

## URBAN AGRICULTURE AND URBAN POVERTY ALLEVIATION: SOUTH AFRICAN DEBATES

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*Growing international attention has focussed on the potential role of urban agriculture in poverty alleviation. The aim in this paper is to analyse the existing challenge of urban poverty in South Africa and examine the potential role of urban agriculture as a component of a pro-poor urban development strategy.*

### SUID-AFRIKAANSE DEBATTE OOR STEDELIKE LANDBOU EN DIE VERLIGTING VAN STEDELIKE ARMOEDE

*Internasionale aandag word toenemend gevestig op die potensiele rol van stedelike landbou in die verligting van armoede. Die doel van hierdie artikel is om die heersende uitdaging van stedelike armoede in Suid-Afrika te ontleed en dan die potensiele rol van stedelike landbou as 'n komponent van 'n stedelike ontwikkelingstrategie wat die armes bevoordeel, te eksamineer.*

#### 1. INTRODUCTION

Over the past decade, the role of urban farming or urban agriculture as a strategy or element of poverty alleviation has garnered increasing international scholarly attention in Africa (Rakodi, 1985, 1988a, 1988b; Lado, 1990; Freeman, 1991; Mosha, 1991; Drakakis-Smith, 1991, 1992, 1994; Mbiba, 1994, 1995; Bowyer-Bower and Tengbeh, 1995; Byerley, 1996; Rogerson, 1997). In particular, the significance of urban agriculture has attracted the attention of many leading international development agencies. The report of the World Commission on Environment and Development (WCED) urged all governments in the developing world to "consider supporting urban agriculture" (WCED, 1987: 254). It stated that:

Officially sanctioned and promoted urban agriculture could become an important component of urban development and make more food available to the urban poor. The primary purpose of such promotion should be to improve the nutritional and health standards of the poor, help their family budgets (50-70 per cent of which is usually spent on food), enable them to earn some additional income, and provide employment (WCED, 1987: 254).

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New research on alleviating poverty in cities of the developing world points to the potentially important role that might be played by urban agriculture in alleviating the pressures of urban poverty (Smit & Nasr, 1992; Stren, 1992; UNDP, 1996; Rogerson, 1997; and Mougeot, 1998). World Bank research points to the need for municipal action to facilitate urban agriculture (Wegelin & Borgman, 1995; Vanderschueren *et al.*, 1996). In studies conducted for the International Labour Organisation the fostering of subsistence food production on the urban margins was described as an "unconventional proposal" for addressing issues of poverty and unemployment in developing world cities (Singh, 1989: 37). Research for the Food and Agricultural Organisation supports this viewpoint, arguing that urban food production "in addition to improving the nutritional quality of the diet, can become a valuable income-generating activity for the unemployed and underemployed and can utilise spare and unused lands available in the cities" (Hussain, 1990: 189-90). Lastly, the international significance of urban agriculture as a policy area to address poverty, was highlighted at the 1996 Habitat II Meeting in Istanbul. To coincide with that conference the United Nations Development Programme published a seminal volume on urban agriculture, which emphasizes the activity's significance for job creation, for feeding cities and for the making of an ecologically sustainable urbanisation (UNDP, 1996).

Against this background of growing international support for promoting urban agriculture as one element for managing poverty in cities, the aim in this paper is to chart the existing challenge of urban poverty in South Africa and to examine the potential role of urban agriculture as a component of a pro-poor urban strategy. The discussion unfolds through three sections of discussion. First, the dimensions of poverty in South African urban areas are analysed. Second, the potential role of urban agriculture as part of a pro-poor urban strategy is identified and debated. Finally, an overall picture of the current state of the art of South African debates on urban cultivation is provided.

## **2. THE STATE OF URBAN POVERTY IN SOUTH AFRICA**

In the international context of urban poverty analysis, the South African case is distinguished by the country's dismal history of denial of access of opportunities to the majority of its citizens (South Africa, 1997a). In many respects, apartheid planning served to displace geographically the problem of poverty. Under apartheid social engineering the poor were shifted to the margins, both of urban areas and more importantly to the margins of the country as a whole thus focusing the core of South Africa's poverty in the rural areas. With the march of urbanization, the impact of violence, and the breakdown and subsequent collapse of discriminatory controls on access to the cities, the question of urban

poverty and of the associated inequalities of South Africa's cities becomes of rising policy significance. In common with poverty trends observed in the rest of sub-Saharan Africa, the growing importance of urbanization is linked to a rapidly increasing proportion of the poor being situated in urban rather than rural areas (World Bank, 1996:38). With the preliminary results of the 1996 census suggesting that more than half (55.4 percent) of the estimated population of South Africa now lives in urban areas (South Africa, 1997b:11), both from a short- and long-term policy perspective, addressing poverty alleviation in urban areas is an important policy issue.

