



DSI-NRF
Centre of Excellence
in Food Security

POLICY BRIEF

02

2 0 2 1

URBAN AGRICULTURE:

QUICK FIX FOR URBAN FOOD INSECURITY OR SITE OF STRUGGLE FOR DEEP, JUST FOOD SYSTEMS CHANGE?

AUTHORS: Florian Kroll, Jane Battersby, Gareth Haysom, Scott Drimie, Camilla Adelle





KEY MESSAGES

Urban agriculture is a central part of both state and community responses to food insecurity, which has received increased attention under the Covid-19 lockdown.

However, there is little evidence to support claims that urban agriculture reduces food insecurity or poverty at scale. City dwellers access most of their food through food environments made up of various retail outlets connected to the wider food system – the network of activities and relationships involved in producing, processing, distributing and selling food.

Isolated focus on urban agriculture as a solution to food insecurity and poverty may distract from deeper, more systemic change. If urban agriculture is to play a more powerful role to promote food security and develop livelihoods, it requires a supportive policy environment. Such policies would facilitate access to key resources such as land, water, seed and fertiliser, as well as infrastructure, including local farmers' markets and packing facilities that connect urban farmers with wider food systems.

Access to skills and knowledge development through training and other capacity building initiatives are critical and need to be coupled with systematic inclusion in spatial planning instruments to be truly effective. However, to transform urban agriculture into a context or 'site of struggle' which models and promotes transition to agro-ecological food systems, social and political interventions are necessary.

These could include organisational development to facilitate peer-based learning and innovation, as well as formally recognised platforms to engage the state and contest farmers' interests – among other stakeholders – in the urban food policy and planning arena.

INTRODUCTION: WHAT IS AT STAKE?

Urban agriculture entails various activities to produce food in and around cities, including crops and livestock, both in backyards, on institutional land (clinics, schools, prisons) and on plots.

The governance of urban agriculture is a multifaceted issue where different concerns intersect and vie for attention, including the regulatory environment, infrastructure, health and nutrition, waste, security, and general resilience to crises. It affects many different stakeholders in various ways, posing a complex governance challenge.

Officials and the general public alike often assume that food security and urban agriculture are the same thing, overlooking opportunities for deeper change. Urban agriculture is often narrowly framed in terms of backyard or school gardens, excluding livestock and semi-commercial production on plots or allotments, and activities in the peri-urban areas lying on the edge of cities.

Formal businesses often see urban agriculture as a way of gaining visibility for “green” Corporate Social Investment initiatives, neglecting the implications of food systems change for business models and practices.

Urban agriculture has become a central aspect of local government and civil society responses to food insecurity and poverty and has risen to even greater prominence following the covid-19 lockdown and the hunger challenges it has exacerbated.

It is seen as core to the food sovereignty movement – within which people collectively govern food systems to promote transition to more sustainable, localised food systems that provide equitable access to economic opportunities and healthy nutrition. (See box below).

Among food relief civil society organisations (CSOs), calls for increased support for local food production are gaining traction as a means to make feeding programmes more sustainable.

AGROECOLOGY:

Urban farmers aligned with the food sovereignty movement often promote agroecology. This is a farming practice that leverages natural systems and processes, a people’s science and a social movement promoting sovereign, democratic governance towards carbon-negative, post-capitalist food systems that in turn ensure food justice and equality. Agroecology is based on 13 key principles, including recycling, input reduction, soil health, animal health, biodiversity, synergy, economic diversification, co-creation of knowledge, social values and diets, fairness, connectivity, land and natural resource governance, and participation. Key entry points to

promote a shift from unsustainable food systems towards agroecology (so-called transitions) include diversity, circular and solidarity economies, knowledge co-creation and enabling governance (Wezel et al 2020). While corporations are co-opting agroecology as a technique to sustainably intensify production and promote resource-efficient technologies, food sovereignty movements demand a deep, just transition that is democratic and radically different from capitalist models of resource extraction, pollution and value accumulation. Urban agriculture can play a key role in deep, just transitions towards agroecological city region food systems, but governance implications are unclear.

During the Covid-19 lockdown, national disaster regulations were imposed without adequate consultation with local government and other stakeholders, leading to a lack of clarity about the role and governance of urban agriculture.

