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Abstract

Driven by shared concerns about climate change, social justice and health and wellbeing, Urban Agriculture (UA) is an emergent global movement. In this paper, we present an exploratory case study of UA practice on the Southside of Glasgow, UK that traced the emergence and development of four UA projects. Data from the four projects revealed a diversity of practices, including temporary gardening projects organised by local volunteers, a community and market garden operated by a charity, a food shop and vegetable distribution service run by a social enterprise, and a permanent growing space for charities and schools provided by local government. UA practitioners in Glasgow have sought to re-purpose vacant and derelict land, build social cohesion, contribute to environmental and food sustainability and provide participation space for marginalised groups. Reflecting on future avenues for research on UA in Glasgow, we have identified two broad policy pathways that are emerging both at the local level and through national legislation in Scotland to harness local urban food growing and support UA. We conclude by pointing to a need to preserve the self-organising spirit of UA in Scotland as new legislation comes into force.

Keywords Urban agriculture; community gardening; local food; legislation; Scotland

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Paper identifies two broad policy pathways for UA in Scotland: partnership-building between grassroots and local government, and national empowerment legislation that widens governmental support for urban gardening.

Growing in Glasgow: Innovative practices and emerging policy pathways for urban agriculture

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Keywords

Urban agriculture; community gardening; local food; legislation; Glasgow; Scotland

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1. Introduction

Urban agriculture (UA) has burgeoned across the global north as a collective movement that seeks to address various social, economic and environmental challenges. It has proven popular in 'shrinking' post-industrial cities struggling with urban abandonment and long-term vacancy (Vitiello 2008, Gallagher 2010, Pothukuchi 2011), and has been championed as a solution to health and wellbeing problems such as as obesity and stress (Davis et al. 2011; Van Den Berg et al. 2011), poor access to food (Vitiello 2008), community fragmentation (Alaimo et al. 2010), and urban abandonment (LaCroix 2010). Researchers have argued that 'greening' the city through practices such as community gardening can increase stagnant land values and help to build social capital (Glover et al. 2005, Schilling and Logan 2008). As a result, UA has been hailed as a therapeutic and collaborative activity that empowers communities (Sempik et al. 2006, Viljoen et al. 2005). Once "the ultimate oxymoron" (Morgan 2015, p. 1385), UA has increasingly begun to involve a diverse bricolage of civil society groups, charities, local business and public institutions. Yet, despite these positive community impacts and the growing number of people and organisations engaged in UA, backing from government(s), both at the local and regional/national level, has remained uneven and, as a result, UA has tended to occupy a precarious physical space in the city (Thirbert 2012, Henderson and Hartsfield 2009).

The aim of thisthis paper is to introduce demonstrate how urban agricultural practice has emerged and evolved in one part of the Scottish city of Glasgow. This exploratory case study offers an empirical examination of four projects on the Southside of the city to illuminate how UA has developed, where it is situated, and what types of state and non-state actors are involved in its practice. So far, this nascent movement has received only limited scholarly attention, notably by Crossan et al. (2016), who theorise that UA in Glasgow has taken the form of a collaborative grassroots citizenship that supports urban regeneration and builds bridges between local and institutional actors. The authors of this earlier paper characterise this phenomenon as a form of 'DIY Citizenship' and contend that the citizens involved in this movement are engaged in the process of building a new 'material environment' drawn from their own unique cultural and historical standpoint(s).

Reflecting on the four projects explored in this paper, as well as the wider context for UA in Glasgow, it is argued we make the argument that local, regional and national

governments have a collective role to play in creating the conditions for local UA projects to flourish as both grassroots and state-supported entities. Drawing upon the Glasgow case, the paper identifies we identify a series of emergent policy pathways for UA practice in the city, and demonstrates that local government can assume a diverse leadership role as a promoter, enabler and manager of UA. We also the also highlights how recent changes to the legislative framework in Scotland might widen community access to land for UA through the reshaping of local decision-making powers and the liberalisation of land ownership rights. Finally, the paperwe cautions that governments at all levels must be cognisant of the grassroots character of UA and ensure that steps are taken to enhance the opportunity space for UA without curtailing the movement's dynamism with burdensome red tape.

2. Understanding urban agriculture

UA encompasses a diversity of practices including guerrilla landscaping, farmers markets, beekeeping and market gardening (Mendes et al. 2008), but is most readily identified as community gardening (Firth et al. 2011). In North America, the term 'community garden' is used to describe a wide variety of spaces, including allotments with plots tended by individual holders and gardens where volunteers work communally (Wakefield et al. 2007). In the UK, this definition is more nuanced because of an important distinction between the social organisation of traditional 'allotment' gardens and other UA practices (Firth et al. 2011, Wiltshire and Geoghegan 2012). UK allotments are protected by various acts of parliament that date back to the early 20th century and the vast majority of allotment sites are located on public land managed by local councils. Allotments are divided into multiple plots and rented at a low annual cost to individuals. Most allotments are designated for personal use and produce cannot usually be sold (Firth et al. 2011, Mok et al. 2014). While their popularity has ebbed and flowed, allotments are currently in high demand and many sites have long waiting lists (Wilshire and Geoghegan 2012). Community gardening – in the UK context – refers to collective spaces where gardeners work together to grow food (Firth et al. 2011). Community gardeners draw strength "from the solidarity of the participants in a shared endeavour, underpinned by a common ideology made manifest through the garden" (Wiltshire and Geoghagen 2012, p. 340). There are no statutory protections for community gardens and, as a result, they have emerged ad hoc and are operated by various volunteer organisations and social enterprises, including some small-scale commercial market gardens, that sell produce to businesses and people in the local area.

2.1. More than food production

The value placed upon collective action by UK community gardeners is emblematic of the wider UA movement where volunteerism and sharing resources are often important to practitioners (Glover et al. 2005). These characteristics have led some to argue that UA is as much a tool of community development as it is a means of sustainable food production (Thirbert 2012). Research conducted in Toronto found that community gardens are important places to tackle social isolation; as well as sharing food, those who get—were involved used gardening to engage in broader community issues (Wakefield et al. 2007). UA sites also precipitate physical regeneration by improving the visual quality of neglected pieces of land (Thirbert 2012), and can lead to the creation of new public spaces in neighbourhoods where open areas might be scarce and opportunities to connect with nature and eat healthily are limited. In a New York study, Francis (1989) found that participants who engaged in UA were not only motivated to grow fresh produce, but were equally interested in improving the visual and sensory quality of their neighbourhood.