Although it must be acknowledged that certain definitional problems exist in terms of the boundaries between urban and rural areas of South Africa (see CDE, 1995, 1996), since 1994 a number of detailed studies have appeared which allow the production of a picture of the state of urban poverty. The most important of these studies are the South African Participatory Poverty Assessment, which contained a strong rural bias (May *et al*, 1997), and the recently completed National Project on Poverty and Inequality (May, 1998). Material from these studies together with data drawn from the 1995 October Household Survey permit the incidence and depth of poverty across South African urban areas to be measured and assessed (Woolard, 1997). In addition, from scanning a variety of sources it is possible to identify certain key markers that differentiate the urban poor.

### 2.1 *Where are the Urban Poor?*

At the broadest level of analysis, it is evident that the incidence, depth and severity of urban poverty are unambiguously highest in South Africa's small towns, followed by secondary cities and lowest in the country's four metropolitan areas, *viz.*, the Pretoria-Witwatersrand-Vaal region, Metropolitan Cape Town, Durban and Port Elizabeth-Uitenhage. Overall, the **poverty rate** (i.e. percentage of households classified as poor) for all urban households is 24.4 percent; for metropolitan areas, secondary cities and small towns, respectively the rates are 15.4, 26.7 and 35.1 percent (Woolard, 1997).

Calculation of the **poverty share** for the different types of urban settlement further sharpens the picture of where are the urban poor. It is evident that in absolute terms, the greatest burden of urban poverty occurs in the metropolitan areas, followed by small towns, and secondary cities. Although the four metropolitan areas contain 70.5 percent of South Africa's urban population they account for 54.5 percent of the urban poor. Small towns contain only 14.1 percent of the country's urbanized population but have a poverty share of 24.8 percent. The groups of secondary cities contain 15.4 percent of the urban

population but 20.6 percent of the urban poor. Overall, therefore, these findings show that whilst the absolute numbers of the urban poor are greatest in the metropolitan areas, in relative terms the poverty burden is most severe in South Africa's small towns and secondary cities.

These conclusions are supported by the findings from a recent analysis on population and incomes by the Centre for Development and Enterprise (CDE, 1995). Moreover, the notion that poverty is primarily a rural issue in South Africa is particularly crude when the circumstances of the country's small towns and secondary cities are highlighted (CDE, 1996 and Nel, 1997). Since 1980 the populations of South Africa's small towns have been growing at a slightly higher rate than the national average and at a rate of growth sixty percent above that applicable in rural areas themselves. Many small towns were created as reception points for those thousands of people resettled under apartheid's inhumane population relocation policies. Currently, small towns are often the first port-of-call for displaced farm workers, affected by conditions of general agricultural decline, the introduction of capital-intensive farming technologies and the push of harsh working conditions on the land (Nel, 1997). This demographic growth in small towns has not been linked, however, to improved economic conditions. Indeed, the economic plight of small towns is generally very problematic with more than two-thirds recording real economic declines during the early 1990s (CDE, 1996).

The situation in secondary cities is more variable both in terms of economic and population growth because of their different economic bases and regional contexts for growth. Nevertheless, as a whole, their recent population growth has been almost twice that recorded for metropolitan areas (4.6 percent annual growth versus 2,8 percent). Although in some secondary cities (such as Nelspruit or Witbank-Middelburg), there clearly exists considerable economic growth potential, in the future many secondary cities will face challenges of urban poverty which "in proportional terms, could put the metropolitan areas in the shade" (McCarthy & Hindson, 1997:12). Examples of such places are the Free State Goldfields, Pietermaritzburg and a variety of Eastern Cape centres where "downwards pressure in a single economic sector can often bring rapid and unanticipated increases in unemployment and poverty" (McCarthy and Hindson, 1997:12).

A comparison of poverty lines between the four metropolitan areas reveals that poverty rates are somewhat similar in the PWV, Cape Town and Durban, with the Durban region showing the worst indicators among this group. The poverty index for Port Elizabeth-Uitenhage is, however, considerably higher, which points to a severe poverty problem in the Eastern Cape metropolitan area.

Disaggregating the poverty share between the four metropolitan areas discloses that both the Port Elizabeth and Durban metropolitan areas have a higher poverty than population share; by contrast, both the PWV and metropolitan Cape Town areas show a poverty share below that of their population shares. Overall, these findings suggest that whilst the largest absolute concentration of the urban poor occur in the PWV region, the metropolitan Durban and particularly the Port Elizabeth metropolitan area carry a weighty poverty share relative to their population size as a whole.