The Covid-19 disruption of urban agriculture and emergent box schemes (that deliver fresh produce, often directly to consumers) initially cut off a key income stream for urban farmers, deepening poverty and hunger. However, some urban agriculture projects contributed to feeding schemes and soup kitchens, and some box schemes adapted to provide an outlet for farmers cut off from their traditional buyers.

Farmers and organisations representing or advocating their interests responded by developing novel networks, alliances and distribution strategies, including more direct links between producers and consumers, and initiatives to supply directly to food relief schemes.

The disruption caused by Covid-19 lockdown created space for the emergence of alternative, localised food systems that emphasised self-reliance and sovereignty. State institutions are also reviving debate around land-use planning to incorporate urban agriculture as well as revising urban agriculture policies.

This poses a predicament, however: Will renewed emphasis on urban agriculture shift attention away from the need to engage with deeper structural issues, such as the consolidation of power over the food system by corporations? This policy brief argues that, while policy and planning interventions could enhance potential food security and livelihood benefits, urban agriculture should also be seen as a site of struggle in a broader food justice movement, promoting wholesale transformation of the food system in line with the principles of agroecology.

REGULATORY ENVIRONMENT: WHAT STATE INSTITUTIONS PLAY A ROLE?

Agriculture is generally a provincial competence, usually located within departments of agriculture. But departments of environment, economic development, and health all shape the provincial regulatory environment affecting urban agriculture.

Some municipalities have developed programmes and devoted resources to promote urban agriculture, often a mandate of local departments of social development or urban management. Several other urban mandates intersect with this domain, including health, economic development, spatial planning, property management, parks and recreation, waste management and disaster risk management.

Urban agriculture is often supported in the context of specific projects, rather than as a movement, land-use category, or part of the wider food system. Support often entails the distribution of starter packs with resources like seed, tools, and fertiliser, the provision of limited training, and infrastructure development such as fences and boreholes provided by province.

Such support is, however, channelled through local municipalities as a means to enable strategic targeting at local level while avoiding double-dipping.

OPPORTUNITIES

SITES OF STRUGGLE FOR TRANSITION:

Urban agriculture presents multiple potential opportunities to promote a deep, just transition to agroecological urban food systems. Perhaps the most important of these is the potential to develop networks, alliances and shared visions to promote social mobilisation so that agroecological transitions become more politically visible and relevant.

HEALTH AND NUTRITION:

Urban farmers can offer a vital source of food close to where people live, helping to reduce malnutrition. The production of fresh, minimally processed plant-based foods can enhance local availability and access, contributing towards more balanced diets that promote resilience to non-communicable illnesses and infectious disease, including Covid-19. Both child nutrition (especially over the first 1,000 days) and adolescent nutrition are important for long-term development and health.

Urban agriculture in schools and early childhood development centres (ECDCs) can increase children's access to healthy food, enhance awareness of nutrition, provide garden-based learning opportunities, and establish a sense of connection to nature and place. NGOs like SEED have developed pioneering initiatives in this regard.

WASTE AND EMISSIONS:

Large amounts of food and packaging waste find their way into municipal landfills, which are rapidly exceeding capacity and contributing to greenhouse gas emissions. Urban agriculture provides an opportunity to close urban nutrient cycles by absorbing organic waste such as compost and mulch.

Food production in and around cities could also reduce emissions associated with regional food distribution. In turn, effective soil management contributes to carbon sequestration – the capture and storing of carbon dioxide – and aquifer recharge.

GREEN SPACES INFRASTRUCTURE:

Urban farming offers both a green space within cities, as well as places for people to be able to reconnect to where their food comes from. Urban agriculture and green spaces also offer valuable psychosocial benefits, inculcating a sense of place and belonging, building social networks and offering safe spaces. In so doing, it presents possibilities for therapeutic interventions to process and resolve trauma, including gender-based violence.

Greening cities is an important climate change adaptation mechanism to reduce urban heat islands, maintain biodiversity, and allow for improved water management as aquifers can replenish and reduce the risk of flooding. However, if urban agriculture becomes highly input intensive, it poses the risk that excess fertilisers, pesticides and other pollutants can find their way into urban water systems.



