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Towards “pro-poor” urban development in South Africa: the case of urban agriculture

Planning for urban agriculture can be one element in the development of “pro-poor” urban strategies in South Africa. This article examines international and South African writings and research on the role of urban agriculture in poverty reduction. It is argued that there is a need for policy guidelines to support emerging local-level initiatives aimed at encouraging urban agriculture across South Africa. The foundation for a set of policy guidelines for South Africa may be found in the best practice of international policy interventions for urban agriculture.

Onderweg na “pro-arm” stedelike ontwikkeling in Suid-Afrika: die geval van stedelike landbou

Bepanning vir stedelike landbou kan een aspek vorm vir die ontwikkeling van “pro-arm” stedelike strategieë in Suid-Afrika. Hierdie artikel ondersoek internasionale en Suid-Afrikaanse publikasies oor die rol van stedelike landbou in armoedebestryding. Daar word betoog dat daar regoor Suid-Afrika ’n behoefte is aan beleidsriglyne ter ondersteuning van nuwe inisiatiewe op ’n plaaslike vlak wat stedelike landbou aanmoedig. Die basis vir ’n stel beleidsriglyne aangaande stedelike landbou in Suid-Afrika kan in die beste praktykervarings van internasionale beleidintervensies gevind word.

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Poverty is one of the most defining features of life in the post-apartheid city. In one recent national investigation into poverty it was shown that at least 25% of urban households in South Africa could be classed as “poor”. In relative terms the incidence, depth and severity of urban poverty is greatest in South Africa’s small towns, followed by the secondary centres. In absolute terms, however, the largest numbers of the urban poor are to be found in South Africa’s metropolitan areas (Rogerson 2001). The extent, depth and growth of urban poverty highlight the urgent need to develop strategies for economic development that specifically address the needs of South Africa’s poor.

At the core of what is termed “pro-poor” urban interventions are those national government-led strategies that enhance the asset base of urban dwellers in terms of their access to essential infrastructure, services, shelter or job opportunities (Rogerson 2001). Nevertheless, there is a range of other critical interventions that may assist in the promotion of sustainable livelihoods for poor urban dwellers and the making of more inclusive cities. Many of these alternative interventions for pro-poor urban development can be undertaken at municipal or local levels of government and represent local-level initiatives for poverty alleviation (Vanderschueren *et al* 1996; Wegelin & Borgman 1995). In some cases local-level initiatives are incorporated into broader and more co-ordinated local strategies for urban economic development (Rogerson 1999a, 2000).

The objective of this paper is to consider one significant local-level intervention for poverty alleviation in South African cities. The focus is upon analysing the role of urban agriculture as an element in pro-poor urban development planning. Over the last two decades much international attention has centred on the potential of urban agriculture for sustainable development planning, particularly in the South (Van der Berg 2000), and on its local potential as a pro-poor urban development intervention. In the developing world, sustainable urbanisation has been viewed as inseparable from policy measures to address the mounting poverty problems in cities. Accordingly, the significance of urban agriculture in relation to the problem has attracted the attention of many of the leading international development agencies, in particular by means of the findings of the first

detailed research investigations on urban agriculture (cf Mougeot 1994a, 1994b, 1998; Van der Berg 2000). Research on alleviating poverty in developing world cities has pointed to the potentially crucial role that might be played by urban agriculture (cf Egziabher *et al* 1994; Smit & Nasr 1992; UNDP 1996). In 1996 the United Nations for consideration at the Habitat II meeting held in Istanbul in June 1996. This report emphasised the activity's significance for sustainable urbanisation, for job creation, for feeding cities, and for poverty alleviation (UNDP 1996). The UNDP work represents, perhaps, a landmark in what has been referred to as an "advocatory strand" of writings on urban agriculture (Ellis & Sumberg 1998: 214), stressing its positive role in pro-poor urban strategies. For certain critics, however, it also marked the moment at which urban agriculture emerged as a potential "anti-politics machine in the design stage of production" (Page 2002: 42).

This article is organised into three major sections of discussion, which investigate the debates on urban agriculture as part of a wider literature on urban poverty. First, the international debates concerning the potential role of urban agriculture in poverty alleviation, particularly in African cities, are examined. Secondly, the focus turns to a critical synthesis of existing South African research and the debates surrounding urban agriculture. The third section draws on the international experience for relevant lessons in designing and implementing South African development strategies to enhance the role of urban agriculture as part of pro-poor urban development planning.

1. Urban agriculture and poverty: international debates

There is a wealth of international writings interrogating the role of urban agriculture in the cities of the developing world and assessing its contribution towards poverty alleviation. In terms of its developmental contribution, urban agriculture is viewed as having several positive attributes. Overall, it is seen as enhancing food security in addition to providing income and employment for both poor and middle-income dwellers. It also contributes to an ecologically sound urban environment (De Zeeuw *et al* 2002: 163). Indeed, it is clear

that urban agriculture can have various purposes, for example contributing to subsistence needs for food security, urban ecological improvement, and the generation of income and employment.