Scholars contend that UA has an important role to play in addressing environmental justice, tackling economic development and alleviating poverty and health inequalities (Morgan 2009, Vitiello 2008) and, in some jurisdictions, shifts have occurred in the policy and regulatory landscape for new UA practices. For example, some local authorities have incorporated policies on local food access into development plans, zoned vacant land for local growing, and established municipalrun community gardens (Henderson and Hartsfield 2009, Thibert 2012). Furthermore, 'food policy councils', which tend to bring together community and state actors, are also growing in popularity as a way to shape local food agendas and take coordinated action on healthy eating and sustainable food production (Pothukuchi and Kaufman 1999, Blay-Palmer 2009, Carey 2011, Morgan 2013). In some cities, local 'food charters' have also been written to affirm the shared views of public, private and community stakeholders (Hardman and Larkham 2014). Urban food production initiatives also increasingly attract support from philanthropic funding bodies such as the UK's Big Lottery Local Food Programme, which between 2007-2013 awarded £59.8 million for local growing initiatives (Kirwan et al. 2013). These progressive initiatives are, however, the exception to the rule. In many places UA remains a grassroots movement that operates without sustained funding and "in spite of planning" (Thibert 2012, p. 352). When public institutions do get involved in UA it is

often on a case-by-case basis. For example, a city or local authority might supply a piece of land for a limited amount of time or choose not to enforce by-laws or other regulations that would ordinarily prohibit the use of land for gardening activities (Henderson and Hartsfield 2009).

2.2. When bottom up activism meets top down institutionalism

UA projects are typically managed by community groups that operate on the political margins (Morgan 2015). The participants tend to engage with the state and third sector funding agencies out of necessity as a means to source land and secure funding. However, in those cities where governments have looked to play a more active role in the UA sphere, whether through a food policy council or similar initiative, new opportunities are being created for partnership and collaboration, and, Efor some community groups, this has meant a shift from "a politics of *protest* to a politics of *co-governance*" (Morgan 2015, p. 1389). Such a transition is not always easy. Collective organisations invariably have different decision-making processes and governance structures to those preferred by state institutions (Jamison 1985). Intimidating amounts of paperwork can discourage active involvement by volunteers who tend to give up their free time for UA.

Morgan (2015) warns that it would be premature to cast UA practitioners as equal partners in these governance arrangements, and arguesarguing that the positive potential of co-governance can easily descend into co-option as NGOs sacrifice their radical ideas for marginal political influence. Ghose and Pettygrove (2014) further suggest that under the pervasive mode of neoliberal urban governance, radical groups must water down their ideals and adopt a pragmatic stance to secure limited state resources. They contend that community groups that rely on these resources can fall into the trap of becoming appendages of the state, thereby taking part in the translation of state policies into non-state practices. This stance is, however, questioned by Crossan *et al.* (2016) who argue that UA cannot be classed unproblematically as a tool of neoliberal governance because of the grassroots genesis and collaborative character of many community projects.

By creating synergies between community gardens, small-scale commercial market gardens and community food bartering systems, some local urban food policy networks are beginning to challenge the "corporatist food agenda" (Moragues-Faus and Morgan 2015, p. 1569) traditionally driven by national governments and major

food producers and retailers. Research conducted by Wekerle (2004) in Toronto, Canada, found that local activists were able to form local food movements that contested prevailing food systems and created 'new political spaces' where grassroots activities could be linked to local, national and global centres of governance. The development of these new political spaces cannot, however, be taken for granted, and Pothukuchi and Kaufman (1999) suggest that organisations like food policy councils, anti-hunger initiatives, or sustainable agriculture collectives are necessary to focus local government attention on local food and its production.

2.3. Land and the question of permanence

One of the biggest challenges faced by the UA movement, particularly community gardeners, is access to land. Although many UA projects are situated on vacant land, their long-term sustainability often hangs in the balance. Unlike allotments the permanence of UA sites is usually at the "mercy of the landowner" (Henderson and Hartsfield 2009, p. 15). The ownership of vacant property is invariably complex and it can be hard to trace the owners of disused or abandoned property. In some instances, UA practitioners will treat this as an opportunity to use a piece of land temporarily before moving on to a new location should the landowner decide to revoke access or seek to develop the site commercially. However, community groups that work informally as 'guerrilla gardeners' do-also-run the risk of being locked out without notice or having their projects removed (Jamison 1985). Although local governments increasingly applaud the benefits of UA, they can be reticent about shifting control of vacant land to community groups – even when the land in question is publically owned (Ghose and Pettygrove 2014).

Research conducted in Berlin has found that public officials typically refer to community gardening as an 'interim use' that exists as a stopgap measure for future, more profitable, development (Rosol 2010). What these various concerns serve to highlight is that public institutions have a fine line to tread. It is important that decision-makers recognise that the challenges associated with UA are as much cultural and political as they are legal and technical (Thibert 2012). Finding new ways to ensure a sense of permanence or short term security for successful projects means adopting a policy environment that is supportive (Irvine *et al.* 1999) and ensuring a shift from 'municipal hindered' to 'municipal enabled' UA practice (Thibert 2012). If politicians and policy-makers in local government are convinced of the value of UA, they can begin to play a pivotal 'bridging role' by identifying stakeholders, both

at the grassroots level and within government, who share concerns relating to sustainable cities, food security, climate change and UA (Campbell 2004, Mendes *et al.* 2004). Such collective action has the potential to create the capacity for "true food system transformation" (Campbell 2004, p. 352).

3. Research context: urban agriculture on Glasgow's Southside

Glasgow has been shaped by the harsh realities of accelerated post-industrialism. The loss of the Clydeside shipbuilding industry precipitated a "haemorrhage of population" (Tiesdell 2010, p. 262);—and the number of people living in Glasgow fell from just over one million inhabitants in 1950 to just below 600,000 todayin the 2011 census. During the past ten years, the city has experienced modest economic growth and a corresponding rise in population (Glasgow Centre for Population Health 2015), but over half a century as a 'shrinking city' (Rieniets 2009) has left deep social, economic and environmental scars (Mooney 2004, World Health Organization 2011), as well as a large amount of vacant and derelict land (Scottish Government 2014a).

Glasgow's Southside has not been immune from these socio-economic forces and, like many areas of the city, it contains numerous vacant and derelict land parcels. The Southside extends west from Rutherglen to Govan, and south from the River Clyde to East Renfrewshire (see Figure 1 below). UA is thriving on the Southside and can be found in a patchwork of community gardening projects located on pockets of disused land, tenement backcourts, churchyards and even train station platforms, in addition to small businesses selling fresh local produce, traditional farmers markets and local festivals, and allotment sites run by local government.