Finally, at the intra-metropolitan level, the data from the 1995 October Household Survey identify the areas of informal or shack settlements as major local concentrations of urban poverty. As compared to the national poverty rate of 24.4 percent for all urban areas, the poverty rate for shacklands is 52.1 percent. Certain significant differences emerge in terms of the different levels of urban settlement. For the metropolitan areas as a whole the poverty rate in the shacklands is 38.5 percent; in secondary cities and small towns, however, the rates are respectively 65.9 percent and 68.8 percent. These findings point to an alarming poverty problem located in the shack settlements of South Africa's secondary cities and small towns. Disaggregating the picture of poverty rates in the shacklands of the four metropolitan areas, it is evident that considerable differences exist. The severest poverty rates (64.6 percent) are recorded in the shackland settlements of and around Port Elizabeth; in metropolitan Durban and Cape Town once again disturbingly high poverty rates of 42.7 and 47.3 percent respectively are in evidence; a lower poverty rate of 29.8 occurs in the shackland areas of the PWV region.

## *2.2 Changing markers of the urban poor*

In terms of urban policy formulation it is important to acknowledge certain 'markers' which define individuals and households who are the urban poor. Historically, race was and remains the first major marker of urban poverty, albeit a factor that has been eroded to some extent by the 1990s racial redistribution of income from the white working and lower middle classes to the African middle class (McCarthy and Hindson, 1997). Another key marker is clearly that of gender with female-headed households commonly isolated as strongly linked to poverty (Budlender, 1997). Analysis of the 1995 October Household Survey confirms the continuing significance of gender as a marker of poverty; across all levels of the South African urban system - metropolitan areas, secondary cities and small towns - levels of female unemployment were consistently above those for male workers. The largest gender gap occurs in secondary cities and small towns where recorded rates of female

unemployment are respectively 12.8 percent and 11.9 percent higher than those for male unemployment.

Notwithstanding the continuing relevance of race and gender, recent research shows that there are also new emerging factors which are likely to impact upon patterns of poverty and inequality and be important signals for future poverty markers. The first concerns a seeming narrowing divide in urban-rural income differentials, particularly for the African population. New data for the 1990s discloses that, for those who are in employment (and factoring living costs differentials) household and singles incomes "do not vary as significantly as one might expect" as between metropolitan, secondary city and small town contexts (McCarthy & Hindson, 1997:14). This closing of the income gap alongside a diminished formal work absorptive capacity of the metropolitan areas underpins the observed recent slowdown in migration trends to South Africa's metropolitan areas (CDE, 1995).

The second important national trend is rising inequality and increased social differentiation within the African urban population as a whole (Crankshaw, 1997). Recent data shows a rapid rise in the numbers of Africans that occupy senior official, managerial and legislative positions creating a social group "who now live mainly within the more affluent historically white suburbs, cut off from the majority of blacks socially, if not as yet politically" (McCarthy and Hindson, 1997:19). Another trend is growth in the numbers of urban Africans engaged in a diverse set of middle level occupations with markedly varying income levels. Although many of these people earn wages that place individuals and households well beyond the reach of formal housing in cities, if unaided by the state, a substantial proportion earn incomes which when combined with other sources of household income would put them in the market for inner city flats or small formal housing within new township developments. New processes of internal social and spatial differentiation are thus occurring within African residential areas as a result of both violence and by the availability of new opportunities to move or occupy vacant land or housing within the metropolitan area (Hall, 1997). Overall, residential class differentiation is occurring as established townships yield their poorest residents to shackland areas and their wealthiest residents to new middle income housing estates and to the historically white city core areas (McCarthy and Hindson, 1997:25).

Despite these new trends within occupational categories at the higher, middle and lower middle levels, in South African urban areas "the vast majority of blacks remain confined to the lowest paid manual and menial forms of work" (McCarthy and Hindson, 1997: 20). Indeed, 34 percent of the total number of African employees were in jobs classed as "elementary occupations" in the 1995

October Household Survey and the vast majority of these workers earned average monthly incomes in the range R1-R999. In urban areas the majority of people working in these jobs would be residents of informal settlements and unable to afford formal housing. Workers in such "elementary occupations" are by no means the worst off sections of the economically active population. The 1995 October Household Survey discloses that rates of unemployment show an inverse relationship with size of urban area; for metropolitan areas rates are 21.3 percent, for secondary cities 26.9 percent and for small towns 27.5 percent. The unemployment situation in urban areas is currently worst among both males and females in the age group 15-24 years. In metropolitan areas unemployment levels for this particular age group are 35.6 and 42.5 percent for males and females; comparable figures for secondary cities and small towns are respectively 47.6 percent (M), 59.1 (F) and 47.1 (M) and 54.1 (F). In addition to the recorded unemployed, many others of the potential African workforce have withdrawn completely due to chronic unemployment. This creates a segment of often destitute individuals and households that survive on transfers, such as pensions and various other mechanisms of formal and informal support. New research shows that these most disadvantaged and impoverished sections of the urban fabric reside both within formal townships and in shackland informal settlements.