The impact of urban agriculture on food security in terms of the overall availability and supply of food for urban markets is well documented (Maxwell 2002). It has been argued that urban agriculture contributes to “increased food availability, stability and, to some extent, accessibility” (Egal *et al* 2001: 149). For urban households, even if the proportion of total access to food from household production is small, its importance is heightened at critical times such as when the household’s income for food purchases is insufficient. As De Zeeuw *et al* have pointed out, urban agriculture functions in the South as a significant strategy for poverty alleviation and for the social integration of the urban poor, especially during periods of structural adjustment (Drescher 2001). Illustratively, Nugent (2002: 86-7) asserts that urban agriculture provides “a particularly good buffer against sectoral shocks” or temporary emergencies from civil, climatic or macro-economic upheaval. Nevertheless, as situations of “economic crisis” become almost a permanency for households in many parts of the developing world, “farming may constitute an important means to survive by providing a substantial part of a family’s food, and possibly some income” (De Zeeuw 2002: 1). The UNDP (1996: 4) considers urban agriculture “an easy-in, easy-out entrepreneurial activity for people at different levels of income”. More specifically, it is stated that:

For the poorest of the poor, it provides good access to food. For the stable poor, it provides a source of income and good quality food at low cost. For middle-income families, it offers the possibility of savings and a return on their investment in urban property. For small and large entrepreneurs, it is a profitable business.

For disadvantaged groups such as households headed by women, young people without jobs, recent immigrants, the elderly, the disabled, and so on, another advantage of urban agriculture is to integrate them more strongly into the urban network and provide them with a decent chance of a livelihood (De Zeeuw 2002). “Community-building” is thus a positive outcome of urban agricultural developments. In addition, the nutritional benefits of urban agriculture for such vulnerable groups may be considerable. It can make available

cheap fresh vegetables and other perishable crops, lowering their cost and increasing their availability, in addition to improving the micro-content of the diets of the poor. In some research urban agriculture is viewed as significantly correlated with higher child nutritional status (Maxwell 2002). For the growing numbers of the urban poor and the informally employed in cities of the South, urban agriculture is a vital means of earning an income or meeting basic needs (Nugent 2002). The UNDP's (1996: 170) international survey disclosed that "urban farming provides secure jobs to many in the city" and that in some cities of the South "as many as one-fifth to one-third of all families are engaged in agriculture with as many as a third of these having no other source of income". More recently, Mougeot's (2002: 26) international cross-sectional investigation concurred that for several cities in the South, it "makes an important contribution to employment and income generation". From household-level studies of its impact, it is evident that urban agriculture "can make a difference to those who use it as one among an array of strategies" (Nugent 2002: 87). The benefits of urban farming to farmers and their families are interpreted as "a springboard for its benefits to society" in terms of "improving the health and productivity of poorer populations and providing them [with] an opportunity to earn additional income" (UNDP 1996: 165).

The importance of urban agriculture for city ecology is demonstrated particularly by Deelstra & Girardet (2002), who stress that it is a major component in creating a "green" city environment. Other contributions in this respect include its potential for recycling; the re-use of urban organic wastes and waste water; the reduction of energy use by providing fresh food close to the city; increasing biodiversity, and reducing the "ecological footprint" of a city (UNDP 1996). A significant means by which urban agriculture can contribute to the environmental sustainability of cities — as well as lower the cost of waste disposal — is to provide nutrient recycling of organic wastes from numerous urban sources (Nugent 2002: 85). Further environmental benefits that can be derived from urban agriculture relate to indirect improvements in urban water management, as green spaces have permeable land surfaces which allow rainwater and runoff to drain through the soil (Deelstra & Girardet 2002: 52). The conserva-

tion of urban soils may be an additional outcome in circumstances of best practice, where the activities of urban agriculture have been shown to stabilise soil against water and wind erosion (Deelstra & Girardet 2002: 49). Finally, in terms of city ecology, urban agriculture can enhance environmental awareness, for example by re-educating people about the ecological base of food and about the linkages of food production to natural food chains.

Gender is an important consideration in discussions concerning urban agriculture in general and its benefits in particular. It is clear that across most of Africa women are the predominant urban farmers, particularly in Kenya, Mozambique, Uganda, Tanzania, Zambia and Zimbabwe (cf Freeman 1991; Mbiba 1995; Rakodi 1988a, 1988b; Tevera 1996), where they represent approximately two-thirds of all cultivators (Hovorka 1998, 2002). Women engage in urban agriculture partly in order to enhance their ability to feed their families “independently of the unreliability of their menfolk, as has been observed in several cities” (Ellis & Sumberg 1998: 217). International research documents the particular benefits of urban agriculture for women who are responsible for family food provision. Women with low incomes benefit from urban agricultural activities that allow them to combine their multiple roles successfully in subsistence, production and environmental management (Hovorka 2002). Recent studies disclose that urban agriculture is an adaptive strategy of women

[...] to protect household food security either through direct provision of a supplemental food source, as a food reserve, or as a means of stretching other sources of income (Hovorka 2002: 4).

