

URBAN AGRICULTURE IN HARARE: BETWEEN SUSPICION AND REPRESSION

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1. Introduction

Harare is the capital, the largest commercial centre, and the seat of political and administrative power in Zimbabwe. The 1998 population of Harare was around 1.9 million inhabitants. The second largest city of Zimbabwe, Bulawayo, has 1 million inhabitants.

Harare's history as a modern city dates back to 1890, when it was established as a fort by settler colonialists sponsored by the British South Africa Company. Harare is located on a watershed in the Northeast of what is called the high *veld* of Zimbabwe. This is a plateau 1500-2000 m above sea level, which stretches from the southwest of the country, encompassing Harare, extends northwest to Chinhoyi City and to the east beyond Marondera. The high veld climate is cool, with annual temperatures in the range of 10-26°C and with an average annual rainfall of 800-1000 mm. The terrain is relatively flat savanna grassland (HCOMP 1985: 9).

Table 1: Key Statistics for Zimbabwe and Harare City

	Zimbabwe	Harare
Area	390 757 km ²	872 km ²
Population (1998)	12.2 million	1.9 million
Growth rate	3.5%	5%
Natural growth rate	3.5%	3.1%
Persons / km²	31	2179
Nuclear household size	5	4
Poverty levels	40% ¹ or 62% ²	44% ³
Unemployment	45-50%	45-50%
Urbanisation levels	40-50%	Not applicable
Major threats	AIDS, unemployment & economic collapse	AIDS, unemployment & economic collapse

Harare has a sprawling structure dominated by a radial road network with the central business district (CBD) at its core and industrial areas to the east and south.

Until Zimbabwe's independence in 1980, Harare (then "Salisbury") was developed along racial lines with large open spaces left as buffer zones in a bid partly to separate black people from white people.

So, to the north and northeast were white residential areas on lot sizes of about 1 acre, while black people were confined to the southwest (windward of the industrial areas) on plot sizes of about 300 m².

Since Independence, although the spatial structure of the city has not changed, racial structure is giving way to economic classification. The white areas are now called low-density areas (1000 people/km²) and the black townships are called high-density areas (>2000 people/km²). Recent surveys have failed to establish any discernible ethnic clustering within the residential areas of Harare (Mbiba 1999).

Chitungwiza Municipality, about 25 km southeast of the CBD, was developed as a dormitory town to house black people during the last decades of settler rule. Functionally, it is an integral part of Harare, although it is administered separately.

The current development pattern is dense construction within the city through in-fill residential development on open spaces; high-rise development in the city centre; and outward growth in areas with adequate infrastructure to the west, south and east of the city. Informal settlements are legally discouraged and force is used to demolish squatter settlements (Auret 1994). However, a few squatter settlements exist in the urban periphery and in low-lying areas within the city boundaries, where they are generally out of view from the public (Butcher 1995: 4). Around the city, large-scale commercial farms are found.

2. Urban agriculture in Harare

Urban agriculture in Harare is defined as the production of crops and/or livestock within the administrative boundaries of the city. Harare has several conditions favourable to urban food production. These include a relatively wet climate, large residential plot sizes and large open spaces within the city boundaries.

A key feature of the Harare environment is the *vlei* phenomenon. Vleis are seasonally waterlogged drainage systems that occur on both clay and sandy soils.



Vegetable and maize production (on-plot) in the poor Mbare high density area (Picture Beacon Mbiba)



Maize production around school buildings. During the rainy season almost all available space is used for the production of this staple food (Picture Beacon Mbiba)

During the wet season (October to March), they become heavily waterlogged, resulting in surface marshes along all drainage systems. The vlei “soils” get wet with the first rains and then retain moisture long into the next wet season. Traditionally, communities have taken advantage of the vlei properties to plant an early crop and a late crop, thus enabling them to produce two harvests a year from the same piece of land. The proximity of vlei soils to streams makes them favoured areas for gardening.

Vlei “soils” have long been left unbuilt because they expand tremendously during the wet season and shrink and crack in the dry season. This damages roads, sewers and other built structures needing costly maintenance. Some of the resulting characteristic green open spaces are actively used for recreation.

Urban agriculture can be classified in three categories based on its location:

On-plot agriculture: farming practised on the plots around houses, like backyard gardening. It involves mainly crop production. Maize is the main crop produced during the wet season. Vegetables are produced throughout the year. Health laws prohibiting livestock rearing are largely successful. At most, a negligible 1% of households keep small livestock, such as poultry, in the city (Kanji 1995). During dry spells, tap water is used to irrigate crops. In low-density areas, borehole water is also used. Water use has not been quantified, and there are no meaningful data regarding quantities used of manure, fertiliser and other inputs. Poor households, tenants and recent rural-urban migrants hardly have access to on-plot land.