Profiles of the livelihood strategies of the urban poor, drawn from the 1995 October Household Survey data, support many of the above observations. First, it is evident that almost half of the urban poor are engaged in forms of wage or salaried employment. This group of the working poor in the cities confirm that whilst poverty and unemployment represent major challenges for urban policy, it is important not to overlook the situation of poverty within urban labour markets (Bhorat *et al.*, 1997). Second, a significant section of urban households are welfare dependent or combine welfare receipts with other income sources derived from either wage or self employment. In particular, the proportion of welfare dependent households is especially important outside of the metropolitan areas, reaching one-third in the case of secondary cities and over 40 percent in small towns. Third, the highest recorded levels for the category of self-employment occur in the shacklands of metropolitan areas where almost 45 percent of households derive at least a portion of household incomes from the informal sector or micro-enterprises.

Lastly, in terms of the changing markers of urban poverty and the new population dynamics of South African cities, it is important to acknowledge the new significance of communities of international migrants. South Africa's borders are extremely porous and it is widely accepted that the flow of both legal and undocumented migrants to the country from the Southern African

Development Community region and beyond has grown markedly since 1990 (Crush, 1997). Many of these new migrants have taken up residence in urban areas seeking to secure temporary or permanent work opportunities. Although our knowledge of the scale, activities and position of these international migrants in South Africa's cities is as yet unclear, limited case study evidence from more geographically marginal informal settlements indicates the probability that a "significant proportion" of those living in poverty in urban South Africa may well be such new immigrants (McCarthy & Hindson, 1997:27).

### 3. THE ROLE OF URBAN AGRICULTURE IN POVERTY ALLEVIATION

In discussing the potential role of urban agriculture in poverty alleviation in South Africa, two themes will be discussed. At the outset, however, it is important to acknowledge that the concept of urban agriculture is somewhat fuzzy and ill defined, often being considered as 'urban' because it falls within local administrative boundaries. Indeed, the result is "that much of what is described as urban could equally well be described as rural" (Webb, 1996:70). Of particular concern is the blurring of urban with that of peri-urban activities, a feature that is common in the majority of international and local research undertaken on 'urban agriculture'.

In this section, the broader significance of poverty strategies that strengthen the asset base of the poor will be highlighted. Against this backdrop, the contours of policy debate surrounding 'urban agriculture' in South Africa are delineated.

#### 3.1 *Strengthening the assets of the urban poor*

Over the past decade a considerable body of international research has appeared concerning strategies for urban poverty alleviation. The international experience of poverty alleviation programmes suggests that urban poverty is not a static condition among individuals, households or communities (Moser, 1996). Rather, it is recognised that while some individuals or households "are permanently poor, others become impoverished, as a result of general life-cycle changes, specific events such as the illness of a main income earner, or a deterioration in external economic conditions" (Rakodi, 1995:42). Because people move into and out of poverty, the dynamic concept of vulnerability is increasingly applied to understand these processes of change in urban areas (Moser, 1996: 2). The asset bases of the poor and the management of their complex asset portfolios counter vulnerability to poverty. Indeed, Caroline Moser (1997: 1) argues that the "more assets that individuals, households and communities have, and the better they are managed, the less vulnerable they

are; the greater the erosion of their assets the greater their insecurity, and associated poverty". Poverty in urban areas is therefore characterised by not only a lack of assets and an inability of the poor to accumulate an asset portfolio but an inability to devise an appropriate coping or management strategy (Rakodi, 1995:414).

It is useful to differentiate the assets of the urban poor, both tangible and intangible, into the following categories (Moser, 1996, 1997; Moser and Holland, 1996):

- Human Capital: health status, which determines the poor's capacity for work, and education and skills, which determine the return to their labour.
- Productive Assets: for poor urban households, housing and infrastructure are viewed as the most important in this category.
- Household Relations: a mechanism for pooling income and sharing consumption.
- Social Capital: this refers to reciprocity within communities and households based on trust deriving from complex social ties, networks and associations.
- Labour: which is commonly recognised as the most important asset of the urban poor.