KEY CHALLENGES

LAND:

Access to land with secure tenure is especially problematic and competes for space with other interests including housing and retail property developers, which threaten to encroach on fertile and productive land, especially in peri-urban areas.

Lack of secure tenure of gardens makes longer-term investments into urban agriculture risky and impacts on access to funding, which is a requirement from the Department of Agriculture.

Property developers tend to have greater political influence on the regulatory environment and are more easily able to push for the re-zoning of agricultural land for development. Urban property management officials are concerned about losing control over city-owned property occupied by urban farmers.

They are also concerned that land earmarked for urban agriculture is converted to other uses (eg small industry) prohibited by relevant land-use schemes, incurring administrative costs in enforcing compliance.

RESOURCES:

Lack of access to tools, water, composted manure, fertiliser, seedlings and seed limits urban farmers' livelihood opportunities and constrains the production of food in large volumes throughout the year. Compost and mulch, key productive inputs, are particularly expensive and difficult to obtain.

In view of the recent drought, reduced rainfall due to climate change, and the need to protect aquifers, water access is another key resource constraint.

INFRASTRUCTURE:

Urban farmers lack access to appropriate infrastructure, including shelter, storage and packing facilities, refrigeration, sanitation and security. Lack of secure tenure discourages infrastructure investments. However, in cases where significant infrastructure investments have taken place (such as the Philippi Fresh Produce Market), facilities have not been effectively utilised.

TRAINING:

Urban farmers face numerous practical difficulties and require training to ensure that they know how to optimise their production in a small space. Also, the skills required to produce food as a small business (bookkeeping, production planning, business plans, grant writing) are often lacking.

MARKET ACCESS:

Although lockdown increased the demand for urban produce, small-scale urban farmers find it very difficult to break into the local markets. This is because they are often unable to meet the volume and packaging requirements, and compete with large-scale commercial farms selling at nominal cost, often with supply contracts that are risky and disadvantageous.

Lack of secure marketing facilities make it difficult for farmers to sell directly to local consumers. Prices available for agro-ecological produce are higher in affluent areas with an interest in local produce, and poverty limits urban farmers' ability to sell to township markets. E-commerce platforms offering direct market links also face inclusivity challenges due to technology gaps and high data costs.

FUNDING:

State funding is very limited, contingent on onerous conditions that exclude many smaller, informal initiatives lacking secure tenure, or which are not organised as co-operatives, and are disbursed on a project basis.

Large NGOs compete for access to corporate social investment or philanthropic donor funds, which are allocated to programme management, technical support and productive inputs.

At the same time, small-scale initiatives often lack the administrative capabilities to attract and manage donor funds.

This funding environment promotes dependency and limits the potential of urban farmers to organise as a broad collective with shared interests to promote systemic change.

WASTE:

Effective, local waste separation and composting could enable the cycling of food waste back into urban agriculture, thus contributing to the emergence of local, circular economies – that aim to re-use the waste produced within systems – and soil enhancement. However, composting of organic waste is outsourced to profit-driven businesses, making these soil nutrients difficult to access for small-scale farmers.

In addition, urban farmers incur food waste due to poor access to markets, as well as inadequate storage, refrigeration and packaging facilities.

RESTRICTIVE, DISCIPLINARY POLICIES:

The piecemeal, project-based approach to regulating urban agriculture limits sustainability and development of broader action networks and coalitions, while imposing a large administrative burden on under-resourced state departments.

Environmental Health and Safety regulations may pose hurdles for market access by small farmers,

and HACCP regulations (Hazard Analysis and Critical Control Points, ie systems and regulations that aim to reduce the risk of safety hazards in food) limit the potential for participation of small processors to develop value-added products using local produce.

FRAGMENTATION OF URBAN FARMERS:

Urban farmers are often not represented by any membership-based organisation that could formulate coherent and legitimate demands or engage with local or provincial governments. Intermediary organisations like NGOs are sensitive to the needs of urban farmers and sometimes maintain membership records that can facilitate engagement. However, they are not fully representative, and collaboration among organisations may be hampered by the competitive funding environment and divergent ideologies. Municipalities find it difficult to estimate the size and economic impact of the sector, and to identify and recognise legitimate representatives.