4. Research design and methodology

The research for this paper was conducted as a single case study of UA practice on the Southside of Glasgow, UK. The We collected the primary data was collected during 2014 and ... It adopteded a qualitative approach that and focused on four UA projects to emphasise multiple perspectives and experiences (Creswell 1998, Denzin and Lincoln 2008). The fieldwork We began the fieldwork with began with an Internet scoping study that identified all of the active UA projects on the Southside of the city. This was followed by a series of direct observations of community gardening projects that were used to both confirm the location of the various projects and toe identify the

types of UA activities. We used fField notes and photography were used to record this data.

The design of the our research methodology was guided by Yin's concept of an embedded case study, in which, as part of an analysis of a 'whole', analysts also pay attention to particular sub-units (Yin 1989). The selection of four sub-units on the Southside of Glasgow was guided by the work of Flyvbjerg (2001), who argues that researchers should avoid typical examples because they tend to lack rich information; they should instead seek out examples that are either unique or different. This strategy has the potential to provide access to a more diverse group of actors and scenarios, where the institutional characteristics are more varied and the likelihood of yielding richer information is greater.

The four UA sub-unit projects <u>we</u> selected for this study were <u>therefore</u> chosen for their collective breadth and diversity. However, the research because we also sought to explore how organisations collaborated or engaged with one another, and therefore we selected projects from the scoping study for which 'live' interconnections and potential networks could be identified. In describing these projects, the paperwe have paidys particular attention to the following questions: why were the projects established; who participates in them; where are they located; and, how are they funded and managed?

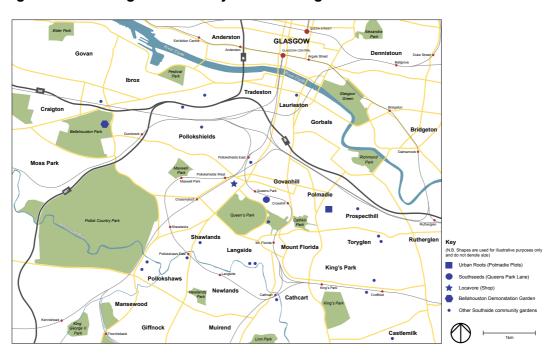


Figure 1: Urban Agriculture Projects on Glasgow's Southside

Within the four sub-units we employed a limited a-range of data collection tools were employed, these encompassed: ten semi-structured interviews (with thirteen participants), two focus groups, and participant observation. We also collected kKey Glasgow City Council and Scottish Government policy documents and press reports were also collected. The first sub-unit was Urban Roots, a medium-sized charity that operates a number of projects in partnerships with state and non-state organisations across the Southside. At Urban Roots, the authorswe interviewed two senior members of staff, a lead volunteer and a local housing officer who worked with the organisation. In addition, a large focus group with 14 participants was held at the Urban Roots market garden, Polmadie Plots. At this site, the authorswe also observed gardeners at work on two occasions for approximately three hours. The second sub-unit was South Seeds, a small charity that facilitates community gardening on vacant sites in the Govanhill neighbourhood. We interviewed aA lead project worker and a founding member were interviewed, and. The authors also observed a garden construction session led by one of the charity's project staff. The third sub-unit was Locavore, an expanding social enterprise that sells and delivers local sustainable food throughout the Southside. At Locavore, the authorswe interviewed a key member of staff and also spent time talking informally to two employees. The final sub-unit was the Bellahouston Demonstration Garden, which is managed by Glasgow City Council and has provided secure and accessible gardening plots for local charities, schools and community groups since 2010. Here, the authorswe interviewed one of the local authority officers responsible for managing the project, as well as a lead volunteer. We also conducted aA small focus group was also conducted with two garden users and a support officer. As part of the wider case study, we convened f-our additional interviews with key informants were also conducted as part of the wider case study: two were with actors involved in local UA policymaking in Glasgow; and a further two were held with members of the Glasgow Local Food Network.

The interview and focus group data were professionally transcribed and then coded by the authors. The We split the dataset was split evenly between us the and two authors, who then coded the data inductively using NVivo 10. To ensure continuity of analysis, the authors we read two of the same transcripts. The authors We met to discuss their independent coding, before agreeing a common framework, which was then applied to all data by the lead author (Guest et al. 2011). The illnterview and focus group data wasere triangulated with observation data and information from

policy documents and press reports to so that the authors could enhance ourtheir understanding of informant narratives. Any comments and reflections that were made by the research participants hasave been anonymised. References to the research participants are cited in the paper as 'Participant 1 interview 2014,' and so on. The College of Social Science Ethics Committee at the University of Glasgow granted the necessary ethical approval for this study.

5. Urban Roots

Urban Roots began life in 2005 as the Toryglen Gardening Club in the Southside neighbourhood of Toryglen, an area of predominately social rented housing developed in the 1940s and 50s that suffers from above average levels of deprivation (Scottish Government 2012). Founded by a group of local residents who shared a passion for sustainability and community activism, the Club initially focused on improving the look of their neighbourhood (Participant 1 interview 2014). Club volunteers tended to a cluster of fruit trees planted at a local school, established a 'butterfly border' around the community centre, and planted bulbs on uncared-for spaces. (Participant 2 interview 2014) As the Club became more established it helped set up a small number of community gardens so that local people could get involved in growing their own food. The Club also had ambitions to establish a permanent market garden to improve access to fresh food in the area and provide employment for local people. It identified an appropriate vacant site close to the Club's base at the Toryglen community centre for this purpose (Participant 2 interview 2014). The site was located within an area undergoing regeneration, and the Club saw an opportunity to link in to this process (Participant 1 interview 2014). They were initially supported by the landowners, Glasgow City Council and Glasgow Housing Association, but negotiations stalled during 2006 and 2007 as the various institutional partners disagreed over which parcels of land they owned. In spite of these delays, the Club's activities continued to expand. A successful funding bid to the Fair Share Trust in 2007 allowed for a permanent member of staff to be hired (Urban Roots 2015a). The staff member was tasked with coordinating the Club's activities and seeking out funding for future projects (Participant 1 interview 2014). Keen to capitalise on this opportunity, the core volunteers decided to formalise the Club's activities by applying for charitable status. The Club officially became a charity in 2008 and changed its name to 'Urban Roots' (Participant 1 interview 2014). Ever since, it has continued to initiate and support UA projects across the Southside.