Although disputed by some observers, the international consensus points to the importance of creating a broad set of programmes to address urban poverty through strengthening the asset base of the poor. Key initiatives are required to expand, *inter alia*, the asset base of the poor in terms of improving human capital, augmenting social capital, and strengthening productive assets and household relations. Potential threats to these assets, such as violence and crime, should be addressed (Moser and Holland, 1997; Moser *et al*, 1998). Lastly, and of greatest importance, are the imperative for programmes that will assist the poor in terms of expanding and improving the use of their labour. Urban agriculture offers one such policy opportunity for strengthening the asset base of the urban poor, not least in South Africa.

### 3.2 *Debating the role of urban agriculture*

During 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 which has contributed to debates on its role in addressing poverty

(Eberhard, 1989; May *et al.*, 1993; Sandler, 1994; May & Rogerson, 1995; Katzschner, 1995; Rogerson, 1996a, 1996b and Webb, 1996, 1998). The policy importance of research on urban cultivation has been highlighted in a number of recent studies. In a review of urban research agendas for the whole of southern Africa, Swilling (1994) acknowledges that urban agriculture is beginning to emerge as a significant component of the future food supply system in South Africa and that research questions must include ways of fostering domestic food production within urban areas. Other research links the policy significance of urban cultivation in South Africa to planning debates on the sustainability of cities (Rogerson, 1992a, 1992b, Katzschner, 1995 & Thorgren, 1998). In addition, in several comparative research studies on the potential lessons for South Africa from urban management programmes elsewhere in the developing world, the potential significance of urban cultivation was identified as a key element in broader strategies for sound urban management in a democratic South Africa. Moreover, it was argued that, in many respects, aspects of future planning for communities of urban farmers in South Africa could learn vital policy lessons from the experience (good and bad) of other parts of the developing world, particularly in Africa (Rogerson, 1989a, 1989b, 1992a, 1993a).

In terms of debates surrounding urban poverty, the current literature essentially divides into two different streams of writings. First, the mainstream is formed by a set of generally optimistic writings on the potentially very positive contribution of urban agriculture for strengthening the asset base of the South African urban poor. Second, there exist a set of more critical assessments on the potential for urban agriculture in addressing the challenges of urban poverty.

In a set of arguments which parallel the international literature on urban agriculture, a number of local studies in South Africa suggest that groups of urban cultivators should be viewed as a special category of survivalist SMMEs (small, medium and micro-enterprise) which have an important future role as poverty alleviation actors. The promotion of urban agriculture is variously seen as contributing towards food security, the generation of providing productive income opportunities and as a strategy that is particularly geared to assisting the poorest of the urban poor (Thorgren, 1998). An array of South African research, based on local experience of cultivators, promotes a generally positive view of the potential for local intervention to assist communities of urban cultivators (Kelly, 1992, Rogerson, 1993a, 1993b, 1996, Katzschner, 1995 and Karaan, 1996). Accordingly, 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 which are either remittance or welfare dependent (May and Rogerson, 1994, 1995). Typically, in one Soweto case study,

it was concluded that "urban agriculture is a successful strategy for the immediate relief of hunger and malnutrition and is a way for women to gain a foothold in the urban economy" (Kelly, 1992: 17). More recently, an evaluation of an urban food gardens initiative in Cape Town enthused that "urban agriculture offers gardeners an opportunity to become involved in a development strategy which holds tremendous potential and which can expand into an entrepreneurial activity if due attention is paid to issues of policy, agricultural development, land reform and the creation of livelihoods" (Karaan, 1996:1).

Outside of South Africa's metropolitan areas, once again, optimism has been expressed regarding urban agriculture in poverty alleviation. Most importantly, in a major investigation of Free State Province it was stressed that in the peri-urban areas of secondary cities and small towns, the potential for promoting the poor's greater access to natural resources and of establishing an active peri-urban agricultural sector requires serious investigation and support measures designed to improve their access to cultivable land (Task Team *et al.*, 1997).

Overall, the argument is forwarded that if urban planning in South Africa is to become gender-aware, it will be essential for local planners to deal with the needs of these groups of cultivators (Rogerson, 1996a:79). Suggestions and guidelines for how positive planning for urban agriculture can play a useful role in reconstruction initiatives for sustainable urban development have been offered (May & Rogerson, 1994, 1995).