Off-plot agriculture: this is conducted in public open spaces, utility service areas and agricultural allotments. All reports regarding off-plot production, however, are about agriculture taking place in public open spaces, where production is largely “uncontrolled”, “illegal” or heavily “contested” (Mbiba 1995, Mudimu 1996, Boywer-Bower & Drakakis-Smith 1996). The production is mainly for home consumption, although a slightly higher percentage is marketed as compared to on-plot production. The poor and vulnerable groups, who could participate in this sector, are progressively pushed out by higher-income households. As in the case of on-plot production, women and children provide the bulk of the labour. With rapid urban development over the past few years, large agricultural allotments within the city boundary have almost disappeared and no new land has been added to formal agricultural allotments since 1980.

Periurban agriculture: this third category is the production of crops and livestock in areas outside the city boundary, formally rural agriculture - up to a radius of 150 km - which is economically integrated into the city. There has been no study or programme to explicitly link this to urban employment, food needs or any other urban dynamic. As is the case for urban agricultural allotments, the periurban sector has not been subject to any quantitative investigation. Because of the availability of land and existing rural agricultural support networks, this sector offers immediate and viable options for enhanced food production to meet the employment and nutritional needs of Harare.

Table 2: *The status of on-going urban agricultural activities*

Feature	On-plot	Off-plot (both legal and illegal)	Periurban
Location	On property in both high- and low-density areas	Public open spaces, utility service area all over the city, and on allotments	Outside city boundary in rural areas
Consumption mode	Mainly subsistence, more commercial in low-density areas	Mainly subsistence, slightly more marketed output than on-plot production	Subsistence in the smallholder sector but marketing on the increase
Crops produced	Maize, vegetables and fruit	Maize, sweet potatoes, fruit and vegetables	Maize, vegetables, fruit and other horticultural produce
Plot size	Up to 50 m ² and can be as high as 1 acre in low-density areas	Average 200 m ² up to 2 acres per household cultivator	3 acres for smallholders and 5 ha or more for large-scale producers
Livestock	Negligible	Negligible	Poultry, pork, milk, beef, etc.
Households involved	80% of properties in summer and 60% in winter; 70% property owners, 30% lodgers	At most 25% of Harare households; property owners dominate	Those with land-access rights
Fertiliser use	Low levels	Low levels	High levels (quantities not available)
Involvement of the poor	Very low	Low	High potential
Status of research	Fair in high-density areas, very little in low-density areas	Fair in all areas	Not well studied from an urban perspective

NGO support	None	Negligible to none	Low and likely to increase
Commercial support	Low	None	Reasonable and increasing
Official attitude	Control	Control	Positive and increasing
Potential for future	Low	Low	High

3. The impact of urban agriculture

Despite the potentially favourable conditions for urban agriculture, urban households meet their food needs from rural produce and acquire their incomes from a diverse range of informal activities, of which urban agriculture is only a tiny component. A study by Environment & Development Activities (ENDA)-Zimbabwe (1996: 82) concluded that “there is very little difference between the non-agriculturist and urban agriculturist diets”. Bowyer-Bower and Drakakis-Smith (1996) show that, even for the households that grow food, the contribution from urban-produced food is small compared to food from rural areas.

Nevertheless, the use of urban space for crop production increased during and after years of drought (e.g. 1982/83, 1988/89 and 1991/93). The economic collapse and, in particular, the decline in formal-sector employment and incomes since 1990 has contributed both to the increase in off-plot urban agriculture and to direct rural-to-urban food procurement (Mbiba 1993, 1995; ENDA-Zimbabwe 1996; Bowyer-Bower & Drakakis Smith 1996; Masoka 1997).

Over 60% of the maize and leafy vegetables produced in on-plot agriculture is consumed in the household. Of the remaining 40%, 75% is sold from the home or at neighbourhood market stalls. The percentage of marketed produce in off-plot agriculture is slightly higher than that of on-plot agriculture.

The production follows the seasons, as there are long winter periods when vegetable and fresh foods and fruit are scarce. Researchers have found it difficult to determine quantities produced, consumed or marketed, largely because of the complex food flows mainly originating from rural areas.

4. Urban agriculture and the environment

The status of urban agriculture in Harare has been guided by the public and official view that urban agriculture poses a threat to the environment, and research has attempted to establish the extent of the threat (e.g. of malaria, hydrological issues, soil erosion, ecological changes, chemical pollution). Potential benefits such as CO₂ reduction, composting and microclimate improvement remain unexplored. The key research findings are summarised in Table 3.