One of the key objectives of Urban Roots at the time thise research was conducted was to act as an 'enabler'. A senior manager in the organisation described this approach in the following terms: "We take the view...that you can't change the world by working by yourself or working in isolation, so the only way we can build a better more stable future is by working collaboratively in cooperation with other likeminded organisations" (Participant 1 interview 2014). Urban Roots thus invested time and resources into working with other charities and service providers including housing associations, schools and social enterprises. It continues to help these organisations develop skills and capacities in garden design, construction and implementation by running community engagement activities and advising on the design of both temporary and permanent community gardens (Participant 2 interview 2014). Urban Roots has also managed a number of its own projects. In 2009, it signed a lease with Glasgow City Council to take over the management of the Malls Mire Woodland located adjacent to the community centre at Toryglen (Urban Roots 2015b). It has also run workshops for local people on growing and cooking and hosted a Harvest Festival and a Blossom Festival, all of which were advertised on the organisation's sophisticated website and via social media.

Figure 2: Urban Roots Polmadie Plots at Toryglen (photograph by the authors)



Despite protracted negotiations, Urban Roots was not able to reach an agreement with Glasgow City Council and Glasgow Housing Association on the market garden site at Toryglen mentioned above and, eventually, the landowners selected the site as the location for a new care home (Participant 1 interview 2014). However, subsequent negotiations on a separate piece of land in the same area proved more successful and, in 2012, Urban Roots signed a lease with the landowners for a onehectare site on the western edge of the regeneration area near Polmadie (Participant 1 interview 2014). Urban Roots named the site Polmadie Plots and has since planted a community market garden. Polmadie Plots is used as a space for local people to come together and take part in growing food together. The garden has also generated a modest income for Urban Roots because a small amount of fresh produce is sold in the local area. The authors observed some of the volunteers that take part in community gardening activities at Polmadie Plots and met students from local schools and vulnerable local people with learning difficulties and mental health challenges who participate in gardening at the site (see Figure 2). In a focus group discussion, some of these volunteers said that gardening gave them a reason to get out of the house, meet new people and learn new skills (Focus Group interview 2014).

At the time this research was conducted in 2014, Urban Roots employed six members of staff and had about 50 volunteers. However, ensuring the long-term future of Urban Roots, and this level of staffing, remains one of the organisation's long-term challenges (Participant 1 interview 2014). Urban Roots has been very successful at raising money, but this has required the investment of considerable time for writing grant applications. Between 2008 and 2012, Urban Roots secured most of its funding from the National Lottery's Fair Share Trust in addition to a smaller contribution from the Scottish Government's Climate Challenge Fund (Participant 1 and 2 interview 2014). In more recent years, it has successfully secured a greater proportion of its funding from the Scottish Government as UA has become a popular national policy objective. In 2014, Urban Roots was receiving support from the Scottish Government's People in Communities fund, the Central Scotland Green Network, the Heritage Lottery Fund and via the NHS' Community Health Partnerships.

Despite these funding successes one senior participant admitted to being 'a bit demoralised' by the 'patchwork' nature of the organisation's funding and the constant pursuit of new streams of money (Participant 1 interview 2014). "[T]he bureaucracy,

the every four years [funding cycle], it's just...how decisions actually get made and how the evidence is quite clear about the sorts of things that we should do....", the manager reflected, "it's a bit depressing really" (Participant 1 interview 2014). UA might currently be 'in vogue', but priorities can quickly change. As a result, an ambition that Urban Roots identified at the time thise research was conducted was to find more ways to generate its own income and avoid relying solely on grants. One of the ways they aimed to do this was to generate an income from Polmadie Plots by selling produce to local shops and social enterprises, including Locavore (see Section 3.4). Urban Roots has also tended to charge small consultancy fees to some of the larger organisations with which it works. The managerial team at Urban Roots and the volunteer steering group were nevertheless mindful that their pursuit of more sustainable funding streams should not come at the expense of the organisation's shared principles of environmental and social justice (discussion with Participants 1, 2 and 3 2014).

6. South Seeds

South Seeds began when a likeminded group of volunteers started working together on a temporary community garden on a vacant piece of land at Agnew Lane in Govanhill in the late 2000s (Participant 5 interview 2014). The volunteers' aim was to encourage residents living in the nearby tenements to get involved in food production and increase their vegetable consumption (Participant 5 interview 2014). South Seeds has always been community-led and they have worked with local people to develop growing plots and other garden spaces on disused land. The organisation shares a common purpose with Urban Roots as it aims to enable communities to improve their neighbourhood through engagement with UA (South Seeds 2015a).

After a positive meeting with the local councillor in 2011, the gardeners decided to formalise their activities and became a charity using the name 'South Seeds' (Participant 4 interview 2014). The charity grew quickly after successfully applying for a grant from the Scottish Government's Climate Challenge Fund (Participant 4 interview 2014). It hired a small group of staff and undertook a series of climate reduction activities in and around Govanhill, including an energy audit of tenement housing stock on the Southside (South Seeds 2013). The funding also allowed South Seeds to commit additional resources to its community garden at Agnew Lane and other sites and, through these projects, it has focused on helping local people to

construct raised planting beds in tenement 'back courts' by providing materials (such as timber), labour and gardening design expertise (Participant 4 interview 2014).

As noted above, South Seeds focused a lotmuch of its efforts between 2011 and 2013 on the site at Agnew Lane, which had become overgrown and was being used for dumping household rubbish and commercial waste (Participant 4 interview 2014). The garden proved popular and a volunteer for South Seeds writing in *The Big Issue* in 2013 reported that over 200 people were involved in growing fruits and vegetables (Fraser-Hopewell 2013). South Seeds' work at Agnew Lane was also written up nationally in *The Guardian*, which quoted a local resident describing the garden in the following terms:

We asked for [South Seeds] help to build a garden in our back court, which was very overgrown and had been used to dump rubbish....They worked with us to tidy it all up, cut the grass and put in vegetable beds. It used to just be an unused space, but this summer the neighbours have been out sunbathing and it's a safe place for my daughter to play...We've grown peas, beetroot, courgettes — everyone's been really keen to get involved (quoted in Duffy 2012, p. 1).