At a time ironically when a number of local authorities in South Africa, led by Durban, are beginning to explore the possible development of policies for assisting cultivators, other research findings are suggesting a degree of caution in seeing urban agriculture as anything more than an alternative safety net for the urban poor. In particular, the rich and important studies by Nigel 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 behalf of urban agriculture are more congruent with development discourse than with actual cultivation practice. In several respects Webb's (1996) work confirms findings of May and Rogerson (1995) that urban agriculture is not a refuge for 'the poorest of the urban poor' because the percentage of households in the ultra-poor participating in cultivation was considerably lower than those groups with higher income levels. In small towns of the Eastern Cape, such as 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 in among the poor, urban

cultivation was not the most important strategy. Indeed, it is contended that the promotion of urban agriculture carries the danger of 'locking' the poor into a set of practices that consolidate their poverty and that overcoming poverty involves "assisting the poor with access to extra-agricultural activities practised by the affluent" (Webb, 1996:153). In general, cultivation "is not able to meet basic household needs" and thus it is perhaps not surprising that the urban poor will not adopt such practices to any significant extent (Webb, 1996:273). Finally, the clear conclusions are offered 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".

The perspective of Webb (1996, 1998) is not one that is anti-developmental or against the practice of promoting urban agriculture. Rather, Webb's work is essentially making a plea for urban cultivation to be understood in terms of those who undertake the activity. Overall, it is hoped that such an approach, which would include theory and a specific view of development, would "generate a discourse more in line with the practice, views and aspirations of the cultivators themselves" (Webb, 1998:105).

#### **4. CONCLUDING REMARKS**

Poverty is one of the most critical challenges that confront post-apartheid South Africa (May, 1998). This article has sought to locate on-going debates concerning urban agriculture in South Africa within the context of an analysis on urban poverty and strategies for poverty alleviation. It was shown that the spatial distribution of urban poverty is uneven with small towns, secondary cities and informal shacklands emerging as the major problem areas for policy attention in South Africa. New urban policy initiatives introduced since 1994 offer a window of opportunity for promoting urban agriculture as a potential policy tool for strengthening the asset base of South Africa's urban poor.

In the final analysis, the jury must, perhaps, still be out on the question of urban agriculture's role as a means to augment the asset base of South Africa's poor urban households. More especially, in light of the so far limited promotional work by South African governments (at all levels - national, provincial and local) of urban agriculture as a specific tool for poverty redressal, it is perhaps too early to offer firm conclusions on its overall merits or demerits. A strong case, however, exists for the launch of new research initiatives to interrogate at all levels of the South African urban system - metropolitan centres, secondary cities and small towns - the economic role of urban agriculture as a special case for poverty alleviation. Of particular importance is to examine the opportunities

and threats for urban agriculture to build the asset base of the urban poor in South Africa.

## REFERENCES

BHORAT, H., CASSIM, F., & TORRES, L. (1997). *Poverty in the labour market*. Unpublished Report prepared for the Project on Poverty and Inequality.

BOWYER-BOWER, T.A.S. & ENGBEH, G. (1995). *The environmental implications of (illegal) urban agriculture in Harare, Zimbabwe*. Working Paper No. 4 of ODA Research Project R5946 presented at the Workshop on the Environmental, Social and Economic Impacts of (Illegal) Urban Agriculture in Harare, Zimbabwe, University of Zimbabwe, 3-31 August.

BUDLENDER, D. (1997). *Women and gender*. Unpublished Report prepared for the Project on Poverty and Inequality.

BYERLEY, A. (1996). *Urban agriculture in Botswana: A preliminary investigation of extent, issues and potential*. Working Paper No. 307, International Rural Development Centre. Swedish University of Agricultural Sciences, Uppsala.

CDE (CENTRE FOR DEVELOPMENT AND ENTERPRISE). (1995). *Post-apartheid population and income trends : A new analysis*. CDE, Johannesburg.

CDE (CENTRE FOR DEVELOPMENT AND ENTERPRISE). (1996). *South Africa's small towns : New strategies for growth and development*. CDE, Johannesburg.

CRANKSHAW, O. (1997). *Race, class and the changing division of labour under apartheid*. Routledge, London.

CRUSH, J. (1997). *Covert operations : Clandestine migration, temporary work and immigration policy in South Africa*. Southern Africa Migration Project, Cape Town.

DRAKAKIS-SMITH, D. (1991). Urban food distribution in Asia and Africa. *Geographical Journal*, 157:51-61.

DRAKAKIS-SMITH, D. (1992). Strategies for meeting basic food needs in Harare, in J. Baker and P.O. Pederson (eds.). *The Rural-Urban Interface in Africa: Expansion and Adaptation*, Scandinavian Institute of African Studies, Uppsala, 258-283.