Urban agriculture is predominantly considered a primary strategy used by women in order to maintain livelihoods and protect subsistence production. Beyond the provision of yields for some quantity of household sustenance, urban agriculture has the further advantage of allowing women to work close to their home, a factor which is significant in view of women’s domestic and child care responsibilities (Mougeot 2002: 15). The accessibility of urban agriculture is enhanced by its utilisation of often indigenous practices and low-cost inputs which are affordable for poor women. In some cases, women do not limit their involvement in urban agriculture to the sphere of subsistence and urban food enterprises often represent an avenue via

which unskilled, uneducated women can potentially gain entry to the business milieu (cf Hovorka 2002; Mougeot 2002). Finally, in terms of women's role as environmental resource managers, several linkages have been identified between waste management and women's participation in urban agriculture that facilitate both enhanced household food security and local environmental sustainability (Hovorka 2002: 3).

Maxwell (2002: 1) observes that urban agriculture in Africa "is predominantly a strategy adopted by households whose monetary incomes are not enough to purchase sufficient food". The impacts of urban agriculture are clearly greatest for the households of the urban poor. Recent surveys of African research confirm that urban cultivation supplies poor producers with much-needed food and income (cf Binns & Lynch 1998; Lynch *et al* 2001). Mougeot (2002: 22) documents the positive effects of urban cultivation upon community welfare in many African cities. Subsistence food production represents a crucial survival niche adopted by the most vulnerable households in the majority of the urban areas of sub-Saharan Africa (Lee-Smith 1999). Self-production can represent up to 60% of total food consumption in low-income households, with the highest levels having been recorded for Kampala (Mougeot 2002). Undoubtedly, the proliferation of agriculture across urban Africa must be interpreted in part as a consequence of globalisation processes and structural adjustment programmes, which had negative consequences for household food security (Rogerson 1997). Self-provisioning, or the production of one's own food, became a strategy by means of which families sought to cope with the impact of structural adjustment measures, thereby releasing pressure on the family food budget (Drakakis-Smith 1993). As is confirmed by several research investigations in Harare, the dominant push factor encouraging the practice of urban agriculture "is increasing economic hardship, particularly that resulting from the implementation of economic structural adjustment" (Bowyer-Bower 1997b: 53). For the majority of urban households, rising insecurity regarding access to food is an economic issue rather than a matter of the unavailability of food in urban areas (Thorgren 1998: 12). The message is clear: urban impoverishment occasioned by structural adjustment and globalisation pressures has forced an in-

creasing segment of the urban population to grow food in the face of escalating costs and reduced incomes (Byerley 1996). Indeed, urban agriculture has been recognised as a coping mechanism enabling urban households in general — and the poorer households in particular — to deal with worsening urban food insecurity, especially since the 1990s (Drakakis-Smith 1993; Rogerson 1992; Smith & Tevera 1997). Accordingly, urban agriculture has therefore emerged as a crucial economic activity within the economies of most contemporary African cities (cf Binns & Lynch 1998; Chivinge *et al* 2001; Mtani 1997; Obosu-Mensah 1999).

Accordingly, across sub-Saharan Africa a striking consequence of deteriorating economic conditions has been a growing crisis of household vulnerability to poverty in cities. For large segments of the urban poor, a major response to vulnerability is the use of the natural environment in order to produce food. With the rise in and increased visibility of urban agriculture across much of sub-Saharan Africa, the role of urban agriculture as an element of poverty alleviation has been extensively discussed.¹ Overall, against the backdrop of worsening economic recession and the negative effects of structural adjustment programmes, urban agriculture has become more extensive, triggering a “discovery” of interest in its developmental potential among policy-makers.

Policy interest in urban agriculture has grown most strongly from the 1980s, occurring in parallel with studies on the informal sector and on addressing the need for alternative sources of income for groups unable to secure formal income opportunities (Rogerson 1997). It has been argued that, in the South, interest

[...] began in earnest in the 1980s and corresponded with the demonstration that the creative capacities of the informal sector provided a palliative for social and economic ills (Slater 2001a: 636).

Nevertheless, while in the 1980s many governments in Africa openly embraced planning for the informal sector in general, attitudes towards urban agriculture have not always been so positive. Early ne-

1 Cf Bowyer-Bower 1997a, 1997b; Byerley 1996; Drakakis-Smith 1990, 1991, 1992a, 1992b, 1994; Freeman 1991; Grossman *et al* 1999; Kiango & Nzalawahe 2001; Lado 1990; Lee-Smith 1998, 1999; Lynch *et al* 2001; Mbiba 1994, 1995; Moshia 1991; Obosu-Mensah 1999; Rakodi 1985, 1988a, 1988b.

glect of urban agriculture was occasioned by the stance that it was “trivial” and “insignificant”, particularly in terms of national food production. Moreover, urban agriculture was also viewed as “non-urban” and thus not considered a socio-economic sector worthy of attention (Mbiba 1994). Overall, urban agriculture was regarded “as an artefact of rural life that simply does not belong within the city limits and poses a potential health threat or nuisance to urban dwellers” (Hovorka 2002: 3).