South Seeds were aware that a property development company owned the Agnew Lane site and took numerous steps in 2011 to seek permission to use it (Participant 4 interview 2014). Emails, phone calls and recorded letters to the developer went unanswered and, as a result, South Seeds decided to go ahead with the project on a temporary basis without the developer's permission (Participant 4 interview 2014). The volunteers purposefully used transportable raised beds so that any materials. plants and produce could be quickly relocated if the developer required access to the site (Participant 4 and 5 interviews 2014). However, in a move that was reported in the local press and by The Guardian, the site's landowners arrived unannounced one day in November 2013 and removed the garden without notice (e.g. Duffy 2013; Stewart 2013). South Seeds were bitterly disappointed that the developer made no effort to contact them, and were frustrated that the raised beds and plants were destroyed using heavy machinery (Participant 5 interview 2014). A local resident who was interviewed by The Guardian at the time the garden was removed told the reporter that: "The mindless destruction in two hours of something that took three years to nurture and build is heart-breaking" (quoted in Duffy 2013, p. 1).

Despite the setback at Agnew Lane, South Seeds continued to work on similar small-scale projects in Govanhill. The community gardening project it focused on in 2014 was also constructed using movable raised beds and was located in a formally overgrown tenement backcourt not far from Agnew Lane. In this instance, South Seeds was able to make contact with the landowner and came to an agreement that the site could be used on a temporary basis as a community gardening space (Participant 4 interview 2014). South Seeds' Community and Development Officer explained how this agreement came about:

...we put together a terms of use document just to protect both of us and it states various things, and when he does want to develop it he needs to give us notice. We're just occupying it with permission, but we're not paying rent or anything like that (Participant 4 interview 2014).

A number of residents that live close to the new garden got_became involved in the project. Wh_and, when wethe authors visited the project in the Spring of 2014, they these residents were working with South Seeds to build raised beds and pathways. This new garden subsequently had a successful year and achieved a good harvest. It was also awarded a Royal Horticultural Society 'It's Your Neighbourhood' award in 2014 (South Seeds 2015b). Southseeds has since begun working with Locavore_(¬, which is described in more detail below)_, to develop a temporary income-generating market garden site in nearby Queens Park on a disused tennis court.

7. Locavore

One of the original founders of South Seeds' moved on to new projects in 2012 and began to focus his energies on the local food economy (Participant 5 interview 2014). In the same year, this individual he helped establish a shop called Locavore to sell locally produced food using funding from the 'Launch Me' scheme associated with the Big Lottery Fund (First Port 2015) (Participant 5 interview 2014). Locavore was originally located in the Southside neighbourhood of Shawlands, but moved to Nithsdale Road in Strathbungo in 2013 (See Figure 3) where it has since been run by a small group of staff passionate about climate change action and sustainable food production. A senior member of staff reflected that Locavore initially tried to do too much and invested a lot of time on other activities with South Seeds, such as a fruit tree planting programme and helping local residents set up back court community gardens (Participant 5 interview 2014). The respondent recognised that Locavore, as

a social enterprise, would have to become more efficient and focus on its commercial activities, such as its storefront presence and vegetable delivery service (Participant 5 interview 2014).

Figure 3: Produce ready for delivery at the Locavore storefront in Strathbungo (photograph by the authors)



Locavore's fortunes improved as a result of this more streamlined approach (Participant 5 interview 2014). The delivery service proved particularly successful and, at the time the data was collected for this paperresearch, the shop supplied a changing selection of locally grown vegetables to more than 120 subscribers each week. Locavore has also provided work for unemployed young people from the Govanhill area to deliver the vegetable boxes on bicycles. During 2014, the shop sold approximately 1.5 tonnes of fresh produce per week (Participant 5 interview 2014). While Locavore has aimed to increase this figure, it has faced supply challenges (Participant 5 interview 2014). Specifically, the growing sites on the Southside were mostly small and faced problems of long-term viability as a result of land ownership and *ad hoc* community involvement. Despite purchasing fruits and

vegetables from some local community garden projects, including a small amount from Urban Roots' Polmadie Plots, Locavore had to bring in supplies from rural organic farms to meet demand (Participant 5 interview 2014). This led to associated transportation costs and, significantly, did not fit comfortably with the shop's low carbon and local sourcing ambitions (Participant 5 interview 2014).

During 2014, Locavore was in the process of establishing a market garden site to meet demand using a concept it called 'nano market gardening' (Participant 5 interview 2014). Collaborating with South Seeds, Locavore has trialled the concept on the vacant tennis court in Queens Park mentioned above (Participant 4 and 5 interviews 2014). Interested gardeners were invited to grow crops for Locavore's vegetable box scheme on 50m² market garden plots and the shop then provided the growers with advice on how to grow particular crops to support the scheme (Participant 5 interview 2014). This innovative project was reported in the local press (Devine 2015) and allowed Locavore to more carefully control its supply rather than relying on what gardeners happen to be growing at a particular site at any one time (Participant 5 interview 2014). Locavore has also sought potential collaborators on the peri-urban edge of Glasgow, where larger pieces of land might be more readily available for the creation of a substantial market garden (Participant 5 interview 2014).-and, In addition, iin November 2015 Locavore, launched an ambitious crowdfunding initiative to establish a 'social enterprise supermarket' with the aim of to provideproviding consumers with a local sustainable alternative to the dominant chain supermarkets (Devine 2015).

8. The Bellahouston Demonstration Garden

The Bellahouston Demonstration Garden was established in 2010 by Glasgow City Council (Participant 6 interview 2014) on the edge of Bellahouston Park within an old walled nursery that was once used by the Council to grow shrubs and bedding plants (See Figure 4). Since its inception it has provided allotment-style growing spaces for community groups, charities and schools (Glasgow Allotments Forum 2012), with the aim of bringing together charitable organisations and state institutions under the umbrella of UA. The rationale for the Demonstration Garden emerged out of a consultation process that Glasgow City Council ran for its *Allotment Strategy 2009-2013* (Participant 6 interview 2014). This The strategy identified the positive role that community gardening and allotmenteering can play in promoting social interaction and engaging people who feel isolated from the wider community. It also highlighted

the restorative and therapeutic benefits of gardening, as well the ways in which allotments might be used as an educational tool to help young people appreciate "where food comes from, and the value of fruit and vegetables" (Glasgow City Council 2009, p. 69). One of the key aims of the strategy was to encourage new partnerships with charities and schools to increase the involvement of specific user groups, including school children, those with long-term illnesses, and vulnerable people, in gardening activities (Glasgow City Council 2009).