TRANSIENCE:

Many who practice urban agriculture do this only for part of a season, when there is rain, when it is not too hot, when they are unemployed during the slow jobs season, or when they have cash to support their urban agriculture activities. Consequently, some land is not used by urban agriculture farmers all the time, and farmers may be accused of failing to legitimise changes to land use.

BUDGETARY CONSTRAINTS:

Local governments face significant fiscal and capacity constraints. The low visibility, absent fiscal contribution and lacking local mandate for urban agriculture make it difficult to argue for increased resource allocation in municipal budgets.



RECOMMENDATIONS:

Recognising that urban agriculture forms a key policy response, but that maximising its potential requires deep shifts in the structures and logic of governance, we discuss technical (i.e. better support for urban agriculture) and governance (cross-cutting and participatory approaches to policy development, planning and implementation) recommendations separately.



TECHNICAL RECOMMENDATIONS

RESOURCES:

Access to seeds and agricultural biodiversity can be enhanced by supporting seed-sharing networks and community-based nurseries. A portion of compost and mulch produced by municipal facilities could be ring-fenced for urban agriculture, to be provided at no cost and cross-subsidised by commercial use (eg landscaping) and increased landfill fees. Composting facilities could be located close to urban agriculture zones to facilitate distribution. Agroecological methods (mulch, swales, contour bunds) can harvest and store run-off, in so doing reducing stormwater flows and minimising the water footprint of urban agriculture.

TECHNICAL EXTENSION AND TRAINING:

There are many NGOs that provide training and support, and the state could extend and deepen its impact by supporting these organisations and the development of farmer-led horizontal learning networks, within which farmers train and develop each other. Technological innovations including solar energy, rainwater harvesting, and local composting initiatives can reduce operating costs, waste and losses.

The Soweto-based Izindaba Zokudla has pioneered this approach, leading to multiple technical innovations initiated by farmers and facilitated by university students as part of service-learning projects. The Cape Town Together Food Growers' Initiative presents another horizontal network that could be leveraged for knowledge co-generation.

Trainings should establish a core set of foundational skills based on agroecological principles, and provide subsequent expansion based on various emerging needs.

For those interested in turning their urban agriculture into a small business, training needs to go beyond technical know-how and should include training in business skills (e.g. bookkeeping, business planning, and grant writing).

Instead of focusing on the roll-out of starter packs and limited training, the state can play a supportive and networking role in partnership with NGOs, community-based organisations and farmer networks, greatly increasing its impact and reach with minimal additional budget or personnel costs.

MARKET ACCESS:

Providing infrastructure for local farmers markets at transport hubs and other central points can improve local market access, link poor consumers with urban farmers, encourage short value chains – that limit intermediaries between producers and consumers – and build local resilience. This may include dedicated, permanent trading spaces as well as regular local farmers’ markets. In either case, linkages to transport, adequate space, refrigeration, water and waste disposal are essential. Establishing local farmers’ markets needs support, especially during the start-up phase. Successful examples pioneered by the **Cape Town Together Food Growers Initiative** through the **Seaboard/Gugulethu CAN partnership** collaborated with Mini Meltdown, Ladles of Love, Streetscapes and Souper.

Leveraging engagement with ward councillors, they were able to secure and identify a suitable date and venue to establish a farmers’ market. This initiative established partnerships with vendors and CAN members and utilised electronic payment options (Snapscan).

This enabled Gugulethu farmers to supply wealthier consumers on the seaboard promenade, providing

high visibility and accessibility across the city. Food relief coupons and SASSA grant payments could be re-designed to be redeemable by vendors selling local farmers’ produce. Direct networks and technologies like **Khula, FoodFlow, Ucook, Yebo Fresh, Gracie Love in a Bowl** leverage e-commerce and smartphone technology, enabling local farmers to sell and deliver local produce while reducing exposure and transmission of Covid-19. However, initiatives like Umthunzi Farming Community grew rapidly at first but were unable to attract the financial support needed to cover operational expenses while keeping prices competitive and offering farmers good prices.