In situations where urban agriculture did come under official scrutiny, attitudes were not always positive. During the 1980s urban agriculture was disliked in many African countries for a number of reasons, most notably that it was unmeasured, illicit, unregulated and suspected of causing environmental and health risks. A more fundamental reason for hostility is put forward by Slater (2001a). It is suggested that urban planners’ criticism of urban agriculture “stemmed from a much deeper perception of it, which implied criticism of the work of urban authorities themselves” (Slater 2001a: 637). In short, urban agriculture was seen as the antithesis of modernisation and indicative of official failure in the urban development process. Accordingly, urban agriculture was stigmatised as “backward”, “rural” and “traditional”, and as an activity that had no place in the context of modernising cities. The logical outcome of this type of thinking was that urban agriculturalists were harassed by some city authorities, while others failed to provide any support for its development as part of urban sustainability. Such hostile or unsupportive policies are seen as

[...] particularly detrimental to women farmers who (in relation to men) tend to possess fewer skills that are valued in the marketplace and whose domestic responsibilities, including childcare, make it difficult to enter the formal workforce in order to adequately support their households (Hovorka 2002: 3).

A key theme across Africa is that the important livelihood options for the urban poor of undertaking agriculture often “run into direct confrontation with city managers” (Maxwell 1999: 1948). The advance of urban cultivation and its growing significance throughout African cities continue to occur — much to the surprise and embarrassment of proponents of modernisation, ranging from city officials

to international aid donors (Rakodi 1988a; Sanyal 1985). Despite the importance of urban agriculture in alleviating some of the worst effects of the urban economic crisis and structural adjustment upon the poor, the policy environment throughout Africa has been far from favourable. This livelihood strategy of the urban poor engenders many conflicts with city managers who confront various pressures from the business community, from the state, from demands on municipal services and from their own perceptions of what constitutes a city (Maxwell 1999).

Urban agriculture is not without its serious critics. The major streams of criticism concern the potentially negative health and environmental implications of widespread farming activity in cities (De Zeeuw *et al* 2002). These concerns are legitimate and need to be addressed, as — in most cases — they arise out of farming practices that are carried out in the wrong places or in the wrong way (Mougeot 2002: 25). It is argued that the danger of allowing cultivated areas in cities lies in attracting rodents or flies or providing breeding grounds for them, thereby contributing to the spread of certain diseases (De Zeeuw *et al* 2002). In particular, the keeping of livestock is regarded as a most dangerous activity in terms of the potential health risk (Mougeot 2002: 25). The environmental impacts of the inadequate handling of agrochemicals or urban wastes may result in health problems in terms of the crops that are produced as well as having negative ecological consequences. From detailed environmental research in Harare, a need has been identified for policy formulation to minimise the effects of a variously changing hydrological regime, soil loss, chemical pollution and vegetative change (Bowyer-Bower & Tengbeh 1997). The Harare research, however, suggests that simple management techniques can be sufficient to significantly reduce many of the observed negative effects of the cultivation of open land in the city. Lastly, it is stressed that the environmental implications of cultivation in terms of sustainability must be set against the social and economic implications in order to make a balanced decision “on how best the cultivation of urban public lands should be managed” (Bowyer-Bower & Tengbeh 1997: 23).

At another level, urban agriculture in Africa has been criticised as “becoming part of a mechanism for achieving political ends in an ap-

parently non-political way” (Page 2002: 42). In Page’s analysis (2002), urban agriculture is constructed as an anti-political machine with the development business identifying urban agriculture as a sector offering potential. It is argued that there is a tendency to ignore the political outcomes associated with the expansion and support of urban agriculture. In the case of Cameroon, as in many other parts of Africa, it is asserted that urban agriculture has functioned as a safety valve against social unrest, absorbing the anger of groups of retrenched civil servants who were hit by structural adjustment measures. Essentially, urban agriculturalists set out to enhance their food security but “ended up assisting the elite to retain power” (Page 2002: 51). In this manner the support of development agencies and national governments for urban agriculture is interpreted as a strategy for reproducing existing (often uneven and exploitative) social relations. Indeed, Page (2002: 43) concludes that “the expansion of urban agriculture is part of the explanation for the retention of power by the Cameroonian elite in the 1990s”. Nevertheless, several African researchers reaffirm that national governments and municipal authorities should abandon “the charade of attempting to prohibit food production activities in towns”, on various grounds, including environmental protection (cf Bowyer-Bower 1997a, 1997b; Ellis & Sumberg 1998). As stressed by Ellis & Sumberg (1998: 221), given the weakness of formal economies and the ramifications of structural adjustment programmes, the interests of the urban poor in Africa are perhaps “best served by permitting them the widest possible range of opportunities to piece together livelihoods” in the city. Only recently, however, are there emerging signs of a more positive pro-poor policy climate and concomitant attitudes toward urban agriculture in Africa.