Glasgow City Council's Land and Environmental Services responded to the *Allotment Strategy* by outlining a new allotment concept that it hoped might evolve as a form of learning and community development hub (Participant 6 interview 2014). A Council representative explained that the concept also created an opportunity for the Council to respond to the growing number of requests from schools and charities for for secursecuritisede growing spaces (Participant 6 interview 2014). Aware that traditional allotments sites could not really offer the type of accessible spaces required by schools and charities, the representative stated that the Council decided to identify a wholly new site for its new allotment concept (Participant 6 interview 2014). Working with the Glasgow Allotment Forum – the city's main advocacy group for allotment holders – the Council selected the former nursery at Bellahouston Park because, unlike a lot of other vacant sites owned by the Council, it did not suffer from land contamination and would, as a result, require less remediation (Participant 7 interview 2014).

A formal steering committee, incorporating representatives from the Council and the Glasgow Allotment Forum, was established to deliver the new allotment garden (Participant 7 interview 2014). Glasgow City Council provided the initial funding for the project and constructed the new space, organising it in much the same way as a traditional allotment with individual plots arranged in a simple grid pattern (Participant 6 interview 2014) (See Figure 5). The Council employed a site manager who noted that his role was "more of a facilitator than a direct manger" (Participant 6 interview 2014). He envisaged that, as the site became more established, his role would begin to diminish as the various user groups took direct control. When the authors visited the Bellahouston Demonstration Garden in 2014 there were ten user groups using the allotment plots. The user groups included charities such as Sense Scotland, Macmillan Cancer Support and Alzheimer's Scotland, as well as three local schools. Glasgow Allotment Forum also maintained a plot at the Garden for training and skills development (Participant 6 interview 2014). Responsibility for the maintenance and

upkeep of the plots resided with the individual user groups and, while the Council has not charged a fee for the plots, it expected the user groups to make good use of them (Participant 6 interview 2014).

Figure 4: Bellahouston Demonstration Garden, Bellahouston Park (photograph by the authors)



A member of the Glasgow Allotment Forum described the Bellahouston Demonstration Garden as a 'hybrid allotment' focused on collective action rather than the more solitary gardening pursuits typified by traditional allotments (Participant 7 interview 2014). Despite being divided into separate allotment-style plots, the Garden's ethos appeared to be more closely aligned with the community gardens operated by Urban Roots or South Seeds, albeit with more secure funding and management support from the Council. A volunteer from one of the charities that maintains a plot at the Garden reflected that the users saw real value in the project and noted that the volunteers have witnessed, first hand, how it has improved the day-to-day experiences of their service users (Participant 8 interview 2014).

Similarly, the Council's site manager revealed that the most positive aspect of the Garden has not necessarily been the amount or quality of the produce grown on each plot, but rather the restorative role that the Garden has played in peoples' lives (Participant 6 interview 2014).

9. Urban agriculture on Glasgow's Southside: a diverse patchwork of innovative practice

The projects we have described in this paper have-illustrated the vibrant collage of UA operating on the Southside of Glasgow at the time of thethis research was conducted. Urban Roots, while a grassroots project, grew into a medium-sized charity operating in numerous neighbourhoods across the Southside, both independently and in conjunction with state agencies, such as housing associations and schools, and other charitable concerns. Participants included a core group of paid staff and so-called 'activist-volunteers' (e.g. Brager and Specht 1973; Boehm 2002), who have focused their energies on supporting unemployed, vulnerable and young people in their local area through UA, while also sharing a common interest in the wider role that UA can play in addressing social justice and climate change. Urban Roots has successfully negotiated with local state landowners to lease vacant land for a community market garden and other projects and has raised funds from central government, national-level funders such as the National Lottery, and by selling produce grown at the Polmadie Plots. It has also worked in collaboration with other charities and government services providers, including local housing associations.

South Seeds also operated as a grassroots organisation and has been largely supported by activist-volunteers and local residents as well as a core group of staff. Smaller than Urban Roots, it has nevertheless successfully raised funds from central government and has aimed to engage directly with members of the local community, including homeowners and tenants, who live immediately adjacent to vacant or disused land in Govanhill. South Seeds has encouraged local people to engage in collective UA practice on vacant or disused sites and has facilitated small-scale community gardening.

Locavore, in contrast, represented a different type of UA practice; a social enterprise geared towards selling sustainable food. Locavore was, however, connected to South Seeds, Urban Roots and other grassroots community gardening projects

across the Southside via shared community gardening projects and buying and selling agreements. A small team of staff ran Locavore, and the organisation's customer base has mostly been drawn from Southside residents. Locavore has successfully sought funding from the National Lottery, central government, and has also raised funds by selling its produce, and through crowd sourcing.

Lastly, the *Bellahouston Demonstration Garden* is an example of an innovative 'hybrid allotment' space that has provided the type of allotment-style plots usually reserved for private individuals for charities, schools and community groups. The project has been funded and managed by local government, although the groups that use the Demonstration Garden have tended to fund their own activities. Participants have included council officials, charity representatives and their service users, as well as teachers and school children. The project has addressed some of the problems faced by grassroots UA projects, such as access to permanent gardening space, and has provided a safe place for young and/or vulnerable people (Henderson and Hartsfield 2009, Jamison 1985).

Table 1: Analysis of Urban Agriculture on Glasgow's Southside (after Rosol 2010, p. 556, Firth *et al.* 2011, p. 560-561)

Name	Urban Roots	South Seeds	Locavore	Bellahouston Demonstration Garden
Founded	2005 (as Toryglen Gardening Club); 2008 (as Urban Roots)	2011	2012	2010
Location	Toryglen (with smaller projects in various Southside neighbourhoods)	Govanhill	Strathbungo	Bellahouston Park
Initiated by	Members of the local community	Members of the local community	Private citizen	Local council
Legal status	Registered charity	Registered charity	Social enterprise	Publically owned
Management	Paid staff and board of directors	Paid staff and board of directors	Small business owner	Council Allotment
Land ownership	Principle sites leased from local government; other sites managed by partner organisations	Principle sites leased from private landowners; additional temporary gardens on vacant land	Commercial lease	Council-owned property
Purpose and motivation	Neighbourhood regeneration; community development; healthy food consumption; climate action	Healthy food consumption; neighbourhood regeneration; climate action	Healthy food consumption; local food markets; climate action	Community development; social health and wellbeing