DRAKAKIS-SMITH, D. (1994). Food systems and the poor in Harare under conditions of structural adjustment. *Geografiska Annaler*, 76B:3-20.

EBERHARD, R. (1989). *Urban agriculture : The potential in Cape Town : Summary Report*. Working Paper 89/E1, Town Planning Branch, City of Cape Town.

FREEMAN, D.B. (1991). *A city of farmers : Informal urban agriculture in the open spaces of Nairobi, Kenya*. McGill University Press, Montreal and Kingston.

HALL, P. (1997). Unemployment and urban development in Gauteng. *Development Southern Africa*, 14:395-412.

HUSSAIN, M.A. (1990). Nutrition policy and the urban poor in developing countries, *Food Policy*, 15:186-192.

KARAAN, M. (1996). *The performance and support of food gardens in some townships of the Cape Metropolitan Area - an evaluation of Abalami Bezekhaya*. Unpublished paper, University of Stellenbosch.

KATZSCHNER, T. (1995). *Natural connections : The role of urban agriculture in upgrading and improving the quality of life in low-income and sub-economic settlements with reference to the Delft South site*. Unpublished MURP Report, University of Cape Town.

KELLY, P. (1992). *Burying poverty or just hunger?: Urban agriculture in Soweto*. Unpublished paper, Department of Geography, University of Witwatersrand, Johannesburg.

LADO, C. (1990). Informal urban agriculture in Nairobi, Kenya : Problem or resource in development and land-use planning. *Land Use Policy*, 7:257-266.

MAY, J. (ED.). (1998). *Poverty and inequality in South Africa*. Praxis, Durban.

MAY, J. & ROGERSON, C.M. (1994). How green is your garden. *Indicator South Africa*, 11(3):89-96.

MAY, J. & ROGERSON, C.M. (1995). Poverty and sustainable cities in South Africa : The role of urban cultivation. *Habitat International* 19:165-181.

MAY, J., ATTWOOD, H., DOMINIK, T., KAYE, B., NEWTON, N., ROGERSON, C. & WITT, H. (1993). *Development options for peri-urban agriculture*. Unpublished report prepared for the World Bank, Data Research Africa, Durban.

MAY, J., ATTWOOD, H., EWANG, P., LUND, F., NORTON, A. & WENTZAL, W. (1997). *Experience and perceptions of poverty in South Africa*. Unpublished Final Report, Data Research Africa, Durban.

MBIBA, B. (1994). Institutional responses to uncontrolled urban cultivation in Harare : Prohibitive or accommodative? *Environment and Urbanization*, 6:188-202.

MBIBA, M. (1995). *Urban agriculture in Zimbabwe : Implications for urban management and poverty*. Avebury, Aldershot.

MCCARTHY, J.J. & HINDSON, D. (1997). *Urban policy and urban poverty*. Unpublished Report prepared for the Project on Poverty and Inequality.

MOSER, C. (1996). *Confronting crisis : A comparative study of household responses to vulnerability in four poor urban communities*. The World Bank, Washington DC.

MOSER, C. (1997). *Poverty reduction in South Africa : The importance of household relations and social capital as assets of the poor*. Unpublished Report, The World Bank, Washington DC.

MOSER, C. & HOLLAND, J. (1997). *Urban poverty and violence in Jamaica*. The World Bank, Washington DC.

MOSER, C., HOLLAND, J. & ADAM, S. (1998). Jamaica's social investments fund : Building social capital to curb urban violence. *UNCHS Habitat Debate*, 4(1):9-11.

MOSHA, A.C. (1991). Urban farming practices in Tanzania. *Review of Rural and Urban Planning in Southern and Eastern Africa*, 1:83-92.

MOUGEOT, L. (1998): Farming inside and around cities. *The Urban Age*, 5(3):18-21.

NEL, E. (1997). *Poverty and inequality in South Africa : The small town dimension*. Unpublished Report prepared for the Project on Poverty and Inequality.

RAKODI, C. (1985). Self-reliance or survival?: Food production in African cities with particular reference to Zambia. *African Urban Studies* 21:53-63.

RAKODI, C. (1988a). Urban agriculture : Research questions and Zambian evidence. *Journal of Modern African Studies* 26:495-515.

RAKODI, C. (1988b). Urban agriculture in Lusaka, Zambia. In I. Dankelman and J. Davidson (comp.), *Women and Environment in the Third World: Alliance for the Future*, Earthscan, London, 108-110.

RAKODI, C. (1995). Poverty lines or household strategies : A review of conceptual issues in the study of urban poverty. *Habitat International*, 19(4):407-426.