2. Urban agriculture and poverty: South African debates

Research on urban agriculture in South Africa is beginning to gather momentum as an important element of poverty reduction strategies. Urban agriculture in South Africa is characterised by initiatives for both planned and informal cultivation (cf Austin & Visser 2002; Epstein 1994; Rogerson 1993a, 1993b). In common with the experience recorded in much of sub-Saharan Africa, the activity of urban

agriculture is overwhelmingly driven by the need for food security and economic survival (cf Nticinka 2001; Rogerson 1996a, 1996b). The majority of its participants are drawn from the urban poor, particularly women, farming for subsistence purposes or to supplement nutrition. As compared to other parts of Africa, however, the incidence of urban agriculture in South African open spaces is much less (cf Lynch *et al* 2001). Another striking contrast with other parts of Africa is the strength of community-based urban agriculture (Nticinka 2002: 7). Indeed, in an attempt to address issues of urban poverty collectively,

[...] there have been many attempts by developmental, health, church-based and environmental agencies in South Africa to deliberately promote urban agriculture as part of community development initiatives (Epstein 1994: 26).

Overall, since 1994 urban agriculture has been viewed increasingly as offering one policy opportunity for strengthening the asset base of the urban poor and redressing the apartheid legacy of poverty (Karaan 2001; May & Rogerson 1994, 1995; Rogerson 1996a, 1996b, 1998). As was disclosed in the most recent national-level study on urban agriculture, “authorities in South Africa, especially at local level, are showing an increasing interest” (Austin & Visser 2002: E3). Indeed, it may be argued that urban agriculture is now formally acknowledged as part of the tool-kit of South African local authorities for local economic development planning.

2.1 Urban agriculture and poverty in South Africa

Over the past decade, urban agriculture as a policy issue has been “discovered” by South African researchers. A steady stream of writings and analysis has appeared, contributing to debates on its role in addressing poverty (cf Karaan 2001; May & Rogerson 1995; Rogerson 1996a, 1996b, 1998; Webb 1996, 1998). Questions and controversies regarding “sustainable urbanisation” in South Africa continue to underline the policy-related importance of research on urban cultivation. The critical contribution made by urban agriculture towards food security has been shown for groups of low-income women cultivators (Rogerson 1996c). Indeed, a number of contributions link the policy significance of urban cultivation in South Africa to plan-

ning for the sustainability of the country's cities, focussing on its role in poverty alleviation (Katzschner 1995; Rogerson 1993a, 1993b; Thorgren 1998). The environmental dimensions of urban agriculture have been explored in a limited range of South African research (Thorgren 1998). Based upon empirical work in Cape Town, it was argued that "urban agriculture is the most efficient tool available for transforming urban wastes into food and jobs" (Katzschner 1995: 5). In addition, further positive contributions of urban agriculture to sustainable urbanisation were noted in terms of biological management and the recycling of waste (Thorgren 1998). Overall, it was concluded that by means of urban agriculture it is possible to forge urban systems that are both ecologically sound and economically viable, allowing people to provide their own food needs. Furthermore, such systems do not pollute and are therefore sustainable (Katzschner 1995).

In a set of arguments paralleling the international literature on urban agriculture, a number of South African studies suggest that groups of urban cultivators should be viewed as a special category of survivalist small, medium and micro-enterprise, fulfilling an important future role as poverty alleviation agents (Rogerson 1999b). The promotion of urban agriculture is variously seen as contributing towards food security, generating productive income opportunities, and offering a strategy particularly geared to assisting the poorest of the urban poor (Slater 2001a; Thorgren 1998). An array of South African research, based on the local experience of cultivators, promotes a generally positive view of the potential of local intervention to assist communities of urban cultivators (cf Karaan 2001; Katzschner 1995; Rogerson 1993a, 1993b; 1996c). It has been argued that there is a need for policy-makers to intervene and address the needs of urban cultivators, the largest group of whom are primarily women-headed households dependent on either remittance or welfare (May & Rogerson 1994, 1995). For example, in an evaluation of the Abalimi Bezekhaya project on the Cape Flats, it was shown that the most important motivations for gardening were food security, savings on household food budgets, and income generation (Karaan 2001). The projects undertaken in the Cape Flats are representative of initiatives led by non-governmental organisations for local economic develop-

ment, assisting in eradicating poverty as well as in building communities (Karaan 2001). Outside of South Africa's metropolitan areas, similar optimism has been expressed regarding urban agriculture as a tool in poverty alleviation (Rogerson 1998).