Types of user	Activist-volunteers; local residents; unemployed people; vulnerable people; young people	Activist-volunteers; local residents	Local residents, both as customers and employees	Local charity service users; local school children
Core activities	Manage a market garden and a woodland; run workshops; facilitate projects with other charitable groups	Community garden on vacant land (principally tenement backcourts); energy auditing	Shop selling locally sourced food; vegetable box delivery service	Provision of allotment-style plots for charities and schools
Role of local government	Landlord	Informal support from local politician	N/A	Owner and manager
Funding	Lottery grants; Scottish Government Climate Challenge Fund; National Health Service	Scottish Government Climate Challenge Fund	Lottery enterprise grant; Crowdfunding	Local government; charitable plot holders

Evidence from the four projects demonstrated that UA on the Southside of Glasgow has been supported and nurtured by grassroots organisations of varying size, as well as by the state via innovative local government-run projects and national funding initiatives. Table 1 (above) highlights that a diverse range of publics have engaged in UA on the Southside of Glasgow, and that a kaleidoscope of actors and organisations were involved at the time thise research was conducted, including committed individuals and activist-volunteers, grassroots community groups, housing associations, health charities, and various public institutions, such as schools and hospitals. The organisations examined in this paper were founded within four years of each other suggesting a critical mass of UA activity on the Southside of the city as likeminded actors began to test new approaches to growing food in the city. This occurred at a time when the funding climate for sustainable urban development and grassroots community action was fertile, as evidenced by the number of grants going to the UA organisations identified in this paper. As a result of these financial resources, the organisations identified in this research were able to initiate a variety of short- and medium-term projects. In addition, the availability of vacant land and affordable land and property on the Southside enabled practitioners to establish various types of UA projects relatively quickly.

Table 1 also demonstrates that a common social mission was shared among the four projects. The success and scope of UA on the Southside of Glasgow has been dependent upon the passion and drive of a network of individuals and groups who have shown a commitment to addressing issues germane to UA practices in other cities. These include climate change mitigation, community development and

regeneration, and social health and wellbeing (Morgan 2009 and Vitiello 2008). A representative from Urban Roots gave voice to this sense of a shared mission by noting that collaboration and cooperation between likeminded UA organisation on the Southside of Glasgow was critical to realising these goals (Participant 1 interview 2014). This commitment, largely driven by the passionate advocacy and hard work of activist-volunteers, has manifested as a collective approach to growing, harvesting and distributing food in the city to improve the lives of local people and create restorative spaces on neglected land. As other studies in the literature have noted, the act of gardening – despite being the motivating passion of the practitioners who get involved – is often only a means to an end (e.g. Francis 1989, Glover *et al.* 2005, Thirbert 2012, Wakefield *et al.* 2007). Indeed, the state and non-state UA projects explored in this paper are emblematic of what Nettle (2014, p. 83) refers to as "community gardening as social action" whereby the projects have been "chosen consciously and strategically as a way to enact environmental and social justice values and to influence the actions of others".

10. Emerging policy pathways for urban agriculture in Glasgow and beyond

Although organisations like Urban Roots, South Seeds and Locavore have committed resources to a range of UA projects, the scope of UA activity inevitably ebbs and flows. The data from this exploratory research suggests that the UA movement on the Southside of Glasgow has been largely dependent on both the commitment of particular individuals and the fluctuating contours of the external funding landscape. The actors involved, many of whom were volunteers, faced constant challenges when seeking greater permanence for their projects, whether negotiating long-term or temporary land leases with more powerful actors or resorting to 'guerrilla' gardening when landowners could not be located. Research participants also noted that it was often difficult to find time to write complex and often narrowlydefined funding applications or to ensure that budgets could be secured for innovative local government projects, such as the Bellahouston Demonstration Garden. The paperWe contends that a series of critical policy pathways have emerged that have the potential to strengthen the UA movement's voice both at the local and national level. First via a series of initiatives being introduced by Glasgow City Council; and, second, through emerging Scottish Parliament legislation.

In Glasgow, representatives from UA projects across the city, including Urban Roots and Locavore, set up an informal group called the 'Glasgow Local Food Network' in

2012 (GLFN) (Participants 1 and 5 interviews 2014) to establish a more collective voice for UA. Since 2012, the GLFN has operated a website that promotes local food events around Glasgow and hosts an interactive map that identifies many of the UA projects in the city (GLFN 2015). Glasgow City Council was also receptive to the cause of local food growing and decision makers in the city have been actively involved in promoting and supporting UA (Participant 9 interview 2014). For example, the Council actively collaborated in setting up the 'Glasgow Food Policy Partnership' in 2014, which was made up of organisations interested in the topic of sustainable food planning. The membership included the GLFN, NHS Heath Scotland, Zero Waste Scotland and the University of Glasgow (Glasgow City Council 2015). The objective of the Glasgow Food Policy Partnership was to create a "fairer, healthier, more sustainable and resilient food system" that will help make Glasgow "an even better city to live in" (Glasgow Food Policy Partnership 2015, p. 1). This is a tangible example of the 'food policy council' model, described by Pothukuchi and Kaufman (1999), Blay-Palmer (2009), Carey (2011) and Morgan (2013), which aims to generate a more formal dialogue between grassroots actors, representatives of local government and other civil society organisations but, more fundamentally, represents a structural shift in the culture of UA in Glasgow from what Morgan (2015, p. 1389) calls a "politics of protest" towards a "politics of co-governance". This echoes Werkerle's (2004) claim that UA activism can create embryonic political spaces and, moreover, that the decisions made in these spaces might foster more formal recognition of UA and thereby "synergies at higher policy-making levels" (Campbell 2004, p. 352).

Two additional pathways established by Glasgow City Council are illustrative efillustrate how activism can help to shape local government policy making. First, the Bellahouston Demonstration Garden, a permanent 'municipally enabled' (Thirbert 2012) community gardening space, was born out of consultation with community members, including members of the Glasgow Allotment Forum. Second, a, while a further scheme called 'Stalled Spaces' was launched by the Council in 2010 and seeks to release 'paused' development sites and long-term vacant land for community use (Glasgow City Council 2012). In the Stalled Spaces scheme, community groups were invited to propose temporary land uses and could receive Council support and funding to reach an agreement with the landowner and undertake the project (Participant 9 interview 2014). Community gardens, woodlands, play spaces and art installations have been supported by the scheme (Glasgow City Council 2012). __and, _lin 2012, it was extended to seven local

authorities across Scotland using legacy funding from the 2014 Glasgow Commonwealth Games (Stalled Spaces Scotland 2014).