State and civil society fundraising can allow relief organisations to buy produce online and channel it to food relief. A strategic alliance between **Abalimi, PEDI** and UCook is launching a pilot training programme including the development of production plans, training, and access to resources, targeting youth involvement in urban agriculture. State support for such initiatives could include funding, training, access to data, and the facilitation of linkages between urban farmers and e-commerce initiatives.

GOVERNANCE RECOMMENDATIONS

ESTABLISH PLATFORMS FOR REPRESENTATION:

Although there are many intermediary NGOs serving and promoting urban farmers, inclusive formal platforms could enable them to participate directly in policy revision and development. This can increase visibility and provide channels for collective bargaining and negotiation to access resources and infrastructure. State initiatives should recognise and cultivate relationships with established leaders and representatives of urban agriculture movements.

GROW ALLIANCES AND MOBILISATION:

The food growing movement is an opportunity to build local solidarity, activism and agency to

challenge failed governance and to build new ways of producing food within the existing system. Urban agriculture can feed into a holistic food justice movement, presenting opportunities and platforms to mobilise and educate citizens about the need for systemic change.

This movement must be broad and feed into governance debates, as well as demand broader change towards transparency, sustainability and justice. However, state support should also accommodate divergent views, land-use types and farming approaches, and encourage debate rather than attempting to force consensus.



**PROMOTE TRANSVERSAL,
PARTICIPATORY GOVERNANCE:**

As urban agriculture is affected by multiple mandates and policies at provincial and local government spheres, effective transversal and multi-level governance arrangements – where different spheres and departments of government collaborate – are essential to develop a supportive policy environment that can leverage the potential benefits of urban agriculture. To advance and sustain mobilisation, a food justice movement needs to engage the state at multiple levels. Urban agriculture can be a ‘site of struggle’ where a ‘bottom-up’ mobilising environment finds opportunities to engage with the ‘top-down’ authorising environment, and thus make lasting gains. A shift from participation to partnering with public authorities would enable urban farmer representatives to actively influence spatial planning and design processes, as well as contribute to the management of land through autonomous land management committees, reducing the administrative burden on the state. By-laws and policies should be revised in partnership with UA representatives to create a more supportive environment promoting a developmental agenda.

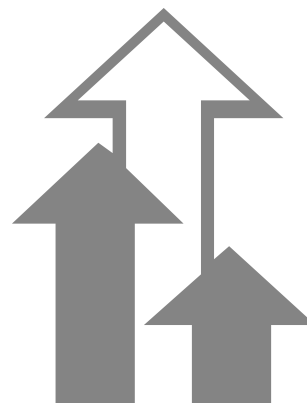
CUT RED TAPE:

While seeking to ensure accountability and transparency in accessing land and other productive resources, the state should avoid imposing complex reporting and compliance standards on farmers. It should rather develop simple and flexible documentation processes appropriate to the needs and capabilities of urban farmers. Similarly, environmental health and safety regulations should be relaxed and adapted to take into account the capabilities of small-scale food processors and farmers markets that are not oriented to export markets.

**UNLOCK LAND THROUGH SPATIAL
PLANNING AND URBAN DESIGN:**

Explicit design and budgetary provision should be made for urban agriculture, especially in spatial planning instruments like Spatial Development Frameworks and Urban Development Plans. Existing agricultural land (such as the Phillippi Horticultural Area and other peri-urban areas) should be protected from commercial and housing property development. Including urban agriculture as a standard land-use category in zoning schemes could be more flexible and responsive than approval of land use on a case-by-case basis.

Comprehensive audits of unutilised state-owned properties can identify land that could be farmed on a temporary-use basis, avoiding lengthy delays in approval. Commonage – shared land held, managed, and used collectively by a community according to an agreed set of rules – and allotment systems along railway servitudes, green belts and underutilised land common in European cities could be adapted to the South African urban context. Land use should be managed in partnership with urban farmers’ organisations to enhance buy-in, compliance, and reduce management costs. Infrastructure amenities (packing houses and farmers’ markets) should be designed in partnership with farmers, offering appropriate shelter, security, sanitation and waste disposal.