Notwithstanding these initiatives supporting cultivation in South African cities, other research suggests a degree of caution about seeing urban agriculture as anything more than an alternative safety net for the urban poor. In particular, the studies by Webb (1996, 1998) are highly critical of its prospects. Essentially, Webb (1996) argues that the role played by urban cultivation is exceedingly modest and that most of the optimistic claims made in South Africa on its behalf are more congruent with "development discourse" than with actual cultivation practice or, more especially, of the economics of urban agriculture. In small towns of the Eastern Cape Province, eg Port Alfred, it was evident that urban agriculture "did not provide a significant strategy for the poorest of the poor" (Webb 1996: 105). Moreover, as compared to alternative livelihood strategies adopted to increase household welfare among the poor, urban cultivation was not the most important strategy. Accordingly, it was concluded that urban cultivation should not be adopted "as a hedge against poverty" (Webb 1996: 275) and that, in South Africa, to seek the amelioration of urban poverty "in urban cultivation or a particular conception of 'urban agriculture' is misguided". Overall, this critical research on the role of urban agriculture in poverty alleviation in South Africa does not necessarily oppose the practice of promoting urban agriculture as a means of addressing the needs of the poor. Instead, it makes a plea for urban cultivation to be understood in terms of those who undertake the activity in order to "generate a discourse more in line with the practice, views and aspirations of the cultivators themselves" (Webb 1998: 105). More broadly, these research findings from South Africa parallel the conclusions of other African studies, which suggest that sometimes "the term urban agriculture both claims too much and offers too little in the policy context of urban poverty and family food security" (Ellis & Sumberg 1998: 221).

Until recently, the dominant focus of South African research has thus been on examining the economic aspects of urban agriculture. In more recent works, however, a shift in focus has occurred towards

analysing the social benefits of urban agriculture. Using the methodology of life histories, Slater (2001a, 2001b) investigated the social effects of urban agriculture on women in the Langa, Khayelitsha and Crossroads areas of Metropolitan Cape Town. The results of this investigation are significant in terms of empowerment. It is shown that, through gardening, these communities of poor women became empowered in many ways (Slater 2001a, 2001b). As Slater (2001b: 648) states, “for those women, cultivating a small backyard garden to provide regular food for the household was an important part of their roles as wives and mothers”. Furthermore, it was argued that “urban gardens are an expression of women’s greater sense of stability as urban dwellers” because after years of apartheid segregation from their families “the opportunity to live as families was one to which many women aspired” and “to have a garden is symbolic of women’s important role in society as wives and mothers” (Slater 2001a: 648). The importance of urban agriculture in terms of power relations in the household was also observed. It was disclosed that, even if husbands were the main income-earners, “women gained a sense of self-worth through the cultivation of vegetables that could supplement the diets of their families” (Slater 2001b: 18). Likewise, women without work felt “less dependent on their working husbands when they could contribute in a tangible way to the sustenance of the household “(Slater 2001b: 18).

The activity of gardening was normally attempted only when there was a sense of permanence in women’s lives. It was found to strengthen social networks and foster a sense of community. Whether the women are gardening as individuals or in groups,

there is strong evidence that their agricultural activity contributes to the development or reinforcement of strong social networks that enable women to become more empowered in their households and also in the wider community (Slater 2001b: 18).

Indeed, it was suggested that women gardening as groups are often able to move beyond gardening and take social and political action relating to issues that directly affect them and their communities. Overall, the research in Cape Town therefore demonstrates the non-quantifiable benefits of urban agriculture that flow to urban gardeners. These include an increasing sense of stability and opportunities for

the development of social networks. This suggests the important conclusion that, in unstable and divided low-income communities, such as those found in many areas of urban South Africa, urban agriculture has a “positive contribution to make to community development” (Slater 2001a: 649) and to the development of sustainable urbanisation more generally.

The key constraints on urban cultivation are viewed in terms of access to secure land for cultivation, crop security, and access to water (cf Austin & Visser 2002; Karaan 2001; Rogerson 1996b). Resource constraints such as those relating to access to land and water are widely recognised as critical issues that must be confronted in order to launch any successful urban agriculture project. As Austin & Visser (2002) point out, there are several other crucial institutional constraints for developing urban agriculture as a pro-poor policy intervention. It is argued that South Africa lacks any clear policy guidelines for the implementation and management of urban agriculture. Although existing national policy in South Africa is not against urban agriculture, at present there are no available guidelines to assist those local authorities wishing to support poor urban cultivators. The National Department of Housing regards urban agriculture as a significant activity closely allied to its “greening” programmes for environmentally sound housing. Nevertheless, while the National White Paper on Agriculture stresses food security and even recognises urban food production as a strategy for reducing food insecurity in cities (South Africa 1995), the priority of the National Department of Agriculture is focused very firmly upon the rural rather than the urban poor (Austin & Visser 2002). Overall, the study by Austin & Visser (2002) correctly identifies the need for some form of guidelines for urban agriculture, as well as for urgent collaboration between government departments, at various levels, which have a vital stake in the success of urban agriculture as a pro-poor urban development strategy. The urgent need for such policy guidelines is reinforced by existing (sometimes unpromising) experiences in terms of implementing urban agriculture as part of local economic development programmes in South Africa.