Table 3: *Potential environmental implications of urban agriculture*³

Category of environmental impact	Examples of environmental effects	Study results	Implications of effects
Change in the hydrological regime of the area	<ul style="list-style-type: none"> • more run-off and land surface flooding; • less infiltration. 	<ul style="list-style-type: none"> • run-off increases by 350% on average; • infiltration reduced 28.5% on average. 	<ul style="list-style-type: none"> • flooding, damage to property, transport routes and infrastructure; • costs of maintenance.
Soil erosion	<ul style="list-style-type: none"> • lowering of the land surface; • deposition of eroded sediment; • small dust particles in the air. 	<ul style="list-style-type: none"> • soil loss on 40% of cultivated sites exceeds tolerable levels; • high levels of deposition of eroded sediment; • high air pollution. 	<ul style="list-style-type: none"> • logging of city drains, nuisance to transport; • health problems; • increased costs of maintenance.
Ecological changes	<ul style="list-style-type: none"> • changes in species types; • reduced biodiversity; - loss of soil cover, loss of tree cover. 	<ul style="list-style-type: none"> • high; • high; • high. 	<ul style="list-style-type: none"> • loss of species habitat; • loss of biodiversity; • soil erosion .
Chemical pollution	<ul style="list-style-type: none"> • lead uptake of crops from exhaust fumes; • vegetation toxicity from industrial effluent; • reduction in water quality. 	<ul style="list-style-type: none"> • high; • probable; • probable. 	<ul style="list-style-type: none"> • algal blooms, potential health hazard to consumers, threat to wildlife, increased costs of water purification.
Landscape and aesthetics	<ul style="list-style-type: none"> • loss of scenery and diversity of environment. 	<ul style="list-style-type: none"> • indeterminate. 	<ul style="list-style-type: none"> • loss of recreational spaces; • increased costs to access alternatives.
Diseases	<ul style="list-style-type: none"> • vector-borne diseases. 	<ul style="list-style-type: none"> • indeterminate. 	<ul style="list-style-type: none"> • potential for diseases related to water, refuse, manure and animals; • costs of monitoring, control and treatment.

Source: Bowyer-Bower & Drakakis-Smith 1996.

5. Gender dimensions of urban agriculture

Women provide the bulk of labour and management inputs for urban agriculture. The proportion of women cultivators in the off-plot sector ranges between 63% (Mbiba 1995a: 39) and 55% (Mudimu 1996:180). Of these female cultivators, over 80% were working on their "own plots". In the higher-income areas, more women employ manual labour. Mudimu (1996:185) found that 24% of the men working on the plots were hired labour and that 59% of the men were assisting their wives. The dominance of women in urban agriculture extends from production to marketing. Up to 68.8% of those involved in marketing were women (ENDA-Zimbabwe 1996: 40). At all stages of production and marketing, children share the bulk of the labour with their mothers.

Women in the cities are responsible for food procurement to the same extent as women in rural areas. Urban agriculture extends the working hours and burdens of women relative to those of men, especially with the collapsing economy posing more and more difficulties to the household subsistence. Any support to the sector should therefore aim to reduce time costs, as well as management, marketing and administration costs, apart from aiming to improve production.

The increasing number of men active in urban agriculture can be attributed to increased unemployment, as thousands of men are retrenched from formal employment. As attitudes towards urban agriculture become more favourable, there might be a danger that men will displace women from an activity in which women have been engaged for years. At the same time, while paying attention to urban cultivation and women, it must be remembered that basic issues like women's access to education and skills have to be tackled, including opportunities in those lucrative self-employment and business areas currently monopolised by men.

6. Existing city policies regarding urban agriculture

Despite the stagnation of rural agricultural production and the recent economic collapse, both policy-makers and households do not consider urban areas to be a viable solution to food security, job creation and environmental improvement. In the 1980s, urban agriculture received a boost through a policy of the ruling party ZANU (PF) promoting co-operative formation. Ever since, however, urban agriculture's role is largely viewed with scepticism.

The general opinion is that there is still ample land in rural areas for production.

Rather, the problem is the inequitable distribution of that land. Consequently, the priority and urgent political challenge is to simultaneously enhance rural production and to redress the land imbalances. As all individuals have a right to rural land, promotion of urban agriculture is considered to be a detraction from the real burning national land question.

While the municipal provisions accommodate urban food production, they give local authorities the discretion to determine the desirability and extent of the activity at any point in time. Consequently, institutional responses to urban agriculture have varied from extremely prohibitive measures to supportive programmes. The nature of the response depends very much on the personalities holding various positions in the city council, and the city mayor in particular.

