ Create a List of Compelling Actions

25 Best Practices have been compiled to choose from. This is a starting point for creating a list of one's own. More actions should be brainstormed aligned with the purpose and vision, contextually specific to each project. This list provides information as to how these actions correlate to the levels of the FSSD, Leverage Points (LP), Foundational Values (FV), Enablers (E) and actions to help overcome the most common barriers (B), results from the thesis in which this guidebook was created.

For all UA Projects

25 Strategic Recommendations	
Resources	
Recognize Value	When working within low income areas, it is best to undertake low income approaches. Being able to see value in human and material sources allows for innovative design in monetary gain, sustainability alignment and community support (i.e. diverting organic waste from landfills, vacant land as profitable and unemployable as employable).
Have proper infrastructure	The need to plan for all aspects of product supply is integral to success. Establish a full time selling location (farmers market, pop-up food stand, food truck-hub) as well as plan for the infrastructure needed for seasonal growing and success- hoop-houses, greenhouses, storage coolers and food production- centers for keep fresh food stored out of the elements.
Build Your Own Soil – Compost	Know your soil. Have it tested and continue to build soil through composting on an ongoing basis. Allocate a composting area for your project and advocate to the community to donate organic waste (i.e. landscapers/arborists that have organic material or school and hospital kitchens for food waste) to aid in building the fertile ground needed for agrarian success.
Needs of Community	
Community Engagement	Foster care and pride from your participants with the UA project. Employ local people. Ensure participants feel safe to voice their opinion in how the project is being run, so they are a stakeholder in operations.

Co-Creation of the Project Purpose

Encourage initial and continued input and collaboration between community members and the project' purpose so as to ensure the project is designed to meet the needs of the community, and not what the practitioner may believe they need.

Create a hub of activity

Allow access to a third space for people to congregate. Create a hub of activity, promoting honesty, trust and support within the UA project. This should be a safe place, of calm, refuge, acceptance becoming a melting-pot of ideas and a space holding a great array of social resources

Leadership

Nurture and Develop the Capacity of Others

Believe in your participants and encourage their sense of self-worth in the world to make a positive change and create a community they can feel proud to represent. Allow them to develop entrepreneurial leadership skills through passing over roles of responsibility as skill levels permit, such as allowing students to go on to teach other students or manage sectors or sections of the project.

Be an Authentic Leader

Continuously strive to promote transparency, motivation, passion and patience in self. Work on such skills as presencing, appreciative inquiry, deep listening, non-violent communication, and suspending voices of judgement. Be grounded in actions, and inclusive in your presence – this will ease a social shift to sustainability.

Education and Awareness

Focus on Community

The younger generations are the future leaders, invest in this populous to catalyse real change in cultural attitudes about the food system, how to grow your own as well as how to manage a project in a community setting. Workshops, school days and collaboration with youth projects offers a means to engage this generation with hands-on physical activity to strengthen the younger generations bond with the food system.

Provide Training Programs

For a strategic approach to success, UA projects should cultivate future leaders of change to pass the leadership of projects forward. By providing educational and capacity development training programs, in a vast array of topics, the resiliency of the project and community will flourish.

Advocate Sustainability – make the connection

Knowledge of what food is and where it comes from can lead to an individual creating their own values around the food system. A means to action this is to engage participants in the nurturing, picking and consumption of produce on site.

Policy and Advocacy

Be aware of policy and legislation

Any project will be affected by local and federal governance and planning decisions. Know the institutions that may influence policy around land tenure, tax breaks, zoning, local pay and retail rights. Staying up to date with the policy decisions affecting the local climate and means to avoid certain restrictions may provide a strategic outlet to project development.

Establish Tenure

Ensure that the UA project has access to land that is secured in a legally recognized agreement or purchased before establishing a project. Municipal land in need of redevelopment can be a potential access point for UA projects looking for short to medium term land use, while friendly neighbours and community hubs (such as youth centers and churches) can be sources of land for medium to longer term contracts

Advocate the Benefits of UA

Advocate for UA's economic (employment and job creation, stimulates localized economic activity, increases real estate value), social (increased social cohesion/healthy food availability while decreased obesity/crime), and environmental benefits (recycles local wastes into valuable resources, decreased carbon footprint of food consumed, reconnects people with nature).