ROGERSON, C.M. (1989a). Managing urban growth in South Africa : Lessons from the international experience. *South African Geographical Journal*, 71:129-133.

ROGERSON, C.M. (1989b). Managing the decolonizing city in Southern Africa. *South African Geographical Journal*, 71:201-208.

ROGERSON, C.M. (1992a). Feeding Africa's cities: the role and potential for urban agriculture. *Africa Insight*, 22:229-234.

ROGERSON, C.M. (1992b). Sustainable urban development in South Africa: Issues and problems". *Regional Development Dialogue*, 13(4):163-174.

ROGERSON, C.M. (1993a). Urban agriculture in South Africa : Policy issues from the international experience. *Development Southern Africa*, 10:33-44.

ROGERSON, C.M. (1993b). Urban agriculture in South Africa : Scope, issues and potential. *Geo Journal*, 30:21-28.

ROGERSON, C.M. (1996a). Women urban farmers in the Republic of South Africa's economic heartland. *African Urban Quarterly*, 11(1 & 2):73-81.

ROGERSON, C.M. (1996b). Urban cultivation and urban reconstruction in South Africa. *Geographical Journal of Zimbabwe*, 27:11-20.

ROGERSON, C.M. (1997). Globalisation or informalisation?: African urban economies in the 1990s. In C. Rakodi (ed.). *Managing Urban Growth in Africa*, The United Nations University Press, Tokyo, 337-370.

SANDLER, L. (1994). *The potential for small-scale urban and peri-urban vegetable production in the Cape Metropolitan Area*. Unpublished B.Bus.Sci (Economics) Dissertation, University of Cape Town.

SINGH, A. (1989). *Urbanisation, poverty and employment : The large metropolis in the Third World*. International Labour Office, Population and Labour Policies Programme WEP 2-21/WP.165, Geneva.

SMIT, J. & NASR, J. (1992). Urban agriculture for sustainable cities : Using wastes and idle land and water bodies as resources. *Environment and Urbanization*, 4(2):141-152.

SOUTH AFRICA, REPUBLIC OF. (1997a). *Urban development framework*. Department of Housing, Pretoria.

SOUTH AFRICA, REPUBLIC OF. (1997b). *Census'96 : Preliminary estimates of the size of the population of South Africa*. Central Statistics, Pretoria.

STREN, R. (1992). A comparative approach to cities and the environment. In: R. Stren, R. White and J. Whitney (eds.). *Sustainable Cities: Urbanization and the Environment in International Perspective*, Westview, Boulder, 1-7.

SWILLING, M. (1994). Towards an urban research agenda for Southern Africa in the 1990s. In R. Stren (ed.). *Urban Research in the Developing World: Volume 2: Africa*, Centre for Urban and Community Studies, University of Toronto, 283-357.

TASK TEAM OF THE DEPARTMENT OF AGRICULTURE, THE RURAL STRATEGY UNIT AND THE WORLD BANK. (1997). *Free State mission on rural investment*. The Rural Strategy Unit, Glen.

THORGREN, C. (1998). *Urban agriculture in South Africa - the perspective of planners and NGOs in Cape Town*. Minor Field Studies No. 29, Swedish University of Agricultural Sciences, Uppsala.

UNDP. (1996). *Urban agriculture : Food, jobs and sustainable cities*. United Nations Development Programme, New York.

URBAN FOUNDATION. (1990). *Policy overview : The urban challenge*. The Urban Foundation, Johannesburg.

VANDERSCHUEREN, F., WEGELIN, E. AND WEKWETE, K. (1996). *Policy programme options for urban poverty alleviation : A framework for action at the municipal level*. Urban Management Programme Policy Paper No. 20, The World Bank, Washington DC.

WCED (WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT). (1987). *Our common future*. Oxford University Press, Oxford.

WEBB, N. (1996). 'Urban agriculture' : *Advocacy and practice : A discursive study with particular reference to three Eastern Cape Centres*. Unpublished PhD. dissertation, Rhodes University, Grahamstown.

WEBB, N. (1998). Urban agriculture: environment, ecology and urban poor, *Urban Forum*, 9(1):95-107.

WEGELIN, E. & BORGMAN, K. (1995). Options for municipal interventions in urban poverty alleviation, *Environment and Urbanization*, 7(2):131-152.

WOOLARD, I. (1997). *A comparison of urban poverty*. Unpublished Report. Data Research Africa, Durban.

WORLD BANK (1996). *Taking action for poverty reduction in Sub-Saharan Africa : Report of an Africa region task force*. World Bank, Washington DC.