2.2 Urban agriculture and local economic development

In the context of international policy debates on urban agriculture, the most distinctive facet of the South African experience is the emerging linkage between planning for urban agriculture and planning for local economic development. Planning for urban agriculture has become firmly established as part of the group of local economic development (LED) approaches which focus particularly upon issues of unemployment as well as on poverty alleviation and correspondingly contribute towards sustainable urbanisation (Rogerson 2000).

At present, it is evident that several South African local authorities are beginning to explore the possible development of policies for assisting cultivators. From the perspective of “developmental local government”, support for urban agriculture becomes a critical element in local-level initiatives for poverty alleviation. Since 1998 local authorities in the Cape Town metropolitan area have been engaged in a process of formulating policies and procedures for “responsible governance” of urban agriculture (Austin & Visser 2002; Karaan 2001). Within South Africa’s economic heartland of Gauteng, in a number of low-income settlement areas around Johannesburg and Pretoria, official support is now being given to the promotion of urban farming (cf Rogerson 1996b, 1996c; Van den Heever *et al* 1998). Moreover, a number of authorities, most notably Pretoria, have incorporated urban agriculture into the management of their urban spaces, setting aside land for urban agriculturalists in designated sectors of the city (Austin & Visser 2002; Nugent 2002). In Durban, planning for urban agriculture was accepted early on as an integral part of local economic development planning in the city (Rogerson 1996b) and the local authorities are presently engaged in a process of seeking to implement further projects for urban cultivation in the low-income areas of the city (Nticinka 2002). In several other localities which were recently hard hit by economic restructuring and global competition, eg the gold-mining town of Welkom, the facilitation of urban agriculture by the local authority has been viewed as an important means of poverty alleviation (Van der Walt 1999).

The case of Midrand, Gauteng, is of the greatest interest in terms of LED and urban agriculture because of its proclaimed status as South Africa’s eco-city (Rogerson 2002). Urban agriculture is of

growing importance in Midrand's low-income settlements, such as Ivory Park. In the light of the high levels of poverty in the settlement, it is perhaps not surprising that signs of urban agriculture are in evidence throughout. Rain-fed maize and vegetables are the prime crops cultivated. Open spaces under power lines and vacant land next to the Kaalspruit River are the major zones of cultivation, alongside widespread backyard cultivation. In addition, extensive cultivation activity occurs at all schools and health clinics within the Ivory Park area. At the schools, unemployed parents till the school gardens, producing vegetables for primary and secondary school children, many of whom exhibited severe symptoms of starvation after the withdrawal of the nutritional programmes (Primary School Nutritional Programme) which had been introduced in the early years of the post-apartheid reconstruction. These initiatives for school feeding are supported by the work of the city's Social Development Department, which offers advice, as well as providing seeds and manure for start-up projects. In addition, community gardens at health clinics are tended by groups of approximately 35 patients, the majority of whom are either HIV-infected or have tuberculosis. Overall, the core thrust of the Social Development Department is to support urban agricultural initiatives as part of job security and as food security. More especially, the focus is upon, *inter alia*, the supplementation of school nutrition by means of establishing school food gardens, targeting the involvement of parents of needy children, and equipping teachers through training in food gardening skills. Within the project work of the Midrand Social Development Department, communities are offered a choice of forms of cultivation. Although the guiding philosophy is that of "permaculture", communities may make a choice between the options of organic and non-organic methods of production.

Another strand of urban agriculture projects also forms part of Midrand's new local economic development initiatives. As part of the wider initiatives for Midrand to become a successful and sustainable eco-city, there is a set of programmes designed to support groups of cultivators using organic methods of production. The focus of the eco-city projects is upon addressing urban agriculture as part of the overarching objective of making "a city which is both interdependent and self-reliant through creating its own economic, social and

environmental solutions". The goals of urban agriculture in the eco-city are more ambitious than those of projects linked to the Midrand Social Development Department. Urban agriculture is now viewed "as an important component of urban renewal", able to "improve local food security and address the extremes of poverty". Nevertheless, it is argued that there is a "potential for urban agriculture to extend beyond food security or subsistence level production into commercial agriculture". Indeed, the object is to afford the basis for viable agricultural micro-enterprise and subsequently for a set of agro-industries. The institutional basis of the eco-city organic agriculture projects is support for community-run co-operatives rather than individual farmers, although a future goal is to support agricultural small, medium and micro-enterprises (SMMEs). At the core of the project is the organic market which opened late in 2000. Currently, there a total of 80 farmers are involved in organic agriculture projects under the aegis of six co-operatives. For individuals in these projects, the target is a nett income return of R16 000, which would be a level above the defined poverty line. Several problems need to be overcome, however, including access to land and water as well as insuring against crop theft. Above all, however, what is most striking in Midrand is the absence of a co-ordinated set of policy interventions to support the various initiatives for urban agriculture. This once again underlines the absence of national guidelines to support local initiatives for urban agriculture and the potential for learning best practice from the experience of other countries.