Local Economy

Working with farmers markets: create local food label

Network with surrounding artisans and farmers to increase ease, awareness and availability of locally grown produce to be purchased through the establishment of a farmers market and the creation of such things as a localized food label.

Work with local people and industry

Be local, buy local. Engage and incorporate people and industry from your surrounding community into your project whether through a volunteer or professional level. Network with surrounding industries so as to support your local market (restaurants, cafeterias, people, employment, youth).

Business/ Project Design

Start Small and Upscale

Create a small, sustainable project, with the ability for future growth. Holding confidence in ability, vision and knowhow. Begin to build that UA project within the boundaries of the community established within. For example, aquaponics only needs a few buckets, a bubbler and some fish- establish a clientele, amazing product and a good reputation, then invest in larger equipment and scalable advances.

Create a Vision of Success

Create a vision centered around knowing what you are doing, why you are doing it, who you are doing it for and where you want to be in the future. Planning for the future will allow flexible approached in attaining sustainable success socially, environmentally and economically. It is something to work towards, to revisit and be excited for.

Create a sustainable and diverse business model/plan

Create a business plan based on models of successful UA projects (i.e. GrowingPower) and hybrid design (a mix of not for profit and for profit if possible). Create benchmarks and utilize your vision of success to create a more than 5 year plan. Think of seasonality, and diversify your production to include alternative activities (i.e. selling Christmas trees, snow removal, chopping and supplying wood) or ancillary ventures based on community need (i.e. bicycle repair, cooking classes, internship programs).

Uphold appearance and Reputation

Success has a lot to do with reputation. And visibility. Locate in a space where you will gain attention from a broad audience. Keep a tidy site, beautify your space as well as the communities and create an image of caring, nurturing and authentic desire to make change. But, do not flaunt success or patronize the community with your wants and resources.

Have a Good Team

Form a trustworthy and reliable team inclusive of all the hard skills (construction, hardworking, soil science, horticulturalist, business management) and soft skills (social engagement, youth development, policy advocate) necessary for your business plan.

Create Partners

Network and collaborate with other UA projects and the municipality to build a stronger partnership towards a strategic movement. Knowing the field's main players is key to developing strategic means of project success.

Promote and engage local industry (i.e. farmers markets)

Use the project as a platform to promote and engage local industry. Working with local farmers markets, restaurants and waste producers will enable new income streams and financial security. This is a means to network to build a profile with local stakeholders as to the social and economic benefits the project could create.

Know the Field

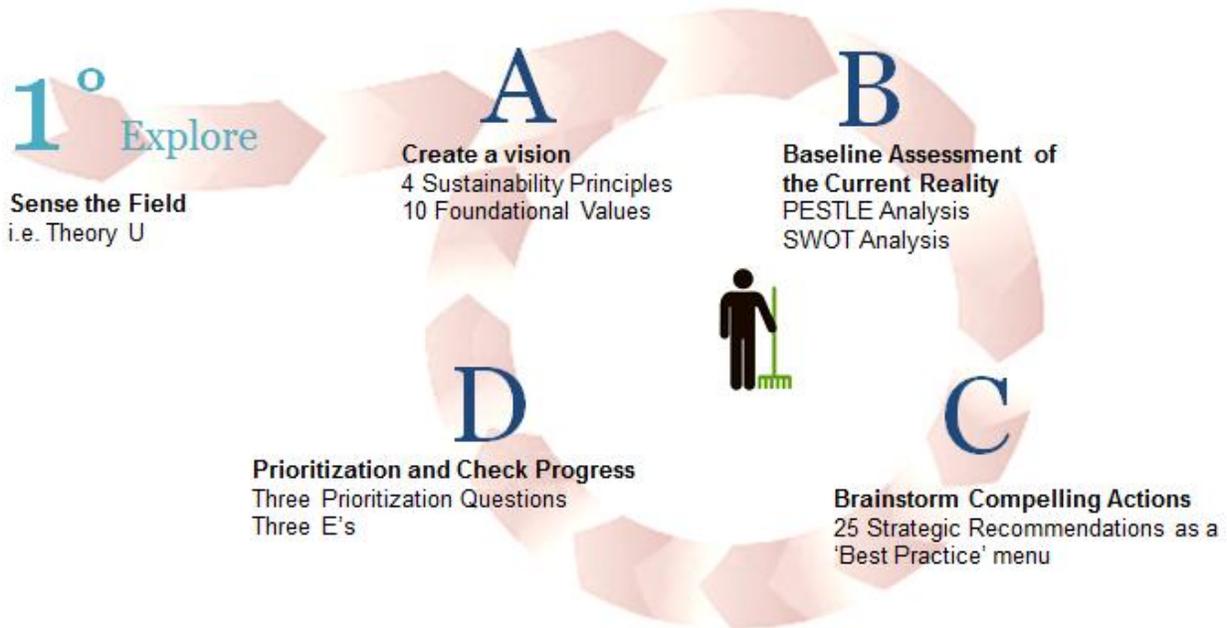
Knowing the context of the community prior to offering a UA site to the local community is key to enable the 'buy in' factor of local residents of the project. Network amongst community members at local events and understand the local economic and social environment to create a project that gives to a specific need. This action is simple and very effective.