DEVELOP A PROTECTED MARKET THROUGH PREFERENTIAL PROCUREMENT:

Urban budgets for food procurement for schools, clinics, and other state institutions could provide a valuable market to stimulate livelihood opportunities in urban agriculture. From a health perspective, strategic procurement arrangements for schools, clinics and state institutions could incentivise the production and consumption of local and seasonal fresh fruit and vegetables, and at the same time discourage the sale and consumption of ultra-processed goods. This would require procurement arrangements that simplify the tendering process set out by the Municipal Finance Management Act (MFMA) and develop standards and processes that promote local, agroecological farming. Similarly, a portion of budgets devoted to food relief by community-based and civil society organisations could be allocated to procurement from local small-scale agriculture.

DEVELOP LINKAGES SUPPORTING NUTRITION FOR CHILDREN AND VULNERABLE HOUSEHOLDS:

Links with health departments, particularly with teams working on the First 1,000 Days of child development, and the school nutrition programme could be strengthened by upskilling social workers and community health workers to identify food insecure households and individuals, understand needs and context, and to facilitate referrals to local urban agriculture projects. Community hubs like schools, ECDCs and clinics can offer land for cultivation and serve as places to access social support (especially for young parents), food aid incorporating local produce, safe spaces to engage in therapeutic horticulture, as well as information and training on food and urban agriculture. Greenspaces SA has piloted a green relaxation clinic

in Khayelitsha, linking mindfulness, food gardening and a food bank. Provision of local produce to ECDCs could be subsidised through a revision of the ECDC support programme. This should reduce the barriers (requiring tenure, direct toilet access, outdoor play area), simplify and fast-track the registration of informal ECDs so that these become eligible for forms of support that are appropriate to their capabilities, constraints and needs.

ENHANCE CRISIS RESPONSE AND RESILIENCE:

To leverage the flexibility, adaptability and reach of urban farming networks, representatives should be incorporated in disaster risk-planning processes. Urban agriculture could be seen as part of multifunctional urban green infrastructure that promotes resilience to extreme weather events such as heat waves, droughts, and torrential rainfall, while also reducing the reliance of urban food systems on transport systems linking cities to remote food production territories.





CONCLUSION

Urban agriculture offers many potential benefits in promoting food security, inclusive economies and social cohesion. Various policy levers are available to support and enable urban agriculture, but these rely on galvanising political will and leveraging adequate resourcing. However, whilst urban agriculture is an important intervention for the reasons listed above, it is not a cure-all and needs to be coupled with other systematic interventions that will improve equality and resilience of urban food systems, such as support for informal food trade, stronger regulation of formal food processing and retail. Nevertheless, urban agriculture is a key site of mobilisation and struggle for agroecological transitions, and presents many opportunities for the state to support this essential shift towards urban sustainability and resilience.



EXPERT VOICES

This document is based on the discussions of the Food Governance Community of Practice, a social learning space initiated by the DSI-NRF Centre of Excellence in Food Security.

The community of practice is an open dialogue platform whose regular and active participants are considered members. Current membership includes academics, farmers, traders, state officials, civil society representatives and practitioners.

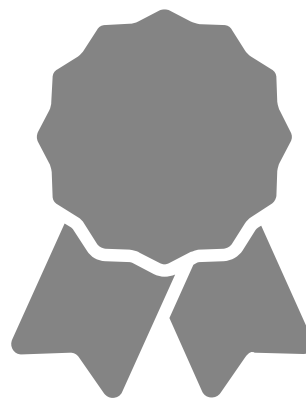
An online Community of Practice meeting was held on 26 August 2020 on 'Urban Agriculture & Covid: Is this the long-term solution to the food crisis?'

You can access the presentations and panel responses from this meeting by clicking the following links:

Key note presentations: **Dorah Rebelo Marema** (Greenhouse Project/GenderCC), **Gareth Haysom** (African Centre for Cities), **Hannah Benn** (GCRO). Panel respondents: **Grace Stead** (Abalimi Bezekhaya), Vuyani Qamata (Khayelitsha CAN / Cape Town Together Food Growers Initiative), **Erica Inches** (CTT FGI), Kier Hennessy (City of Cape Town), **Tinashe Mushayanyama** (City of Johannesburg).