By supporting the use of vacant and council-owned land for UA, the Bellahouston Demonstration Garden and the Stalled Spaces policy programme have raised the profile and legitimacy of community-led food projects in Glasgow (Thibert 2012; Irvine et al 1999). Moreover, the national rollout of Stalled Space's national rollout s is also a testament to the Scottish Government's wider commitment to communityled projects at the local level. Nevertheless, the Stalled Spaces scheme does categorise UA as a temporary land use because it was founded on the principle that the land will eventually return to the market when a more economically advantageous use emerges. This outcome mirrors research conducted in Berlin by Rosol (2010), and also by Henderson and Hartsfield in the United States (2009), who argue that community gardening is often viewed by local government as an interim use. While some UA practitioners happily see their practice as fluctuating, and thereby interim, the Stalled Spaces scheme does serveserves to highlight the difference between new UA projects, where collective action is celebrated yet community control is tenuous, and established allotments on local authority land, where the land use rights of individual allotment holders are protected by legislation. If politicians and policymakers are serious about their commitment to both permanent and temporary UA projects then it follows that a more level playing field should be established so that community gardens and other UA projects – even if they are temporary – might be afforded similar types of protection to those enjoyed by traditional allotments.

At the national level new legal protections for grassroots UA projects have been strengthened as a result of recent legislation. These protections might go some_way to addressing issues of protection and permanence. The *Community Empowerment (Scotland) Act*, which passed into law in June 2015 and is currently being enacted in stages, offers a potential pathway for people to assume greater control over their communities by creating new decision-making rights and opportunities. The new legislation will aim to make it easier for community organisations to take up ownership of derelict land in their neighbourhoods and highlights local food growers, among other groups, as chief beneficiaries of the legislation. In principle, the legislation ought toshould empower communities to acquire land for local food growing and other community projects "without having to wait for it to be put on the market" (Scottish Government 2014b, p. 12). The *Act* also intends to establish new protections for allotments. The implementation of this element of the legislation is still

subject to consultation. It is nevertheless anticipated that every local authority in Scotland will be required to formally recognise all of the allotment sites within their boundaries, if they do not already. In addition, they will be asked to publish an annual inventory of demand for allotments and other community gardening sites in their area (Scottish Government 2015a, 2016).

Further changes coming forward in the *Land Reform (Scotland) Act*, which passed into legislation in 2016 but has yet to be implemented, reiterate the government's support for community groups wishing to assume ownership of vacant or derelict land in their neighbourhood in two ways. First, by making it easier for communities to get information about the owners of a piece of vacant or derelict land and, second, by strengthening the powers that communities have to buy vacant or derelict land if they intend to use it to "further sustainable development" (Scottish Government 2015b, p. 31)¹. These new powers have the potential to support groups, such as South Seeds, who faced numerous challenges locating the owner of the vacant site at Agnew Lane and ultimately saw their movable raised beds destroyed by the landowner.

The primacy afforded to UA in Scotland's emerging legislation is encouraging. But, it is important to be mindful that, as this new legislative and policy landscape grows, there will inevitably be some 'bureaucracy creep' as both the national government and local authorities implement policies, strategies and funding arrangements in response to the new powers. The spirit of many UA projects rests on the passionate commitment of volunteers to grassroots social action that currently operate "on the margins of the political system" (Morgan 2015, p. 1389). Government must be careful not to suffocate UA under the weight of complex legislation and, in doing so, mute its radical voice (Morgan 2015). For it is this radical, self-organising *Geist* that provides the social energy through which unused urban spaces can be renewed, communities empowered and individuals encouraged to use their bodies to pursue socially productive ends. If UA is to be a permanent and socially progressive force in the Global North, politicians and policymakers must show a willingness to create legislation and policies that respond to its precarious and oftentimes temporary existence. Groups like the GLFN and the Glasgow Food Policy Partnership, which are of the 'food policy council' model identified in the literature, therefore have an important future role to play in lobbying for a simple and supportive regulatory framework and policy landscape that allows UA practitioners to gain access to land

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¹ The government's definition of projects that 'further sustainable development' currently includes "land for local food growing" (Scottish Government 2015a, p. 31).

for community growing and other UA projects as easily and affordably as possible. Such groups will also make an important contribution by providing political space for mediating the tension between legislative and activist approaches to UA in Glasgow.

11. Conclusions

In this This paper we have traced the emergence and development of four organisations as part of an exploratory case study of UA on the Southside of Glasgow. Welt explored these projects in the context of the literature on urban agriculture and found multiple parallels between the experience of UA practitioners in Glasgow and those identified by other researchers in cities around the world. Specifically, we found a field of practice in which practitioners were guided by concern for the health and wellbeing of the city (Morgan 2009; Vitiello 2008). This motivated them gardeners to engage in gardening UA as a form of social action (Nettle 2014), volunteer-activism (Brager and Specht 1973; Boehm 2002), and 'DIY citizenship' (Crossan et al 2016) to achieve not just the production of food, but address wider goals such as climate change abatement and social justice (e.g. Campbell 2004; Francis 1989, Glover et al. 2005, Thirbert 2012, Wakefield et al. 2007; Campbell 2004) through a combination of discrete projects as well as fluid networking with other UA actors and local government. This networking has received legislative recognition support and empowerment both in Glasgow and through Scottish legislation. While this recognition is undoubtedly progressive, this paperwe concludes that the two 'food policy councils' in Glasgow will have an important role to play as a mediator between the competing interests and demands of activtists and local government as national legislation is implemented.-

Looking ahead through the lens of the policy pathways-_identified in this paper, we would suggest that future research on UA must continue to examine the diversity and complexity of local UA practice, while also considering the regional and national context for UA. Research should focus on the role that food policy councils and other similar networks of state and non-state actors can play to both support UA and navigate new legislation and policy, whilst always remaining mindful of the different urban contexts within which community gardening and other UA activities operate. In Glasgow, the combination of sluggish economic growth, the wide availability of vacant and derelict urban land, but also the supportive funding environment, have created the conditions for UA and the activists that drive it, to flourish. Yet, the story might very well be different in cities with a buoyant real estate market and a more

limited vacant land inventory. Further comparative research is therefore needed to understand the impact of economic growth and other external forces on UA, as well as how progressive policies and legislation, such as those emerging in Scotland, might translate in towns and cities with differing socio-economic climateconditionss. Questions that this research agenda might explore include: what does it mean, on the ground, to support both permanent and temporary UA; how are the needs of the UA groups and the people that use UA affected and/or accounted for in different legislative climateenvironment'ss; and how do planners/planning contribute to a just UA system? The exploratory research we have presented in this paper provides part of the foundation for such questions both in Scotland and across around the globe.

12. Acknowledgements

REMOVED FOR REVIEW

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