Networking and Collaborating

Expand the reach your project has by networking and collaborating with stakeholders and other practitioners beyond the city/state boundaries. A website provides an effective means to do this as well as a means to access news updates of other projects and regulatory frameworks.

1° ABCD: The Process

To implement the Ideal Project; A modified ABCD planning process^{xxx} has been created to best suit the needs of UA projects within our scope. It is intended to act as a guide and is to be iterative, building and adapting to meet changing conditions of the project's current reality. The steps include:



1° Explore: The External Understanding and purpose

This step necessitates 'sensing the field' in order to reach success. This entails working with, and incorporating the needs/demands of a project's surrounding community. It is incredibly important to be aware of what the community wants, demands and needs, and the relationship between those aspects. As a UA practitioner, you must know what the surroundings of the projects will be, who is involved, and if it is wanted in the area, or acting to aid the area, without being simply self-fulfilling. One such tool that may help guide this stage is Otto Scharmer's 'Theory-U'^{xxxii}, which manages change through showcasing leadership as a process of inner knowing, collaboration and social innovation

A: Creating a Vision. The Internal Understanding and Purpose.

This entails co-creating a common purpose amongst those involved in the UA project, reflecting the collective vision of success. This vision should be aligned with the sustainability principles, and informed by the 10 Foundational Values as successful characteristics to base a vision upon; a strong point in the future to continuously work

towards. One way to help formulate his vision s to think about what the headline of a newspaper would be in 20 years from now, telling the story of your success.

B: Baseline Analysis

A baseline assessment of the current reality of UA project should be conducted, as well as the compliance to its new vision, in order to determine the gap. In doing so, some questions to keep in mind are: How is the project currently acting in regards to the Sustainability Principles? What are those in compliance with them and how can these be further developed? Does the project help empower local community members through capacity development and local food production? From this point, one is able to understand where they are in order to plan for a success future.

C: Brainstorm Actions to Close the Gap

The above mentioned 25 Strategic Recommendations, can be utilized as a 'Best Practice' menu, in which applicable actions to the context of individual Projects within our scope can be chosen. These should also help guide and influence the creation of additional actions that may be relevant. These are recommendations of growth, and a starting point from which UA projects can choose from, but more importantly add to, in relation to meeting their own project needs.

D: Prioritization

In order to help UA projects choose actions most applicable and relevant from the list of actions brainstormed above, six prioritization questions, the 3 from the FSSD Strategic level and the 3 E's have been implemented. These questions are broad enough that they are applicable to each situation yet specific enough to help guide practitioners in the most strategic manner and should be used as a minimum. These should be asked of each action being considered for use in moving towards a vision of success. They are:

The 3 Prioritization Questions

- 1. Will this action bring the project closer to its vision?*
- 2. Is this action a flexible platform?*
- 3. Will it generate a return on investment?*

The 3 E's:

To build upon this social focus of UA projects the following questions have been developed:

Does this action,

- 1. Educate...*
- 2. Empower... the local community?*
- 3. Engage...*



Helping Hand: For more information on how to implement the information outlined in this guide, a resource list has been compiled to aid UA projects in moving towards success. These are found in the next chapter.