Officials generally tolerate on-plot crop production, but livestock rearing is strictly controlled. The controls have also ensured that no livestock rearing exists in off-plot agriculture.

The approach to off-plot crop production at times seems accommodative but, in some years, can be drastically prohibitive. Crops are often destroyed; even those supposedly grown with approval from councillors and city officials. Contamination of food during the retailing process has been at the core of intolerant official responses, who argue that the elementary methods used in these processes put the urban population at risk to cholera (Mbiba 1994; 1995).

There are no loans, subsidies, credit facilities or extension services. Extension services for urban agriculture in Harare are not provided, because urban agriculture remains an “ad hoc” activity shrouded in “illegality” and “uncertainty” (Mbiba 1994, Masoka 1997). The legal and institutional voids that limit support for urban agriculture continue largely to prevail, on account of the absence of political commitment to change the status quo.

7. Urban agriculture: facilitating and inhibiting factors

In Harare, urban agriculture is considered a contradiction in terms. The dominant image of the city is one where agriculture is absent. For a long time, it had not been clear what urban agriculture is or should be. It is also considered misleading to talk of urban agriculture in the context of rural land opportunities and the national land question.

A second conceptual constraint has been the use of disparate entry points (environment, employment, gender, poverty, etc.), making it difficult to emerge with a solid position on urban agriculture.

Urban agriculture has been mainly put forward as an alternative for the poor, disregarding other groups whose role in urban agriculture is also critical. Upper-income groups, rural-urban dynamics at household level and the urban economy in general have not been seriously taken into account. At present, the poorest and most vulnerable groups do not benefit from urban agriculture, as they face increasing competition from middle- and higher-income households whose standards of living have been collapsing.

Within urban areas, urban agriculture is a weak competitor against built development uses. Land for potential food production in the city is shrinking rapidly. Thus, urban land is inherently contested. Without resolution of political priorities, urban agriculture's future in Harare will remain precarious.

With respect to off-plot crop production, the uncertainty of land tenure and the associated illegality of farming preclude productive investments. This is further compounded by problems of institutional inertia and conflicts that hinder comprehensive development of the sector. Political decisions regarding urban agriculture have been erratic, contradictory and at variance with legal regimes and written policies. There has been nobody (person or institution) to challenge this political inconsistency. The few NGOs that have attempted to become involved in urban agricultural issues are discouraged by the political conflicts and resort to duplication of research efforts or one-off workshops (Masoka 1997, Mbiba 1998a).

In this context, technical constraints, which could be overcome by technical support programs in production, storage and marketing, are secondary to the political inhibitions.

8. Perspectives for future development strategy of urban agriculture in Harare

The large numbers of unemployed people, poverty levels close to 50% and economic collapse make it urgent that any potential offered by urban agriculture for generating employment and income and for producing food be explored.

In recent years, research and lobbying by researchers has helped to create a basis for dialogue around the potential for formal promotion of urban agriculture. To achieve wider acceptance on the activity in Harare, one could

simply focus on food for the city. In spatial terms, the strategy should be centred on periurban areas, where land is more readily available. The target for policy and programs should be to increase food production and make it available, affordable and adequate in both quantitative and qualitative terms throughout the year.

Related to “food for the city”, the strategy should push for a policy which sets clear land-use priorities in and around urban areas. Through this policy, all agriculturally productive land should be protected from the urban sprawl. Within the city, the strategy should streamline ownership and access to open spaces.

A challenge for academics and researchers is to maintain the momentum towards reshaping attitudes regarding “what is a city”. Their work should relate urban agriculture to the everyday needs of the residents. Research should also be integrative: focusing on the poor as well as the rich as well as rural-urban dynamics. The urban food matrix within urban-rural dynamics needs to be further investigated for its potential in tackling the city's food requirements. Also in need of further investigation is on-plot production in the low-density areas and the periurban zones.

Proponents of urban agriculture should use the permissive legal framework, rather than challenging it, as has been the case so far in Harare. Existing laws are permissive and the challenge is to discover how these laws can be utilised; our task is to ensure that they be used in a consistent and transparent way which will bring more certainty to the sector.

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- 1 Poverty level defined in terms of people living on less than 1 US\$ per day, 1996 levels.
 - 2 Poverty in terms of households with income per person below the level sufficient to provide basic needs as published by the Government in 1996.
 - 3 The impact is assessed against “virgin” conditions; i.e., where urban cultivation is not practised, e.g. on experimental plots or sites where no cultivation at all is taking place. The table refers to cultivation in general: on-plot, off-plot or periurban cultivation.

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