ACKNOWLEDGEMENTS

This document is based on the discussions of the Food Governance Community of Practice on 26 August 2020. In addition to the presenters at this online meeting (see expert voices), several other people actively contributed to the ideas collated in this document, including Dr Bruno Losch, Dr Laura Pereira, Dr Brittany Kesselman, Sakhele Ndabeni. Lloyd Kirsten, Hidaayah Tayyib, and Nomonde Kweza. Various state representatives also contributed. We would like to acknowledge the funding received through the Cape Higher Education Consortium-Western Cape Government (CHEC-WCG) annual research grant.



FURTHER READING

Battersby, J. and Marshak, M. (2013). *Growing Communities: Integrating the Social and Economic Benefits of Urban Agriculture in Cape Town*. *Urban Forum* 24, 447–461 (2013).

Battersby, J. and Watson, V. (2019). *The planned 'city-region' in the New Urban Agenda: an appropriate framing for urban food security?* *Town Planning Review* 90.5. *Planning and the New Urban Agenda*.

Bauwens, M. and Kranjc, R. (2020) *Commons Economies in Action: Mutualizing Urban Provisioning Systems*, By Michel Bauwens and Rok Kranjc. In Bauwens, M. Ramos, J. and Kranjc, R. (2020) *P2P: TOWARDS A COMMONS ECONOMICS*. Part 3. P2P Foundation.

Frayne, B. McCordick, C.; Shilomboleni, H. (2014). *Growing Out of Poverty: Does Urban Agriculture Contribute to Household Food Security in Southern African Cities?* *Urban Forum* 25, 177–189.

Malan, N. (2015). *Urban farmers and urban agriculture in Johannesburg: Responding to the food resilience strategy*, *Agrekon*, 54:2, 51-75.

Nino, E. C., Lane, S., Okano, K., Rahman, I., Peng, B., Benn, H., Culwick-Fatti, C., Maree, G., Khanyile, S., & Washbourne, C. (2020). *Urban agriculture in the Gauteng City-Region's green infrastructure network*. GCRO Occasional Paper. Gauteng City-Region Observatory.

Tornaghi, C. and Dehaene, M. (2020) *The prefigurative power of urban political agroecology: rethinking the urbanisms of agroecological transitions for food system transformation*, *Agroecology and Sustainable Food Systems*, 44:5, 594-610.

Wezel, A., Herren, B.G., Kerr, R.B., Barrios, E., Gonçalves, A.L.R., Sinclair, F. (2020) *Agroecological principles and elements and their implications for transitioning to sustainable food systems. A review*. *Agronomy for Sustainable Development* (2020) 40:40.



AUTHORS

AUTHORS' DETAILS:

Mr Florian Kroll, Institute for Poverty, Land and Agrarian Studies (PLAAS), University of the Western Cape.

Dr Jane Battersby, African Centre for Cities, University of Cape Town.

Dr Gareth Haysom, African Centre for Cities, University of Cape Town.

Dr Scott Drimie, Southern Africa Food Lab and Division of Human Nutrition, Faculty of Medicine and Health Sciences, Stellenbosch University.

Camilla Adelle, Department of Political Sciences, University of Pretoria.

CORRESPONDING AUTHOR:

Mr Florian Kroll, florian@plaas.org.za

TO CITE THIS ARTICLE:

Kroll, F., Battersby, J., Haysom, G., Drimie, S. & Adelle, C. (2021) Urban agriculture: quick fix for urban food insecurity or site of struggle for deep, just food systems change. Policy Brief 2/2021. Cape Town: DSI/NRF Centre of Excellence in Food Security.

ABOUT

©DSI-NRF Centre of Excellence in Food Security (CoE-FS) is an initiative of the Department of Science & Innovation and the National Research Foundation.

It is jointly hosted by the University of the Western Cape and the University of Pretoria.

EMAIL: foodsecurity@uwc.ac.za

WEBSITE: www.foodsecurity.ac.za

SERIES EDITOR: Prof Julian May

ASSISTANT EDITOR: Dr Elaine Sinden

With thanks to our funders and host institutes, without whose support our work would not be possible.





DSI-NRF
Centre of Excellence
in Food Security

POLICY BRIEF

02
2 0 2 1