Also, refer to the thesis in which this guidebooks research stemmed from for a more in-depth understanding of the sustainability challenge, Urban Agriculture, the Framework for Strategic Sustainable Development and an understanding of how all the information in this guide came together



8. Resources

25 Strategic Recommendations Resource List/ Case Studies	
Resources	
Recognize Value	Ken Dunn's UA projects and Resource Center in Chicago www.resourcecenterchicago.org
Have proper infrastructure	Invest in proper processing, storing and weathering equipment (ie. wash bins, freezers, and hoop houses). This will help extend the longevity of your produce, allowing more time for sale.
Build Your Own Soil — Compost	<p>This step is imperative! The process of turning scrap organic matter into nutrient rich, healthy soil full of the fundamental requirements plants need to grow healthy and strong. From The Denver Urban Gardeners on Composting: www.dug.org/composting-basics</p> <p>CAUTION: Many UA sites are on land that may contain contaminated soils. Before establishing a garden, ensure to test the site's soil. If contaminated, there are many innovative ways to overcome this; from raised beds, composted amendment, excavation, and phytoremediation. The Resource Center for UA has a Guide to Soil Contamination: www.ruaf.org/node/1003</p>
Needs of Community	
<p><i>How does your Garden Grow?</i> A free guidebook that addresses various aspects of community organizing including fundraising, organizational structure, leadership, suggested rules and regulations for peaceful co-existence among gardeners, site acquisition and site selection, as well as site design, maintenance guidelines, tools and equipment, gardening with children and for people with disabilities. www.foodshare.net/publications_03.htm</p>	

Leadership	
<p>'The Lotus' -A Practice Guide for Authentic Leadership towards Sustainability: this free online PDF takes you through "<i>personal leadership capacities that authentic leaders find essential in their work when facilitating large-scale, complex, transformational change in organisations and communities. Furthermore, it suggests practices that help in developing your personal leadership capacities</i>"^{xxxii} www.thelotus.info/what-we-do/written-guidance</p>	
Education and Awareness	
<p>Growing Power, Inc. of Milwaukee, Wisconsin, USA is a leading model of what UA can become. Offering technical skill workshops, they seek to empower people with the knowledge to access healthy and affordable food. www.growingpower.org</p> <p>American Community Gardening Association is a great network that supports community gardening by facilitating the formation and expansion of American state and regional community gardening networks; developing resources in support of community gardening; and, encouraging research and conducting educational programs www.communitygarden.org</p>	
Policy and Advocacy	
Be aware of policy and legislation	<p>Talk to your local municipality and see what is relevant to your area.</p> <p>Look to the Resource Center on UA & Food Security Foundation on the possibilities of how to make necessary changes www.ruaf.org</p>
Establish Tenure	<p>Municipal land in need of redevelopment can be a potential access point for UA projects looking for short to medium term land use, while friendly neighbours and community hubs (such as youth centers and churches) can be sources of land for medium to longer term contracts</p>

Local Economy	
<p>From the 23 UA projects we spoke to, everyone told us their advice would be to start small. Regardless if they had 10 acres, they would only start with a quarter of an acre. As excited and passionate as you may be, take the time to ensure you have the foundations well established. Success builds on success.</p> <p>The Transition Network is a world leader in helping people establish thriving local economies www.transitionnetwork.org</p>	
Business/ Project Design	
<p>Based on nearly a decade of experience in running UA youth programs The Urban Food Project offers free guides to recreating elements of their business model. Complete with timeline, activities, forms and letters all included www.thefoodproject.org/manuals</p> <p>The City of Seattle is a leading example of how UA can be integrated into city planning and governing bodies. Their website is full of valuable information about current services and programs, community resources, partnership information and policy templates www.seattle.gov/environment/food</p>	
Networking and Collaborating	<p>City Farmer, formed in 1994 is a great online networking hub for UA. With hundreds of pages of information about city farming it is a great resource to stay learn about happenings while also staying up to date with the most recent happenings of UA www.cityfarmer.info</p> <p>Community Food Security Coalition- Great resource on happenings of UA in Low Income Communities www.foodsecurity.org/links</p>

Other Resources

Agricultural Urbanism: Handbook for Building Sustainable Food Systems in 21st Century Cities
By: Janine de la Salle and Mark Holland www.greenfrigatebooks.com/new

List Serves: *ComFood: Food related information* www.foodsecurity.org/list

Food-for-Cities: Brings together people committed on issues related to food, agriculture, urbanization and cities; offering tools and services www.fao.org/fcit/fcit-contacts/dgroups-list/en/

Gardening Info:

Start2Farm: An online database connecting beginning farmers and ranchers with available programs and resources www.start2farm.gov

Urban Farm Online: Online resource center www.urbanfarmonline.com

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