3. Learning from international experience

The useful work of Austin & Visser (2002) demonstrates that South Africa is a latecomer to issues of policy development for urban agriculture. Moreover, it clearly highlights the fact that the absence of distinct policy or guidelines for the effective management of urban agriculture is hindering its application as a tool for pro-poor urban development planning. In developing national guidelines for urban agriculture or designing local development strategies that incorporate planning for urban agriculture in South Africa, several relevant policy lessons may be drawn from an extensive international policy experience. Certain common threads are in evidence in respect of in-

ternational policy experience, seeking to facilitate both the improvement of subsistence farming with the objective of achieving food security for the urban poor and to enhance the positive effects of urban agriculture on the improvement and sustainability of the urban environment (cf De Zeeuw *et al* 2002; Mougeot 2002; Nugent 2002). In particular, policy suggestions are offered in respect of four critical sets of issues, namely urban land use policy; urban food security and health policy; environmental policy, and social and community development.

In terms of land use policy it is important to appreciate that access to land and water resources, as well as security of user rights, are crucial factors influencing urban agriculture. Nevertheless, in planning land use in urban development, urban agriculture is often left out rather than integrated. As has been observed:

Urban agriculture is missing in most planning designs, because of the idea that 'real' agriculture takes place in rural areas. The time has come to start integrating urban agriculture into urban planning (Armar-Klemesu & Maxwell 2002: 203).

It is argued that a first essential step is to persuade urban planners to accept urban agriculture as a legitimate form of urban land use. In many cities a review of existing policies, regulations and bylaws is a necessary precondition for the removal of unsubstantiated legal restrictions on urban agriculture. In addition, the integration of agriculture in urban development planning can improve access to land through the revision of actual urban zoning bylaws and drawing up plans to indicate in which zones urban agriculture is allowed. An inventory of open spaces in cities could indicate where possibilities may exist to permit urban agriculture temporary use of vacant public and private lands. Local government may lease vacant land to neighbourhood groups or local agricultural micro-enterprises for the purposes of gardening and food production. In addition, under certain conditions, urban agriculture may be combined with other urban functions (such as recreation, nature conservation, etc) through the promotion of multifunctional land use and the encouragement of community participation in the management of urban open spaces. Finally, it is recommended that new housing development projects

should plan explicitly for the inclusion of space for individual or community gardens.

In terms of urban food security and health policy, several suggestions have been offered to encourage cities to enhance the production of urban agriculture and local nutritional self-reliance. Local authorities face the challenge of implementing policies that minimise the recognised health and environmental risks which can accompany certain urban agricultural practices. More especially, local governments need to evolve and implement a set of policies that minimise health risks without compromising the food security needs of the poor. From the international experience, a number of best practices have been acknowledged. First, there is the imperative of improving the access of urban farmers to agricultural research, technical assistance and credit services in order both to augment productivity and to reduce potential environmental or health risks. The provision of training to farmers, in terms of emphasising ecological farming practices as well as improving their access to micro-credit schemes for the purposes of productive investments, is seen as a positive initiative. Secondly, much can be done to enhance systems of input supply and product distribution. Improving the marketing of fresh-grown produce most importantly often includes the establishment and support of either full-time or periodic markets. Support for production inputs can include promoting a set of small enterprises linked to urban agriculture, such as plant nurseries or seed suppliers, or facilitating the creation of a network of local stores to make available production inputs (organic materials, manure, etc). Finally, a number of positive initiatives surround the creation of a greater awareness of the health and environmental risks that can accompany urban agriculture. Activities would include the education of farmers or periodic testing of soil and water quality.

In terms of environmental policy, a number of recommendations have been offered for integrating urban agriculture into the local environmental milieu. More especially, several useful measures have been identified in order to enhance the positive environmental impacts of urban agriculture in addition to mitigating negative effects on the urban environment. The promotion of the safe re-use of urban organic wastes and waste water, among many other things, can be assisted by

establishing low cost facilities for “close to source” collection and sorting of organic waste; improved education and training; encouraging investments in systems for rainwater collection and storage, etc. Another policy avenue, dependent upon local conditions, is to promote organic farming variously through training; the introduction of quality standards; establishing “green labels”, and support for local marketing initiatives of ecologically grown food.

Finally, as regards enhancing social and community development, a number of tentative suggestions have been put forward (De Zeeuw 2002). Urban agriculture projects can be designed to maximise the integration of disadvantaged groups. Projects should be geared in such a way that participants feel enriched and empowered by having the chance to work constructively; building their community; working together, and, in addition, producing food. Support for social and community development can also be enhanced by the inclusion of urban agriculture in local economic regeneration initiatives and Local Agenda 21 activities. Finally, further research support is needed on interpreting the important but little understood ways in which urban agriculture might contribute to establishing stronger social relations and community networks.

All in all, it can be suggested that this group of best practice lessons offers a set of policies, programmes and initiatives that can be taken forward by local government and civil society in an attempt to further augment the contribution of urban agriculture to poverty alleviation in South Africa. These lessons of best practice offer starting points for the development of much needed guidelines to enable urban agriculture to become a pro-poor intervention in South African urban development planning.

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